



**REMEDIAL ACTION WORK PLAN**  
**FORMER NUHART EAST SITE**  
**NYSDEC BCP SITE C224287**  
**22-32 CLAY STREET & 67-93 DUPONT STREET**  
**BROOKLYN, NEW YORK**

**PREPARED FOR**  
**DUPONT STREET 1 LLC**  
**NEW YORK, NEW YORK**

PREPARED BY:

A handwritten signature in black ink, appearing to read 'Sarah A. Commisso'.

Sarah A. Commisso, G.I.T  
Senior Geologist  
H & A of New York LLP d/b/a

REVIEWED AND APPROVED BY:

A handwritten signature in black ink, appearing to read 'Scott Underhill'.

Scott Underhill, P.E.  
Senior Environmental Engineer  
H & A of New York LLP d/b/a

A handwritten signature in blue ink, appearing to read 'James M. Bellew'.

James M. Bellew  
Principal  
H & A of New York LLP d/b/a

A handwritten signature in black ink, appearing to read 'Mari C. Conlon'.

Mari C. Conlon  
Senior Project Manager  
H & A of New York LLP d/b/a



HALEY & ALDRICH OF NEW YORK  
237 W 35th Street  
16th Floor  
New York, NY 10001  
646.277.5685

26 August 2022  
File No. 0201891-001

New York State Department of Environmental Conservation  
Division of Environmental Remediation  
625 Broadway  
Albany, New York 12233

Attention: Mr. Bryan Wong

Subject: Remedial Action Work Plan  
Former NuHart East BCP Site C224287  
22-32 Clay Street & 67-93 Dupont Street  
Brooklyn, New York

Dear Mr. Wong,

On behalf of Dupont Street 1 LLC, H & A of New York LLP, d/b/a Haley & Aldrich of New York is submitting for the review and approval of the New York State Department of Environmental Conservation (NYSDEC) this Remedial Action Work Plan (RAWP) for the above referenced subject site (Site). This document is being submitted as part of Dupont Street 1 LLC's acceptance and participation in the Brownfield Cleanup Program (BCP) for the Site. This report has been developed in accordance with the NYSDEC (6 NYCRR) Part 375 Brownfield Cleanup Regulations dated December 2006, the "Technical Guidance for Site Investigation and Remediation" dated May 2010 (DER-10), and other relevant NYSDEC technical and administrative guidance. Comments received from NYSDEC on 17 May 2022 have been addressed as follows:

Comments:

1. The Certification page has been updated to be consistent with the certification pages in the NYSDEC RAWP template.
2. The correct depths of remedial excavation have been updated in the text and Figures 10 and 11 for the Track 1 and Track 2 remedy. Text has been updated to reflect that endpoint confirmation soil samples will be collected at the bottom of the proposed remedial excavation depth and all confirmation soil samples (including UST endpoint soil samples) will be analyzed for the full TAL/TCL suite of VOCs, SVOCs, pesticides, PCBs, metals, PFAS, and 1,4-dioxane.
3. Section 2.3 now references a geological cross section included as Figures 16 and 17.
4. Section 3.1 and 3.2 have been revised to reflect the proposed excavation depths as discussed via email on 4/8/22 and discussed in comment 2.
5. Section 4.1.9 has been revised to include text regarding that certification of mailing will be sent by the Volunteer to the NYSDEC project manager following all distribution of all fact sheets and notices.



6. Section 4.2.2 and the entirety of the report now references the Engineer of Record as the "Remedial Engineer".
7. Section 5.2.2 and 5.2.3 has been revised as per comment 2.
8. Section 5.4.7 has been revised to include additional details on the dewatering design including the anticipated flow rate. Additionally, a sheet pile wall will be installed on the border between the NuHart East and NuHart West Site.
9. Figure 13 has been revised to include confirmation endpoint samples in the UST excavation area on the northeast portion of the Site.

NYSDOH Comments:

1. Section 3.5 revised separating the remedial excavation of contaminated materials and development excavation soils which meet unrestricted use SCOs. Additionally, the use of Rusmar foam or approved alternative has been added a potential odor suppression technique.
2. Section 5.4.11 has been revised to include demolition as an action requiring CAMP monitoring and reporting. DER-10 Appendix 1A and 1B have been added as an Appendix to the Site-Specific CAMP included now included in Appendix K and a reference has been included to the Site-Specific CAMP in this section.
3. A Site-Specific CAMP has been included in Appendix K and includes the following: language stating that CAMP adjustments may be recommended by NYSDEC/NYSDOH based on actual site conditions, local community input, and location of sensitive receptors; special requirements/reduced action levels when working adjacent to occupied residential structures; and, identification of sensitive receptors in a ¼ mile radius of the site and shown on Figure 1 of the Site-specific CAMP.

Please contact the undersigned if you have any questions or require additional information regarding this Remedial Action Work Plan.

Sincerely yours,

HALEY & ALDRICH OF NEW YORK

Enclosures



Sarah A. Commisso, GIT  
Senior Geologist



Scott A. Underhill, P.E.  
Environmental Engineer



James M. Bellew  
Principal



Mari C. Conlon  
Senior Project Manager

Cc:

Shalom Silverman (Dupont Street 1 LLC)

Zachary Kadden (Dupont Street 1 LLC)

Gerard Burke (NYSDEC)

Jane O'Connell (NYSDEC)

Stephen Lawrence (NYSDOH)

David Freeman (Gibbons PC)

Email: [ssilverman@madisonrealtycapital.com](mailto:ssilverman@madisonrealtycapital.com)

Email: [zkadden@madisonrealtycapital.com](mailto:zkadden@madisonrealtycapital.com)

Email: [gerard.burke@dec.ny.gov](mailto:gerard.burke@dec.ny.gov)

Email: [jane.oconnell@dec.ny.gov](mailto:jane.oconnell@dec.ny.gov)

Email: [stephen.lawrence@health.ny.gov](mailto:stephen.lawrence@health.ny.gov)

Email: [dfreeman@gibbonslaw.com](mailto:dfreeman@gibbonslaw.com)

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## Certification

*I, Scott A. Underhill, certify that I am currently a NYS registered Professional Engineer and that this Remedial Action Work Plan was prepared in accordance with the applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).*

*I certify that all information and statements in this certification are true. I understand that a false statement made herein is punishable as Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.*

*It is a violation of Article 145 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by any New York State licensed engineer in accordance with Section 7209(2), Article 145, New York State Education Law.*

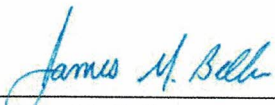
  
\_\_\_\_\_  
Scott A. Underhill  
NYS Professional Engineer #075332

  
\_\_\_\_\_  
26 August 2022  
Date

*I, James M. Bellew, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that that this Remedial Action Work Plan was prepared in accordance with the applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).*

*I certify that all information and statements in this certification are true. I understand that a false statement made herein is punishable as Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.*

*It is a violation of Article 145 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by any New York State licensed engineer in accordance with Section 7209(2), Article 145, New York State Education Law.*

  
\_\_\_\_\_  
James M. Bellew

\_\_\_\_\_  
26 August 2022  
Date

## Executive Summary

This Remedial Action Work Plan (RAWP) was developed by H & A of New York LLP, d/b/a Haley & Aldrich of New York (Haley & Aldrich) on behalf of Dupont Street 1 LLC for the proposed development located at 22-32 Clay Street & 67-93 Dupont Street (Section 3, Block 2487, Lots 17, 18, 20, 21 and 57) within the Greenpoint neighborhood of Brooklyn, New York (the Site).

In October 2021, the project (Site No. C224287) was accepted into the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) and a countersigned Brownfield Cleanup Agreement (BCA) was issued with Dupont Street 1 LLC classified as a “Volunteer”. The Volunteer proposes to remediate the Site for residential use.

This RAWP summarizes the nature and extent of contamination on the Site as determined from data gathered during the Supplemental Remedial Investigation (SRI) completed at the Site in January and February 2022; the Remedial Investigation Report by Ecosystems Strategies Inc., dated July 2015; and the Remedial Investigation report by GZA GeoEnvironmental of New York, dated December 2016. The RAWP provides an evaluation of a Track 1 cleanup and other applicable remedial action alternatives, their associated costs, and the recommended and preferred remedy. The remedy is consistent with the procedures defined in DER-10 and complies with applicable federal, state, and local laws, regulations, and requirements.

## SITE DESCRIPTION AND SITE HISTORY

The Site, identified as Section 3, Block 2487, Lots 17, 18, 20, 21, and 57 on the New York City tax map, is 49,000-square feet and is bounded by Clay Street followed by industrial and manufacturing buildings to the north, residential apartment buildings to the east, Dupont Street followed by residential apartment buildings and a senior living facility to the south, and the former NuHart Class 2 Inactive Hazardous Waste Site to the west (NuHart West). The Site location is shown on Figure 1. Existing Site features are shown on the Site Map provided as Figure 2. A survey map is provided in Appendix A. The Site is currently vacant and is improved with a one-story industrial building with two warehouse entrances along Dupont Street, and two entrances along Clay Street.

All five lots are within a MX-8 Special Mixed-Use District (MX) and currently zoned M1-2/R6A. The MX was established in 1997 to encourage investment in, and enhance the vitality of, existing neighborhoods with mixed residential and industrial uses in close proximity and create expanded opportunities for new mixed-use communities. New residential and nonresidential uses (commercial, community facility, and light industrial) can be developed as-of right and be located side by-side or within the same building. Pairing an M1 district with an R3 through R10 district (e.g., M1-2/R6) ensures a balanced variety of uses. The Site is located in an urban area surrounded by commercial, industrial, and residential properties served by municipal water. Requestor plans to redevelop the Site for residential purposes consistent with current zoning.

The Site was developed since at least 1887 and was used for metalworking, manufacturing of light fixtures, soaps, and water proofing materials through 1950. From 1950 until 2004, the Site and associated manufacturing buildings to the west were used by the NuHart company for the production,

storage, and shipping of plastic and vinyl products. Operations ceased in 2004 and the Site buildings have been vacant since that time.

## SUMMARY OF SUPPLEMENTAL REMEDIAL INVESTIGATION FINDINGS

The Supplemental Remedial Investigation (SRI) was completed in accordance with Title 6 of the New York Codes, Rules, and Regulations (6 NYCRR) Part 375; DER-10; the NYSDEC Draft BCP Guide (May 2004); and the New York State Department of Health (NYSDOH) Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006 and subsequent updates). The SRI was completed on 19 through 21 January and 3 through 4 February 2022 to determine the nature and extent of contamination in soil, groundwater, and soil vapor.

The SRI consisted of:

- Advancement of eight soil borings to 15 feet below ground surface (ft bgs), with samples collected from 0 to 2 feet below ground surface (ft bgs) and from the groundwater interface at 8 to 10 ft bgs. Four lead delineations soil borings, LD-01A through LD-04A, were advanced to 4 ft bgs and sampled from 0 to 2 ft bgs and 2 to 4 ft bgs. A total of 24 soil samples were collected.
- Installation of three two-inch permanent groundwater monitoring wells to a depth of 20 ft bgs, including the reinstallation of on-Site monitoring well, MW-40, and the sampling of two additional on-Site wells. A total of five groundwater samples were collected.
- Survey and gauging of monitoring wells to determine groundwater elevation and flow direction.
- Installation of six soil vapor probes at 1 to 2 feet above the groundwater interface and the collection of six soil vapor samples.

A summary of environmental findings of the SRI includes the following:

1. Depth to groundwater ranged from 5.80 to 9.80 ft bgs, with groundwater elevation ranging from 4.39 to 8.35.
2. Groundwater flow is estimated to be from east-southeast to the west-northwest towards the East River.
3. Soil analytical results were compared to 6 NYCRR Part 375 UUSCOs; as a proxy for the potentially applicable Protection of Groundwater SCOs; and RRSCOs. Results are summarized in Figure 6 and include the following:
  - VOCs were not detected in any soil sample above UUSCOs or RRSCOs.
  - Five PAHs/SVOCs were detected above UUSCOs and/or RRSCOs in one soil sample, B-02 (0-2'). Benzo(a)anthracene (2.1 mg/kg), benzo(a)pyrene (1.8 mg/kg), benzo(b)fluoranthene (2.3 mg/kg), and indeno(1,2,3-cd)pyrene (1.2 mg/kg) were detected above both UUSCOs and RRSCOs and chrysene was detected above the UUSCO of 2 mg/kg. SVOCs were not detected in any other soil samples above the UUSCOs or RRSCOs.
  - Two pesticides, 4,4'-DDE (0.00864 mg/kg) and 4,4'-DDT (0.0172 mg/kg), were detected in soil sample B-03 (0-2') above UUSCOs. Pesticides were not detected in any other soil samples above the UUSCOs or RRSCOs.

- Several metals were detected in multiple shallow soil samples throughout the Site above UUSCOs and RRSCOs. Arsenic was detected at a maximum concentration of 22.9 mg/kg and lead was detected at a maximum concentration of 1,400 mg/kg, both in soil sample B-07 (0-2'). Arsenic was also detected above UUSCOs in one deep soil sample, B-05 (8-10') at a concentration of 13.1 mg/kg. Mercury was detected at a maximum concentration of 1.27 mg/kg in soil sample B-05 (0-2'). Copper (maximum concentration 116 mg/kg) and zinc (maximum concentration 301 mg/kg) were detected in multiple shallow soil samples above UUSCOs.
  - Several metals were detected in lead delineation soil samples above UUSCOs and RRSCOs, including barium (665 mg/kg) and lead (maximum 722 mg/kg), both in soil sample LD-02A (0-2'). Barium and lead were not detected above RRSCOs in any other lead delineation soil sample. Arsenic was detected above both UUSCOs and RRSCOs in soil sample LD-02A (2-4') at a concentration of 26.2 mg/kg. Zinc was detected above UUSCOs at a maximum concentration of 572 mg/kg in soil sample LD-02A (0-2'). Metals were not detected in any other soil samples above the UUSCOs or RRSCOs.
  - One PCB, Aroclor 1260, was detected above UUSCOs and RRSCOs in soil sample B-06 (0-2') at a concentration of 1.1 mg/kg. Additionally, the PCB Aroclor 1248 was detected above UUSCOs, but not RRSCOs, in soil sample B-05 (8-10') at a concentration of 0.286 mg/kg. PCBs were not detected in remaining soil samples above the UUSCOs or RRSCOs.
  - 1,4-dioxane was not detected above laboratory detection limits in any soil samples collected at the Site. Soil samples B-02 (8-10'), B-04 (8-10'), and B-07 (8-10') were analyzed for perfluorinated alkyl acids (PFOS/PFOA). PFOS/PFOA were not detected above laboratory detection limits in any of the three samples that were analyzed.
4. Groundwater analytical results were compared to 6 NYCRR Part 703.5 Class GA groundwater quality standards (AWQS) and NYSDEC guidance set forth in Technical and Operational Guidance Series (TOGS) 1.1.1 (specifically, "June 1998 NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1 Ambient Water Quality Standards (AWQS) and Guidance Values, Class GA for the protection of a source of drinking water modified per the April 2000 addendum") (TOGS 1.1.1). Results are summarized in Figures 8 and 9.
- VOCs were not detected above the AWQS in any groundwater sample collected as part of the SRI.
  - SVOCs were detected above the AWQS in multiple groundwater samples. Bis(2-ethylhexyl)phthalate was detected in one groundwater sample above the AWQS at a concentration of 61 µg/L. Additionally, seven SVOCs, specifically PAHs, were detected in multiple groundwater samples above the AWQS including, benzo(a)anthracene (maximum concentration 0.12 µg/L in MW-3), benzo(a)pyrene (maximum concentration 0.11 µg/L in MW-3), benzo(b)fluoranthene (maximum concentration 0.16 µg/L in MW-3), benzo(k)fluoranthene (maximum concentration 0.06 µg/L in MW-3), chrysene (maximum concentration 0.14 µg/L in MW-3), indeno (1,2,3-cd)pyrene (maximum concentration 0.12 µg/L in MW-3), and pentachlorophenol (maximum concentration 7.2 µg/L in MW-2). No other SVOCs were detected above the AWQS in any groundwater samples.
  - PCBs were not detected above the AWQS in any groundwater samples.
  - The emerging contaminants 1,4-dioxane and PFOS/PFOA were compared to the New York Maximum Concentrations Limit (NY-MCL) for drinking water, adopted by NYSDOH in July 2020. 1,4-Dioxane was detected in multiple groundwater samples above laboratory



detection limits and the NY-MCL of 1 µg/L at estimated and reportable concentrations. 1,4-Dioxane was detected at a maximum concentration of 1.74 µg/L in MW-40. PFOS/PFOA compounds were detected above the NY-MCL for drinking water of 0.01 µg/L in each groundwater sample collected at the Site. Elevated PFOS/PFOA compounds include 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2FTS), perfluorobutanoic acid (PFBA), perfluoroheptanoic acid (PFHpA), perfluorohexanesulfonic acid (PFHxS), perfluorohexanoic acid (PFHxA), perfluorooctanesulfonic acid (PFOS), perfluorooctanoic acid (PFOA), and perfluoropentanoic acid (PFPeA). The total concentration of PFAS compounds ranged from 0.034 µg/L in MW-3 to a maximum concentration of 0.396 µg/L in MW-44.

5. CVOCs were detected in four of the six soil vapor samples collected throughout the Site during the SRI. 1,1,1-trichloroethane was detected above the laboratory detection limit in five of the six soil vapor samples collected, with a maximum concentration of 11,200 µg/m<sup>3</sup> in SV-02. Trichloroethene (TCE) was detected above the laboratory detection limit in four of the six soil vapor samples collected, with a maximum concentration of 355 µg/m<sup>3</sup> in SV-01. Tetrachloroethene (PCE) was detected above the laboratory detection limit in four of the six soil vapor samples collected, with a maximum concentration 152 µg/m<sup>3</sup> in SV-02. No other CVOCs were detected above the laboratory detection limits in any other soil vapor samples. Total benzene, toluene, ethylbenzene, and xylene (BTEX) concentrations ranged from 24.17 µg/m<sup>3</sup> in SV-04 to 61.57 µg/m<sup>3</sup> in SV-05. Total VOC concentrations ranged from 187.985 µg/m<sup>3</sup> in SV-04 to 13,786.1 µg/m<sup>3</sup> in SV-02. Results are summarized in Figure 7.

## SUMMARY OF THE REMEDY

Alternative I, a Track 1 remedy, will include the following tasks:

- Development and implementation of a Construction Health & Safety Plan (CHASP) and Community Air Monitoring Plan (CAMP) for the protection of on-site workers, community/residents, and the environment during remediation and construction activities.
- Design and construction of a support-of-excavation (SOE) system to facilitate the Track 1 remediation.
- Implementation of soil erosion, pollution, and sediment control measures in compliance with applicable laws and regulations.
- Demolition of the concrete slab on grade.
- Excavation, stockpiling, off-Site transport, and disposal of about 16,250 cubic yards of historic fill and solid waste that exceeds UUSCOs as defined by 6 NYCRR Part 375-6.8. Excavation will be to 16 ft bgs on the northern portion of Lots 17, 18, 20, and 21 or to the north of MW-40 (approximately 10,000 sq foot area) to remove material exceeding UUSCOs. The remaining portion of Lots 17, 18, 20, and 21 (approximately 26,000 sq foot area) will be excavated to 8 ft bgs, with the exception of one area in the central portion of the Site on Lot 17 surrounding SRI soil sample location B-05 (approximately 50 cubic yards) which will be excavated to 10 ft bgs to remove PCB-material exceeding UUSCOs. The entirety of Lot 57 (approximately 13,000 sq foot area) will be excavated to 6 ft bgs.
- For development purposes, excavation will extend to 16 ft bgs throughout the Site and a total of 29,000 cubic yards of material will be removed.

- As part of waste characterization and for disposal purposes, delineation of elevated lead concentrations in soil in the vicinity of B-02 and B-07, installed during the SRI, and subsequent excavation and disposal of potentially hazardous lead-impacted historic fill material.
- Dewatering, characterization, and treatment of water accumulated in excavations prior to discharge to a NYSDEC approved sewer/sanitary line (pending permits), or localized dewatering with containerization, classification, and disposal at an approved receiving facility.
- Removal of five closed-in-place USTs on the Site, any unknown USTs encountered, and/or associated appurtenances (e.g., fill lines, vent lines, and electrical conduits) as well as decommissioning and off-Site disposal during redevelopment in accordance with DER-10, 6 NYCRR Part 613.9, NYSDEC CP-51, and other applicable NYSDEC UST closure requirements.
- Installation of a negative pressure enclosure system and/or utilization of alternative, similarly effective, odor suppression techniques (i.e., Rusmar foam or approved alternative) as needed and approved by the NYSDEC within the historical UST and petroleum excavation area. Rusmar foam or an approved alternative will be liberally applied during intrusive excavation work to where olfactory impacted material is encountered. Prior to export of olfactory impacted material offsite, a layer of Rusmar foam or an approved alternative will be applied to the top of the soil and covered with a tarp prior to exiting the Site.
- Collection and analysis of confirmation soil samples at the base of each tank and one per each sidewall.
- Screening for indications of contamination (by visual means, odor, and monitoring photoionization detectors [PIDs]) of excavated material during intrusive site work.
- Appropriate off-Site disposal of material removed from the Site in accordance with federal, state, and local rules and regulations for handling, transport, and disposal.
- Collection and analysis of confirmation soil samples at the proposed remediation depth in accordance with DER-10 to confirm a Track 1 remedy was achieved. All confirmation soil samples will be analyzed for the Part 375 list of VOCs, SVOCs, pesticides, polychlorinated biphenyls (PCBs), metals, per- and polyfluoroalkyl substances (PFAS), and 1,4-dioxane.
- Completion of a soil vapor intrusion (SVI) Evaluation in accordance with DER-10 and NYSDOH Final Guidance on Soil Vapor Intrusion following remedial excavation activities and prior to occupancy.



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## List of Acronyms and Abbreviations

### A

Alpha	Alpha Analytical Laboratories, Inc.
amsl	above mean sea level
AOC	Area of Concern
ASP	Analytical Services Protocol
ASR	Advanced Site Restoration
AWQS	Ambient Water Quality Standards

### B

BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
Bgs	below ground surface
BTEX	Benzene, toluene, ethylbenzene, xylenes

### C

CAMP	Community Air Monitoring Plan
CHASP	Construction Health & Safety Plan
cis-1,2-DCE	cis-1,2-Dichloroethylene
COC	Contaminant of Concern
CP-51	Commissioners Policy-51 ( <i>specifically "October 2010 NYSDEC Commissioners Policy 51"</i> )
CPP	Citizen Participation Plan
CQAP	Construction Quality Assurance Plan
CSM	Conceptual Site Model
CVOC	Chlorinated Volatile Organic Compound

### D

1,1-DCA	1,1-dichloroethane
1,1-DCE	1,1-dichloroethene
4,4'-DDD	1,1-Dichloro-2,2-bis(4-chlorophenyl)ethane
4,4'-DDE	1,1-Dichloro-2,2-bis(4-chlorophenyl)ethene
4,4'-DDT	Dichlorodiphenyltrichloroethane
DER-10	Division of Environmental Remediation-10 ( <i>specifically "May 2010 NYSDEC Technical Guidance for Site Investigation and Remediation"</i> )
DOT	Department of Transportation
DUSR	Data Usability Summary Report

### E

EBC	Environmental Business Consultants
Eastern	Eastern Environmental Solutions, Inc.
EE	Environmental Easement
ELAP	Environmental Laboratory Approval Program
EPA	U.S. Environmental Protection Agency

## List of Acronyms and Abbreviations (Continued)

### F

FER	Final Engineering Report
ft bgs	feet below ground surface

### G

GZA	GZA GeoEnvironmental
GWQS	Groundwater Quality Standard

### H

Haley & Aldrich	Haley & Aldrich of New York
HAZWOPER	Hazardous Waste Operations and Emergency Response

### I

IC	Institutional Control
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### L

LNAPL	Light non-aqueous phase liquid
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### M

MDL	Method detection limit
mg/kg	milligrams per kilogram
MS	Matrix Spike
MSD	Matrix Spike Duplicate
µg/kg	micrograms per kilogram
µg/L	micrograms per liter
µg/m <sup>3</sup>	micrograms per cubic meter
ml/min	milliliter per minute

### N

ng/L	nanograms per liter
NTU	Nephelometric Turbidity Unit
NYCRR	New York Codes, Rules and Regulations
NY-MCL	New York Maximum Concentrations Limit
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health

### O

OSHA	Occupational Health and Safety Administration
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### P

PAH	Polycyclic Aromatic Hydrocarbon
PBS	Petroleum Bulk Storage
PCB	Polychlorinated Biphenyl
PCE	Perchloroethylene/Tetrachloroethene
Ph II/RI	Phase II Remedial Investigation Report



## List of Acronyms and Abbreviations (Continued)

PHFxA	Perfluorohexanoic Acid
PFAS	Per- and polyfluoroalkyl substances
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctanesulfonic acid
PID	Photoionization Detector
PPE	Personal Protective Equipment
PVC	Polyvinyl chloride

### Q

QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
QHHEA	Qualitative Human Health Exposure Assessment

### R

RA	Remedial Action
RAO	Remedial Action Objective
RAWP	Remedial Action Work Plan
RCA	Recycled Concrete Aggregate
RCRA	Resource Conservation and Recovery Act
RE	Remedial Engineer
RI	Remedial Investigation
RIWP	Remedial Investigation Work Plan
RRSCO	Restricted Residential Soil Cleanup Objective

### S

SCG	Standards, Criteria, and Guidelines
SCO	Soil Cleanup Objective
SDS	Safety Data Sheet
Site	22-32 Clay Street & 67-93 Dupont Street, Brooklyn, NY
SMMP	Soil/Materials Management Plan
SMP	Site Management Plan
SOE	Support-of-Excavation
Sq	Square
SRI	Supplemental Remedial Investigation
SRIR	Supplemental Remedial Investigation Report
SVOC	Semi-Volatile Organic Compound
SWPPP	Stormwater Pollution Prevention Plan

### T

1,1,1-TCA	1,1,1-trichloroethane
TAL	Total Analyte List
TCE	Trichloroethylene
TCL	Target Compound List
TCLP	Toxicity Characteristic Leaching Procedure

## List of Acronyms and Abbreviations (Continued)

TOGS 1.1.1	Technical and Operational Guidance Series 1.1.1 ( <i>Specifically “June 1998 NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1 Ambient Water Quality Standards and Guidance Values, Class GA for the protection of a source of drinking water modified per the April 2000 addendum”</i> )
TPH	Total Petroleum Hydrocarbons

### U

USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	Underground Storage Tank
UUSCO	Unrestricted Use Soil Cleanup Objective

### V

VC	Vinyl Chloride
VOC	Volatile Organic Compound

### W

WQCA	Wastewater Quality Control Application
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## 1. Introduction

This Remedial Action Work Plan (RAWP) was developed by H&A of New York LLP, d/b/a Haley & Aldrich of New York (Haley & Aldrich) on behalf of Dupont Street 1 LLC for the proposed development located at 22-32 Clay Street & 67-93 Dupont Street (Section 3, Block 2487, Lots 17, 18, 20, 21 and 57) within the Greenpoint neighborhood of Brooklyn, New York (the Site).

In October 2021, the project (Site No. C224287) was accepted into the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) and a countersigned Brownfield Cleanup Agreement (BCA) was issued with Dupont Street 1 LLC classified as a “Volunteer”. The Volunteer proposes to remediate the Site for residential use.

This RAWP summarizes the nature and extent of contamination on the Site as determined from data gathered during the Supplemental Remedial Investigation (SRI) completed at the Site in January and February 2022; the Remedial Investigation Report by Ecosystems Strategies Inc., dated July 2015; and the Remedial Investigation report by GZA GeoEnvironmental of New York, dated December 2016. The RAWP provides an evaluation of a Track 1 cleanup and other applicable remedial action alternatives, their associated costs, and the recommended and preferred remedy. The remedy is consistent with the procedures defined in DER-10 and complies with applicable federal, state, and local laws, regulations, and requirements.

### 1.1 SITE LOCATION AND DESCRIPTION

The Site, identified as Section 3, Block 2487, Lots 17, 18, 20, 21, and 57 on the New York City tax map, is 49,000-square feet and is bounded by Clay Street followed by industrial and manufacturing buildings to the north, residential apartment buildings to the east, Dupont Street followed by residential apartment buildings and a senior living facility to the south, and the former NuHart Class 2 Inactive Hazardous Waste Site to the west (NuHart West). The Site location is shown on Figure 1. Existing Site features are shown on the Site Map provided as Figure 2. A survey map is provided in Appendix A. The Site is currently vacant and is improved with a slab on grade.

All five lots are within a MX-8 Special Mixed-Use District (MX) and currently zoned M1-2/R6A. The MX was established in 1997 to encourage investment in, and enhance the vitality of, existing neighborhoods with mixed residential and industrial uses in close proximity and create expanded opportunities for new mixed-use communities. New residential and nonresidential uses (commercial, community facility, and light industrial) can be developed as-of right and be located side by-side or within the same building. Pairing an M1 district with an R3 through R10 district (e.g., M1-2/R6) ensures a balanced variety of uses. The Site is located in an urban area surrounded by commercial, industrial, and residential properties served by municipal water. Requestor plans to redevelop the Site for residential purposes consistent with current zoning.

### 1.2 REDEVELOPMENT PLAN

The project will consist of a 5-story residential building containing 480 units with 144 of the units being affordable inclusionary housing, with a one-level cellar encompassing the entire Site footprint and extending approximately 14 feet below current grade. The cellar will be used for parking, mechanical

equipment storage, a trash compactor room, and tenant storage. The first floor will have studios and one-to-two-bedroom residential units, a tenant lounge, mailroom, a residential lobby, and additional parking.

### 1.3 DESCRIPTION OF SURROUNDING PROPERTY

The Site is located in a mixed-use residential and commercial area. The Site is bounded by Clay Street followed by industrial and manufacturing buildings to the north, residential apartment buildings to the east, Dupont Street followed by residential apartment buildings and a senior living facility to the south, and the former NuHart Class 2 Inactive Hazardous Waste Site to the west (NuHart West).

Direction	Adjoining properties	Surrounding Properties
North	Clay Street followed by industrial and manufacturing buildings	Industrial and manufacturing buildings and residential buildings
South	Dupont Street followed by a senior living facility, "Dupont Street Senior Housing", and residential buildings	Residential apartment buildings
East	Residential apartment buildings	Residential apartment buildings
West	Former NuHart Class 2 Inactive Hazardous Waste Site (NuHart West)	Mixed-use commercial and residential buildings and residential apartment buildings

No public schools or hospitals are located within a 1,000 ft radius of the Site; however, there are many sensitive receptors located within a one-half mile radius including those listed below:

No.	Name (Approximate distance from Site)	Address
1	NY League for Early Learning – The Greenpoint School (2250 ft east)	725 Leonard Street, Brooklyn, NY 11222
2	Greenpoint Montessori (1056 ft northeast)	288 McGuinness Boulevard, Brooklyn, NY 11211
3	Lightbridge Academy (1625 ft southwest)	23 India Street, Brooklyn, NY 11222
4	Building Blocks of Greenpoint (2100 ft southwest)	44 Kent Street, Brooklyn, NY 11211
5	Dupont Street Senior Housing (100 ft south)	80 Dupont Street, Brooklyn, NY 11211
6	Greenpoint Playground (500 ft west)	243 Franklin Street, Brooklyn, NY 11211
7	Newtown Barge Park (800 ft west)	3 Commercial Street, Brooklyn, NY 11211

### 1.4 SITE HISTORY

The Site was developed since at least 1887 and was used for metalworking, manufacturing of light fixtures, soaps, and water proofing materials through 1950. From 1950 until 2004, the Site and associated manufacturing buildings to the west were used by the NuHart company for the production, storage, and shipping of plastic and vinyl products. Operations ceased in 2004 and the Site buildings have been vacant since that time.

## 1.5 PREVIOUS ENVIRONMENTAL REPORTS

To date the following investigations have been performed at the subject Site:

- Underground Tank Closure Report (Advanced Site Restoration [ASR], July 2006)
- Phase II Site Assessment (ASR, March 2007)
- Phase II Investigation (Environmental Business Consultants [EBC], August 2007)
- Remedial Investigation Report (Ecosystems Strategies, July 2015)
- Remedial Investigation Report (Goldberg Zoino & Associates of New York P.C. d/b/a GZA GeoEnvironmental of New York, December 2016)

### ***July 2006 – Underground Storage Tank Closure Report (ASR)***

In this report, ASR documents the activities to close-in-place 17 underground storage tanks at the Former NuHart facility (Former NuHart East Site and Former NuHart West Site). Five (No. 1-5) of the 17 tanks are located on Former NuHart East Site. The tank details are as follows:

<b>Tank No.</b>	<b>Content</b>	<b>Capacity (gal)</b>
TK1	No. 2 Fuel Oil	10,000
TK2	No. 2 Fuel Oil	10,000
TK3	No. 2 Fuel Oil	1,500
TK4	Methyl tert-butyl ketone	1,500
TK5	Acetone	1,500

According to the ASR report, all of the tanks were opened, emptied, cleaned, and filled with foam. Documentation is provided as to the disposal of sludge and sediment from the tank bottoms.

### ***March 2007 – Phase II Site Assessment (ASR)***

Advanced Site Restoration (ASR) performed a series of investigations and remedial work in 2006 on the entire NuHart property. This work included the installation of 42 soil borings, 17 monitoring wells, and 10 product recovery wells. Of these, 15 borings, 3 monitoring wells, and 1 recovery well were located on the Former NuHart East Site. Two additional monitoring wells were located on the south side of the Clay Street sidewalk just north of the Former NuHart East Site. Laboratory analysis of the soil samples included VOCs and SVOCs by Environmental Protection Agency (EPA) Method 8260 Stars and EPA Method 8270 Stars, respectively. Six of the monitoring wells contained floating product (liquid phthalate, Hecla oil or fuel oil) and were not sampled. The remaining 11 wells were sampled and analyzed for VOCs and SVOCs by EPA Method 8260 Stars and EPA Method 8270 Stars, respectively. The results from soil borings located on the Former NuHart East Site identified elevated levels of VOCs in soil in the boring located closest to two of the five fuel oil tanks (TK2, TK3) in this area of the property. Phthalates and/or VOCs and/or SVOCs were reported above groundwater standards in all of the

monitoring wells located on-site. VOCs were reported above standards in one of the two off-site monitoring wells located in the sidewalk north of the building. Free phase fuel oil was present in the recovery well located adjacent to Tanks TK2 and TK3.

### ***August 2007 – Phase II Investigation (EBC)***

In 2007 EBC performed a Phase II investigation of the entire NuHart Facility including lots that comprise the Former NuHart West Site (Lots 1, 10, 12, 72 and 78) and the lots on the Former NuHart East Site (Lots 17, 18, 20, 21 and 57). The purpose of this investigation was to establish the environmental condition of the entire property under the due diligence period as established under a buyer's purchase agreement with the owner.

The investigation included the collection and analysis of 27 soil samples from 14 soil borings located on the property. Of these, 10 of the borings were located on the Former NuHart East Site. On average, two soil samples were retained for analysis from each boring, including one sample from the 0-4 ft interval and a second sample from the 8 to 12 ft interval. Sample analysis included VOCs (EPA 8260), SVOCs (8270), pesticides / polychlorinated biphenyls (PCBs; EPA 8081/8082) and Target Analyte List (TAL) metals. Although monitoring wells and soil gas implants were also installed during this investigation, they were not sampled as the agreement to purchase the property was terminated.

The report concluded that the fill materials contained elevated levels of metals and SVOCs above unrestricted soil criteria in the upper 5 ft of soil beneath the Former NuHart East Site.

### ***July 2015 – Remedial Investigation Report (Ecosystems Strategies)***

The RI Investigation performed by Ecosystems Strategies Inc. (Ecosystem) on the entire Former NuHart facility included the installation of 55 soil borings, 22 monitoring wells and 8 soil vapor implants. The portion of the investigation performed on the Former NuHart East Site consisted of 6 soil borings, 2 monitoring wells, and 3 soil gas implants. Two additional soil borings and monitoring wells were located in the sidewalk just north of the building.

Soil samples were retained from the 10 to 15 ft interval from 5 of the 6 soil borings and from both of the monitoring well locations. Soil samples were not submitted from the 6th soil boring. Laboratory analysis was limited to VOCs (all samples) and SVOCs (4 borings, 1 well). The results identified elevated levels (above GWP SCOS) of acetone in two samples and methylnaphthalene in one. The highest concentration of acetone was reported in the boring located closest to the former acetone UST.

Both groundwater samples were analyzed for VOCs though only the sample from the easternmost location was analyzed for SVOCs. The results identified elevated concentrations of cis-Dichloroethene (DCE) and TCE in the western monitoring well and an elevated level of phthalate in the eastern sample.

Elevated levels of chlorinated compounds including 1,1,1, -Trichloroethane (TCA), TCE and PCE were reported in two of the three soil gas implants.

### ***December 2016 – Remedial investigation Report (GZA GeoEnvironmental of New York)***

GZA GeoEnvironmental of New York (GZA) submitted a Remedial Investigation Report for 93 Dupont Street, Brooklyn, NY, Block 2487 Lot 57 in December 2016. The report summarized data collected by Roux Associates and FPM Group. Results detected SVOCs, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-c,d)pyrene], at concentrations above their respective UUSCOs and RRSCOs in three of the soil borings at shallow levels; chrysene and dibenzo(a,h)anthracene above their respective UUSCOs and RRSCOs from a shallow fill sample collected from 0 to 2 ft bgs; benzo(k)fluoranthene above its UUSCO but below the RRSCO in two samples at 0 to 2 ft bgs; and chrysene above its UUSCO, but below its RRSCO, in one sample at 0 to 2 ft bgs. Overall, the SVOCs exceedances were observed from the shallow fill soil (0 to 2 ft bgs). Bis(2-ethylhexyl) phthalate was detected with the maximum concentration of 2,000 µg/kg and was below the Residential Supplemental SCO level.

Five metals (barium, lead, copper, mercury, and zinc) were detected above Track 1 UUSCOs. Only barium (maximum 490 mg/kg) and lead (maximum 2500 mg/kg) were detected above the RRSCOs. Overall, the findings are consistent with observations for readily available public documents from other historic fill sites in NYC and did not indicate an on-Site release of hazardous substances.

Two out of the five monitoring wells contained SVOC detections exceeding Ambient Water-Quality Standards (AWQS). Specifically, phenol (3.5µg/L) was found exceeding AWQS in one onsite monitoring well. Other SVOCs exceedances were observed from monitoring well MW-102 (located on adjacent Lot 17 to the west); where benzo[a]anthracene (0.11 µg/L), benzo[a]pyrene (0.11 µg/L), benzo[b]fluoranthene (0.15 µg/L), benzo[k]fluoranthene (0.06 µg/L), chrysene (0.1 µg/L), and indeno[1,2,3-cd]pyrene (0.08 µg/L) were detected. Metals were not detected above the AWQSGVs.

Approximately 26 petroleum-related and chlorinated VOCs were detected above method detection limits within the seven soil vapor samples collected.

## **1.6 REGULATORY RECORDS**

There is currently an open spill case on the Site (NYSDEC Spill #06-01852) due to an unknown amount of petroleum released from the closed-in-place fuel oil USTs located on the northern portion of the NuHart East Site. This open spill case is currently under Stipulation agreements R2-20110105-5 and R2-20140204-113. Stipulation R2-20110105-5 was executed by 49 Dupont Realty Corp. by Joseph Folkman on 05 January 2011 and countersigned by the NYSDEC on 07 January 2011. Stipulation R2-20140204-113 was executed by Dupont Street Developers LLC. by Joseph Brunner on 10 September 2013 and countersigned by the NYSDEC on 04 February 2014. The Stipulations noted above indicate that the volunteer agrees to clean up and remove the discharge of petroleum associated with the spill case that would include the removal of the closed-in-place underground storage tanks present on the Site, removal of impacted soil surrounding the tanks, if any, and collection of confirmation samples from the base and sidewalls of each tank to assure proper tank closure.

Performance of this RAWP for the Former NuHart East Site would satisfy the requirements of the Stipulations on the Site and would allow for closure of NYSDEC Spill Case #06-01852.

## **2. Description of Supplemental Remedial Investigation Findings**

The Supplemental Remedial Investigation (SRI) was completed in accordance with Title 6 of the New York Codes, Rules, and Regulations (6 NYCRR) Part 375, DER-10, the NYSDEC Draft BCP Guide (May 2004), and the New York State Department of Health (NYSDOH) Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006 and subsequent updates). The SRI was completed on 19 through 21 January and 3 through 4 February 2022 to determine the nature and extent of contamination in soil, groundwater, and soil vapor.

### **2.1 SUPPLEMENTAL REMEDIAL INVESTIGATION**

The SRI consisted of:

- Advancement of eight soil borings to 15 feet below ground surface (ft bgs), with samples collected from 0 to 2 ft bgs and from the groundwater interface at 8 to 10 ft bgs. Four lead delineations soil borings, LD-01A through LD-04A, were advanced to 4 ft bgs and sampled from 0 to 2 ft bgs and 2 to 4 ft bgs. A total of 24 soil samples were collected;
- Installation of three two-inch permanent groundwater monitoring wells to a depth 20 ft bgs, including the reinstallation of on-Site monitoring well, MW-40, and the sampling of two additional on-Site wells. A total of 5 groundwater samples were collected;
- Survey and gauging of monitoring wells to determine groundwater elevation and flow direction; and,
- Installation of six soil vapor probes at one to two feet above the groundwater interface, which was encountered between 5 and 10 ft bgs, and the collection of six soil vapor samples.

#### **2.1.1 Soil Investigation**

Eight soil borings (B-01 through B-08) were installed across the entire Site during the SRI by Eastern Environmental Solutions, Inc. (Eastern). Soil borings were advanced by a track-mounted direct-push drill rig (Geoprobe®) to a depth of 15 ft bgs. Four lead delineation soil borings, LD-01A through LD-04A were advanced to 4 ft bgs and sampled from 0 to 2 ft bgs and 2 to 4 ft bgs. Samples were collected from acetate liners using a stainless-steel trowel or sampling spoon. The soil was screened for visual, olfactory, and instrumental evidence of environmental impacts and was visually classified for soil type, grain size, texture, and moisture content. Soils were logged continuously by an engineer. The presence of staining, odors, and PID response was noted.

#### **2.1.2 Groundwater Investigation**

Three 2-inch permanent groundwater monitoring wells (MW-40, MW-43, and MW-44) were installed to a depth of 20 ft bgs. Monitoring wells have a 2-inch annular space and were installed using certified clean sand fill. Wells were screened from 10 to 20 ft bgs. Groundwater was encountered at approximately 5.80 to 9.80 ft bgs. Monitoring wells were developed by surging a pump in the well several times to pull fine-grained material from the well. Development was not completed until the water turbidity was 50 nephelometric turbidity units (NTU) or less, or 10 well volumes were removed, if possible. Two additional on-Site wells were sampled during the SRI including MW-2 and MW-3. The well casings were surveyed by a New York State licensed surveyor on 28 February 2022. During surveying, Haley & Aldrich personnel performed a synoptic monitoring well gauging event.



### 2.1.3 Soil Vapor Investigation

NYSDEC DER-10 requires an assessment of soil vapor for contaminated sites to evaluate the health risk associated with potential exposure to VOCs through vapor intrusion into occupied spaces. Six soil vapor probes were installed to assess soil vapor conditions.

Six soil vapor probes (SV-01 through SV-06) were installed by Eastern Environmental Solutions, Inc. using a direct-push drilling rig (Geoprobe®) to advance the stainless-steel probe to a depth of approximately 6 to 7 ft bgs. The stainless-steel soil vapor probes were sealed with bentonite, and a tracer gas was used in accordance with NYSDOH protocols to serve as a quality assurance/quality control (QA/QC) measure to verify the integrity of the soil vapor probe seal. In addition, one to three implant volumes were purged prior to the collection of the soil vapor samples. Sampling occurred for the duration of two hours. At the conclusion of the sampling round, tracer monitoring was performed a second time to confirm the integrity of the probe seals.

### 2.1.4 Samples Collected

During the January 2022 SRI, a total of 26 soil samples, two of which were duplicate samples, were collected for laboratory analysis. Two soil samples were collected from each soil boring with one sample taken from a depth of 0 to 2 ft bgs and the other from 8 to 10 ft bgs. Two soil samples were collected from each lead delineation boring from a depth of 0 to 2 ft bgs and the other from 2 to 4 ft bgs. Samples were collected using laboratory-provided clean bottle ware, and VOC grab samples were collected using terra cores.

A total of five groundwater samples, one from each of the three newly installed monitoring wells, and two groundwater samples from existing monitoring wells were collected for laboratory analysis. A field blank, trip blank, MS/MSD sample, and a duplicate sample were also collected. Groundwater monitoring wells were sampled using low-flow sampling methods. Monitoring wells were purged, and physical and chemical parameters stabilized before samples were taken.

A total of six soil vapor samples were collected for laboratory analysis, one from each soil vapor probe. Samples were collected in appropriately sized Summa canisters that were certified clean by the laboratory. Sampling occurred for the duration of two hours.

Soil, groundwater, and soil vapor samples were submitted for laboratory analysis to Alpha Analytical Inc., a NYSDOH Environmental Laboratory Approval Program (ELAP)-certified laboratory located in Westborough, Massachusetts.

### 2.1.5 Chemical Analysis

The laboratory analyses performed on the soil, groundwater, and soil vapor samples are summarized below.

Soil samples were analyzed for the following parameters:

- Target Compound List (TCL) VOCs using EPA method 8260B
- TCL SVOCs using EPA method 8270C

- Total Analyte List (TAL) Metals using EPA method 6010
- PCBs using EPA method 8082
- TCL Pesticides using EPA method 8081B
- Per- and polyfluoroalkyl substances (PFAS) by EPA Method 537.1
- 1,4-dioxane by EPA Method 8270 SIM

Lead delineation soil samples were analyzed for the following parameters:

- Total Analyte List (TAL) Metals using EPA method 6010
- Toxicity Characteristic Leachate Procedure (TCLP) Metals using EPA method 1311

Groundwater samples were analyzed for the following parameters:

- TCL VOCs using EPA method 8260B;
- TCL SVOCs using EPA method 8270C;
- Total Metals using EPA methods 6010/7471;
- PFAS using EPA method 537
- 1,4-Dioxane using EPA method 8260B.

Soil vapor samples were analyzed for VOCs using USEPA Method TO-15.

### 2.1.6 Supplemental Remedial Investigation Findings Summary

A summary of environmental findings of the SRI includes the following:

1. Depth to groundwater ranged from 5.80 to 9.80 ft bgs, with groundwater elevation ranging from 4.39 to 8.35.
2. Groundwater flow is estimated to be from east-southeast to the west-northwest towards the East River.
3. Soil analytical results were compared to 6 NYCRR Part 375 UUSCOs; as a proxy for the potentially applicable Protection of Groundwater SCOs; and RRSCOs. Results are summarized in Figure 6 and include the following:
  - VOCs were not detected in any soil sample above UUSCOs or RRSCOs.
  - Five PAHs/SVOCs were detected above UUSCOs and/or RRSCOs in one soil sample, B-02 (0-2'). Benzo(a)anthracene (2.1 mg/kg), benzo(a)pyrene (1.8 mg/kg), benzo(b)fluoranthene (2.3 mg/kg), and indeno(1,2,3-cd)pyrene (1.2 mg/kg) were detected above both UUSCOs and RRSCOs and chrysene was detected above the UUSCO of 2 mg/kg. SVOCs were not detected in any other soil samples above the UUSCOs or RRSCOs.
  - Two pesticides, 4,4'-DDE (0.00864 mg/kg) and 4,4'-DDT (0.0172 mg/kg), were detected in soil sample B-03 (0-2') above UUSCOs. Pesticides were not detected in any other soil samples above the UUSCOs or RRSCOs.
  - Several metals were detected in multiple shallow soil samples throughout the Site above UUSCOs and RRSCOs. Arsenic was detected at a maximum concentration of 22.9 mg/kg and lead was detected at a maximum concentration of 1,400 mg/kg, both in soil sample B-07 (0-2'). Arsenic was also detected above UUSCOs in one deep soil sample, B-05 (8-10') at a

concentration of 13.1 mg/kg. Mercury was detected at a maximum concentration of 1.27 mg/kg in soil sample B-05 (0-2'). Copper (maximum concentration 116 mg/kg) and zinc (maximum concentration 301 mg/kg) were detected in multiple shallow soil samples above UUSCOs.

- Several metals were detected in lead delineation soil samples above UUSCOs and RRSCOs, including barium (665 mg/kg) and lead (maximum 722 mg/kg), both in soil sample LD-02A (0-2'). Barium and lead were not detected above RRSCOs in any other lead delineation soil sample. Arsenic was detected above both UUSCOs and RRSCOs in soil sample LD-02A (2-4') at a concentration of 26.2 mg/kg. Zinc was detected above UUSCOs at a maximum concentration of 572 mg/kg in soil sample LD-02A (0-2'). Metals were not detected in any other soil samples above the UUSCOs or RRSCOs.
  - One PCB, Aroclor 1260, was detected above UUSCOs and RRSCOs in soil sample B-06 (0-2') at a concentration of 1.1 mg/kg. Additionally, the PCB Aroclor 1248 was detected above UUSCOs, but not RRSCOs, in soil sample B-05 (8-10') at a concentration of 0.286 mg/kg. PCBs were not detected in remaining soil samples above the UUSCOs or RRSCOs.
  - 1,4-dioxane was not detected above laboratory detection limits in any soil samples collected at the Site. Soil samples B-02 (8-10'), B-04 (8-10'), and B-07 (8-10') were analyzed for perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). PFOS/PFOA were not detected above laboratory detection limits in any of the three samples that were analyzed.
4. Groundwater analytical results were compared to 6 NYCRR Part 703.5 Class GA groundwater quality standards (AWQS) and NYSDEC guidance set forth in Technical and Operational Guidance Series (TOGS) 1.1.1 (specifically, "June 1998 NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1 Ambient Water Quality Standards (AWQS) and Guidance Values, Class GA for the protection of a source of drinking water modified per the April 2000 addendum") (TOGS 1.1.1). Results are summarized in Figures 8 and 9.
- VOCs were not detected above the AWQS in any groundwater sample collected as part of the SRI.
  - SVOCs were detected above the AWQS in multiple groundwater samples. Bis(2-ethylhexyl)phthalate was detected in one groundwater sample above the AWQS at a concentration of 61 µg/L. Additionally, seven SVOCs, specifically PAHs, were detected in multiple groundwater samples above the AWQS including, benzo(a)anthracene (maximum concentration 0.12 µg/L in MW-3), benzo(a)pyrene (maximum concentration 0.11 µg/L in MW-3), benzo(b)fluoranthene (maximum concentration 0.16 µg/L in MW-3), benzo(k)fluoranthene (maximum concentration 0.06 µg/L in MW-3), chrysene (maximum concentration 0.14 µg/L in MW-3), indeno (1,2,3-cd)pyrene (maximum concentration 0.12 µg/L in MW-3), and pentachlorophenol (maximum concentration 7.2 µg/L in MW-2). No other SVOCs were detected above the AWQS in any groundwater samples.
  - PCBs were not detected above the AWQS in any groundwater samples.
  - The emerging contaminants 1,4-dioxane and PFOS/PFOA were compared to the New York Maximum Concentrations Limit (NY-MCL) for drinking water, adopted by NYSDOH in July 2020. 1,4-Dioxane was detected in multiple groundwater samples above laboratory detection limits and the NY-MCL of 1 µg/L at estimated and reportable concentrations. 1,4-Dioxane was detected at a maximum concentration of 1.74 µg/L in MW-40. PFOS/PFOA compounds were detected above the NY-MCL for drinking water of 0.01 µg/L in each

groundwater sample collected at the Site. Elevated PFOS/PFOA compounds include 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2FTS), perfluorobutanoic acid (PFBA), perfluoroheptanoic acid (PFHpA), perfluorohexanesulfonic acid (PFHxS), perfluorohexanoic acid (PFHxA), perfluorooctanesulfonic acid (PFOS), perfluorooctanoic acid (PFOA), and perfluoropentanoic acid (PFPeA). The total concentration of PFAS compounds ranged from 0.034 µg/L in MW-3 to a maximum concentration of 0.396 µg/L in MW-44.

5. CVOCs were detected in four of the six soil vapor samples collected throughout the Site during the SRI. 1,1,1-trichloroethane was detected above the laboratory detection limit in five of the six soil vapor samples collected, with a maximum concentration of 11,200 µg/m<sup>3</sup> in SV-02. Trichloroethene (TCE) was detected above the laboratory detection limit in four of the six soil vapor samples collected, with a maximum concentration of 355 µg/m<sup>3</sup> in SV-01. Tetrachloroethene (PCE) was detected above the laboratory detection limit in four of the six soil vapor samples collected, with a maximum concentration 152 µg/m<sup>3</sup> in SV-02. No other CVOCs were detected above the laboratory detection limits in any other soil vapor samples. Total benzene, toluene, ethylbenzene, and xylene (BTEX) concentrations ranged from 24.17 µg/m<sup>3</sup> in SV-04 to 61.57 µg/m<sup>3</sup> in SV-05. Total VOC concentrations ranged from 187.985 µg/m<sup>3</sup> in SV-04 to 13,786.1 µg/m<sup>3</sup> in SV-02. Results are summarized in Figure 7.

## **2.2 SIGNIFICANT THREAT**

The NYSDEC and NYSDOH have determined that this Site does not pose a significant threat to human health and the environment.

## **2.3 GEOLOGY AND HYDROGEOLOGY**

### **2.3.1 Historic Fill Material**

The Site contains historic fill material that extends to depths as great as 5 ft bgs and consists of asphalt, concrete, and brick fragments. A cross section showing the extent of historic fill material at the Site is included in Figure 16 and Figure 17.

### **2.3.2 Native Soil**

The historic fill material is underlain by brown silty sands, fine to medium sands, and clay layers until at least 20 ft bgs.

### **2.3.3 Bedrock**

Bedrock beneath the Site is expected to be encountered at depths greater than 60 ft bgs.

### **2.3.4 Hydrogeology**

Depth to groundwater ranges from 5.17 to 10.02 ft bgs and groundwater flow beneath the Site is from the east-southeast to the west-northwest. A groundwater contour map is included as Figure 8.

## **2.4 CONTAMINANT CONDITIONS**

### **2.4.1 Conceptual Site Model**

A conceptual site model (CSM) was developed based on the findings of the SRI performed under the BCP program. The CSM provides a framework for distribution of impacted materials sitewide and potential migration/exposure pathways.

### **2.4.2 Potential Sources of Contamination**

Shallow soils impacted with elevated concentrations of metals, and in some areas, pesticides and SVOCs, are consistent with characteristics of urban fill found throughout the New York City area. The source of elevated concentrations of PCBs in shallow and deep soil samples is unknown but is likely attributed to former manufacturing operations conducted at the Site.

Elevated levels of SVOCs in groundwater, specifically PAHs, are also likely attributed to urban fill material as well as former operations. Bis(2-ethylhexyl)phthalate was detected above AWQS standards in MW-3 at a concentration of 61 µg/L. This is likely due to residual contamination of phthalates released from tanks and the underground piping network associated with the former plastics manufacturing operations of the Site. The source of elevated concentrations of CVOCs in soil vapor is also likely associated with former plasticizer manufacturing operations, located on the northeast portion of the Site and the neighboring western property.

In addition, residual contamination is present below remaining closed-in-place USTs. Historical records indicate that three fuel oil USTs, one acetone UST, and one methyl tert-butyl ketone UST are present on the northeastern corner of the Site and are closed in place. NYSDEC Spill #0601852 was reported for a petroleum release associated with the fuel oil tanks and currently remains open.

### **2.4.3 Description of AOCs**

Areas of concern at this Site involve the Site's historic industrial operations and historic fill material generally found in the New York City area.

This section evaluates the nature and extent of soil, groundwater, and soil vapor contamination. The nature and extent of the contamination is derived from both field observations and analytical data detailed in the SRIR.

### **2.4.4 AOC 1 – Site-Wide Urban Fill and Elevated Lead Impacts in Subsurface Soil**

Shallow soils on Site are impacted with elevated concentrations of metals, and in some areas, pesticides and SVOCs. These findings are consistent with characteristics of urban fill found throughout the New York City area. Urban fill material varies in depth throughout the Site extending to depths as great as 5 ft bgs. Elevated concentrations of total lead were also detected in the central portion of Lot 57 and the southeastern corner of Lot 18.

#### **2.4.5 AOC 2 – PCB Impacts to Soil**

PCB impacts to soil were present in one shallow and one deep soil sample. Aroclor 1260 was detected in one shallow soil sample, B-06 (0-2') slightly above the RRSCO. Additionally, Aroclor 1248 was detected above the UUSCO in one deep soil sample, B-05 (8-10').

#### **2.4.6 AOC 3 – VOC and SVOC Impacts to Groundwater**

Groundwater site-wide is impacted with elevated concentrations of SVOCs, including several PAHs. Additionally, bis(2-ethylhexyl)phthalate was detected in monitoring well MW-3 above AWQS standards. The detection of bis(2-ethylhexyl)phthalate is likely residual contamination common in areas with former plasticizers industrial and manufacturing operations.

#### **2.4.7 AOC 4 – Soil Vapor Impacts**

Based on a review of analytical data collected during this SRI, VOCs, including CVOCs, have partitioned from soil and/or groundwater into the vapor phase. As shown in Figure 7, CVOCs including TCE, PCE, and 1,1,1-trichloroethane were detected in soil vapor samples exceeding the laboratory detection limits.

#### **2.4.8 AOC 5 – Underground Storage Tanks**

Historical records indicate that three fuel oil USTs, one acetone UST, and one methyl tert-butyl ketone UST are present on the northeastern corner of the Site and are closed in place. Spill #0601852 was reported for a petroleum release associated with the fuel oil tanks and currently remains open.

### **2.5 QUALITATIVE HUMAN EXPOSURE ASSESSMENT**

A qualitative exposure assessment consists of characterizing the exposure setting (including the physical environment and potentially exposed human and ecological resource populations), identifying exposure pathways, and evaluating chemical fate and transport. An exposure pathway describes the means by which an individual or ecological resource may be exposed to contaminants originating from a site. An exposure pathway has the following five elements:

1. Receptor population
2. Contaminant source
3. Contaminant release and transport mechanism
4. Point of exposure
5. Route of exposure

An exposure pathway is complete when all five elements of an exposure pathway are documented; a potential exposure pathway exists when any one or more of the five elements comprising an exposure pathway is not documented but could reasonably occur. An exposure pathway may be eliminated from further evaluation when any one of the five elements comprising an exposure pathway does not exist in the present and will not exist in the future.

### 2.5.1 Receptor Population

The receptor population includes the people or ecological resources who are or may be exposed to contaminants at a point of exposure. The identification of potential receptors is based on the characteristics of the Site, the surrounding land uses, and the probable future land uses. The Site is currently vacant; therefore, on-Site receptors would only include construction/maintenance workers that may be employed to perform work on the property and exposure routes would include direct contact activities and/or inhalation of soil vapor during ground intrusive activities (i.e., construction of the building's foundation and sub-grade cellar). Exposure routes on a vacant and developed site would include direct contact activities, although soil vapor and groundwater contamination may impact off-Site receptors including residents and employees in off-Site adjoining buildings or passersby. The reasonably anticipated future use of the Site is for residential purposes which is consistent with surrounding property use and zoning. At full development, the Site will be completely covered by concrete, asphalt, or a building with a full cellar such that no ecological resources will foreseeably be exposed to contaminants remaining at the Site. Therefore, exposed on-Site receptors under the future use scenario will be comprised of individual residents, indoor workers, outdoor workers (e.g., groundskeepers or maintenance staff), and construction workers who may be employed at or perform work on the property. Site visitors may also be considered on-Site receptors; however, their exposure would be similar to that of the residents and employees but at a lesser frequency and duration. In addition, off-Site receptors, including residents and employees in off-Site adjoining buildings or passersby, may be exposed to soil vapors.

### 2.5.2 Contaminant Sources

The source of contamination is defined as either the source of contaminant release to the environment (such as a waste disposal area or point of discharge) or the impacted environmental medium (i.e., soil, soil vapor, groundwater) at the point of exposure. Section 2.4 discusses the COCs present in the Site media at elevated concentrations. In general, these are primarily SVOCs, metals, and VOCs.

### 2.5.3 Exposure Routes and Mechanisms

The point of exposure is a location where actual or potential human contact with a contaminated medium may occur. Based on the exceedances of RRSCOs for metals, SVOCs, and PCBs, and exceedances of UUSCOs for pesticides in soil, the exceedance of groundwater quality standards for metals and SVOCs, and the exceedances of guidance values for CVOCs in soil vapor, the point of exposure is defined as the entire Site.

The route of exposure is the manner in which a contaminant actually enters or contacts the body (e.g., ingestion, inhalation, dermal absorption). Based on the types of receptors and points of exposure identified above, potential routes of exposure are listed below:

Current Use Scenario: The Site is currently a vacant building with a slab approximately 6 inches in thickness. Exposure to contaminated surface soil and contaminated groundwater is possible during subsurface investigations. Release and transport mechanisms include contaminated surface soil transported as dust, contaminated groundwater flow and volatilization of contaminants from soil and/or groundwater into vapor phase.

- Occupant/Employee/Visitor – skin contact, inhalation, and incidental ingestion



- Construction/Utility Worker – skin contact, inhalation, and incidental ingestion.

Construction/Remediation Scenario: As part of the implementation of the remedial action, the building will be demolished removing the existing engineering controls for the Site (slab). In the absence of engineering and institutional controls, there will be continued exposure pathways during construction/remediation specifically related to surface soil. Construction/Remedial activities include excavation and off-site disposal of soil, potential localized dewatering of impacted groundwater to facilitate the construction of the foundation elements. Release and transport mechanisms include disturbed and exposed soil during excavation, contaminated soil transported as dust, contaminated groundwater flow (localized dewatering), inhalation of dust from contaminated soil, and volatilization of contaminants from soil and/or groundwater into vapor phase.

- Construction/Utility Worker/Visitor – skin contact, inhalation, and incidental ingestion
- Public Adjacent to the Site/Community Passerby - inhalation

Future Use Scenario: The anticipated remedial approach includes excavation of contaminated soil, dewatering, treatment of in place groundwater and installation a composite cover system. In the absence of engineering and institutional controls, release and transport mechanisms include contaminated groundwater and volatilization of contaminants from soil and/or groundwater into vapor phase. Routes of exposure include cracks in the foundation or slab or emergency repairs to the foundation walls or slab.

- Construction/Utility Worker – skin contact, inhalation, and incidental ingestion; and
- Occupant/Employee/Visitor – inhalation
- Public Adjacent to Site/Community Passerby – inhalation

Contaminant release and transport mechanisms carry contaminants from the source to points where people may be exposed and are specific to the type of contaminant and Site use. For CVOCs present in soil, groundwater, and soil vapor, the potential exists for exposure through pathways associated with soil vapor intrusion. This would include the indoor vapor intrusion pathway (also referred to as “soil vapor intrusion”). Additional pathways could include skin contact, inhalation, and incidental ingestion of volatile organics present in soil and groundwater when and where construction workers are involved in subsurface activities where volatiles are present at elevated concentration.

Concerning the indoor air pathway, the NYSDOH has issued a guidance document for assessing potential impacts to indoor air via soil vapor intrusion. As such, under the current and future use scenario, soil vapor intrusion is a relevant transport mechanism. Soil vapor intrusion would entail soil vapor migrating from under the building slab and potentially impacting the indoor air above the slab. Concerning skin contact, inhalation, and incidental ingestion of volatile organics present in soil and groundwater, the potential exists for exposure to VOCs for construction workers involved in subsurface activities where volatiles are present at elevated concentration.

#### 2.5.4 Exposure Assessment

Based on the above, we determine the following Qualitative Human Health Exposure Assessment (QHHEA) conclusions for current conditions, construction/remediation conditions and future use conditions as listed below.



### Current Use Scenario

Site COCs includes SVOCs and metals in soil related to historic fill and the historic site operations and PCB impacts to soil. Under current conditions, the likelihood of exposure to soil or groundwater is limited, as the site is secured with locked entrances. Site access is only granted to personnel associated with the planned development. Potable water for Kings County will continue to be sourced from reservoirs in the Catskill and Delaware Watersheds. All intrusive work on the Site is done in accordance with a Site-Specific Health and Safety Plan and donning of PPE.

### Construction/Remediation Scenario

The exposure element exists for all elements during this phase. The overall risk will be minimized by the implementation of a Site-Specific Construction Health and Safety Plan, localized monitoring of organic vapors, community air monitoring on the site perimeter for particulates and VOCs, vapor and dust suppression techniques, installation of a stabilized entrance, cleaning truck tires and undercarriages and donning of appropriate PPE. Additionally, the site will be under a Remedial Action Work Plan which will include a Soil Materials Management Plan that will highlight measures for PPE, covering of stockpiles, housekeeping, suppression techniques (particulates and vapor) and measures to prevent off-site migration of contaminants.

### Future Use Scenario

Under the proposed future condition (after construction/remediation), residual contaminants may remain on-site depending on the remedy. The remaining contaminants would include those listed in the current conditions. If contaminants remain on site after construction/remediation, the route of exposure will be mitigated by proper installation of soil vapor mitigation measures, site capping system (foundation and foundation elements) and implementation of a Site Management Plan to manage institutional and engineering control.

In most instances, these exposures can be mitigated through the use of engineering controls, including, soil vapor extraction, placement of asphalt, and construction of vapor barriers or sub-slab depressurization systems in existing or newly constructed buildings; proper soil/fill management during intrusive activities; and PPE.

## **2.6 REMEDIAL ACTION OBJECTIVES**

The following Remedial Action Objectives (RAOs) have been identified for the Site.

### **2.6.1 Soil**

RAOs for Public Health Protection:

- Prevent ingestion/direct contact with contaminated soil
- Prevent inhalation of or exposure to volatile contaminants from soil

RAOs for Environmental Protection:

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

### 2.6.2 Groundwater

RAOs for Public Health Protection:

- Prevent ingestion of groundwater with contamination levels exceeding drinking water standards
- Prevent direct contact or inhalation of volatiles from contaminated groundwater

### 2.6.3 Soil Vapor

RAOs for Public Health Protection:

- Mitigate the risk of impacts to public health resulting from existing, or the potential for, soil vapor migration off-Site, or intrusion into the proposed development at the Site

### 2.6.4 Protection of Human Health and the Environment

Alternative I – The remedy would significantly reduce the potential for each of the identified pathways of exposure to on-Site contaminated media. Remediating the Site to Track 1 standards would result in the elimination of Site soil that exceeds UUSCOs. Encountered underground storage tanks (USTs) would be decommissioned, removed, and disposed off-Site, and petroleum-impacted material, if encountered, would be excavated, and disposed off-Site. The RAOs for public health and environmental protection would be met through the removal of contaminated media at the Site to meet UUSCOs and AWQS, which would significantly reduce the potential for exposure pathways via possible ingestion, inhalation, or dermal contact.

Since no engineering or institutional controls will be required for this remedy to maintain the Site in the future, this remedy is protective of human health and the environment.

Alternative II – The Track 2 remedy will provide similar overall protection to public health and the environment as Alternative I. Remediating the Site to Track 2 standards will result in the removal of Site soil that exceeds RRSCOs. Encountered underground storage tanks (USTs) would be decommissioned, removed, and disposed off-Site, and petroleum-impacted material, if encountered, would be excavated, and disposed off-Site. The RAOs for public health and environmental protection would be met through the removal of contaminated media at the Site to meet RRSCOs and AWQS, which would significantly reduce the potential for exposure pathways via possible ingestion, inhalation, or dermal contact.

Construction of a composite cover system consisting of 4 inches of subbase (recycled concrete aggregate) overlain by 4-inch concrete slab and installation of a waterproofing/vapor barrier that will exceed the performance expectations of a 20-mil vapor barrier to mitigate the soil vapor intrusion exposure pathway. With the cover system, this remedy is protective of human health and the environment.

Public health will be protected during remediation under both alternatives by implementing and enforcing dust, odor, and organic vapor control and monitoring procedures when needed.

### 3. Summary of Remedial Action

#### 3.1 ALTERNATIVE I – TECHNICAL DESCRIPTION

Alternative I, a Track 1 remedy, will include the following tasks:

- Development and implementation of a Construction Health & Safety Plan (CHASP) and Community Air Monitoring Plan (CAMP) for the protection of on-site workers, community/residents, and the environment during remediation and construction activities.
- Design and construction of a support-of-excavation (SOE) system to facilitate the Track 1 remediation.
- Implementation of soil erosion, pollution, and sediment control measures in compliance with applicable laws and regulations.
- Demolition of the concrete slab at grade.
- Excavation, stockpiling, off-Site transport, and disposal of about 16,250 cubic yards of historic fill and solid waste that exceeds UUSCOs as defined by 6 NYCRR Part 375-6.8. Excavation will be to 16 ft bgs on the northern portion of Lots 17, 18, 20, and 21 or to the north of MW-40 (approximately 10,000 sq foot area) to remove material exceeding UUSCOs. The remaining portion of Lots 17, 18, 20, and 21 (approximately 26,000 sq foot area) will be excavated to 8 ft bgs, with the exception of one area in the central portion of the Site on Lot 17 surrounding SRI soil sample location B-05 (approximately 50 cubic yards) which will be excavated to 10 ft bgs to remove PCB-material exceeding UUSCOs. The entirety of Lot 57 (approximately 13,000 sq foot area) will be excavated to 6 ft bgs.
- For development purposes, excavation will extend to 16 ft bgs throughout the Site and a total of 29,000 cubic yards of material will be removed.
- As part of waste characterization and for disposal purposes, delineation of elevated lead concentrations in soil in the vicinity of B-02 and B-07, installed during the SRI, and subsequent excavation and disposal of potentially hazardous lead-impacted historic fill material.
- Dewatering, characterization, and treatment of water accumulated in excavations prior to discharge to a NYSDEC approved sewer/sanitary line (pending permits), or localized dewatering with containerization, classification, and disposal at an approved receiving facility.
- Removal of five closed-in-place USTs on the Site, any unknown USTs encountered, and/or associated appurtenances (e.g., fill lines, vent lines, and electrical conduits) as well as decommissioning and off-Site disposal during redevelopment in accordance with DER-10, 6 NYCRR Part 613.9, NYSDEC CP-51, and other applicable NYSDEC UST closure requirements.
- Installation of a negative pressure enclosure system and/or utilization of alternative, similarly effective, odor suppression techniques (i.e., Rusmar foam or approved alternative) as needed and approved by the NYSDEC within the historical UST and petroleum excavation area. Rusmar foam or an approved alternative will be liberally applied during intrusive excavation work to where olfactory impacted material is encountered. Prior to export of olfactory impacted material offsite, a layer of Rusmar foam or an approved alternative will be applied to the top of the soil and covered with a tarp prior to exiting the Site.

- Collection and analysis of confirmation soil samples at the base of each tank and one per each sidewall.
- Screening for indications of contamination (by visual means, odor, and monitoring photoionization detectors [PIDs]) of excavated material during intrusive site work.
- Appropriate off-Site disposal of material removed from the Site in accordance with federal, state, and local rules and regulations for handling, transport, and disposal.
- Collection and analysis of confirmation soil samples at the proposed remediation depth in accordance with DER-10 to confirm a Track 1 remedy was achieved. All confirmation soil samples will be analyzed for the Part 375 list of VOCs, SVOCs, pesticides, PCBs, metals, PFAS, and 1,4-dioxane.
- Completion of an SVI Evaluation in accordance with DER-10 and NYSDOH Final Guidance on Soil Vapor Intrusion following remedial excavation activities and prior to occupancy.

The requirements for each of the Alternative I tasks are described below.

#### On-Site Worker, Public Health, and Environmental Protection

A site-specific CHASP is appended to this RAWP (Appendix E) and will be implemented during excavation and foundation construction to protect Site workers from accidents and acute and chronic exposures to the identified contaminants of concern (COCs). Public health will be protected by implementing and enforcing dust, odor, and organic vapor control and monitoring procedures included in the CAMP. The CAMP will include continuous perimeter monitoring of dust and organic vapors using DustTrak aerosol monitors and PIDs capable of recording data and calculating 15-minute averages. Field personnel will monitor site perimeters for visible dust and odors.

#### Fill and Soil Removal

VOCs, PAHs, metals, PCBs, and pesticides were detected in historic fill material at concentrations that exceed the UUSCOs. To achieve Track 1, soil removal and disposal will extend from surface grade (about El. 15) to 16 ft bgs on the northern portion of Lots 17, 18, 20, and 21 or to the north of MW-40, the remaining portion of Lots 17, 18, 20, and 21 will be excavated to 8 ft bgs, with the exception of one area in the central portion of the Site on Lot 17 surrounding SRI soil sample location B-05 which will be excavated to 10 ft bgs to remove material exceeding UUSCOs, and the entirety of Lot 57 will be excavated to 6 ft bgs. The Alternative I excavation plan is shown on Figure 10.

Elevated total lead concentrations, above 1,000 mg/kg, were detected in shallow soil collected from 0 to 2 ft bgs at B-02 and B-07 during the January 2022 SRI. Analysis for toxicity characteristics leachate procedure (TCLP) and total lead will be conducted at the above referenced locations along with delineation, if necessary, of potentially hazardous lead material followed by subsequent excavation and disposal of potentially hazardous lead-impacted historic fill material. Potential delineation areas are shown in Figure 9.

The estimated volume of material requiring removal and off-Site disposal for a Track 1 cleanup is approximately 16,250 cubic yards. The soil will be screened for visual, olfactory, and instrumental evidence of environmental impacts. Excavation is expected to extend below the water table during

remedial excavation or construction; therefore, installation of a dewatering system is anticipated to achieve development depth.

For development purposes, the building footprint will be excavated to 16 ft bgs (about El. -1) as shown on Figure 12 requiring excavation of a total of 29,000 cubic yards of material.

#### Lead Impacted Soil Removal, Management, and Disposal

Elevated concentrations of total lead were identified on-Site and will be further analyzed and if necessary delineated during waste characterization and for disposal purposes to determine if hazardous during waste characterization. If deemed hazardous, material will be managed as a D008 hazardous waste in accordance with applicable federal, state, and local regulations. As such, the handling, transport, and disposal of this fill material is subject to USEPA and the Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) regulations. The excavated material will be segregated in the field and temporarily placed in stockpiles, or direct loaded, and transported by Part 364-permitted trucks to a facility permitted by RCRA to accept hazardous waste.

#### Fluids Management

Liquids removed from the Site, including dewatering fluids, will be handled, transported, and disposed of in accordance with applicable local, state, and federal regulations. Fluids will not be recharged back to the land surface or subsurface. Discharge of water generated during remedial construction to surface waters (i.e., a local pond, stream, and/or river) is prohibited without a SPDES permit.

Based on the depth to water, dewatering is anticipated to facilitate excavation of material that exceeds the UUSCOs and construction of foundation components. Dewatering fluids discharged into the New York City sewer system will be addressed through approval by NYCDEP. No dewatering discharge will commence prior to NYCDEP approval.

#### UST Removal

Based on historical Site information, all known USTs have been closed-in-place; however, there remains the possibility that unidentified tanks are present. Closed-in-place USTs will have the inert contents evacuated and the shell cleaned, to the extent possible, prior to disposal. All USTs and/or associated appurtenances (e.g., fill lines, vent line, and electrical conduit) will be decommissioned in accordance with applicable NYSDEC tank closure requirements, including DER-10 Section 5.5 and 6 NYCRR Part 613.9, and NYSDEC CP-51. USTs and/or associated appurtenances would be registered and administratively closed with the NYSDEC Petroleum Bulk Storage (PBS) unit. Petroleum-impacted soil would be excavated and disposed of off-Site at a permitted disposal facility in accordance with applicable regulations. Closure documentation, such as Contractor affidavits, bills of lading for sludge disposal, and tank disposal receipts, would be provided as appendices in the Final Engineering Report (FER). Unidentified USTs will be removed in accordance with the procedures described under the NYSDEC Memorandum for the Permanent Abandonment of Petroleum Storage Tanks and Section 5.5 of DER-10 as follows:

- Remove all product to its lowest draw-off point
- Drain and flush piping into the tank
- Vacuum out the tank bottom consisting of water product and sludge
- Dig down to the top of the tank and expose the upper half of the tank
- Remove the fill tube and disconnect the fill, gauge, product and vent lines and pumps. Cap and plug open ends of lines
- Temporarily plug all tank openings, complete the excavation, remove the tank, and place it in a secure location
- Render the tank safe and check the tank atmosphere to ensure that petroleum vapors have been satisfactorily purged from the tank
- Clean tank or remove to a storage yard for cleaning
- If the tank is to be moved it must be transported by a licensed waste transporter. Plug and cap all holes prior to transport leaving a 1/8-inch vent hole located at the top of the tank during transport.
- After cleaning the tank must be made acceptable for disposal at a scrap yard cleaning the tank interior with a high-pressure rinse and cutting the tank in several pieces.

During the tank and pipeline removal, the following field observations should be made and recorded:

- A description and photographic documentation of the tank and pipeline condition (pitting, holes, staining, leak points, evidence of repairs, etc.)
- Examination of the excavation floor and sidewalls for physical evidence of contamination (odor, staining, sheen, etc.)
- Periodic field screening (through bucket return) of the floor and sidewalls of the excavation with a calibrated PID.

#### Confirmation Soil Sampling

Per NYSDEC DER-10, confirmation soil samples will be collected from bottom of the proposed remedial excavation at a frequency of one per 900 square feet. An estimated 55 confirmation soil samples, plus QA/QC samples, would be collected as shown on Figure 13 based on an excavation footprint of 49,000 square feet. The confirmation samples will be analyzed for the Part 375 list of VOCs, SVOCs, pesticides, PCBs, metals, PFAS, and 1,4-dioxane.

Confirmation samples will be collected from the base of each UST and one per each sidewall as shown on Figure 14 and will be analyzed for the Part 375 list of VOCs, SVOCs, pesticides, PCBs, metals, PFAS, and 1,4-dioxane.

#### Post-Remedy Soil Vapor Intrusion Evaluation

Elevated concentrations of chlorinated VOCs were identified in soil vapor samples collected throughout the Site with maximum concentrations of 1,1,1-trichloroethane and PCE in SV-02 and a maximum concentration of TCE in SV-01. The chlorinated VOCs that have partitioned to the vapor phase from impacted soil and groundwater are likely attributed to historic plasticizer manufacturing operations located on the northwest portion of the Site and the neighboring western property. Following remedial

actions and prior to occupancy, an SVI Evaluation will be conducted at the site and submitted to NYSDEC and NYSDOH.

### 3.2 ALTERNATIVE II – TECHNICAL DESCRIPTION

Alternative II, a Track 2 remedy, will include the following tasks:

- Development and implementation of a CHASP and CAMP for the protection of on-Site workers, community/residents, and environment during remediation and construction activities.
- Construction of a SOE system to facilitate the Track 2 remediation.
- Implementation of soil erosion, pollution, and sediment control measures in compliance with applicable laws and regulations.
- Demolition of the concrete slab at grade.
- Excavation, stockpiling, off-Site transport, and disposal of about 16,200 cubic yards of historic fill and solid waste that exceeds UUSCOs as defined by 6 NYCRR Part 375-6.8. Excavation will be to 16 ft bgs on the northern portion of Lots 17, 18, 20, and 21 or to the north of MW-40 (approximately 10,000 sq foot area) to remove material exceeding UUSCOs. Excavation on the remainder of Lots 17, 18, 20, and 21 (approximately 26,000 sq foot area) will be to 8 ft bgs, and excavation on Lot 57 (approximately 13,000 sq foot area) will extend to 6 ft bgs to remove material exceeding UUSCOs. The excavation excludes the one area in the central portion of the Site on Lot 17 surrounding SRI soil sample location B-05 (approximately 50 cubic yards) with PCB-material exceeding UUSCOs.
- For development purposes, excavation will extend to 16 ft bgs throughout the Site and a total of 29,000 cubic yards of material will be removed.
- Delineation of elevated lead concentrations in soil in the vicinity of B-02 and B-07, installed during the SRI, and subsequent excavation and disposal of potentially hazardous lead-impacted historic fill material.
- Dewatering, characterization, and treatment of water accumulated in excavations prior to discharge to a NYSDEC approved sewer/sanitary line (pending permits), or localized dewatering with containerization, classification and disposal at an approved receiving facility.
- Removal of five closed in place USTs on the Site, any unknown USTs encountered, and/or associated appurtenances (e.g., fill lines, vent line, and electrical conduit) as well as decommissioning and off-Site disposal during redevelopment in accordance with DER-10, 6 NYCRR Part 613.9, NYSDEC CP-51, and other applicable NYSDEC UST closure requirements.
- Installation of a negative pressure enclosure system and/or utilization of alternative, similarly effective, odor suppression techniques (i.e., Rusmar foam or approved alternative) as needed and approved by the NYSDEC within the historical UST and petroleum excavation area. Rusmar foam or an approved alternative will be liberally applied during intrusive excavation work to where olfactory impacted material is encountered. Prior to export of olfactory impacted material offsite, a layer of Rusmar foam or an approved alternative will be applied to the top of the soil and covered with a tarp prior to exiting the Site.



- Collection and analysis of confirmation soil samples at the base of each tank and one per each sidewall.
- Screening for indications of contamination (by visual means, odor, and monitoring with PIDs) of excavated material during intrusive site work.
- Appropriate off-site disposal of material removed from the Site in accordance with federal, state, and local rules and regulations for handling, transport, and disposal.
- Construction of a composite cover system consisting of 4 inches of subbase (recycled concrete aggregate) overlain by a 4-inch concrete slab and installation of a waterproofing/vapor barrier that will exceed the performance expectations of a 20-mil vapor barrier to mitigate the soil vapor intrusion exposure pathway.
- Collection and analysis of confirmation soil samples at the proposed remediation depth in accordance with DER-10 to confirm RRSCOs were achieved. If a Track 2 Residential cleanup is achieved, a cover system will not be a required element of the remedy, and NYSDEC will issue a Track 2 Certificate of Completion. All confirmation soil samples will be analyzed for the Part 375 list of VOCs, SVOCs, pesticides, PCBs, metals, PFAS, and 1,4-dioxane.
- Completion of an SVI Evaluation in accordance with DER-10 and NYSDOH Final Guidance on Soil Vapor Intrusion following remedial excavation activities and prior to occupancy.

The requirements for each of the Alternative II tasks are described below.

#### On-Site Worker, Public Health, and Environmental Protection

A site-specific CHASP is appended to this RAWP (Appendix E) and will be enforced during excavation and foundation construction to protect on-Site workers from accidents and acute and chronic exposures to the identified contaminated media. Public health will be protected by implementing and enforcing dust, odor, and organic vapor control and monitoring procedures included in the CAMP. The CAMP will include continuous perimeter monitoring of dust and organic vapor using DustTrak aerosol monitors and PIDs capable of recording data and calculating 15-minute averages. Field personnel will monitor site perimeters for visible dust and odors.

#### Fill and Soil Removal

PAHs, metals, and PCBs were detected in historic fill material at concentrations that exceed the RRSCOs. To achieve Track 2, soil removal and disposal will extend from surface grade (about El. 15) to 16 ft bgs on the northern portion of Lots 17, 18, 20, and 21 or to the north of MW-40, excavation on the remainder of Lots 17, 18, 20, and 21 will be to 8 ft bgs, and excavation on Lot 57 will extend to 6 ft bgs to remove material exceeding UUSCOs. The Alternative I excavation plan is shown on Figure 10. The Alternative II excavation plan is shown in Figure 11.

Elevated total lead concentrations, above 1,000 mg/kg, were detected in shallow soil collected from 0 to 2 ft bgs at B-02 and B-07 during the January 2022 SRI. Analysis for toxicity characteristics leachate procedure (TCLP) and total lead will be conducted at the above referenced locations along with delineation of potentially hazardous lead material followed by subsequent excavation and disposal of

potentially hazardous lead-impacted historic fill material. Potential delineation areas are shown in Figure 9.

The estimated volume of material requiring removal and off-Site disposal for a Track 2 cleanup is about 16,200 cubic yards. The soil will be screened for visual, olfactory, and instrumental evidence of environmental impacts. Excavation is expected to extend below the water table during remedial excavation or construction; therefore, installation of a dewatering system is anticipated to facilitate development.

For development purposes, the building footprint will be excavated to 16 ft bgs (about El. -1) as shown in Figure 12 requiring excavation of a total of 29,000 cubic yards of material.

#### Lead Impacted Soil Removal, Management, and Disposal

Elevated concentrations of total lead were identified on-Site and will be further analyzed and if necessary delineated during waste characterization and for disposal purposes to determine if hazardous during waste characterization. If deemed hazardous, material will be managed as a D008 hazardous waste in accordance with applicable federal, state, and local regulations. As such, the handling, transport, and disposal of this fill material is subject to USEPA and the OSHA HAZWOPER regulations. The excavated material will be segregated in the field and temporarily placed in stockpiles, or direct loaded, and transported by Part 364-permitted trucks to a facility permitted by RCRA to accept hazardous waste.

#### Fluids Management

Liquids removed from the Site, including dewatering fluids, will be handled, transported, and disposed of in accordance with applicable local, state, and federal regulations. Fluids will not be recharged back to the land surface or subsurface. Discharge of water generated during remedial construction to surface waters (i.e., a local pond, stream, and/or river) is prohibited without a SPDES permit.

Based on the depth to water, dewatering is anticipated to facilitate excavation of material that exceeds the UUSCOs and construction of foundation components. Dewatering fluids discharged into the New York City sewer system will be addressed through approval by NYCDEP. No dewatering discharge will commence prior to NYCDEP approval.

#### UST Removal

Based on historical Site information, all known USTs have been closed in place; however, there remains the possibility that unidentified tanks are present. Closed in place UST's will have the inert contents evacuated and the shell cleaned prior to disposal. All USTs and/or associated appurtenances (e.g., fill lines, vent line, and electrical conduit) will be decommissioned in accordance with applicable NYSDEC tank closure requirements, including DER-10 Section 5.5 and 6 NYCRR Part 613.9, and NYSDEC CP-51. USTs and/or associated appurtenances would be registered and administratively closed with the NYSDEC Petroleum Bulk Storage (PBS) unit. Petroleum-impacted soil would be excavated and disposed of off-Site at a permitted disposal facility in accordance with applicable regulations. Closure documentation, such as Contractor affidavits, bills of lading for sludge disposal, and tank disposal

receipts, would be provided as appendices in the FER. Unidentified USTs will be removed in accordance with the procedures described under the NYSDEC Memorandum for the Permanent Abandonment of Petroleum Storage Tanks and Section 5.5 of DER-10 as follows:

- Remove all product to its lowest draw-off point
- Drain and flush piping into the tank
- Vacuum out the tank bottom consisting of water product and sludge
- Dig down to the top of the tank and expose the upper half of the tank
- Remove the fill tube and disconnect the fill, gauge, product and vent lines and pumps. Cap and plug open ends of lines
- Temporarily plug all tank openings, complete the excavation, remove the tank, and place it in a secure location
- Render the tank safe and check the tank atmosphere to ensure that petroleum vapors have been satisfactorily purged from the tank
- Clean tank or remove to a storage yard for cleaning
- If the tank is to be moved it must be transported by a licensed waste transporter. Plug and cap all holes prior to transport leaving a 1/8-inch vent hole located at the top of the tank during transport.
- After cleaning the tank must be made acceptable for disposal at a scrap yard cleaning the tank interior with a high-pressure rinse and cutting the tank in several pieces.

During the tank and pipeline removal, the following field observations should be made and recorded:

- A description and photographic documentation of the tank and pipeline condition (pitting, holes, staining, leak points, evidence of repairs, etc.)
- Examination of the excavation floor and sidewalls for physical evidence of contamination (odor, staining, sheen, etc.)
- Periodic field screening (through bucket return) of the floor and sidewalls of the excavation with a calibrated PID.

#### Composite Cover and Waterproofing/Vapor Barrier System

A composite cover system will be installed, consisting of 4 inches of subbase (recycled concrete aggregate) overlain by a 4-inch concrete slab, and a 20-mil vapor barrier to mitigate soil vapor intrusion.

#### Confirmation Soil Sampling

Per NYSDEC DER-10, confirmation soil samples will be collected from the excavation base at a frequency of one per 900 square feet. An estimated 55 confirmation soil samples, plus QA/QC samples, would be collected as shown on Figure 13 based on an excavation footprint of 49,000 square feet. The confirmation samples will be analyzed for the Part 375 list of VOCs, SVOCs, pesticides, PCBs, metals, PFAS, and 1,4-dioxane.

Confirmation samples will be collected from the base of each UST and one per each sidewall as shown on Figure 14 and will be analyzed for the Part 375 list of VOCs, SVOCs, pesticides, PCBs, metals, PFAS, and 1,4-dioxane.

### Post-Remedy Soil Vapor Intrusion Evaluation

Elevated concentrations of chlorinated VOCs were identified in soil vapor samples collected throughout the Site with maximum concentrations of 1,1,1-trichloroethane and PCE in SV-02 and a maximum concentration of TCE in SV-01. The chlorinated VOCs that have partitioned to the vapor phase from impacted soil and groundwater are likely attributed to historic plasticizer manufacturing operations located on the northwest portion of the Site and the neighboring western property. Following remedial actions and prior to occupancy, an SVI Evaluation will be conducted at the site and submitted to NYSDEC and NYSDOH.

### **3.3 EVALUATION OF REMEDIAL ALTERNATIVES**

The following is an evaluation of the proposed remedy based on the BCP remedy evaluation criteria listed below. The first two criteria are considered “threshold criteria” and the remaining criteria are “balancing criteria.” A remedial alternative must meet the threshold criteria to be considered and evaluated further under the balancing criteria.

- Protection of human health and the environment
- Compliance with standards, criteria, and guidance (SCG)
- Short-term effectiveness and impacts
- Long-term effectiveness and permanence
- Reduction of toxicity, mobility, or volume of contaminated material
- Implementability
- Cost-effectiveness
- Community acceptance
- Land use

#### **3.3.1 Compliance with Standards, Criteria, and Guidance**

Both alternatives will be in compliance with applicable standards, criteria, and guidance listed in Section 4.1 by removing site sources of contamination to achieve the RAOs. While implementing either remedy, protection of public health and the environment will be maintained by enforcing a Site-specific CHASP and CAMP. OSHA requirements for on-site construction safety will be followed by Site contractors performing work.

#### **3.3.2 Short-Term Effectiveness and Impacts**

Alternative I – The most significant short-term adverse impacts and risks to the community will be the potential complications and risk involved with designing and constructing SOE and underpinning for the building and structures adjoining the site. Potential impositions on roadway and pedestrian traffic associated with construction may be a result of the remedial excavation to achieve a Track 1 cleanup. Increased truck traffic and construction-related noise levels may be necessary to haul out soil that exceeds UUSCOs to achieve Track 1 standards, relative to Alternative II.

The excavated soil and fill would require about 815, 20-cubic-yard truck trips. Implementing the

Alternative I concept would require approximately 12 to 14 months of effort (assuming normal work hours). Truck traffic will be routed on the most direct course using major thoroughfares where possible, and flaggers will be used to protect pedestrians at site entrances and exits. Waiting times associated with analysis of confirmation sampling and resampling may delay construction, leaving soil exposed for a longer time resulting in a potential increase in dust, odors, and/or organic vapor from the excavation and construction-related noise. The effects of these potential adverse impacts to the community, workers, and the environment will be minimized by implementing the respective control plans.

Alternative II – Alternative II will result in similar, if not the same, short-term adverse impacts and risks to the community. The excavated soil and fill would require approximately 810, 20-cubic-yard truck trips. Implementing the Alternative II concept would require approximately 12 to 14 months of effort (assuming normal work hours).

Under both remedial alternatives, dust will be controlled by the on-Site application of water spray as needed. Engineering controls, such as slowing the pace of work, applying foam and/or dust suppressant, and/or covering portions of the excavation will be used to suppress odors/dust when required. Work will be modified or stopped according to the action levels defined in the CAMP. Therefore, short-term impacts are similar for both alternatives.

### **3.3.3 Long-Term Effectiveness and Performance**

Both remedial alternatives will remove contaminated media from the site exceeding UUSCOs (Alternative I) or RRSCOs (Alternative II) for soil. A post-construction SVI evaluation would be implemented to evaluate potential for vapor intrusion into the on-Site building. In addition, groundwater in New York City is not used for drinking water. Therefore, the long-term effectiveness of this remedy would eliminate risks and satisfy the objectives of the Alternative I and II criterion.

### **3.3.4 Reduction of Toxicity, Mobility, or Volume of Contaminated Material**

Both remedial alternatives would permanently and significantly reduce the toxicity, mobility, and volume of contamination through removal of contaminated fill and buried solid waste through excavation and off-Site disposal.

### **3.3.5 Implementability**

Alternative I – Implementing a Track 1 remedy will be technically challenging because of SOE requirements associated with protection of the neighboring buildings and streets; however, the SOE hardship is not significant as it will not extend beyond that which is required for construction. This remedy will consist primarily of excavation with standard bucket excavators. The availability of local contractors, personnel, and equipment suitable to working in a structurally challenging environment is high due to the frequency of this type of remediation in the region. It is not expected to require schedule extensions or additional costs associated with the excavation and SOE. However, if deeper contamination above UUSCOs is encountered requiring unanticipated over-excavation, the cost is marginal compared to the benefit of achieving an unrestricted use remediation and elimination of long-

term engineering and institutional controls. Additional coordination between trades may be required. This alternative is considered feasible.

Alternative II – The technical feasibility of implementing the Alternative II remedy is similar to Alternative I, as significant excavation is still required to achieve the Track 2 RRSCOs. This alternative will consist primarily of excavation with standard bucket excavators. The availability of local contractors, personnel, and equipment suitable to working in a structurally challenging environment is high due to the frequency of this type of remediation in the region. Additional coordination between trades may be required. This alternative is considered feasible.

### **3.3.6 Cost-Effectiveness**

Alternative I – Based on the assumptions detailed for Alternative I, the estimated remediation cost of a Track 1 cleanup is approximately \$12,070,000. Alternative I requires the implementation of the composite cover system as an engineering control as well as long-term operation, maintenance, and monitoring for site management. Table 1 details the individual cost components used to arrive at this cost estimate.

Alternative II – Based on the assumptions detailed for Alternative II, the estimated remediation cost to achieve a Track 2 cleanup is approximately \$12,061,000. Alternative II requires the implementation of the composite cover system as an engineering control as well as long-term operation, maintenance, and monitoring for site management. Table 2 outlines the individual cost-components used to arrive at this cost estimate.

### **3.3.7 Community Acceptance**

Both remedial alternatives should be acceptable to the community because the potential exposure pathways to on-Site contamination will be addressed upon completion of the respective remedies and the Site will be remediated to allow for a higher-level use. The selected remedy will be subject to a 45-day public comment period in accordance with the Citizen Participation Plan (CPP), included as Appendix F. Substantive public comments will be addressed before the remedy is approved.

### **3.3.8 Land Use**

The current, intended, and reasonably anticipated future residential land use of the Site and its surroundings are compatible with both remedial alternatives. The project will consist of a 5-story residential building containing 480 units with 144 of the units being affordable inclusionary housing, with a one-level cellar encompassing the entire Site footprint and extending approximately 14 feet below current grade. The cellar will be used for parking, mechanical equipment storage, a trash compactor room and tenant storage. The first floor will have studios and one-to-two-bedroom residential units, a tenant lounge, mailroom, a residential lobby, and additional parking.

## **3.4 SELECTION PREFERRED REMEDY**

Both alternatives will be protective of human health and the environment and meet the remedy

selection criteria. Alternative I achieves the remedial action goals established for the redevelopment project, and is effective in the short-term. Alternative I effectively reduces contaminant mobility and toxicity and reduces the contaminant toxicity and volume. Alternative I is more effective in the long-term because it achieves unrestricted land use. The excavation depths for both remedial alternatives are comparable and have similar remedial costs. Alternative I is preferred over Alternative II as it provides a slightly greater overall protection to human health and the environment at a similar cost. Therefore, Alternative I is the recommended remedial alternative for this Site.

Figure 10 depicts the Alternative I cleanup plan. Figure 11 depicts the Alternative II cleanup plan. The Alternative I and II remediation extent is based on data presented in the SRIR and the RIR which presents data from previous subsurface investigations conducted at the Site.

### **3.4.1 Zoning**

The land is currently zoned as M1-2/R6A which allows for residential and industrial use. The Site is located in a Special Mixed-Use District (MX). The reasonably anticipated future use conforms to applicable zoning laws and maps.

### **3.4.2 Applicable Comprehensive Community Master Plans or Land Use Plans**

According to the New York City Planning Commission, “The Special Mixed-Use District (MX) was established in 1997 to encourage investment in, and enhance the vitality of, existing neighborhoods with mixed residential and industrial uses in close proximity and create expanded opportunities for new mixed-use communities. New residential and non-residential uses (commercial, community facility and light industrial) can be developed as-of-right and be located side-by-side or within the same building. Pairing an M1 district with an R3 through R10 district (e.g. M1-2/R6) ensures a balanced variety of uses.” A copy of the zoning map is included in Appendix G.

### **3.4.3 Surrounding Property Uses**

The current, intended, and reasonably anticipated future land use of the Site and its surroundings are compatible with the selected remedy. The construction of a residential development conforms to recent development patterns in the area and current zoning.

### **3.4.4 Environmental Justice Concerns**

As per the “Potential Environmental Justice Areas in Northern Brooklyn, Kings County, New York,” the Site is in a potential Environmental Justice area. NYSDEC’s Office of Environmental Justice acts as an advocate on behalf of these areas, which are disproportionately affected by environmental burdens.

### **3.4.5 Land Use Designations**

There are no federal or state land use designations.

### **3.4.6 Population Growth Patterns**

The population growth patterns and projections support the current and anticipated future land use.

### **3.4.7 Accessibility to Existing Infrastructure**

The Site is accessible to existing infrastructure.

### **3.4.8 Proximity to Cultural Resources**

The Site is not in close proximity to a registered landmark.

### **3.4.9 Proximity to Natural Resources**

The East River is located approximately 0.15 miles to the west of the Site and Newtown Creek is located approximately 0.5 miles north-northeast of the Site. The Site is not located in close proximity to any other important federal, state, or local natural resources including waterways, wildlife refuges, wetlands, and critical habitats of endangered or threatened species.

### **3.4.10 Off—Site Groundwater Impacts**

Municipal water supply wells are not present in this area of New York City; therefore, groundwater from the Site does not affect municipal water supply wells or recharge areas.

### **3.4.11 Proximity to Floodplains**

According to the FEMA Preliminary Flood Insurance Rate Map (FIRM) dated 5 September 2007 (Map Number 3604970091F), the Site is not located in a floodplain.

### **3.4.12 Geography and Geology of the Site**

The Site geology is described in Section 2.3.

### **3.4.13 Current Institutional Controls**

There are currently no institutional controls being implemented at the Site.

## **3.5 SUMMARY OF THE SELECTED REMEDIAL ACTION**

Alternative I, a Track 1 remedy, will include the following tasks:

- Development and implementation of a Construction Health & Safety Plan (CHASP) and Community Air Monitoring Plan (CAMP) for the protection of on-site workers, community/residents, and the environment during remediation and construction activities.
- Design and construction of a support-of-excavation (SOE) system to facilitate the Track 1 remediation.
- Implementation of soil erosion, pollution, and sediment control measures in compliance with applicable laws and regulations.
- Demolition of the concrete slab at grade.



- Excavation, stockpiling, off-Site transport, and disposal of about 16,250 cubic yards of historic fill and solid waste that exceeds UUSCOs as defined by 6 NYCRR Part 375-6.8. Excavation will be to 16 ft bgs on the northern portion of Lots 17, 18, 20, and 21 or to the north of MW-40 (approximately 10,000 sq foot area) to remove material exceeding UUSCOs. The remaining portion of Lots 17, 18, 20, and 21 (approximately 26,000 sq foot area) will be excavated to 8 ft bgs, with the exception of one area in the central portion of the Site on Lot 17 surrounding SRI soil sample location B-05 (approximately 625 sq foot area or 50 cubic yards) which will be excavated to 10 ft bgs to remove PCB-material exceeding UUSCOs. The entirety of Lot 57 (approximately 13,000 sq foot area) will be excavated to 6 ft bgs.
- For development purposes, excavation will extend to 16 ft bgs throughout the Site and a total of 29,000 cubic yards of material will be removed.
- As part of waste characterization and for disposal purposes, delineation of elevated lead concentrations in soil in the vicinity of B-02 and B-07, installed during the SRI, and subsequent excavation and disposal of potentially hazardous lead-impacted historic fill material.
- Dewatering, characterization, and treatment of water accumulated in excavations prior to discharge to a NYSDEC approved sewer/sanitary line (pending permits), or localized dewatering with containerization, classification, and disposal at an approved receiving facility.
- Removal of five closed-in-place USTs on the Site, any unknown USTs encountered, and/or associated appurtenances (e.g., fill lines, vent lines, and electrical conduits) as well as decommissioning and off-Site disposal during redevelopment in accordance with DER-10, 6 NYCRR Part 613.9, NYSDEC CP-51, and other applicable NYSDEC UST closure requirements.
- Installation of a negative pressure enclosure system and/or utilization of alternative, similarly effective, odor suppression techniques (i.e., Rusmar foam or approved alternative) as needed and approved by the NYSDEC within the historical UST and petroleum excavation area. Rusmar foam or an approved alternative will be liberally applied during intrusive excavation work to where olfactory impacted material is encountered. Prior to export of olfactory impacted material offsite, a layer of Rusmar foam or an approved alternative will be applied to the top of the soil and covered with a tarp prior to exiting the Site.
- Collection and analysis of confirmation soil samples at the base of each tank and one per each sidewall.
- Screening for indications of contamination (by visual means, odor, and monitoring photoionization detectors [PIDs]) of excavated material during intrusive site work.
- Appropriate off-Site disposal of material removed from the Site in accordance with federal, state, and local rules and regulations for handling, transport, and disposal.
- Collection and analysis of confirmation soil samples at the proposed remediation depth in accordance with DER-10 to confirm a Track 1 remedy was achieved. All confirmation soil samples will be analyzed for the Part 375 list of VOCs, SVOCs, pesticides, PCBs, metals, PFAS, and 1,4-dioxane.
- Completion of an SVI Evaluation in accordance with DER-10 and NYSDOH Final Guidance on Soil Vapor Intrusion following remedial excavation activities and prior to occupancy.

Remedial activities will be performed in accordance with this RAWP and the Department-issued Decision Document under the oversight of a New York State-Licensed Professional Engineer. Deviations from the

RAWP and/or Decision Document will be promptly reported to the NYSDEC for approval and explained in the FER.

## 4. Remedial Action Program

### 4.1 GOVERNING DOCUMENTS

The primary documents governing the remedial action are summarized in this section.

#### 4.1.1 Standards, Criteria and Guidance

The following standards, criteria, and guidance are typically applicable to Remedial Action projects in New York State, and will be consulted and adhered to as applicable:

- 29 Code of Federal Regulations (CFR) Part 1910.120 – Hazardous Waste Operations and Emergency Response
- 6 NYCRR Part 371 – Identification and Listing of Hazardous Wastes
- 6 NYCRR Part 372 – Hazardous Waste Manifest System and Related Standards for Generators, Transporters and Facilities
- 6 NYCRR Subpart 373-4 – Facility Standards for the Collection of Household Hazardous Waste and Hazardous Waste from Conditionally Exempt Small Quantity Generators
- 6 NYCRR Subpart 374-1 – Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities
- 6 NYCRR Subpart 374-3 – Standards for Universal Waste
- 6 NYCRR Part 375 – Environmental Remediation Programs
- 6 NYCRR Part 376 – Land Disposal Restrictions
- 6 NYCRR Part 750 – State Pollutant Discharge Elimination System (SPDES) Permits
- CP-43 – Commissioner Policy on Groundwater Monitoring Well Decommissioning (December 2009)
- CP-51 – Soil Cleanup Guidance (2010)
- DER-10 – Technical Guidance for Site Investigation and Remediation (May 3, 2010)
- DER-23 – Citizen Participation Handbook for Remedial Programs (March 2010)
- NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006)
- TOGS 1.1.1 – Ambient Water Quality Standards & Guidance Values and Groundwater Effluent Limitations
- Screening and Assessment of Contaminated Sediment (Division of Fish, Wildlife and Marine Resources, June 2014)

#### 4.1.2 Site-Specific Construction Health & Safety Plan

A site-specific CHASP has been prepared (Appendix E). The CHASP will apply to remedial and construction-related work on Site. The CHASP provides a mechanism for establishing on-Site safe working conditions, safety organization, procedures, and PPE requirements during implementation of the remedy. The CHASP meets the requirements of 29 CFR 1910 and 29 CFR 1926 (which includes 29 CFR 1910.120 and 29 CFR 1926.65, respectively). The CHASP includes, but is not limited to, the following components:

- Organization and identification of key personnel
- Training requirements

- Medical surveillance requirements
- List of Site hazards
- Excavation safety
- Drill rig safety
- Work zone descriptions and monitoring procedures
- Personal safety equipment and PPE requirements
- Decontamination requirements
- Standard operating procedures
- Contingency plan
- CAMP
- Safety data sheets (SDS)

The Volunteer and associated parties preparing the remedial documents submitted to the State and those performing the construction work are responsible for the preparation of a CHASP and for performance of the work according to the CHASP and applicable laws. The CHASP and requirements defined in this RAWP pertain to remedial and ground-intrusive work performed at the Site until the issuance of a Certificate of Completion. The Site Safety Coordinator will be Brian Ferguson, a resume for whom is included in Appendix H. If required, confined space entry will comply with OSHA requirements to address the potential risk posed by combustible and toxic gasses.

#### **4.1.3 Quality Assurance Project Plan**

A Quality Assurance Project Plan (QAPP) has been prepared that describes the quality control components that will ensure that the proposed remedy accomplishes the remedial goals and RAOs and is completed in accordance with the design specifications. The QAPP is provided as Appendix I and includes:

- Responsibilities of key personnel and their organizations for the proposed remedy
- Qualifications of the quality assurance officer
- Sampling requirements including methodologies, quantity, volume, locations, frequency, and acceptance and rejection criteria
- Description of the reporting requirements for quality assurance activities including weekly quality assurance review reports

#### **4.1.4 Construction Quality Assurance Plan**

A Construction Quality Assurance Plan (CQAP) will be prepared by the Site Contractor which will describe the quality control components that will ensure that the proposed remedy accomplishes the remedial goals and RAOs and is completed in accordance with the design specifications. Because the remedy will be accomplished concurrently with building construction, the Contractor and construction manager will have the primary responsibility to provide construction quality. The CQAP will be provided to the NYSDEC prior to commencement of the remedial construction.

#### **4.1.5 Soil/Materials Management Plan**

A Soil/Materials Management Plan (SMMP) has been prepared that includes detailed plans for managing soils/materials that are disturbed at the Site, including excavation, handling, storage, transport, and disposal. The SMMP also includes controls that will be applied to these efforts to facilitate effective, nuisance-free performance in compliance with applicable federal, state, and local laws and regulations (see Section 5.4).

#### **4.1.6 Stormwater Pollution Prevention Plan**

The Site is exempt from the NYSDEC State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity (Permit No. GP-0-15-002) requirement as it is solely serviced by combined sewers. As such, a stormwater pollution prevention plan (SWPPP) is not required. The erosion and sediment controls will be in conformance with requirements presented in the New York State Guidelines for Urban Erosion and Sediment Control. As necessary, hay bales will be placed at locations upgradient of excavation areas to control stormwater runoff and surface water from entering or exiting the excavation. Catch basin inlets immediately adjacent to the work area will be protected to prevent disturbed soil from entering.

#### **4.1.7 Community Air Monitoring Program Plan**

Details of the CAMP are discussed in Section 5.4.11.

#### **4.1.8 Contractors Site Operations Plan**

The Remedial Engineer (RE) will review plans and submittals for this remedial project, and Contractor and subcontractor document submittals, and will confirm that plans and submittals are in compliance with this RAWP. The RE is responsible to ensure that later document submittals for this remedial project, including Contractor and subcontractor document submittals, are in compliance with this RAWP. Remedial documents, including Contractor and subcontractor document submittals, will be submitted to the NYSDEC and NYSDOH in a timely manner and prior to the start of work associated with the remedial document.

#### **4.1.9 Citizen Participation Plan**

Document repositories were established at the following locations and contain the applicable project documents:

Brooklyn Public Library  
Greenpoint Library  
Attn: Alexa Orr  
107 Norman Avenue  
Brooklyn, NY 11222  
Phone: (718)-389-4394  
Hours: Mon/Wed/Fri 10am-6pm  
Tues. 1pm-8pm  
Thurs. 10am-8pm  
Sat. 10am-5pm

Sun. Closed

Brooklyn Public Library  
Williamsburg Branch  
Attn: Catherine Skryzpek  
240 Division Avenue  
Brooklyn, NY 11211  
Phone: (718)-302-3485  
Hours: Mon/Wed/Fri 10am-6pm  
Tues. 1pm-8pm  
Thurs. 10am-8pm  
Sat. 10am-5pm  
Sun. Closed

Brooklyn Community Board 1  
Attn: Dealice Fuller  
435 Graham Avenue  
Brooklyn, NY 11211  
Phone: (718)-389-0009  
Hours: Call for appointment

A certification of mailing will be sent by the Volunteer to the NYSDEC project manager following the distribution of all fact sheets and notices. The Certification will include the following:

- Certification that the Fact Sheets were mailed;
- The date they were mailed;
- A copy of the fact sheet;
- A list of recipients (contact list); and
- A statement that the repository was inspected on (specific date) and that it contained all the applicable project documents

No change will be made to approved fact sheets authorized for release by NYSDEC without written consent of the NYSDEC. No other information, such as brochures and flyers will be included with the fact sheet mailing.

The NYSDEC approved Citizen Participation Plan for this project is included in Appendix F.

## **4.2 GENERAL REMEDIAL CONSTRUCTION INFORMATION**

### **4.2.1 Project Organization**

A project team for the Site was created based on qualifications and experience with personnel suited for successful completion of the project.

The following project personnel are anticipated for oversight of the RAWP implementation. Project personnel resumes are provided in Appendix H.

NYSDEC Case Manager  
NYSDOH Case Manager  
Remediation Engineer  
Principal/Qualified Environmental Professional  
Project Manager  
Haley & Aldrich Health & Safety Director  
Health & Safety Officer  
Field Team Leader/Quality Assurance Officer

Yuk Yin Wong  
Stephen Lawrence  
Scott Underhill, P.E.  
James Bellew  
Mari Conlon, P.G.  
Brian Fitzpatrick, CHMM  
Brian Ferguson  
Sarah Commisso, G.I.T

Haley & Aldrich personnel, under the direct supervision of the Qualified Environmental Professional and the RE, will be on-Site during implementation of the RAWP to monitor particulates and organic vapor in accordance with the CAMP. CAMP results that exceed specified action levels will be reported to the NYSDEC and NYSDOH.

Haley & Aldrich personnel will meet with the Construction Superintendent on a daily basis to discuss the plans for that day and schedule upcoming activities. Field personnel will document remedial activities. Field activities will be forwarded to the Field Team Leader and Project Manager on a daily basis and to the Qualified Environmental Professional and the RE on a weekly basis. Daily reports will also be submitted to the NYSDEC and NYSDOH case managers by noon the following business day.

Field personnel will screen excavations with a PID during ground-intrusive work. PID readings, including specifically elevated readings, will be recorded in the project field book (or on separate logs) and reported to the NYSDEC and NYSDOH. Field personnel under the direct supervision of the RE and Qualified Environmental Professional will collect confirmation samples from the base and sidewalls of the excavation in accordance with this RAWP.

Field observations and laboratory tests will be recorded in the project field book or on separate logs. Recorded field observations may take the form of notes, charts, sketches, and/or photographs. A photo log will be kept to document construction activities during remediation.

The Field Team Leader will maintain original field paperwork during performance of the remedy. Remedial activities will be documented in the monthly BCP progress reports. The Project Manager will maintain the field paperwork after completion and will maintain submittal document files.

#### **4.2.2 Remedial Engineer**

The RE for this project will be Scott Underhill. The RE is a registered professional engineer licensed by the State of New York. The RE will have primary direct responsibility for implementation of the remedial program at the site. The RE will certify in the FER that the remedial activities were observed by qualified environmental professionals under her supervision and that the remediation requirements set forth in this RAWP and other relevant provisions of ECL 27-1419 have been achieved in substantial conformance with the RAWP.

Under direction of the RE, the work of other contractors and subcontractors involved in aspects of the remedial construction will be documented, including soil excavation, stockpiling, confirmation sample collection, air monitoring, emergency spill response services, import of backfill, and management of waste transport and disposal.

The RE will review the pre-remedial plans submitted by contractors and subcontractors for substantial conformance with this RAWP and will provide a certification in the FER. The RE will provide the certifications listed below in Section 8.1.

#### **4.2.3 Remedial Action Construction Schedule**

The remedial action construction schedule is discussed below in Section 9.0 and included in Appendix J. The NYSDEC will be promptly notified of proposed changes, delays, and/or deviations to the schedule.

#### **4.2.4 Work Hours**

The hours for operation of remedial construction will either conform to the requirements of the NYCDOB construction code or to a site-specific variance issued by the NYCDOB. The NYSDEC will be notified by the Volunteer of variances issued by the NYCDOB. The NYSDEC reserves the right to deny alternate remedial construction hours.

#### **4.2.5 Site Security**

Site access will be controlled by gate entrances to the property. The Site perimeter will be secured with gated, signed, plywood fencing with restricted points of entry in accordance with the NYCDOB and New York City Department of Transportation (NYCDOT) permits and requirements. The purpose of the fencing is to limit site access to authorized personnel, protect pedestrians from Site activities, and maintain Site security.

#### **4.2.6 Traffic Control**

Site traffic will be controlled through designated points of access along Clay Street and Dupont Street as shown on Figure 15. Access points will be continuously monitored and if necessary, a flagging system will be used to protect workers, pedestrians, and authorized guests. Traffic will also be required to adhere to applicable local, state, and federal laws.

#### **4.2.7 Contingency Plan**

Contingency plans, as described below, have been developed to effectively deal with potential unexpected discovery of additional contaminated media or USTs.

#### **4.2.8 Discovery of Additional Contaminated Soil**

During remediation and construction, soil will be continuously monitored by the RE's field representatives via visual, olfactory, and instrumental field screening techniques to identify additional soil that may not be suitable for disposal at the NYSDEC-approved disposal facility. If such soil is identified, the suspected impacts will be confirmed by collecting and analyzing samples in accordance with the NYSDEC-approved facility's requirements. If the previously approved facility is not permitted to receive the impacted soil, the soil will be excavated and disposed of off-Site at a permitted facility that can receive the material.



Identification of unknown or unexpected contaminated media identified by screening during ground-intrusive Site work will be promptly communicated to the NYSDEC Project Manager. These findings will be detailed in the monthly BCP progress report.

#### **4.2.9 UST Removal/Discovery**

Previous investigations indicate that all known USTs present at the Site have been closed in place; however, there remains the possibility that unidentified tanks are still present. Closed in place USTs will have the inert contents evacuated and the shell cleaned prior to disposal. In the event a UST is discovered during excavation, it will be decommissioned as per the 6 NYCRR part 612.2 and 613.9 and DER-10 Section 5.5. After removal of the tank and residual contents, confirmatory post-excavation soil samples will be collected as outlined in DER-10 if deemed necessary by the NYSDEC and/or the RE. Post-excavation soil samples is not expected where the proposed excavation would extend below the UST, unless visual, olfactory, or instrumental field screening techniques indicate the potential for contamination. If petroleum impacted soils are encountered, they will be segregated, characterized, and disposed of at an appropriate offsite facility. Closure documentation including affidavits, bills of lading, and tank disposal receipts will be included in the FER. If necessary, the NYSDEC petroleum bulk storage registration will be updated. In the event USTs are encountered during ground-intrusive activities, the NYSDEC Project Manager will be promptly notified, and pertinent information will be included in the monthly BCP progress report.

#### **4.2.10 Worker Training and Monitoring**

Worker training and monitoring will be conducted in accordance with the Site-specific CHASP.

#### **4.2.11 Agency Approvals**

Permits or government approvals required for remedial construction have been or will be obtained prior to the start of remedial construction.

#### **4.2.12 Pre-Construction Meeting with the NYSDEC**

Prior to the start of remedial construction, a meeting will be held between the NYSDEC, RE, Volunteer, Construction Manager, and remediation contractor to discuss project roles, responsibilities, and expectations associated with this RAWP.

#### **4.2.13 Emergency Contact Information**

An emergency contact sheet that states the specific project contacts (with names and phone numbers) for use by NYSDEC and NYSDOH in the case of an emergency is included in the CHASP.

#### **4.2.14 Remedial Action Costs**

A detailed summary of the total estimated costs of the Track 1 and Track 2 remedies are included in Tables 1 and 2, respectively.

### **4.3 SITE PREPARATION**

#### **4.3.1 Mobilization**

Prior to commencing remedial construction, the remediation contractor will mobilize to the Site and prepare for remedial activities. Mobilization and site preparation activities may include the following:

- Identifying the location of aboveground and underground utilities (e.g., power, gas, water, sewer, and telephone), equipment, and structures as necessary to implement remediation;
- Mobilizing necessary remediation personnel, equipment, and materials to the Site;
- Constructing one or more stabilized construction entrances consisting of non-hazardous material at or near the site exit, which takes into consideration the Site setting and Site perimeter;
- Constructing an equipment decontamination pad for trucks, equipment, and personnel that come into contact with impacted materials during remediation; and
- Mark-out of hazardous lead-impacted area (if identified during waste characterization).

#### **4.3.2 Monitoring Well Decommissioning**

Monitoring wells will be decommissioned in accordance with NYSDEC CP-43 by an experienced driller with oversight from Haley & Aldrich. Decommissioning documentation will be provided in the FER.

#### **4.3.3 Erosion and Sedimentation Controls**

Since the planned earthwork activities will be below the adjacent sidewalk grade, full-time erosion and sedimentation measures are not anticipated. Best management practices for soil erosion will be implemented to minimize erosion and sedimentation offsite.

#### **4.3.4 Temporarily Stabilized Construction Entrance(s)**

Temporary stabilized construction entrances will be installed at the existing curb cuts along Clay Street and Dupont Street. The entrances will be covered with gravel or recycled concrete aggregate (RCA) and graded so that runoff water will be directed on site. Vehicles exiting construction areas will be cleaned using clean water or dry brushing, as needed, to remove site soil from the tires and undercarriages. The Contractor will protect and maintain the existing sidewalks and roadways at both site access points.

#### **4.3.5 Utility Marker and Easement Layouts**

The Volunteer and its Contractors are solely responsible for the identification of utilities and/or easements that might be affected by work under this RAWP and implementation of the required, appropriate, or necessary health and safety measures during performance of the work under this RAWP. The Volunteer and its Contractors are solely responsible for safe execution of the work performed under this RAWP. The Volunteer and its Contractors must obtain the necessary local, state, and/or federal permits or approvals that may be required to perform the work detailed in this RAWP. Approval of this RAWP by the NYSDEC does not constitute satisfaction of these requirements.

#### **4.3.6 Excavation Support**

Appropriate management of the structural stability of on-Site or off-Site structures during Site activities is the sole responsibility of the Volunteer and its Contractors. The Volunteer and its contractors are solely responsible for the safe execution of the work performed under this RAWP. The Volunteer and its Contractors must obtain the necessary local, state, and/or federal permits or approvals that may be required to perform the work detailed in this RAWP. Additionally, the Volunteer and its Contractors are solely responsible for the implementation of the required, appropriate, or necessary health and safety measures during performance of work conducted under this RAWP.

#### **4.3.7 Equipment and Material Staging**

The Contractor will notify the RE and the Volunteer, in writing with receipt confirmed, at least 30 calendar days in advance of pending site work mobilization. During mobilization, construction equipment will be delivered to the Site, temporary facilities constructed, and temporary utilities installed. The Contractor will place and maintain temporary toilet facilities within the work areas for usage by Site personnel.

#### **4.3.8 Truck-Inspection Station**

An outbound-truck inspection station will be set up at or near the Site exit. Before exiting the Site, trucks will be required to stop at the truck inspection station and will be examined for evidence of contaminated soil on the undercarriage, body, and wheels. If observed, soil and debris will be removed. Brooms, shovels, and potable water will be utilized for the removal of soil from vehicles and equipment, as necessary. The Contractor is responsible for collecting soil that is tracked immediately off-Site and returning the soil to the Site.

#### **4.3.9 Site Fencing**

The Site will be secured with a gated fence with appropriate signage maintained by the Contractor. The fence will limit access to authorized personnel and protect pedestrian from Site activities.

#### **4.3.10 Demobilization**

After remediation and construction is completed, the Contractor will be responsible for demobilizing equipment and materials not designated for off-site disposal. The RE's representative will document that the Contractor performs follow-up coordination and maintenance for the following activities:

- Removal of sediment and erosion control measures and disposal of materials in accordance with applicable rules and regulations
- Equipment decontamination
- Refuse disposal
- Removal of remaining contaminated material or waste

### **4.4 REPORTING**

Periodic reports and a FER will be required to document the remedial action. The RE, Scott Underhill, will be responsible for certifying the FER and is licensed to practice engineering in the State of New York.

Should Mr. Underhill become unable to fulfill this responsibility, another suitably qualified NYS Professional Engineer will take his place. Field reports will be included as appendices to the FER. In addition to the periodic reports and the FER, copies of the relevant Contractor documents will be submitted to the NYSDEC.

#### **4.4.1 Field Reports**

Reports providing a summary of activities for each day of active remedial work will be emailed to the NYSDEC and NYSDOH project managers on a daily basis. Reports will be submitted the day following activities. These reports will include:

- The project number, statement of activities, an update of the progress made, locations of excavation, and other remedial work performed
- Quantities of material imported and exported from the Site
- Status of on-Site soil/fill stockpiles
- A summary of citizen complaints including relevant details (i.e., name, phone number, basis of complaint, actions taken)
- A summary of CAMP results noting exceedances
- Photographs of notable Site conditions and activities

Reports are not intended to be the primary mode of communication for notifying NYSDEC of emergencies, requests for changes to the RAWP, or time critical information. However, these conditions if to occur, will be included in the daily reports. Emergency conditions and changes to the RAWP will be directly communicated to the NYSDEC Project Manager.

#### **4.4.2 Monthly Reports**

Monthly reports will consist of a summary of remedial work performed at the Site throughout the month and will include:

- Investigative or remedial actions relative to the Site during the reporting period
- Actions relative to the Site anticipated for the next reporting period
- Approved changes of work scope or schedule, if applicable
- Results of sampling or testing
- Deliverables submitted during the reporting period
- The approximate percentage of completion of the project at the Site
- Unresolved delays encountered that may affect the schedule
- Community participation (CP) plan activities during this reporting period and activities anticipated in support of the CP plan for the next reporting period
- All daily reports submitted to NYSDEC during the reporting period will be included as an appendix

#### **4.4.3 Photographs**

Photographs of the remedial activities will be taken and included in the FER with provided descriptions of the representative photographs.

#### 4.4.4 Complaint Management Plan

Complaints from the public regarding nuisance or other Site conditions will be addressed by notifying the NYSDEC of the complaint and investigating the cause/source of the issue. Records will be kept regarding the date and time of the complaint, the nature of the complaint, the type of communication (i.e., telephone, email, letter, etc.) and the name and contact information of the complaint provider. Corrective measures will then be formulated and put into place to address the complaint as soon as possible. Resolution will be documented and submitted to the NYSDEC. A representative of the Volunteer will reply within two weeks of receipt to the complaint provider to ensure resolution.

#### 4.4.5 Deviations from the RAWP

Deviations from the RAWP will be communicated to and coordinated with the NYSDEC in advance. Notification will be provided to the NYSDEC by telephone and email for conditions requiring immediate action (e.g., conditions judged to be a danger to the surrounding community). Based on the significance of the deviation, an addendum to this RAWP may be necessary and will include:

- Reasons for deviating from the approved RAWP
- Approval process to be followed for changes/editions to the RAWP
- Effect of the deviations on the overall remedy

## 5. Remedial Action: Material Removal from the Site

Remediation will include the excavation, stockpiling, off-Site transport, and disposal of about 16,250 cubic yards of historic fill and solid waste that exceeds UUSCOs as defined by 6 NYCRR Part 375-6.8. Installation of a negative pressure enclosure system and/or utilization of alternative, similarly effective, odor suppression techniques (i.e., Rusmar foam or approved alternative) as needed and approved by the NYSDEC within the historical UST and petroleum excavation area. Rusmar foam or an approved alternative will be liberally applied during intrusive excavation work to where olfactory impacted material is encountered. Prior to export of olfactory impacted material offsite, a layer of Rusmar foam or an approved alternative will be applied to the top of the soil and covered with a tarp prior to exiting the Site.

### 5.1 SOIL CLEANUP OBJECTIVES

SCOs for the site will be the Track 1 UUSCO concentrations listed in Table 3. Soil and materials management will be conducted in accordance with the SMMP as described below. Soil sample locations and results that exceed the UUSCOs are shown on Figures 3 and 4. UST closures will, at a minimum, conform to criteria defined in DER-10.

### 5.2 REMEDIAL PERFORMANCE EVALUATION (CONFIRMATION SAMPLING)

#### 5.2.1 Soil Sampling Frequency

One confirmation soil sample will be collected for every 900 square feet of excavation base (16 ft bgs) site-wide in accordance with NYSDEC DER-10, or at an alternative frequency approved by NYSDEC.

Confirmation samples will be collected to confirm that UUSCOs have been achieved.

A total of 55 confirmation samples from the bottom of the proposed remedial excavation depth, plus QA/QC samples, will be collected based on an excavation footprint of 49,000 square feet as shown on Figure 13. If results of a confirmation soil sample do not comply with the UUSCOs, then the site will achieve a Track 2 remedy with RRSCOs, and these samples become documentation samples.

#### 5.2.2 UST Confirmation Sampling

Confirmation samples will be collected from the base of each UST and one per each sidewall as shown on Figure 14 and will be analyzed for the Part 375 list of VOCs, SVOCs, pesticides, PCBs, metals, PFAS, and 1,4-dioxane.

#### 5.2.3 Methodology

Confirmation soil samples will be collected from the bottom of the proposed remedial excavation depth in accordance with NYSDEC DER-10 to document remedial performance and will be analyzed for the Part 375 list of VOCs, SVOCs, pesticides, PCBs, metals, PFAS, and 1,4-dioxane. Samples will be collected into laboratory-provided bottle ware. VOCs will be collected into Terracores or Encores. Samples will be transported under chain of custody protocol to an ELAP certified laboratory. Should additional soil

samples be deemed necessary (e.g., additional tank closure, unknown environmental condition through visual evidence of a remaining source, over-excavation of failed confirmation sample), confirmation sampling will be conducted in accordance with NYSDEC DER-10.

#### 5.2.4 QA/QC

Quality control procedures for confirmation soil sampling are included in the QAPP (refer to Appendix I). Confirmation analytical results will be provided in the NYSDEC's electronic data deliverable (EDD) format for EQUIS™. Guidance on the sampling frequency is presented in NYSDEC DER-10 Section 5.4.

The QA/QC procedures required by the NYSDEC Analytical Services Protocol (ASP), and SW-846 methods will be followed. This will include instrument calibration, standard compound spikes, surrogate compound spikes, and analysis of quality control samples. The laboratory will provide sample bottles, which will be pre-cleaned and preserved. Where there are differences in the SW-846 and NYSDEC ASP requirements, the NYSDEC ASP will take precedence.

#### 5.2.5 Data Validation

ASP Category B deliverables will be prepared for remedial performance samples collected during implementation of this RAWP. Data Usability Summary Reports (DUSR) will be prepared by a qualified data validator and the findings will be reported in the FER.

#### 5.2.6 Reporting

Analytical laboratories that analyze confirmation soil samples, prepare results, and perform contingency sampling will be NYSDOH ELAP-certified.

### 5.3 ESTIMATED MATERIAL REMOVAL QUANTITIES

Excavation on-Site for the proposed redevelopment plan is anticipated to generate approximately 29,000 cubic yards of soil.

### 5.4 SOIL/MATERIALS MANAGEMENT PLAN

This section presents the approach to management, disposal, and reuse of soil, fill, and materials to be excavated from the Site. This plan is based on the current knowledge of Site conditions and will be altered as necessary. Field personnel, under the direction of the RE, will monitor and document the handling and transport of material removed from the Site for disposal as a regulated solid waste. Field personnel, under the direction of the RE, will assist the remediation contractor in identifying impacted materials during remediation, determining materials suitable for direct load out versus temporary on-Site stockpiling, selection of samples for waste characterization, if necessary, and determining the proper off-Site disposal facility. Separate stockpile areas will be constructed as needed for the various materials to be excavated or generated in order to avoid comingling impacted with nonimpacted soil.

#### 5.4.1 Soil Screening Methods

Visual, olfactory, and instrumental soil screening and assessment will be performed during remediation and development-related ground intrusive activities into known or potentially contaminated material. Soil screening will be performed regardless of when the invasive work is done and will include excavation and invasive work performed during the remedy and development, such as excavations for foundations and utility work.



### 5.4.2 Stockpile Methods

Stockpiles will be used as necessary to separate and stage excavated material pending loading or characterization sampling. Separate stockpile areas will be constructed to avoid comingling materials. Stockpile areas will meet the following minimum requirements:

- Excavated soil will be placed onto a minimum thickness of 6 mil low-permeability liner of sufficient strength and thickness to prevent puncture during use; separate stockpiles will be created where material types are different. The use of multiple layers of thinner liners is permissible.
- Efforts will be made to place and remove the soil to minimize the potential to jeopardize the integrity of the liner.
- Stockpiles will be covered at the designated times (see below) with minimum 6-mil plastic sheeting or tarps which will be securely anchored to the ground. Stockpiles will be routinely inspected, and broken sheeting covers will be promptly replaced.
- Stockpiles will be covered upon reaching their capacity (approximately 1,000 cubic yards) until ready for loading. Stockpiles that have not reached their capacity will be covered at the end of each workday.
- Each stockpile will be encircled with silt fences and hay bales, as needed, to contain and filter particulates from rainwater that has drained off the soils and to mitigate the potential for surface water run-off.
- Stockpiles will be inspected at a minimum of once daily and after every storm event.
- Stockpiling hazardous lead-impacted material on-Site will be avoided as necessary, and material will be live-loaded into trucks permitted to transport hazardous waste.

### 5.4.3 Materials Excavation and Load Out

Field personnel, under the supervision of the RE, will monitor ground-intrusive work and the excavation and load-out of excavated material.

Loaded vehicles leaving the Site will be appropriately lined, securely covered, manifested, and placarded in accordance with the appropriate federal, state, and local requirements, including applicable transportation requirements (i.e., New York State Department of Transportation [NYSDOT] and NYCDOT requirements). Trucks hauling historic fill material will not be lined unless free liquids are present, or the material is grossly impacted. Trucks hauling hazardous lead impacted material will be lined and covered. Hazardous wastes derived from the site will be stored, transported, and disposed of in compliance with applicable local, state, and federal regulations.

A truck wash will be operated on Site. Trucks will be washed, as necessary, before leaving the Site, and Site ingress and egress points will be cleaned of dirt and other materials to prevent material generated during remediation and development from being tracked off-Site.

The Volunteer and associated parties preparing the remedial documents submitted to the NYSDEC and the parties performing this work, are responsible for the safe performance of ground Intrusive work, the

structural integrity of excavations, and for structures that may be affected by excavations (such as building foundations and bridge footings).

The Volunteer and associated parties will ensure that Site development activities will not interfere with, or otherwise impair or compromise, remedial activities proposed in this RAWP. Development-related grading cuts and fills will not be performed without NYSDEC approval and will not interfere with, or otherwise impair or compromise, the performance of remediation required by this RAWP. Mechanical processing of historic fill and contaminated soil on-Site is prohibited unless otherwise approved by NYSDEC.

Primary contaminant sources (including, but not limited to, tanks and hotspots) identified during Site characterization, the RI, and implementation of the remedy will be surveyed by a surveyor licensed to practice in the State of New York. The excavation will be surveyed, and survey information will be shown on maps to be included with the FER.

#### **5.4.4 Materials Transport Off-Site**

Transport of materials will be performed by licensed haulers in accordance with appropriate local, state, and federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded. Trucks headed to disposal facilities will travel west on Dupont Street to Franklin Street, north on Franklin Street to Clay Street, east on Clay Street to McGuinness Boulevard, south on McGuinness Boulevard, and south onto I-278, Brooklyn-Queens Expressway or other routes approved by the NYSDEC. Truck routes are shown on Figure 15.

Loaded trucks will exit in the vicinity of the Site using approved truck routes. These routes are the most appropriate route to and from the Site and take into account the following:

- Limiting transport through residential areas and past sensitive sites
- Use of city mapped truck routes
- Prohibiting off-site queuing of trucks entering the facility
- Limiting total distance to major highways
- Promoting safety in access to highways
- Overall safety in transport
- Community input (where necessary)

Trucks will be prohibited from excessive stopping and idling in the neighborhood outside of the Site. Material transported by trucks exiting the Site will be secured with tight-fitting covers. Loose fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, or hazardous lead-impacted material, truck liners will be used.

#### **5.4.5 Materials Disposal Off-Site**

Disposal facilities have not been determined at the time of this report submittal; however, facility determination will be reported to the NYSDEC Project Manager prior to off-Site transport and disposal of excavated material. About 16,250 cubic yards of historic fill and solid waste that exceeds UUSCOs. Additional potentially hazardous lead impacted soil, if encountered, will also be excavated and removed from the Site. Soil/fill/solid waste excavated and removed from the Site will be treated as contaminated

and regulated material and will be disposed in accordance with local, state (including 6NYCRR Part 360), and federal regulations.

Hazardous lead identified on Site will be managed as a D008 hazardous waste in accordance with applicable federal, state, and local regulations. As such, the handling, transport, and disposal of this fill material is subject to USEPA and the OSHA HAZWOPER regulations. The presence of hazardous waste requires compliance with both federal and state regulations and the following requirements:

- Hazardous waste disposal requires obtaining a United States EPA RCRA generator ID number
- Hazardous waste must be transported to a facility permitted by RCRA to accept hazardous waste
- Hazardous waste must be segregated and cannot be comingled with other Site material
- Hazardous waste must be transported and disposed by properly-permitted (Part 364) transporters and facilities

If disposal of soil/fill from this Site is proposed for unregulated disposal (i.e., clean soil removed for development purposes), a formal request with an associated plan will be made to NYSDEC's Project Manager. Unregulated off-Site management of materials from this Site is prohibited without formal NYSDEC approval. Material that does not meet UUSCOs, such as nonhazardous historic fill material, contaminated soil, and hazardous lead-impacted material excavated, is prohibited from being taken to a New York State recycling facility (6 NYCRR Part 360-16 Registration Facility). Non-hazardous historic fill material, contaminated soil, and hazardous lead-impacted material transported off-Site will be handled, at a minimum, as a solid waste per 6 NYCRR Part 360.

The following documentation, to be included in the FER, will be obtained for each disposal location used in this project to fully demonstrate and document that the disposal of material derived from the Site conforms to applicable laws:

- A letter from the RE or Volunteer to the receiving facility describing the material to be disposed of and requesting formal written acceptance of the material. This letter will state that material to be disposed of is contaminated material generated at an environmental remediation site located in New York State. The letter will provide the project identity and the name and phone number of the RE. The letter will include as an attachment a summary of chemical data for the material being transported (including waste characterization and RI data); and
- A letter from each receiving facility stating that it is in receipt of the correspondence (above) and acceptance of the material is approved.

#### **5.4.6 Materials Reuse On-Site**

Materials reuse is not anticipated at the Site.

#### **5.4.7 Fluids Management**

Liquids removed from the Site, including dewatering fluids, will be handled, transported, and disposed of in accordance with applicable local, state, and federal regulations. Liquids discharged into the New York City sewer system will be addressed through approval by NYCDEP. Based on the depth to water, dewatering is anticipated to facilitate excavation of material that exceeds the UUSCOs and construction of foundation components.

A dewatering and treatment system will be designed by the Remediation Contractor's NYS-licensed Professional Engineer. The water table is encountered between 5.17 to 10.02 ft bgs across the Site. During excavation and installation of the foundation, groundwater management will be required to facilitate construction. The excavation will extend below the water table; therefore, the Contractor will implement appropriate measures to assure that dewatering activities do not result in settling that may damage adjacent structures. An on-Site dewatering system will be installed to collect the groundwater seepage during the excavation. Groundwater will be collected from within the active work area using sumps or trenches. Pumps will be used to convey collected groundwater from the collection point(s) to a temporary on-Site treatment and/or collection system.

Prior to mobilization, analytical data will be distributed to facilities capable of handling, treating, and/or disposing of groundwater representative of the Site. If supplemental data is needed, a representative groundwater sample will be collected from an existing on-Site groundwater observation well. The primary treatment will consist of a temporary holding tank for the settling of fines prior to offloading, transportation, and disposal. The system's treatment processes may include equalization, oil/water separation, filtration, and carbon adsorption as required by the permit prior to discharge. At the start-up of the system, the effluent water will be sampled for analysis of the NYCDEP sewer discharge parameters, if discharging to a NYCDEP sewer or sanitary line, in order to assess if the system is working. If there are exceedances of the NYCDEP criteria, the system will be taken off-line and adjusted to meet the discharge requirements. Once it is determined that the system meets the NYCDEP criteria, the system will be restarted, and effluent samples will be collected and analyzed as stipulated in the dewatering permit. Effluent waters will be containerized in the interim while awaiting analytical results. No dewatering discharge will commence prior to city approval.

Dewatered fluids will not be recharged back to the land surface or subsurface. Dewatering fluids will be managed off-Site. Discharge of water generated during remedial construction to surface waters (i.e., a local pond, stream, and/or river) is prohibited without a SPDES permit.

Evaluation of the dewatering system design is ongoing, but at minimum will consist of either sumps or well points transferred to an on-Site oil water separator and carbon treatment system. Additionally, a sheet-pile barrier will be installed on the border between the NuHart East and the neighboring NuHart West Site to mitigate the impact of the dewatering operations to the NuHart West LNAPL plume. Given the use of sheet piling and underlying clay layer, the dewatering flow rate is anticipated to be less than 10,000 gallons per day. A final dewatering system design will be presented in the NYSDEC Long Island Well and NYCDEP Discharge permit package.

#### **5.4.8 Backfill from Off-Site Sources**

Materials proposed for import onto the Site are not anticipated as part of the Track 1 remedy. However, if imported materials is proposed, documentation of the material will be provided to NYSDEC for approval prior to its use on Site. Imported soil for backfill must meet the requirements of 6 NYCRR Part 375-6.7(d) and NYSDEC DER-10 Section 5.4(e), Table 5.4(e)10. Material from industrial sites, spill sites, other environmental remediation sites, or other potentially contaminated sites will not be imported to the Site. Solid waste will not be imported onto the Site.

Backfill material will consist of clean fill (as described in the following paragraph) or other acceptable fill material such as virgin stone from a quarry or recycled concrete aggregate (RCA). If RCA is imported to the site, it will be from a NYSDEC-registered facility in compliance with 6 NYCRR Part 360 registration

and permitting requirements for the period of acquisition of RCA. RCA imported from compliant facilities will not require chemical testing, unless required by the NYSDEC under the terms for operation of the facility. RCA imported to the site must be derived from recognizable and uncontaminated concrete, with no more than 10% by weight passing through a No. 80 sieve. RCA is not acceptable for and will not be used as cover or drainage material.

Imported soil (i.e., clean fill) will meet the UUSCOs. Non-compliant soils will not be imported to the Site. Clean fill will be segregated at a source/facility that is free of environmental contaminants. Qualified environmental personnel will collect representative samples at a frequency consistent with NYSDEC CP-51. The samples will be analyzed for Part 375 VOCs, SVOCs, pesticides/herbicides, PCBs, cyanide, metals including trivalent and hexavalent chromium, 1,4-dioxane, and PFAS by a NYSDOH ELAP-certified laboratory. Upon meeting these criteria, the certified-clean fill will be transported to the Site and segregated from impacted material, as necessary, on plastic sheeting until used as backfill. Trucks entering the Site with imported soils will be secured with tight fitting covers.

Soils that meet “exempt” fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this Site, will not be imported onto the Site without prior approval by the NYSDEC. The contents of this RAWP and NYSDEC approval of this RAWP should not be considered an approval for this purpose.

#### **5.4.9 Stormwater Pollution Prevention**

Silt fence or hay bales will be installed around the perimeter of the remedial construction area, as required. Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook maintained at the Site and available for inspection by the NYSDEC. Necessary repairs to silt fence and/or hay bales will be made immediately. Accumulated sediments will be removed as required to keep the barriers and hay bale checks functional. Manufacturer's recommendations will be followed for replacing silt fence damaged due to weathering. Erosion and sediment control measures identified in the RAWP will be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they will be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to the sewer system.

#### **5.4.10 Contingency Plan**

As discussed above in Section 4.2.7, if USTs or other previously unidentified contaminant sources are found during on-Site remedial excavation or development-related construction, sampling will be performed on product, if encountered, and surrounding subsurface materials (e.g., soil, stone). Chemical analyses will include Part 375 VOCs, SVOCs, PCBs, pesticides, and metals. Analyses will not be otherwise limited without NYSDEC approval. Identification of unknown or unexpected contaminated media identified by screening during ground-intrusive work will be promptly communicated by phone to the NYSDEC Project Manager. These findings will also be detailed in the monthly BCP progress report.

##### **5.4.10.1 Extreme Storm Preparedness and Response Contingency Plan**

Damage from flooding or storm surge can include dislocation of soil and stockpiled materials, dislocation of site structures and construction materials and equipment, and dislocation of support of excavation structures. Damage from wind during an extreme storm event can create unsafe or unstable structures,

damage safety structures and cause downed power lines creating dangerous site conditions and loss of power. In the event of emergency conditions caused by an extreme storm event, the Contractor will undertake the following steps for site preparedness prior to the event and response after the event.

Preparations in advance of an extreme storm event will include the following: containerized hazardous materials and fuels will be removed from the property; loose materials will be secured to prevent dislocation and blowing by wind or water; heavy equipment such as excavators and generators will be removed from excavated areas, trenches and depressions on the property to high ground, or removed from the property; an inventory of the property with photographs will be performed to establish conditions for the site and equipment prior to the event; stockpile covers for soil and fill will be secured by adding weights such as sandbags for added security and worn or ripped stockpile covers will be replaced with competent covers; stockpiled hazardous wastes will be removed from the property; stormwater management systems will be inspected and fortified, including, as necessary: clean and reposition silt fences, hay bales; clean storm sewer filters and traps; and secure and protect pumps and hosing.

At the conclusion of an extreme storm event, as soon as it is safe to access the property, a complete inspection of the property will be performed. A site inspection report will be submitted to NYSDEC at the completion of site inspection and after the site security is assessed. Site conditions will be compared to the inventory of site conditions and material performed prior to the storm event and significant differences will be noted. Damage from storm conditions that result in acute public safety threats, such as downed power lines or imminent collapse of buildings, structures, or equipment will be reported to public safety authorities via appropriate means such as calling 911. Petroleum spills will be reported to NYSDEC within 2 hours of identification and consistent with State regulations. Emergency and spill conditions will also be reported to NYSDEC. Public safety structures, such as construction security fences will be repaired promptly to eliminate public safety threats. Debris will be collected and removed. Dewatering will be performed in compliance with existing laws and regulations and consistent with emergency notifications, if any, from proper authorities. Eroded areas of soil including unsafe slopes will be stabilized and fortified. Dislocated materials will be collected and appropriately managed. Support of excavation structure will be inspected and fortified as necessary. Impacted stockpiles will be contained and damaged stockpile covers will be replaced. Stormwater control systems and structures will be inspected and maintained as necessary. If soil or fill materials are discharged off site to adjacent properties, property owners and NYSDEC will be notified, and a corrective measure plan designed to remove and clean dislocated material will be submitted to NYSDEC and implemented following approval by NYSDEC and granting of site access by the property owner. Impacted offsite areas may require characterization based on site conditions, at the discretion of NYSDEC. If onsite petroleum spills are identified, a qualified environmental professional will determine the nature and extent of the spill and report to NYSDEC's spill hotline at DEC 800-457-7362 within statutory defined timelines. If the source of the spill is ongoing and can be identified, it should be stopped if this can be done safely. Potential hazards will be addressed immediately, consistent with guidance issued by NYSDEC.

A site inspection report will be submitted to NYSDEC at the completion of site inspection. Site conditions will be compared to the inventory of site conditions and material performed prior to the storm event and significant differences will be noted. The site inspection report will be sent to the NYSDEC project manager and will include the site name, address, tax block and lot, site primary and alternate contact name and phone number. Damage and soil release assessment will include: whether the project had stockpiles; whether stockpiles were damaged; photographs of damage and notice of plan for repair; report of whether soil from the site was dislocated and whether any of the soil left the site; estimates of

the volume of soil that left the site, nature of impact, and photographs; description of erosion damage; description of equipment damage; description of damage to the remedial program or the construction program, such as damage to the support of excavation; presence of on-site or off-site exposure pathways caused by the storm; presence of petroleum or other spills and status of spill reporting to NYSDEC; description of corrective actions; schedule for corrective actions. This report should be completed and submitted to the NYSDEC project manager with photographs within 24 hours of the time of safe entry to the property after the storm event.

#### 5.4.11 Community Air Monitoring Plan

The Community Air Monitoring Plan will require real-time monitoring for PM-10 particulates (i.e., dust) and VOCs at the upwind and downwind perimeters when demolition activities and ground intrusive activities, including soil/waste excavation, soil handling, test pit excavation and/or trenching, are in progress at the Site. The CAMP aims to provide protection for residents in the designated work area and residents of the downwind community from potential airborne releases that directly result from the remedial construction activities conducted at the Site. Adherence to the monitoring action levels specified in the CAMP requires monitoring and, when necessary, corrective actions to abate emissions, and/or shutdown work. The CAMP also helps to confirm that work activities do not spread contamination off-Site through the air. In addition, visual and olfactory observations will be made to keep dust and odors at a minimum around the work areas. VOCs will be monitored using PIDs, and particulates will be monitored using TSI DustTrak Environmental Monitor (DustTraks) equipment. Readings will be recorded every 15-minutes at the Site by field personnel.

The following actions will be taken based on monitoring of particulate concentrations:

- If the downwind PM-10 particulate level is 100  $\mu\text{g}/\text{m}^3$  greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Work will continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150  $\mu\text{g}/\text{m}^3$  above the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150  $\mu\text{g}/\text{m}^3$  above the upwind level, work will be stopped, and a re-evaluation of activities initiated. Work will resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150  $\mu\text{g}/\text{m}^3$  of the upwind level and in preventing visible dust migration.

The following actions will be taken based on VOC monitoring:

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities will resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities will resume provided that the total



organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less, but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities will be shut down.

A Site-Specific Community Air Monitoring Plan is included as Appendix K.

#### 5.4.12 Odor, Dust and Nuisance Control Plan

Dust, odor, and nuisance controls will be accomplished by the remediation contractor as described in this section.

##### Odor Control

This odor control plan is capable of controlling emissions of nuisance odors off-Site. Specific odor control methods to be used if needed will include application of foam suppressants or tarps over the odor or VOC source areas. If nuisance odors are identified, work will be halted, and the source of odors will be identified and corrected. Work will not resume until nuisance odors have been abated. The NYSDEC and NYSDOH will be notified of odor events and of other complaints about the project. Implementation of odor controls is the responsibility of the Contractor. Monitoring odor emission, including the halt of work, will be the responsibility of the RE or his/her designated representative.

Necessary means will be employed to prevent on- and off-Site nuisances. At a minimum, procedures will include: (a) limiting the area of open excavations; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (a) direct load-out of soils to trucks for off-Site disposal; (b) use of chemical odorants in spray or misting systems; and (c) use of staff to monitor odors in surrounding neighborhoods.

Where odor nuisances have developed during remedial work and cannot be corrected, or where the release of nuisance odors cannot otherwise be avoided due to on-Site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering excavation and handling areas under tented containment structures equipped with appropriate air venting/filtering systems.

##### Dust Control

A dust suppression plan that addresses dust management during ground-intrusive on-Site work will include, at a minimum: (a) use of a dedicated water distribution system, on-Site water truck for road wetting, or an alternate source with suitable supply and pressure for use in dust control; (b) gravel used for on-Site roads to provide a clean and dust-free road surface; and (c) on-Site roads will be limited in total area to minimize the area required for water spraying.

##### Other Nuisances

A plan for rodent control will be developed and used by the remediation contractor during Site



preparation (including clearing and grubbing) and during remedial work. A plan for noise control will be developed and used by the remediation contractor during Site preparation and remedial work and will conform, at a minimum, to the NYCDEP noise control standards.

## **6. Residual Contamination to Remain On-Site**

Residual contaminated soil and groundwater will not exist beneath the development footprint after the Track 1 remedy is complete; therefore, ECs and ICs will not be required to protect human health and the environment.

## **7. Engineering Controls**

If Track 1 SCO's are unable to be met and a Track 2 remedy is achieved, a composite cover system consisting of 4 inches of subbase (recycled concrete aggregate) overlain by a 4-inch concrete slab and installation of a waterproofing/vapor barrier will be installed.

## 8. Final Engineering Report

A FER will be submitted to the NYSDEC following implementation of the remedy defined in this RAWP. The FER will be prepared in conformance with NYSDEC DER-10 and will include the following:

- Documentation that the remedial work required under this RAWP has been completed and has been performed in substantial conformance with this plan.
- A summary of the locations and characteristics of material removed from the Site including the surveyed map(s) of each area, as necessary.
- As-built drawings for constructed elements, certifications, manifests, and bills of lading.
- A description of the changes to the remedy from the elements provided in the RAWP and associated design documents, if any.
- A tabular summary of performance evaluation sampling results and material characterization results and other sampling and chemical analyses performed as part of the remedy.
- Written and photographic documentation of remedial work performed under this remedy.
- A summary of confirmation sampling results to show that remaining soil left on-Site meets the Track 1 UUSCOs.
- If necessary, a summary of remaining contamination that exceeds the Track 1 UUSCOs and an explanation for why the material was not removed as part of the remedy. A table and a map that shows remaining contamination in excess of the Track 1 UUSCOs would also be included.
- Documentation of treatment and/or disposal of material removed from the Site, including excavated contaminated soil, historic fill, solid waste, hazardous waste, non-regulated material, and fluids. Documentation associated with the disposal of material must also include records and approvals for receipt of the material.
- Documentation of the origin and chemical quality of each material type imported onto the Site.

Before approval of the FER and issuance of a Certificate of Completion, the daily or weekly reports and monthly BCP progress reports must be submitted in digital format (i.e. PDF).

### 8.1 CERTIFICATIONS

The following certification will appear in front of the FER Executive Summary. The certification will be signed by the RE, Scott Underhill, who is a NYS-licensed Professional Engineer. The certification will be appropriately signed and stamped.

The certification will include the following statements:

*I, \_\_\_\_\_, certify that I am currently a NYS registered professional engineer, I had primary direct responsibility for the implementation of the subject remedial program, and I certify that the Remedial Work Plan was implemented and that all remediation activities were completed in substantial conformance with the DER-approved Remedial Work Plan.*

*I certify that all information and statements in this certification are true. I understand that a false statement made herein is punishable as Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.*

*It is a violation of Article 145 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by any New York State licensed engineer in accordance with Section 7209(2), Article 145, New York State Education Law.*

*If the Remedial Action Work Plan identifies time frames to be achieved by the remedial program, the certification will include: The data submitted to DER demonstrates that the remediation requirements set forth in the Remedial Work and all applicable statutes and regulations have been or will be achieved in accordance with the time frames, if any, established in the work plan.*

## **9. Schedule**

Mobilization for implementation of the RAWP is expected to take about two to four weeks. Once mobilization is complete, remediation of the Site will proceed. The remedy, which will be implemented in accordance with this RAWP, is anticipated to take about 12 to 14 months to complete. A FER will be drafted following completion of the remedy and subsequently submitted to the NYSDEC for review and approval. A project schedule is included in Appendix J.

## References

1. Supplemental Remedial Investigation Report. 22-32 Clay Street & 67-93 Dupont Street, Brooklyn, New York. Prepared by Haley & Aldrich of New York, prepared for Dupont Street 1 LLC. February 2022.
2. Report of Geotechnical Investigation. 26 Clay Street, Brooklyn, New York. Prepared by JZN Engineering. Prepared for 49 Dupont Street 1, LLC. August 2021.
3. Brownfield Cleanup Program Application. 22-32 Clay Street & 67-93 Dupont Street, New York. Prepared for Dupont Street 1 LLC by Haley & Aldrich of New York for submission to the New York State Department of Environmental Conservation. Submitted in July 2021.
4. Remedial Investigation Report. 93 Dupont Street – Block 2487, Lot 57, Brooklyn, New York. Prepared by GZA GeoEnvironmental of New York, prepared for Dupont Street Developers LLC. December 2016.
5. Remedial Investigation Report. 280 Franklin Street, Brooklyn, New York. Prepared by Ecosystems Strategies, Inc., prepared for Dupont Street Developers LLC. July 2015.
6. Program Policy DER-10, “Technical Guidance for Site Investigation and Remediation,” New York State Department of Environmental Conservation, May 2010.
7. Phase II Site Assessment. 49-55 Dupont Street, Brooklyn, New York. Prepared by Advanced Site Restoration, LLC, prepared for 49 Dupont Realty Corporation. March 2007.
8. Phase II Investigation. Prepared by Environmental Business Consultants, prepared for Keren Star Management. August 2007.
9. Underground Storage Tank Closure Report. 49-55 Dupont Street, Brooklyn, New York. Prepared by Advanced Site Restoration, LLC, prepared for 49 Dupont Realty Corporation. July 2006.

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## TABLES



**Table 1. Alternative I Remedial Cost Estimate**

Former NuHart East Site  
 22-32 Clay Street 67-93 Dupont Street  
 Brooklyn, New York  
 NYSDEC BCP Site C224287

Consulting/Engineering Costs					
Task	Description	Unit	Unit Cost	Quantity	Total Cost
1	Waste Characterization and Lead Delineation	Lump Sum	\$ 95,000	1	\$ 95,000
2	Program Management (NYSDEC/NYSDOH Correspondence, Daily/Weekly/Monthly Reporting, etc.)	Month	\$ 15,000	14	\$ 210,000
3	Remedial Oversight	Month	\$ 30,000	14	\$ 420,000
4	Confirmation Sampling	Sample	\$ 1,000	60	\$ 60,000
5	Closure Reporting and COC Coordination (including Site Management Plan)	Lump Sum	\$ 90,000	1	\$ 90,000
6	Annual Site Management (quarterly groundwater sampling, engineering control monitoring, etc.)	Year	\$ 40,000	4	\$ 160,000
Consulting/Engineering Subtotal					\$ 1,035,000
Contractor Costs					
Task	Description	Unit	Unit Cost	Quantity	Total Cost
1	Mobilization/Demobilization, Site Maintenance, Security, etc.	Allowance	\$ 350,000	1	\$ 350,000
2	Truck Wash Station	Month	\$ 25,000	14	\$ 350,000
3	Management/Handling Contaminated Material	Cubic Yard	\$ 40	16,250	\$ 650,000
4	Support of Excavation	Linear Foot	\$ 4,000	1,020	\$ 4,080,000
5	Transport and Disposal of Fill Material	Ton	\$ 75	25,950	\$ 1,946,250
6	Transport and Disposal of Hazardous Material (PCBs)	Ton	\$ 200	50	\$ 10,000
7	Transport and Disposal of Hazardous Material (Lead)	Ton	\$ 275	2,000	\$ 550,000
8	Dewatering System	Month	\$ 75,000	14	\$ 1,050,000
9	Underground Storage Tank Removal	Allowance	\$ 75,000	5	\$ 375,000
10	Composite Cover System	Allowance	\$ 100,000	1	\$ 100,000
Contractor Subtotal					\$ 9,461,250
<b>Total</b>					\$ 10,496,000
<b>15% Contingency</b>					\$ 1,574,000
<b>Estimated Total</b>					\$ 12,070,000

## Notes:

1. Assuming a conditional Track 1 Remedy with site management
2. Assumes density of 1.7 tons per cubic yard of fill/soil
3. Assumes residual soil will meet Track 1 Unrestricted Use Soil Cleanup Objectives
4. Assumes full site dewatering
5. SOE Costs are based on a conventional soldier pile and timber lagging system with lateral bracing provided by either steel rakers or tiebacks
6. Costs are estimated and subject to change. Costs do not include new building construction
7. RAWP implementation is assumed to take 12 to 14 months
8. This cost estimate was prepared to compare various remedial alternatives as was based on available information at the time of preparation. The estimate may be +/- 30-50% of the actual cost. This estimate was not prepared for financial or legal consulting purposes and was not intended for use regarding compliance with financial reporting requirements or liability services
9. This estimate does not include legal fees associated with attorneys involved in the project, insurance fees or outside consulting fees

**Table 2. Alternative II Remedial Cost Estimate**

Former NuHart East Site  
 22-32 Clay Street, 67-93 Dupont Street  
 Brooklyn, New York  
 NYSDEC BCP Site C224287

Consulting/Engineering Costs					
Task	Description	Unit	Unit Cost	Quantity	Total Cost
1	Waste Characterization and Lead Delineation	Lump Sum	\$ 95,000	1	\$ 95,000
2	Program Management (NYSDEC/NYSDOH Correspondence, Daily/Weekly/Monthly Reporting, etc.)	Month	\$ 15,000	14	\$ 210,000
3	Remedial Oversight	Month	\$ 30,000	14	\$ 420,000
4	Documentation Sampling	Sample	\$ 1,000	60	\$ 60,000
5	Closure Reporting and COC Coordination (including Site Management Plan)	Lump Sum	\$ 90,000	1	\$ 90,000
6	Annual Site Management (quarterly groundwater sampling, engineering control monitoring, etc.)	Year	\$ 40,000	4	\$ 160,000
Consulting/Engineering Subtotal					\$ 1,035,000
Contractor Costs					
Task	Description	Unit	Unit Cost	Quantity	Total Cost
1	Mobilization/Demobilization, Site Maintenance, Security, etc.	Allowance	\$ 350,000	1	\$ 350,000
2	Truck Wash Station	Month	\$ 25,000	14	\$ 350,000
3	Management/Handling Contaminated Material	Cubic Yard	\$ 40	16,200	\$ 648,000
4	Support of Excavation	Linear Foot	\$ 4,000	1,020	\$ 4,080,000
5	Transport and Disposal of Fill Material	Ton	\$ 75	26,000	\$ 1,950,000
6	Transport and Disposal of Hazardous Material (Lead)	Ton	\$ 275	2,000	\$ 550,000
7	Dewatering System	Month	\$ 75,000	14	\$ 1,050,000
8	Underground Storage Tank Removal	Allowance	\$ 75,000	5	\$ 375,000
9	Composite Cover System	Allowance	\$ 100,000	1	\$ 100,000
Contractor Subtotal					\$ 9,453,000
<b>Total</b>					\$ 10,488,000
<b>15% Contingency</b>					\$ 1,573,000
<b>Estimated Total</b>					\$ 12,061,000

## Notes:

1. Assuming a conditional Track 2 Remedy with site management
2. Assumes density of 1.7 tons per cubic yard of fill/soil
3. Assumes residual soil will meet Track 2 Restricted Residential Use Soil Cleanup Objectives
4. Assumes full dewatering
5. SOE Costs are based on a conventional soldier pile and timber lagging system with lateral bracing provided by either steel rakers or tiebacks
6. Costs are estimated and subject to change. Costs do not include new building construction
7. RAWP implementation is assumed to take 12 to 14 months
8. This cost estimate was prepared to compare various remedial alternatives as was based on available information at the time of preparation. The estimate may be +/- 30-50% of the actual cost. This estimate was not prepared for financial or legal consulting purposes and was not intended for use regarding compliance with financial reporting requirements or liability services
9. This estimate does not include legal fees associated with attorneys involved in the project, insurance fees or outside consulting fees

**Table 3. Track 1 Soil Cleanup Objectives**  
**Former NuHart East Site**  
22-32 Clay Street & 67-93 Dupont Street, Brooklyn, NY  
NYSDEC BCP Site C224287

PCBs/Pesticides (mg/kg)	
Delta-BHC	0.04
Lindane	0.1
Alpha-BHC	0.02
Beta-BHC	0.036
Heptachlor	0.042
Aldrin	0.005
Endrin	0.014
Dieldrin	0.005
4,4'-DDE	0.0033
4,4'-DDD	0.0033
4,4'-DDT	0.0033
Endosulfan I	2.4
Endosulfan II	2.4
Endosulfan sulfate	2.4
cis-Chlordane	0.094
PCBs, Total	0.1

Volatile Organic Compounds (mg/kg)	
Methylene chloride	0.05
1,1-Dichloroethane	0.27
Chloroform	0.37
Carbon tetrachloride	0.76
Tetrachloroethene	1.3
Chlorobenzene	1.1
1,2-Dichloroethane	0.02
1,1,1-Trichloroethane	0.68
Benzene	0.06
Toluene	0.7
Ethylbenzene	1
Vinyl chloride	0.02
1,1-Dichloroethene	0.33
trans-1,2-Dichloroethene	0.19
Trichloroethene	0.47
1,2-Dichlorobenzene	1.1
1,3-Dichlorobenzene	2.4
1,4-Dichlorobenzene	1.8
Methyl tert butyl ether	0.93
Xylenes, Total	0.26
cis-1,2-Dichloroethene	0.25
Acetone	0.05
2-Butanone	0.12
n-Butylbenzene	12
sec-Butylbenzene	11
tert-Butylbenzene	5.9
Naphthalene	12
n-Propylbenzene	3.9
1,3,5-Trimethylbenzene	8.4
1,2,4-Trimethylbenzene	3.6
1,4-Dioxane	0.1

Semivolatile Organic Compounds (mg/kg)	
Acenaphthene	20
Hexachlorobenzene	0.33
1,2-Dichlorobenzene	1.1
1,3-Dichlorobenzene	2.4
1,4-Dichlorobenzene	1.8
Fluoranthene	100
Naphthalene	12
Benzo(a)anthracene	1
Benzo(a)pyrene	1
Benzo(b)fluoranthene	1
Benzo(k)fluoranthene	0.8
Chrysene	1
Acenaphthylene	100
Anthracene	100
Benzo(ghi)perylene	100
Fluorene	30
Phenanthrene	100
Dibenzo(a,h)anthracene	0.33
Indeno(1,2,3-cd)pyrene	0.5
Pyrene	100
Dibenzofuran	7
Pentachlorophenol	0.8
Phenol	0.33
2-Methylphenol	0.33
3-Methylphenol/4-Methylph	0.33
1,4-Dioxane	0.1

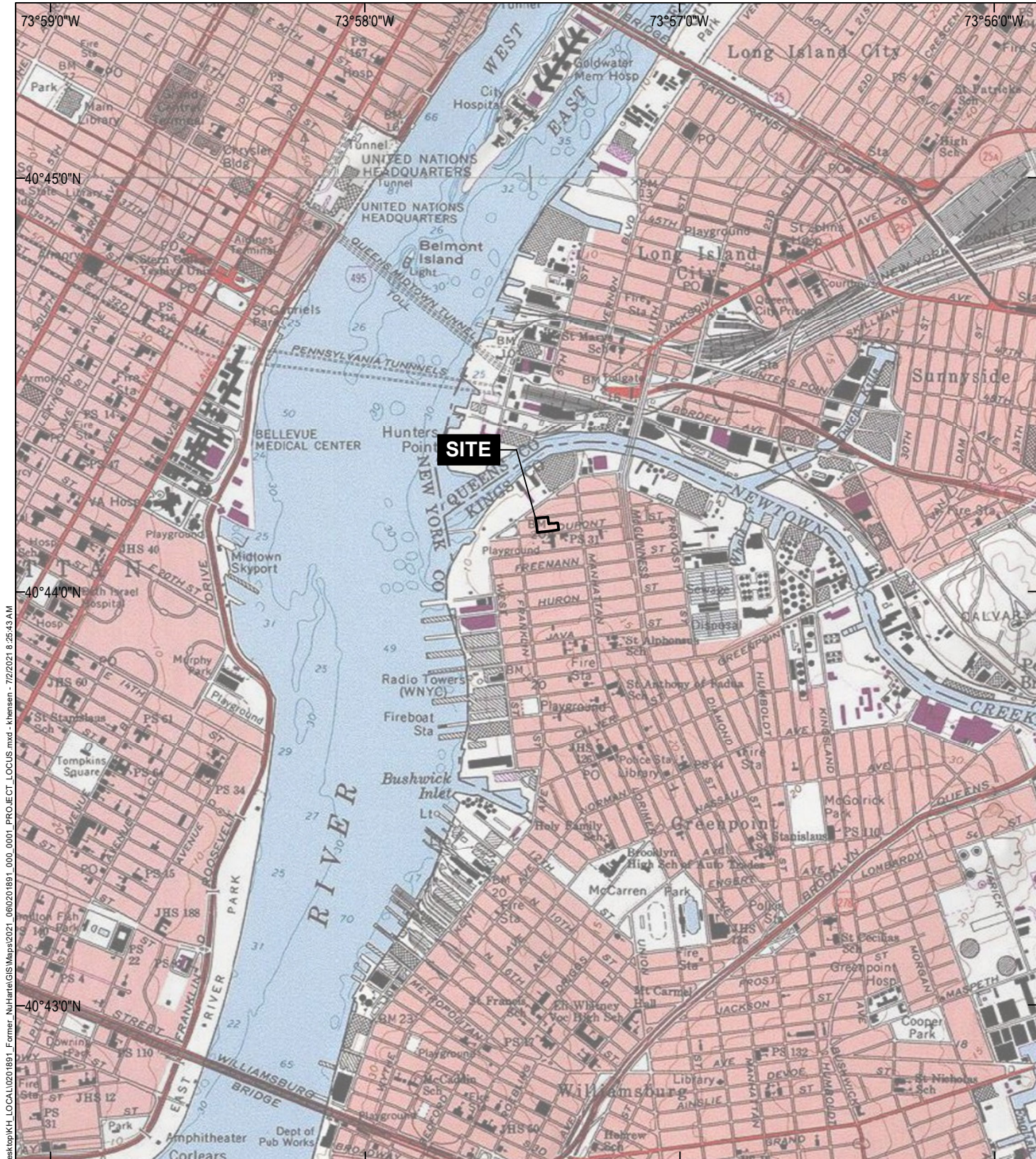
Metals (mg/kg)	
Arsenic, Total	13
Barium, Total	350
Beryllium, Total	7.2
Cadmium, Total	2.5
Copper, Total	50
Lead, Total	63
Manganese, Total	1600
Mercury, Total	0.18
Nickel, Total	30
Selenium, Total	3.9
Silver, Total	2
Zinc, Total	109

Notes:

1. Criteria are 6 NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives
2. mg/kg: milligram per kilogram

## FIGURES





GIS: C:\Users\Whensen\OneDrive - haleyaldrich.com\Desktop\KH\_LOCAL\10201891\_Former\_NuHartEastSite\Mapa2021\_080201891\_000\_0001\_PROJECT\_LOCUS.mxd - khensen - 7/2/2021 8:25:43 AM



MAP SOURCE: USGS  
SITE COORDINATES: 40°44'09"N, 73°57'26"W

**HALEY  
ALDRICH**

FORMER NUHART EAST SITE  
22-32 CLAY STREET & 67-93 DUPONT STREET  
BROOKLYN, NEW YORK

## PROJECT LOCUS

APPROXIMATE SCALE: 1 IN = 2000 FT  
MARCH 2022

FIGURE 1

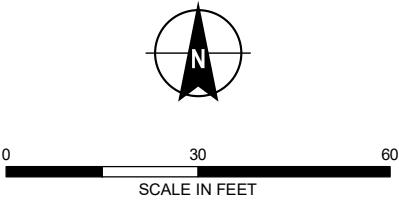


C:\Users\khensen\OneDrive - haleyaldrich.com\Desktop\KH\_LOCAL\201891\_Fomer\_Nuhart\GIS\Maps\2021\_06\_Fomer\_Nuhart\_East\0201891\_000\_0002\_SITE\_PLAN.mxd - khensen - 7/12/2021 2:40:43 PM



- LEGEND**
- TAX LOT BOUNDARY
  - SITE BOUNDARY
  - APPROXIMATE LOCATION OF CLOSED-IN-PLACE UST

- NOTES**
- 1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
  - 2. ASSESSOR PARCEL DATA SOURCE: KINGS COUNTY
  - 3. AERIAL IMAGERY SOURCE: NEARMAP, 12 MARCH 2021



**HALEY ALDRICH** FORMER NUHART EAST SITE  
22-32 CLAY STREET & 67-93 DUPONT STREET  
BROOKLYN, NEW YORK

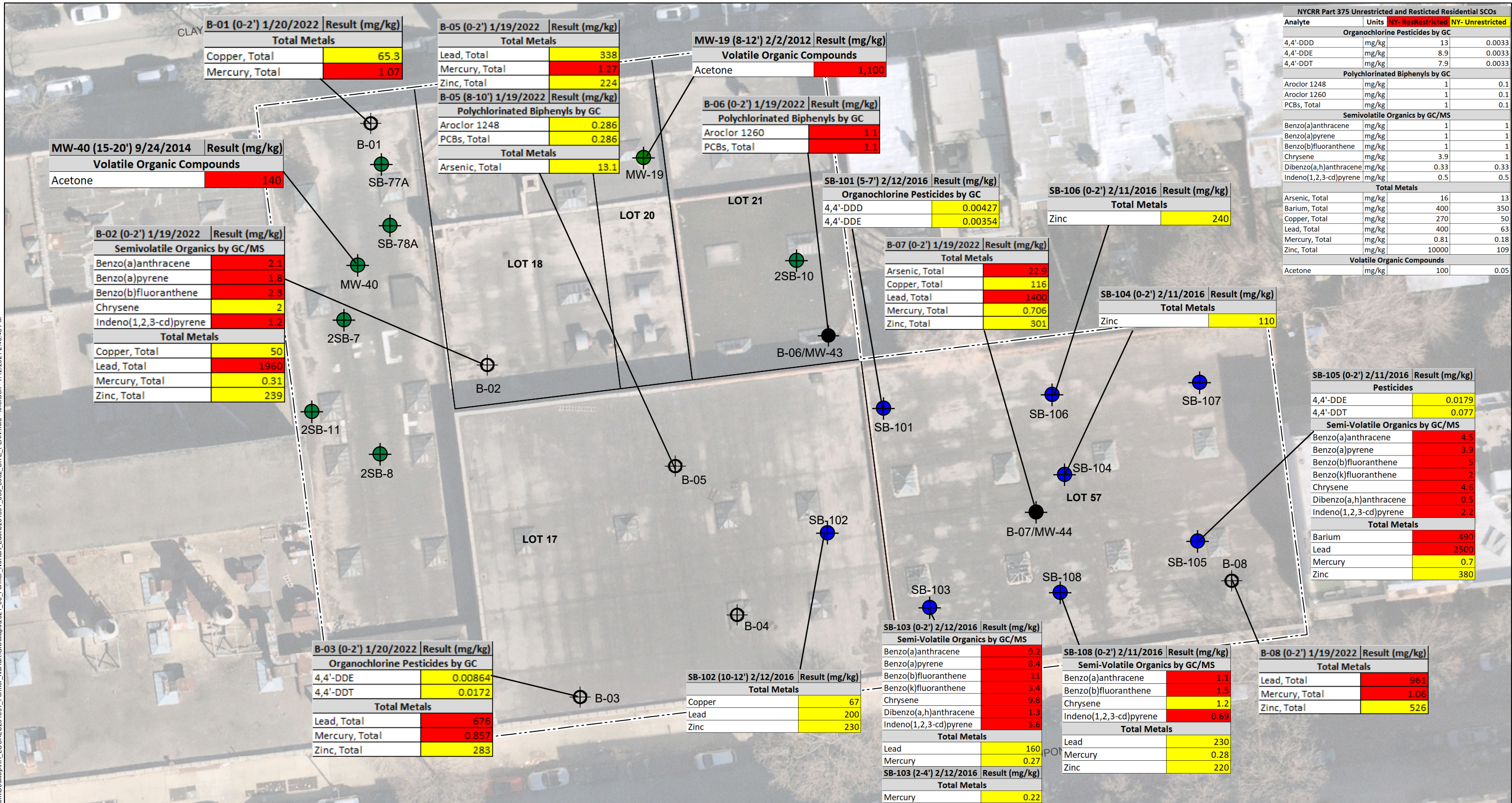
**SITE PLAN**

MARCH 2022

**FIGURE 2**



GIS: C:\Users\khsen\OneDrive - haleyaldrich.com\Desktop\KH\_LOCAL\201891\_Fomer\_Nuhart\GIS\Map\2021\_06\_Fomer\_Nuhart\_East\201891\_000\_0002\_SITE\_PLAN.mxd - khensen - 7/12/2021 2:40:43 PM



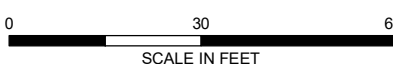
LEGEND

- TAX LOT BOUNDARY
- SITE BOUNDARY
- SUPPLEMENTAL REMEDIAL INVESTIGATION (SRI) SOIL BORING LOCATION

- SRI SOIL BORING/PERMANENT MONITORING WELL LOCATION
- ECOSYSTEMS STRATEGIES INC. REMEDIAL INVESTIGATION (RI) SOIL BORING LOCATION
- ROUX ASSOCIATES RI SOIL BORING LOCATION

NOTES

- ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
- ASSESSOR PARCEL DATA SOURCE: KINGS COUNTY
- AERIAL IMAGERY SOURCE: NEARMAP, 12 MARCH 2021
- DATA COLLECTED FROM SOIL BORINGS INDICATED IN GREEN PRESENTED IN ECOSYSTEMS STRATEGIES INC., REMEDIAL INVESTIGATION REPORT DATED JULY 2015
- DATA COLLECTED FROM SOIL BORINGS INDICATED IN BLUE PRESENTED IN GZA REMEDIAL INVESTIGATION REPORT DATED OCTOBER 2016



FORMER NUHART EAST SITE  
22-32 CLAY STREET & 67-93 DUPONT STREET  
BROOKLYN, NEW YORK

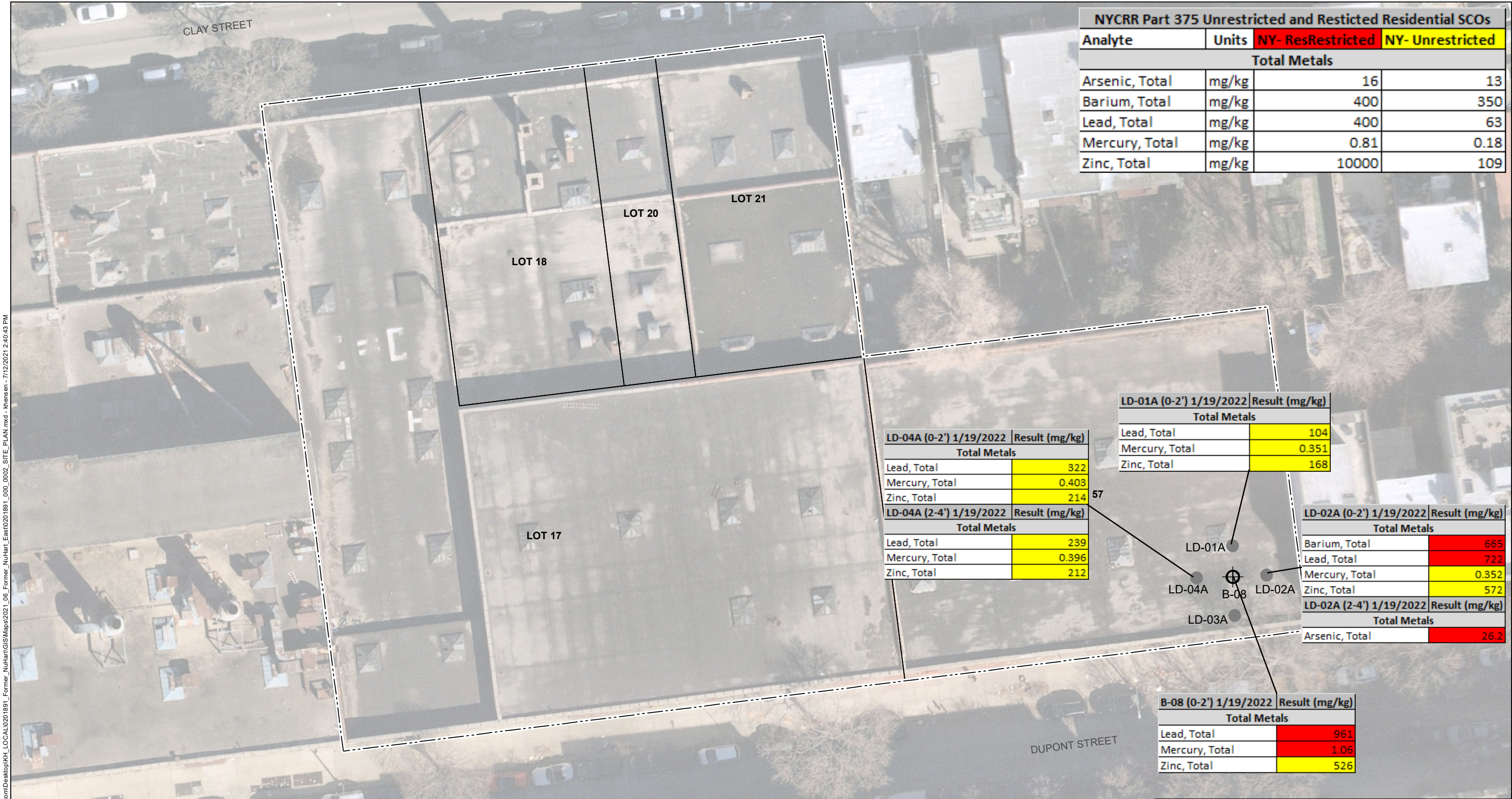
SOIL RESULTS EXCEEDANCE MAP

MARCH 2022

FIGURE 3



C:\Users\khensen\OneDrive - halevaldrich.com\Desktop\KH\_LOCAL\201891\_Former\_Nuhart\GIS\Maps\2021\_06\_Former\_Nuhart\_East\201891\_000\_0002\_SITE\_PLAN.mxd - khensen - 7/12/2021 2:40:43 PM



**LEGEND**

TAX LOT BOUNDARY

SITE BOUNDARY

SOIL BORING LOCATION

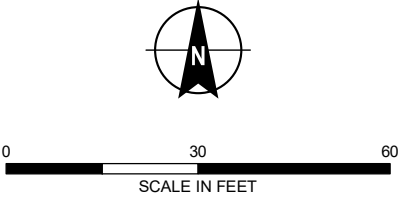
LEAD DELINEATION BORING

INDICATES 5 FT STEP OUT

- NOTES**
1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.

2. ASSESSOR PARCEL DATA SOURCE: KINGS COUNTY

3. AERIAL IMAGERY SOURCE: NEARMAP, 12 MARCH 2021



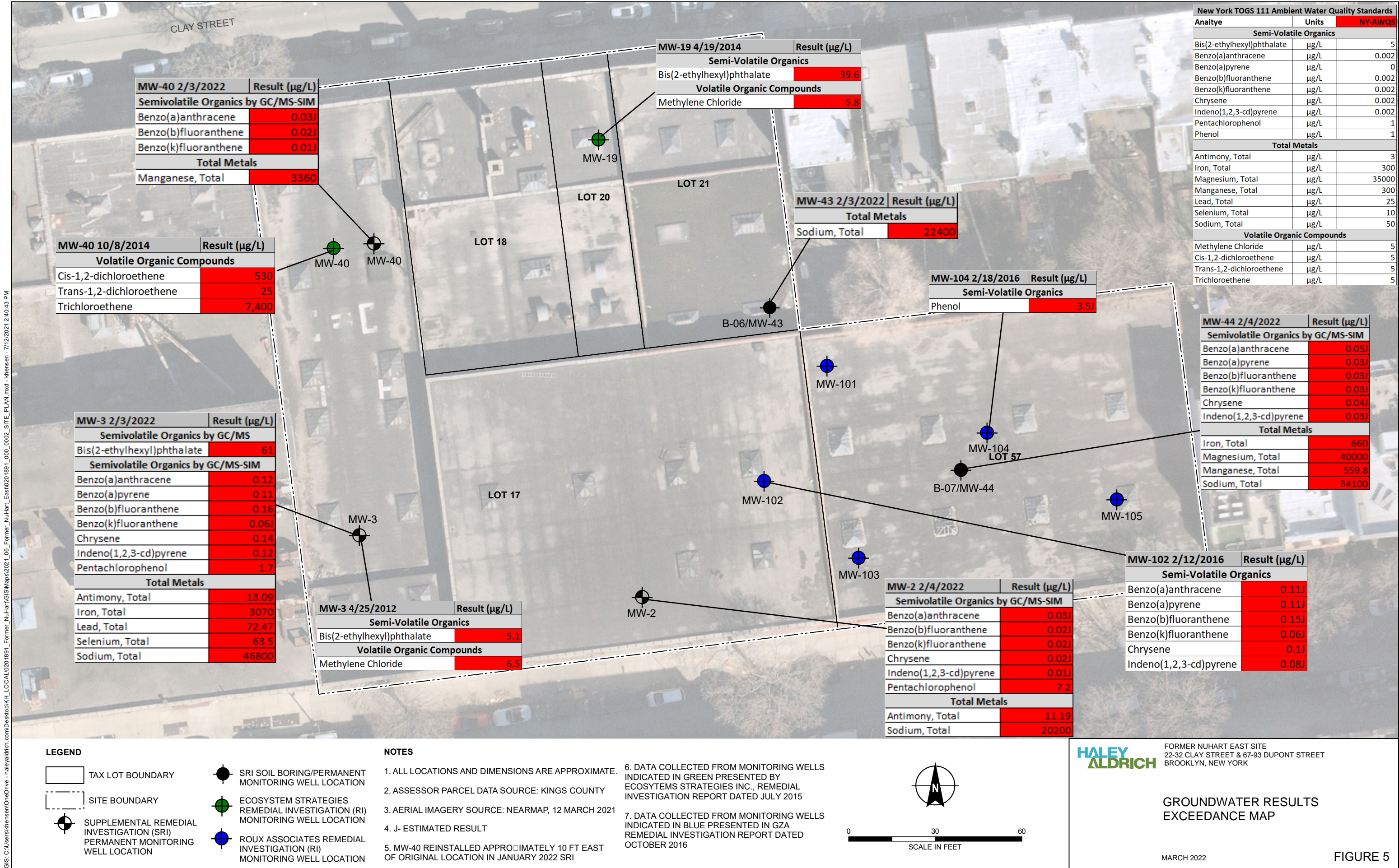
HALEY  
ALDRICH

FORMER NUHART EAST SITE  
22-32 CLAY STREET & 67-93 DUPONT STREET  
BROOKLYN, NEW YORK

LEAD DELINEATION SOIL RESULTS  
EXCEEDANCE MAP

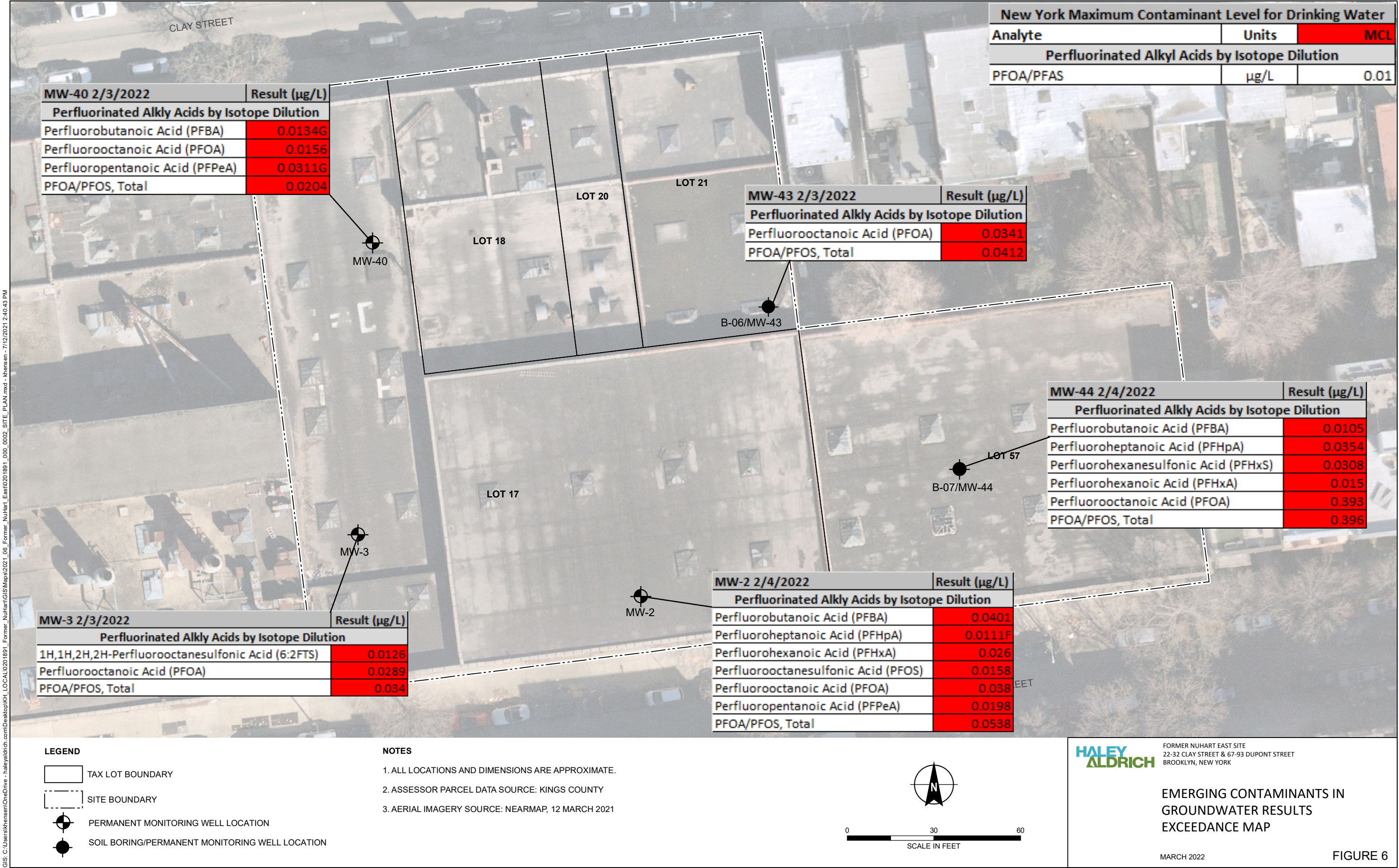


GIS: C:\Users\khsen\OneDrive - halevaldrich.com\Desktop\KH\_LOCAL\201891\_Fomer\_Nuhart\GIS\Map\2021\_06\_Fomer\_Nuhart\_East0201891\_000\_0002\_SITE\_PLAN.mxd - khensen - 7/12/2021 2:40:43 PM



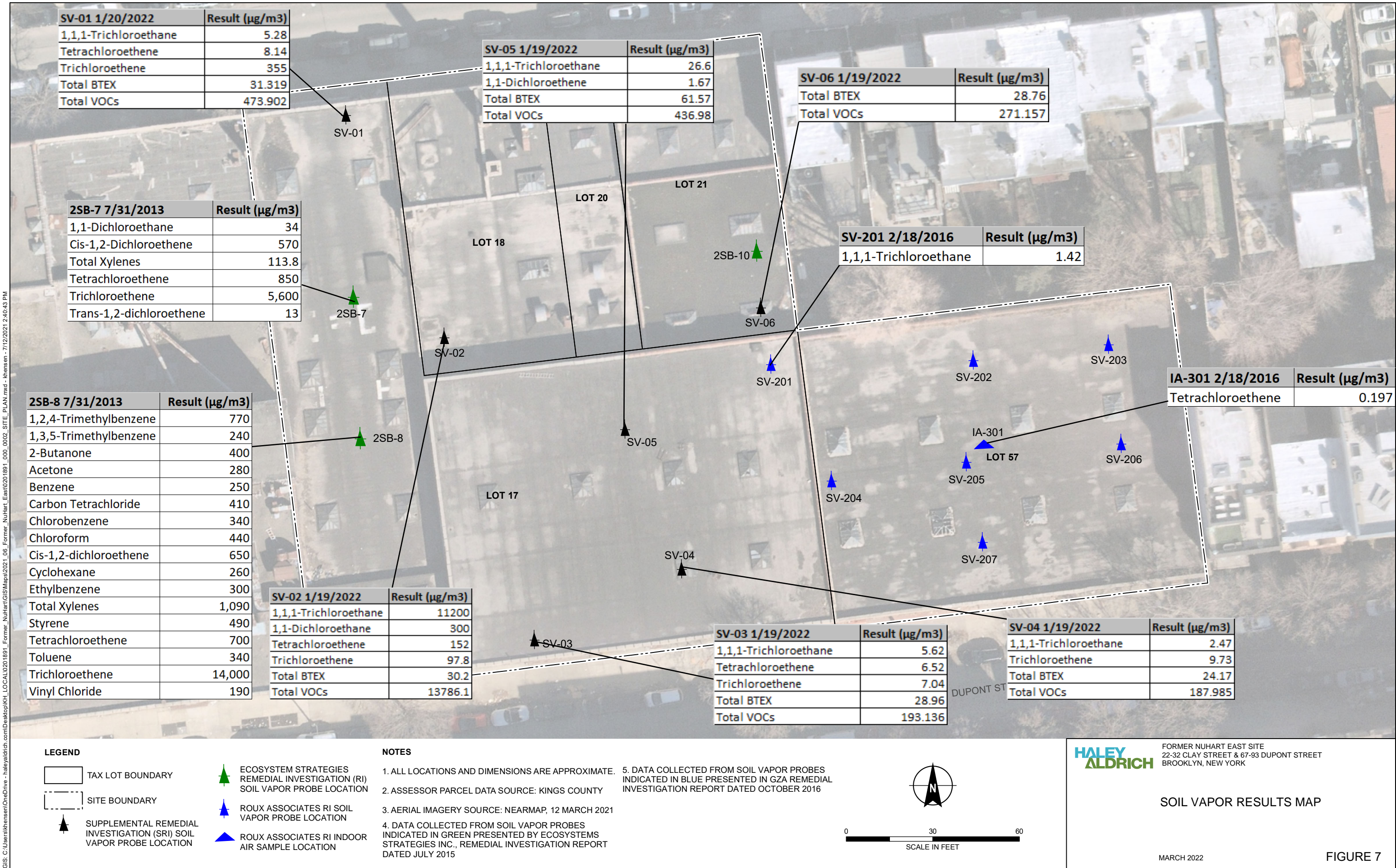


GIS: C:\Users\khensen\OneDrive - haleyaldrich.com\Desktop\KH\_LOC\ALV201891\_Former\_Nuhart\GIS\Maps\2021\_06\_Former\_Nuhart\_East\0201891\_000\_0002\_SITE\_PLAN.mxd - khensen - 7/12/2021 2:40:43 PM





C:\Users\khsen\OneDrive - halevaldrich.com\Desktop\KH\_LOCAL\201891\_Former\_Nuhart\GIS\Maps\2021\_06\_Former\_Nuhart\_East\201891\_000\_0002\_SITE\_PLAN.mxd - khensen - 7/12/2021 2:40:43 PM





C:\GIS\HaleyAldrich\share\CF\Projects\0201081\GIS\Maps\2022\_03\_Former\_Nuhart\_East\0201081\_000\_0011\_GROUNDWATER\_CONTOUR\_MAP.mxd - khansen - 3/17/2022 9:47:18 AM



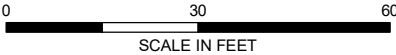
LEGEND

- GROUNDWATER MONITORING WELL WITH GROUNDWATER ELEVATION IN FEET
- GROUNDWATER ELEVATION CONTOUR, IN FEET
- INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION

- TAX LOT BOUNDARY
- SITE BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. ASSESSOR PARCEL DATA SOURCE: KINGS COUNTY
3. AERIAL IMAGERY SOURCE: NEARMAP, 12 MARCH 2021



HALEY  
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FORMER NUHART EAST SITE  
22-32 CLAY STREET & 67-93 DUPONT STREET  
BROOKLYN, NY

GROUNDWATER CONTOUR MAP

MARCH 2022





FIGURE 8



C:\Users\khensen\Desktop\ADD\_TO\_CFE\0201891\GIS\Map2022\_03\_Former\_Nuhart\_East\0201891\_000\_0012\_PROPOSED\_LEAD\_DELINEATION\_MAP.mxd - khensen - 3/10/2022 11:32:31 AM

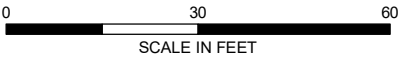


**LEGEND**

-  PROPOSED LEAD DELINEATION, 5-FOOT STEP-OUT
-  FORMER REMEDIAL INVESTIGATION (RI) SOIL BORING
-  TAX LOT BOUNDARY
-  SITE BOUNDARY

**NOTES**

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. ASSESSOR PARCEL DATA SOURCE: KINGS COUNTY
3. AERIAL IMAGERY SOURCE: NEARMAP, 12 MARCH 2021



**HALEY  
ALDRICH**

FORMER NUHART EAST SITE  
22-32 CLAY STREET & 67-93 DUPONT STREET  
BROOKLYN, NEW YORK

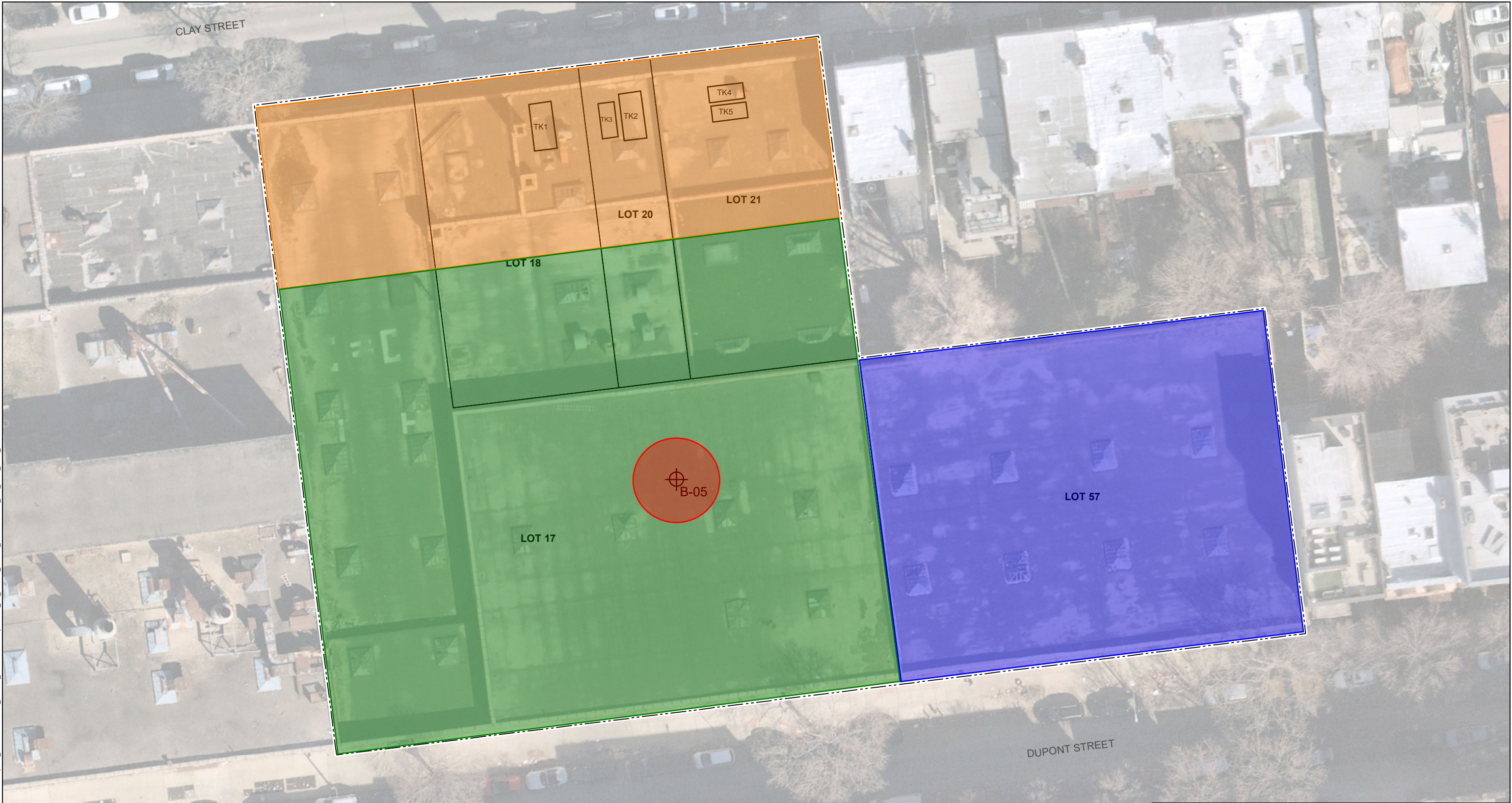
**PROPOSED LEAD DELINEATION PLAN**

MARCH 2022

**FIGURE 9**



C:\Users\khensen\OneDrive - haleyaldrich.com\Desktop\KH\_LOCAL\201891\_Former\_Nuhart\GIS\Maps\2021\_06\_Former\_Nuhart\_East\201891\_000\_0002\_SITE\_PLAN.mxd - khensen - 7/12/2021 2:40:43 PM



**LEGEND**

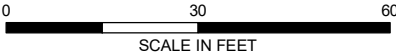
- TAX LOT BOUNDARY
- SITE BOUNDARY
- APPROXIMATE LOCATION OF CLOSED-IN-PLACE UST

**PROPOSED EXCAVATION DEPTHS IN FEET BELOW GROUND SURFACE (FT BGS)**

- 16 FT REMEDIAL EXCAVATION
- 8 FT REMEDIAL EXCAVATION
- 6 FT REMEDIAL EXCAVATION
- 10 FT HOT SPOT EXCAVATION

**NOTES**

- ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
- ASSESSOR PARCEL DATA SOURCE: KINGS COUNTY
- AERIAL IMAGERY SOURCE: NEARMAP, 12 MARCH 2021



**HALEY  
ALDRICH**

FORMER NUHART EAST SITE  
22-32 CLAY STREET & 67-93 DUPONT STREET  
BROOKLYN, NEW YORK

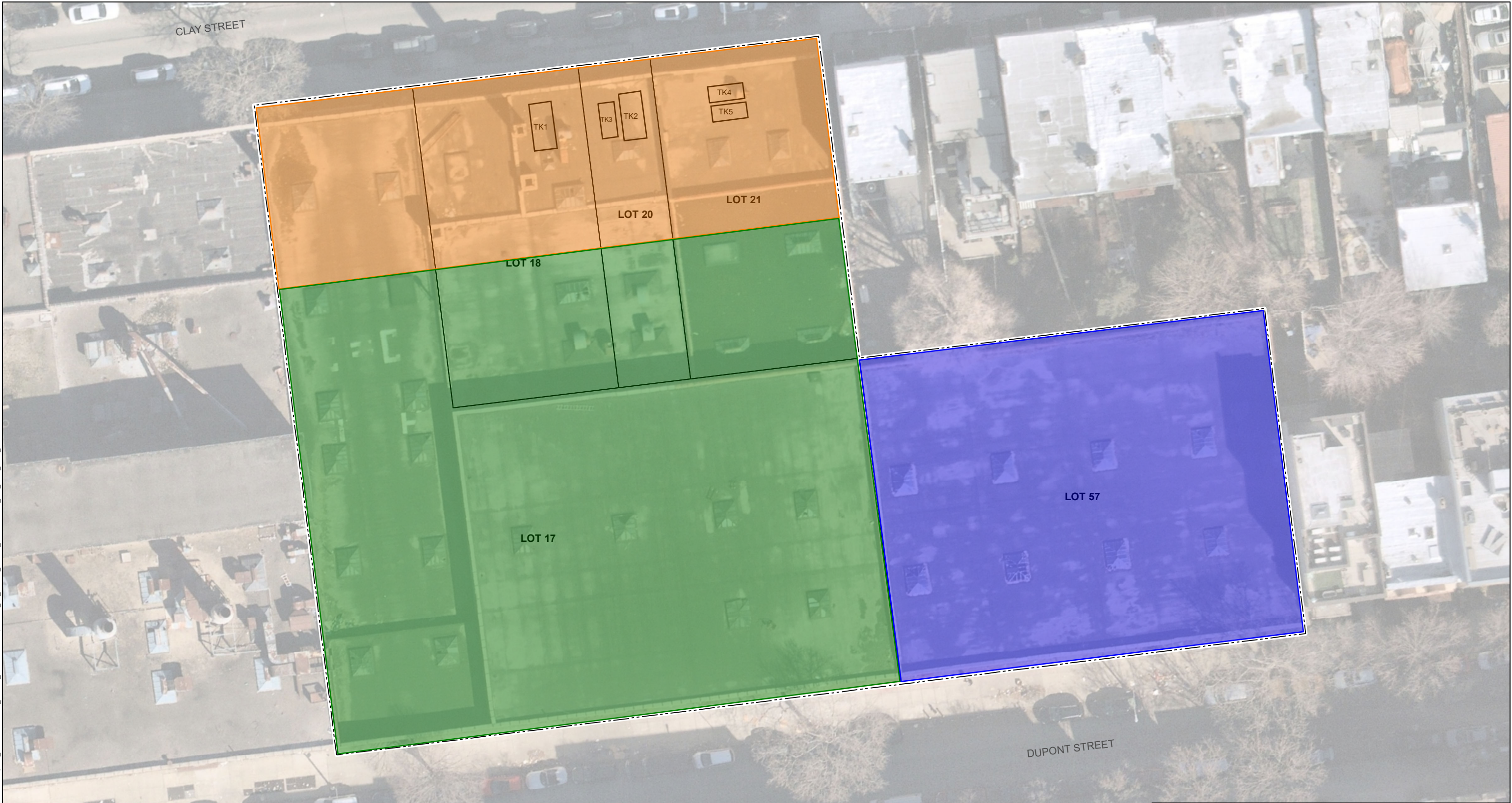
**ALTERNATIVE I EXCAVATION PLAN**

MARCH 2022

FIGURE 10



C:\Users\khensen\OneDrive - haleyaldrich.com\Desktop\KH\_LOCAL\201891\_Former\_Nuhart\GIS\Maps\2021\_06\_Former\_Nuhart\_East\201891\_000\_0002\_SITE\_PLAN.mxd - khensen - 7/12/2021 2:40:43 PM



**LEGEND**

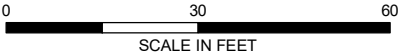
- TAX LOT BOUNDARY
- SITE BOUNDARY
- APPROXIMATE LOCATION OF CLOSED-IN-PLACE UST

**PROPOSED EXCAVATION DEPTHS IN FEET BELOW GROUND SURFACE (FT BGS)**

- 16 FT REMEDIAL EXCAVATION
- 8 FT REMEDIAL EXCAVATION
- 6 FT REMEDIAL EXCAVATION

**NOTES**

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. ASSESSOR PARCEL DATA SOURCE: KINGS COUNTY
3. AERIAL IMAGERY SOURCE: NEARMAP, 12 MARCH 2021



FORMER NUHART EAST SITE  
22-32 CLAY STREET & 67-93 DUPONT STREET  
BROOKLYN, NEW YORK

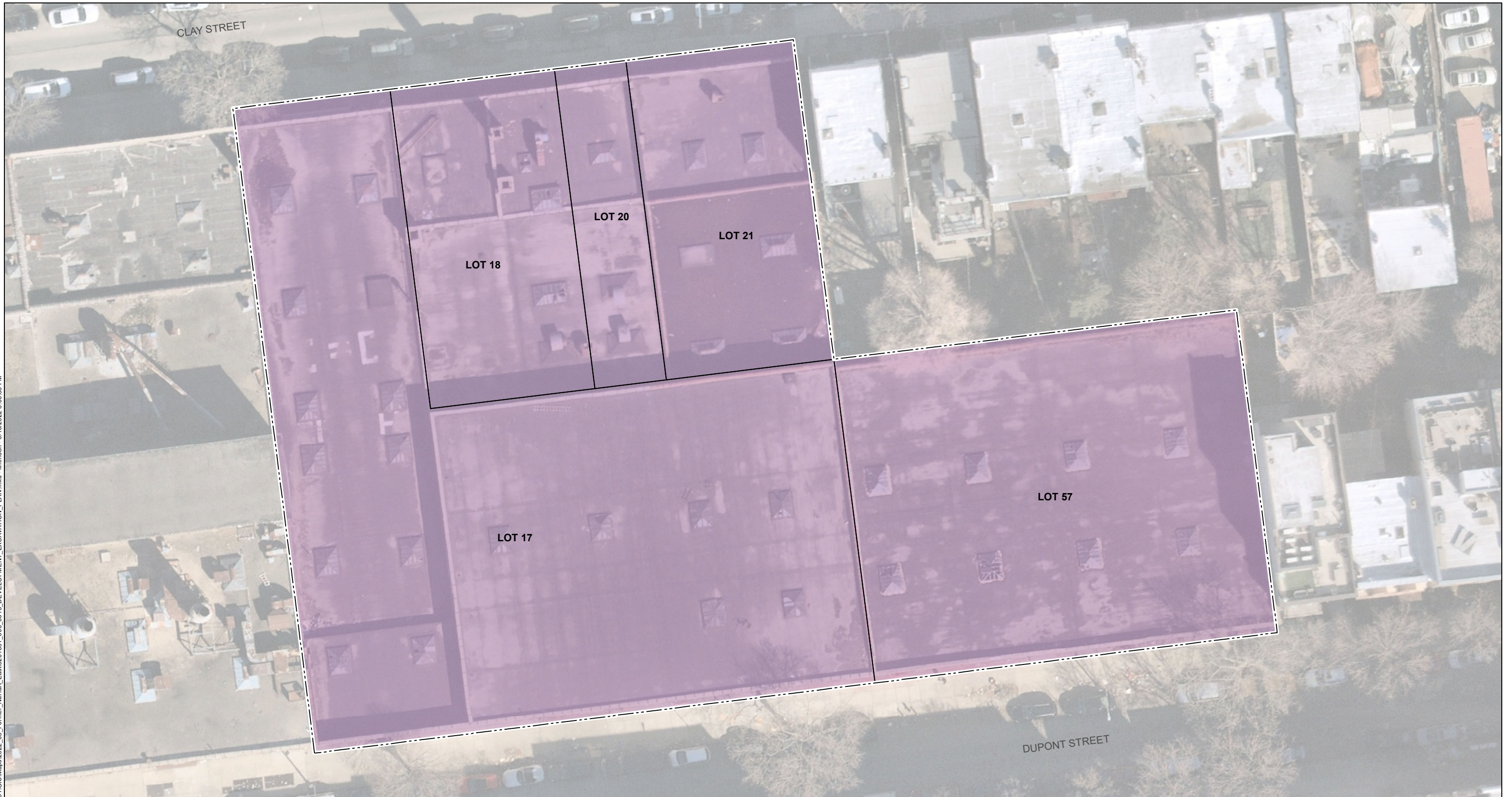
**ALTERNATIVE II EXCAVATION PLAN**

MARCH 2022




FIGURE 11



GIS: \\haleyaldrich.com\share\CP\Projects\201891\GIS\Map\2022\_03\_Fomer\_Nuhart\_East\2021891\_000\_0015\_DEVELOPMENT\_EXCAVATION\_PLAN.mxd - khansen - 3/10/2022 5:00:35 PM



#### LEGEND

-  SITE-WIDE EXCAVATION, 16-FEET BELOW GROUND SURFACE (BGS)
-  TAX LOT BOUNDARY
-  SITE BOUNDARY

#### NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. ASSESSOR PARCEL DATA SOURCE: KINGS COUNTY
3. AERIAL IMAGERY SOURCE: NEARMAP, 12 MARCH 2021



0 30 60  
SCALE IN FEET

**HALEY  
ALDRICH**

FORMER NUHART EAST SITE  
22-32 CLAY STREET & 67-93 DUPONT STREET  
BROOKLYN, NY

#### DEVELOPMENT EXCAVATION PLAN

MARCH 2022

FIGURE 12



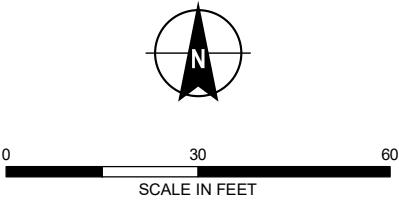
GIS: \\haleyaldrich.com\share\CP\Projects\2021\891\GIS\Maps\2022\_05\_Former\_NuHart\_East\0201891\_000\_0013\_PROPOSED\_ENDPOINT\_SOIL\_SAMPLE\_LOCATION\_PLAN.mxd - khensen - 5/18/2022 6:53:24 AM



**LEGEND**

- PROPOSED ENDPOINT SAMPLE
- TANK
- TAX LOT BOUNDARY
- - - SITE BOUNDARY

- NOTES**
- 1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
  - 2. ASSESSOR PARCEL DATA SOURCE: KINGS COUNTY
  - 3. AERIAL IMAGERY SOURCE: NEARMAP, 12 MARCH 2021



**HALEY  
ALDRICH**

FORMER NUHART EAST SITE  
22-32 CLAY STREET & 67-93 DUPONT STREET  
BLOCK 2487 LOTS 17, 18, 20, 21, AND 57  
BROOKLYN, NEW YORK




**PROPOSED ENDPOINT SAMPLE  
LOCATION PLAN**





GIS: C:\Users\khensen\OneDrive - haleyaldrich.com\Desktop\KH\_LOCAL\201891\_Fomer\_Nuhart\GIS\Maps\2021\_06\_Fomer\_Nuhart\_East\201891\_000\_0002\_SITE\_PLAN.mxd - khensen - 7/12/2021 2:40:43 PM



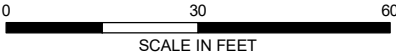
**LEGEND**

-  TAX LOT BOUNDARY
-  SITE BOUNDARY
-  APPROXIMATE LOCATION OF CLOSED-IN-PLACE UST

-  LOCATION OF UST CONFIRMATION SIDEWALL SAMPLE
-  LOCATION OF UST CONFIRMATION BOTTOM SAMPLE

**NOTES**

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. ASSESSOR PARCEL DATA SOURCE: KINGS COUNTY
3. AERIAL IMAGERY SOURCE: NEARMAP, 12 MARCH 2021



FORMER NUHART EAST SITE  
22-32 CLAY STREET & 67-93 DUPONT STREET  
BROOKLYN, NEW YORK

**PROPOSED UST CONFIRMATION  
SAMPLE LOCATION PLAN**

MARCH 2022

**FIGURE 14**



C:\Users\khansen\OneDrive - haleyaldrich.com\Desktop\KH\_LOCAL\20201891\_Former\_Nuhart\GIS\Maps\2021\_07\_Former\_Nuhart\_East\20201891\_000\_0000\_TRUCK\_ROUTE\_MAP.mxd - khansen - 7/14/2021 12:34:49 PM

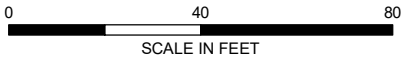


LEGEND

- |  |                       |  |               |
|--|-----------------------|--|---------------|
|  | TAX LOT BOUNDARY      |  | TRUCK EGRESS  |
|  | SITE BOUNDARY         |  | TRUCK INGRESS |
|  | ROLLING DOOR ENTRANCE |  |               |
|  | TRUCK ROUTE           |  |               |

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. TRUCK ROUTE MAP SOURCE: NEW YORK DEPARTMENT OF TRANSPORTATION, 2015
3. ASSESSOR PARCEL DATA SOURCE: KINGS COUNTY
4. AERIAL IMAGERY SOURCE: NEARMAP, 12 MARCH 2021



TRUCK ROUTE LEGEND

- |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                                        |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------|
|  | <b>Local Truck Route</b><br>Trucks with an origin or destination for the purpose of delivery, loading or servicing within the respective Borough, shall only operate on designated local routes, except that an operator may operate on a non-designated street for the purpose of arriving at his/her destination. This shall be accomplished by leaving a designated truck route at the intersection that is nearest to their destination, proceeding by the most direct route, and then returning to the nearest designated truck route by the most direct route. If the operator has additional destinations in the same general area, he/she may proceed by the most direct route to his/her next destination without returning to a designated truck route, provided that the operator's next destination does not require that he/she cross a designated truck route. |  | <b>Industrial Business Zones (IBZ)</b> |
|  | <b>Through Truck Route</b><br>Trucks having neither an origin nor a destination within the respective Borough shall restrict the operation of such vehicles to those street segments designated as Through Truck Routes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | <b>Parks and Open Spaces</b>           |
|  | <b>Through Truck Route on Expressway</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | <b>Highway Exit</b>                    |
|  | <b>Through Truck Route on Tunnel</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | <b>Commercial Vehicles Prohibited</b>  |
|  | <b>Exception 53' Trailers Allowed</b><br>For definition see information on reverse side.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | <b>Low Vertical Clearance Area</b>     |

**HALEY  
ALDRICH**

FORMER NUHART EAST SITE  
22-32 CLAY STREET & 67-93 DUPONT STREET  
BROOKLYN, NEW YORK

PROPOSED TRUCK ROUTE

MARCH 2022

FIGURE 15

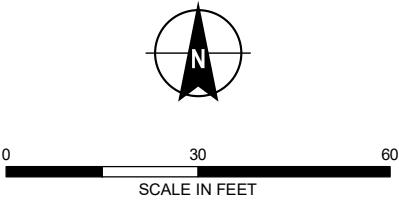


GIS: C:\Users\khensen\OneDrive - haleyaldrich.com\Desktop\KH\_LOCAL\201891\_Fomer\_Nuhart\GIS\Maps\2021\_06\_Fomer\_Nuhart\_East\201891\_000\_0002\_SITE\_PLAN.mxd - khensen - 7/12/2021 2:40:43 PM



- LEGEND**
- TAX LOT BOUNDARY
  - SITE BOUNDARY
  - APPROXIMATE LOCATION OF CLOSED-IN-PLACE UST

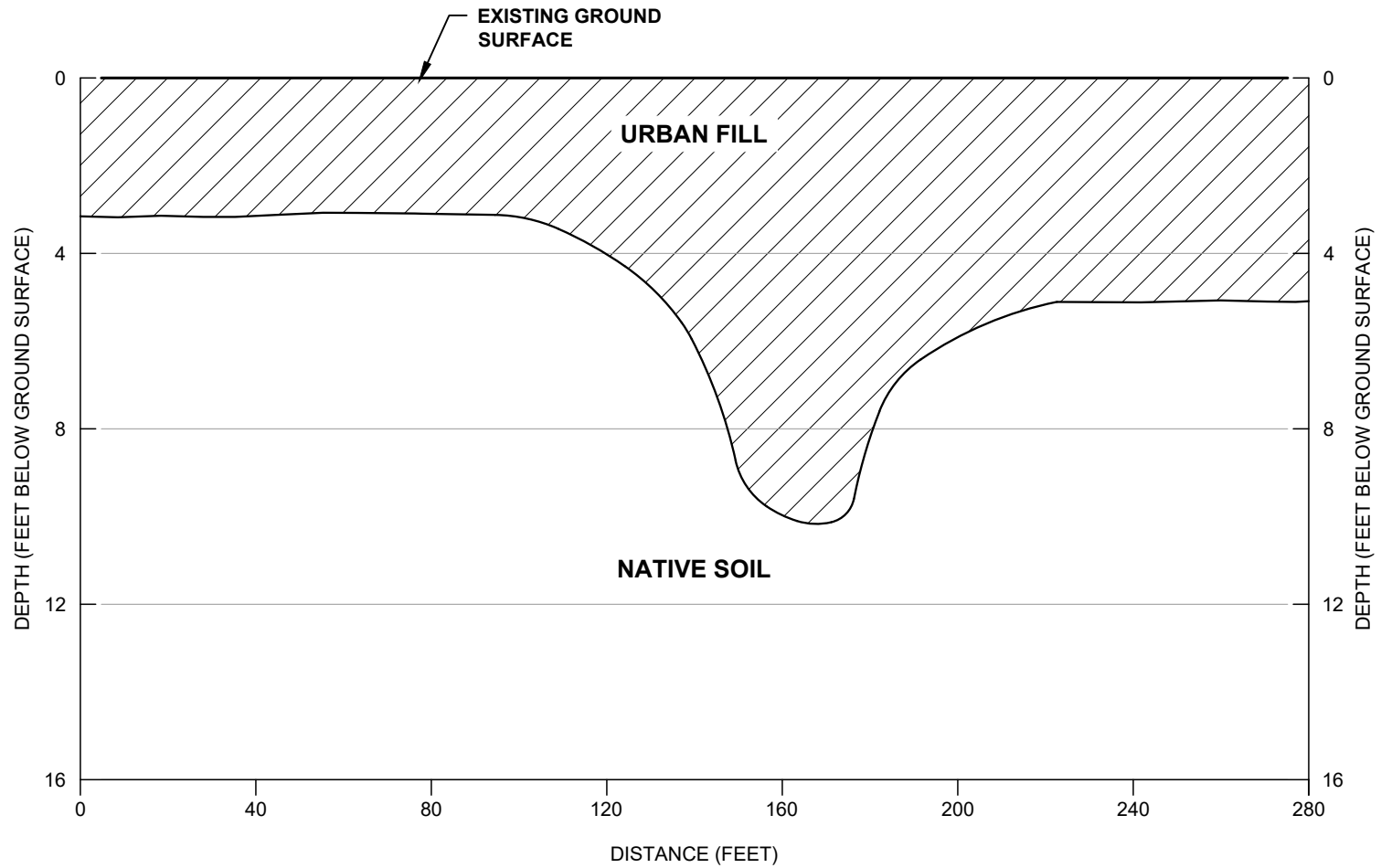
- NOTES**
1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
  2. ASSESSOR PARCEL DATA SOURCE: KINGS COUNTY
  3. AERIAL IMAGERY SOURCE: NEARMAP, 12 MARCH 2021



**HALEY ALDRICH** FORMER NUHART EAST SITE  
22-32 CLAY STREET & 67-93 DUPONT STREET  
BROOKLYN, NEW YORK

CROSS SECTION AREA A-A'





FORMER NUHART EAST SITE  
22-32 CLAY STREET & 67-93 DUPONT STREET  
BROOKLYN, NEW YORK

### CROSS SECTION A-A'

SCALE: AS SHOWN  
APRIL 2022

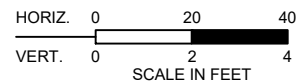


FIGURE 17

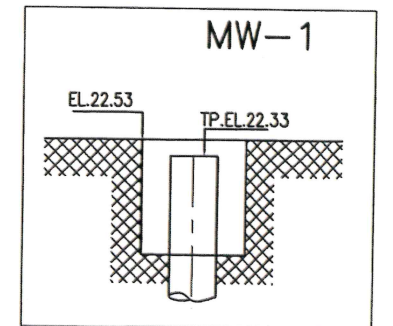
## **APPENDIX A**

### **Survey Map**

# CLAY STREET

67318001.DWG

REV	DATE	DESCRIPTION	ck
/	02-28-22	MONITORING WELL LOCATION SURVEY	

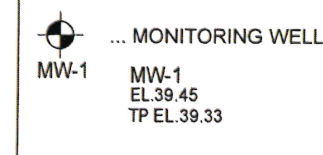


CROSS SECTION MW-1 (TYP.)  
(NOT TO SCALE)

GR.EL..... GROUND ELEVATION  
TP .....TOP OF PIPE ELEVATION  
EL .....TOP OF MONITORING WELL ELEVATION

... MONITORING WELL

MW-3  
 (A)... MONITORING WELL



1.ELEVATIONS AND ESTABLISHED GRADES SHOWN HEREON REFER TO  
NAVD 1988 WHICH IS 1.46 FEET BELOW THE BROOKLYN HIGHWAY DATUM

2.THIS SURVEY IS NOT A TITLE SURVEY AND IS NOT TO BE USED FOR  
TITLE PURPOSES. ALL PHYSICAL FACTS NOT SHOWN.



FRANKLIN STREET

# DUPONT STREET

B.G. MEINIKHEIM C.S.\*C.U. POWELL C.E.,C.S.\*L.C.L. SMITH C.S.\*NATHAN CAMPBELL C.E.,C.S.\*A.U. WHITSON C.E.,C.S.\*  
WILLIAM L. SAVACOOLO C.E.,L.S.,C.S.\*A.U. WHITSON INC. C.E.,C.S.\*G. WEBER L.S.,C.S.\*C. STIDOLPH R.A.,L.S.\*WHITSON &  
POWELL INC. P.E.,L.S.,C.S.\*KELLER & POWELL P.E.,L.S.,C.S.\*LOUIS MONTROSE C.E.,L.S.,C.S.\*FRED J. POWELL P.E.,L.S.,C.S.\*

TAX LOT 17, 21, &amp; 57

ONLY COPIES FROM THE ORIGINAL OF  
THIS SURVEY MARKED WITH AN ORIGINAL  
OF THE LAND SURVEYOR'S INKED SEAL  
OR HIS EMBOSSED SEAL SHALL BE  
CONSIDERED TO BE VALID TRUE COPIES

CERTIFICATIONS INDICATED HEREON SHALL RUN ONLY TO THE PERSON FOR WHOM THE SURVEY IS PREPARED AND ON HIS BEHALF TO THE TITLE COMPANY, GOVERNMENTAL AGENCY AND LENDING INSTITUTION LISTED HEREON, AND TO THE ASSIGNEES OF THE LENDING INSTITUTION. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.

# MONTROSE

**SURVEYING CO., LLP.**

CITY &amp; LAND SURVEYORS

116 20 METROPOLITAN AVE \* RICHMOND HILL NY 11418-1090 \* (718) 849-0600

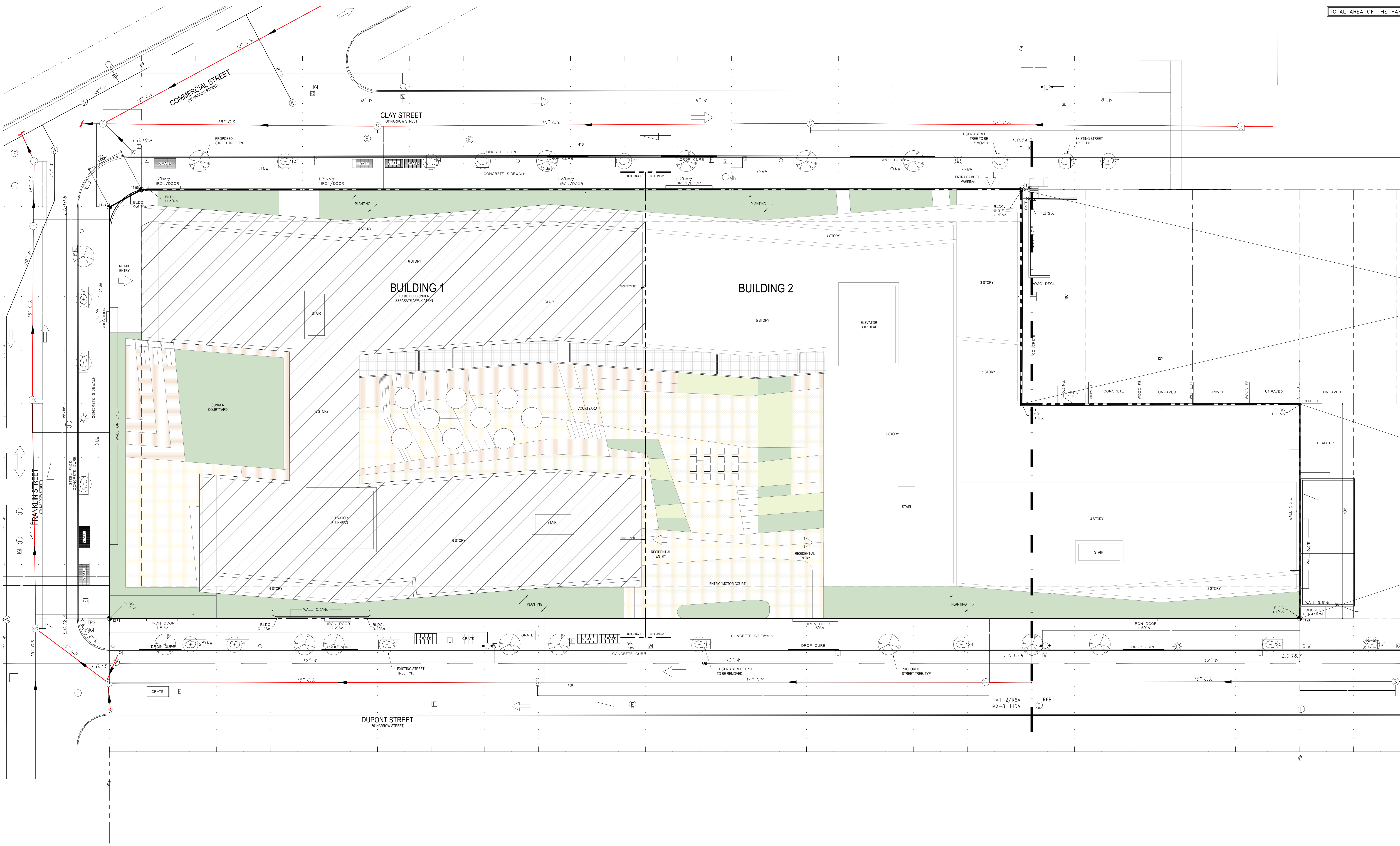
© ALL RIGHTS RESERVED 2022

URN: MES

## **APPENDIX B**

### **Proposed Development Plans**





1 Site Plan - Bldg 2  
SCALE: 1/16"=1'-0"

CLAY STREET

FRANKLIN ST

DUPONT STREET

BLDG 1

BLDG 2

KEY PLAN

NOT FOR CONSTRUCTION

NOTES:

NO. DATE REVISION

75 Dupont Street

DUPONT STREET 1 LLC

HILL | WEST ARCHITECTS

Expeditor: Pine New York

Structural Engineer: McNamara Salvia

MEP Engineer: MG Engineering

Environmental Consultant: Haley & Aldrich

Ceotechnical/SQE Engineer: JZN Engineering

Facade Consultant: DESIMONE

Vertical Transportation: Jenkins & Huntington

Construction Manager: Omnibuild Construction Inc.

DOB STAMPS & SIGNATURES:

DWG TITLE:

SITE PLAN - BLDG 2

NB# 321805855

SEAL & SIGNATURE:

DATE: 9/30/2021

PROJECT # 21A15

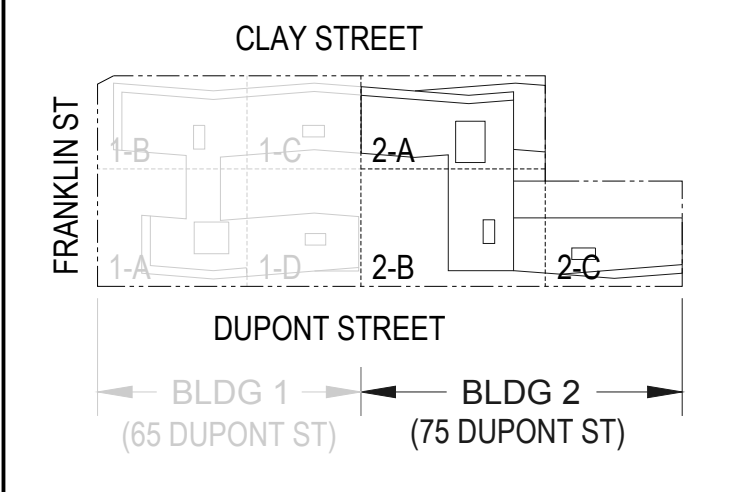
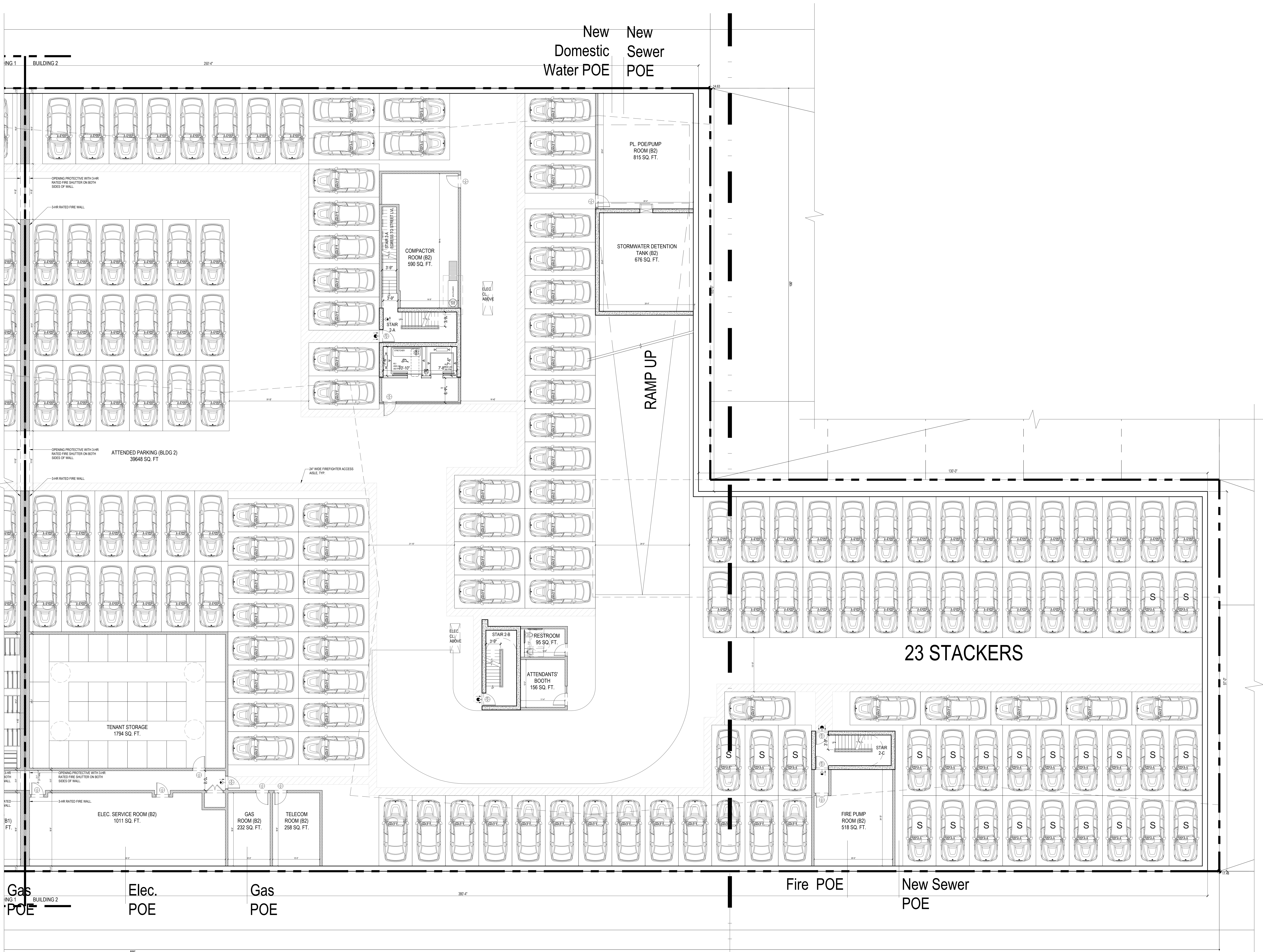
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A-159.00

DWG NO







# KEY PLAN

## NOTES:

## NOT FOR CONSTRUCTION

NO. DATE REVISION.

Number: Date: Revision:

Project:  
**75 Dupont Street**  
Brooklyn,  
NY 11222

Owner:  
**DUPONT STREET 1 LLC**  
520 Madison Avenue,  
Suite 3501,  
New York, NY 10022  
(646) 472-1900

Architect:  
**HILL | WEST**  
ARCHITECTS  
11 BROADWAY  
17TH FLOOR  
NEW YORK, NY 10004  
T. 212.213.8807

Expeditor:  
**Pine New York**  
44 Antigonish Crossway #1676,  
Greenwich, CT 06830  
(646) 553-8888

Structural Engineer:  
**McNamara Salvia**  
45 West 45th Street, 10th Floor,  
New York, NY 10036  
(212) 246-9800

MEP Engineer:  
**MG Engineering**  
116 West 32nd Street,  
New York, NY 10001  
(212) 643-9055

Environmental Consultant:  
**Haley & Aldrich**  
70 Blanchard Road, Suite 204  
Burlington, MA 01803  
(617) 886-7400

Geotechnical/SOE Engineer:  
**JZN Engineering**  
99 Morris Avenue, Suite 302  
Springfield, NJ 07081  
(973) 218-6551

Facade Consultant:  
**DESIMONE**  
140 Broadway, 25th Floor  
New York, NY 10005  
(212) 532-2211

Vertical Transportation:  
**Jenkins & Huntington**  
1251 Avenue of the Americas, Suite 520  
New York, NY 10020  
(212) 696-1818

Construction Manager:  
**Omnibuild Construction Inc.**  
141 W. 36th Street, Suite 14 South  
New York, NY 10018  
(212) 419-1930

DOB STAMPS & SIGNATURES:

DWG TITLE:

CELLAR FLOOR PLAN - BLDG 2

NB# 321805855

SEAL & SIGNATURE:

DATE: 9/30/2021

PROJECT # 21A15

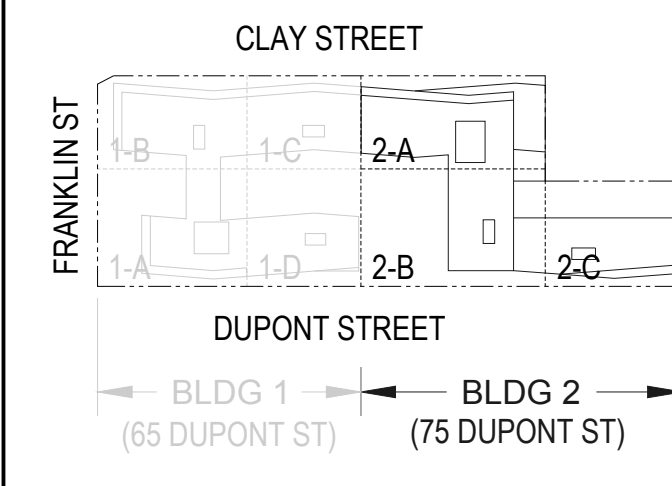
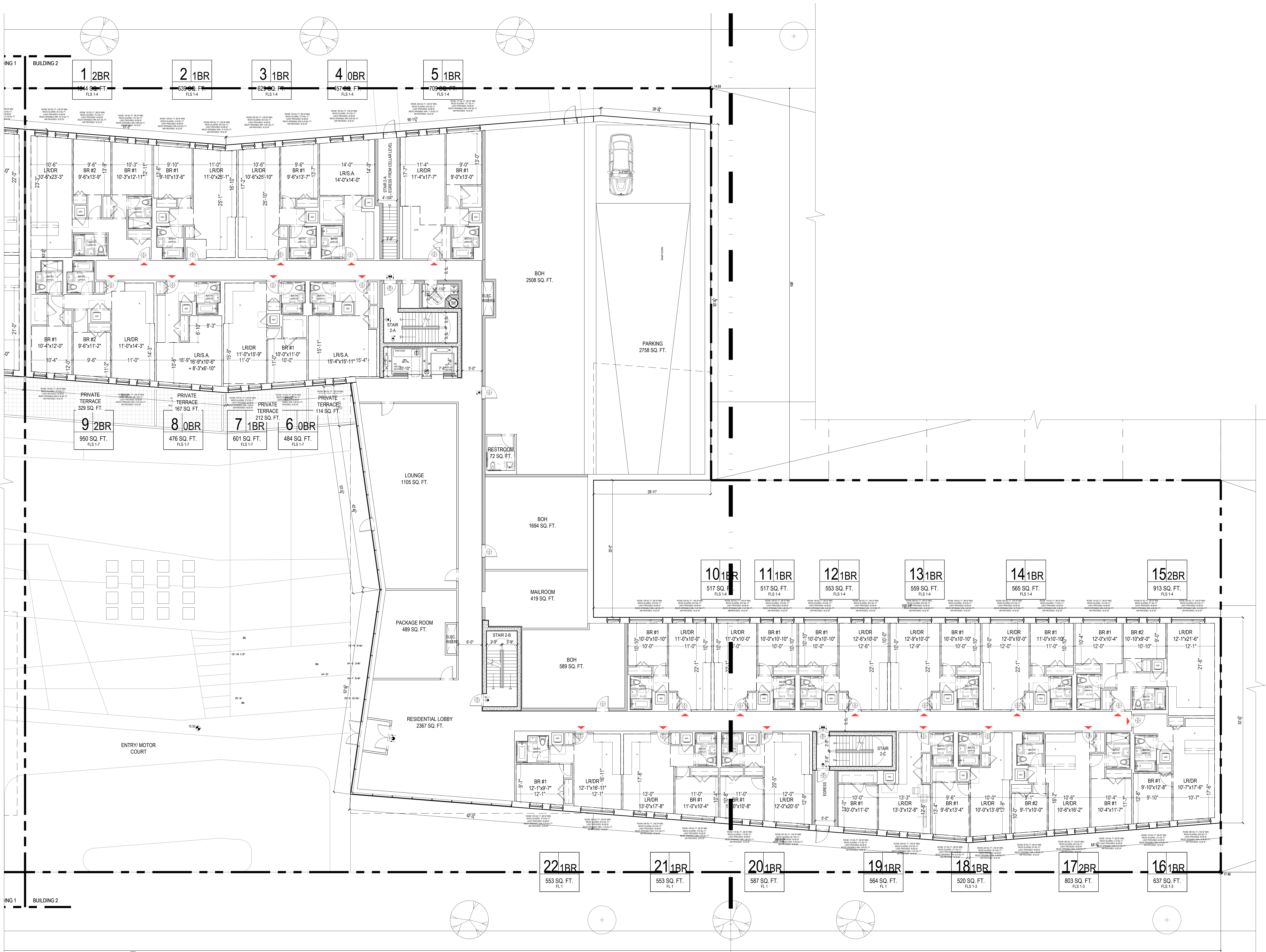
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DWG NO.

1 Cellar Floor Plan - Bldg 2  
SCALE: 1/8"=1'-0"





# KEY PLAN

## NOTES:

## NOT FOR CONSTRUCTION

NO. DATE REVISION

Number: Date: Revision:

Project:  
**75 Dupont Street**  
Brooklyn,  
NY 11222

Owner:  
**DUPONT STREET 1 LLC**  
520 Madison Avenue,  
Suite 3501,  
New York, NY 10022  
(646) 472-1900

Architect:  
**HILL | WEST**  
ARCHITECTS  
11 BROADWAY  
17TH FLOOR  
NEW YORK, NY 10004  
T. 212.212.8807

Expeditor:  
**Pine New York**  
44 Ardenmore Crossway #1676,  
Greenwich, CT 06830  
(646) 553-8888

Structural Engineer:  
**McNamara Salvia**  
45 West 45th Street, 10th Floor,  
New York, NY 10036  
(212) 246-9800

MEP Engineer:  
**MG Engineering**  
116 West 32nd Street,  
New York, NY 10001  
(212) 643-9955

Environmental Consultant:  
**Haley & Aldrich**  
70 Blandford Road, Suite 204  
Burlington, MA 01803  
(617) 886-7400

Geotechnical/SOE Engineer:  
**JZN Engineering**  
99 Morris Avenue, Suite 302  
Springfield, NJ 07081  
(973) 218-6551

Facade Consultant:  
**DESIMONE**  
140 Broadway, 25th Floor  
New York, NY 10005  
(212) 532-2211

Vertical Transportation:  
**Jenkins & Huntington**  
1251 Avenue of the Americas, Suite 520  
New York, NY 10020  
(212) 696-1818

Construction Manager:  
**Omnibuild Construction Inc.**  
141 W. 36th Street, Suite 14 South  
New York, NY 10018  
(212) 419-1930

DOB STAMPS & SIGNATURES:

DWG TITLE:

1ST FLOOR PLAN - BLDG 2

NB# 321805855

SEAL & SIGNATURE:

DATE: 9/30/2021

PROJECT # 21A15

SCALE: 1/8"= 1'-0"

A-164.00

DWG NO.

1 1st Floor Plan - Bldg 2  
SCALE: 1/8"=1'-0"



## **APPENDIX C**

### **Previous Reports**

**93 DUPONT STREET – BLOCK 2487, LOT 57**

**BROOKLYN, NEW YORK**

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# **Remedial Investigation Report**

**NYC VCP Site Number: (17TMP0160K)**

**Prepared for:**

DUPONT STREET DEVELOPERS, LLC  
87-10 Queens Blvd  
Elmhurst, NY 11373

**Prepared by:**

Goldberg Zoino & Associates of New York, P.C. d/b/a  
GZA GeoEnvironmental of New York  
104 West 29th Street, 10th Floor  
New York, New York 10001

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December 2016

# REMEDIAL INVESTIGATION REPORT

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- Appendix D Soil Boring Geologic Logs
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- Appendix F Redevelopment Plan

## LIST OF ACRONYMS

<b>Acronym</b>	<b>Definition</b>
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 VCP	New York City Voluntary 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
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OSHA	Occupational Safety and Health Administration
PID	Photoionization Detector
PCBs	Polychlorinated Biphenols
PCE	Tetrachloroethene
QEP	Qualified Environmental Professional
RI	Remedial Investigation
RIR	Remedial Investigation Report
RRSCOs	Restricted Residential Soil Cleanup Objectives

SCO	Soil Cleanup Objective
SPEED	Searchable Property Environmental Electronic Database
SVI	Soil Vapor Intrusion (Guideline)
SVOC	Semi-Volatile Organic Compound
TCE	Trichloroethene
UUSCOs	Unrestricted Use Soil Cleanup Objectives
USTs	Underground Storage Tanks
VOC	Volatile Organic Compound

# CERTIFICATION

I, David M. Winslow, am a Qualified Environmental Professional, as defined in RCNY § 43-1402(tt). I have primary direct responsibility for implementation of the Remedial Investigation for 93 Dupont Street (Site). 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.

David M. Winslow

12/15/16



---

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 93 Dupont Street in the Greenpoint section of Brooklyn, New York and is identified as Block 2487 and Lot 57 on the New York City Tax Map. The Site is 13,000-square feet and is bounded by residential buildings to the north, Dupont Street to the south, residential buildings to the east, and vacant industrial buildings, also owned by the Dupont Street Developer, LLC, to the west. Currently, the Site is a vacant former warehouse that is a single open room with a narrow elevated catwalk on the north side of the room. The building is constructed primarily of concrete block with a concrete floor.

## **Summary of Proposed Redevelopment Plan**

The proposed future use of the Site will consist of a new multifamily residential building. The current zoning designation is M1-2/R6A, Industrial and Manufacturing, as well as, Residential. The proposed use is consistent with existing zoning for the property and includes a planned five story, market rate, residential building with one basement floor constructed to approximately 5 feet below grade, which will contain indoor utility/mechanical and residential amenities, bicycle parking, and storage space within the majority of the building footprint. The remainder of the rear lot will be built at the basement depth and completed as outdoor parking with 18 parking spaces. There will be 27 residential units in the building with a gross construction floor area of about 31,623 square feet.

The building height will be approximately 50 feet, with a building footprint of 130 feet wide and 52 feet deep and a 5-foot setback in the front. A 38 foot deep backyard will be completed at a vertical depth of about 5 feet below current grades. There will be a 17 foot wide driveway on the east side of the lot that ramps down to the backyard parking area from street grade. The finished surface cover in the backyard will be concrete slab. The front yard will be completed with concrete paving and ramps.

It is anticipated that demolition of the existing structure will take place prior to excavation across the entire lot, with an excavation depth of approximately 5.5 feet planned. The excavation quantity is estimated (based on a 13,000 sf site footprint and 5.5-ft depth) to be about 2,700 cubic yards (or about 4,300 tons). Excavation is anticipated to be at or extend below the water table in some portions of the building.

### **Summary of Past Uses of Site and Areas of Concern**

The adjoining properties have different uses. Immediately to the north are residential properties with the residential structures close to Clay Street with at least partially vegetated backyards that extend to the existing Site building. These properties are zoned R6B. The properties on the north side of Clay Street are zoned M1-2/R6 and include mixed commercial operations and potential residential properties. South of the Site is Dupont Street with residential properties and a senior housing center. These properties are zoned R6B. Residential properties are also located to the east with the same R6B zoning. To the west are additional vacant industrial buildings owned by the Dupont Street Developer, LLC that were formerly used by the Nuhart & Company Plastics Manufacturing Company. A series of investigations on Lots [1, 10, 12, 17, 18, 20, 21, 72, and 78] of the Nuhart factory building have identified environmental impacts that are currently being managed under NYS DEC authority within the Inactive Hazardous Waste Site Program (Registry site) and Petroleum Spills program. Known contamination includes Phthalates (bis(2-ethylhexyl) phthalate (DEHP), Di-n-octyl phthalate) and Hecla oil, and Trichloroethylene (TCE) plumes, as well as a petroleum spill [and tanks]. These properties are zoned M1-2/R6A. The Office of Environmental Remediation's (NYC OER's) SPEED database did not identify schools, hospitals, or day care facilities within 500 feet of the site.

Seventeen (17) underground storage tanks (USTs) and associated sub-grade pipe trenches were cleaned out and closed in place at the Nuhart factory Registry site (to the west of the subject site) in 2006; this work was conducted under NYSDEC oversight. The tanks included 8 USTs formerly containing plasticizers (phthalates) and 4 USTs containing "Super Hecla" oil (a heavy-weight machine lubricant) located at the Registry site and 5 USTs (3 fuel oil tanks and 2 chemical tanks containing methyl tert-butyl ketone and acetone) located in the associated NuHart manufacturing buildings (Lots 20 and 21). Spill #0601852 was reported to the NYSDEC for a petroleum release associated with the fuel oil USTs. The closest distance



from the identified tanks (on Lot 21) to the subject Site (the Lot 57 lot line) is approximate 150 feet.

Phthalates and lubricating oil (Hecla oil), most likely released from the Registry site's tank and piping/trench systems, are present as a light non-aqueous-phase liquid (LNAPL) plume floating on the groundwater surface. The LNAPL plume is present beneath much of the Registry Site, particularly in the western half of the Registry site where most of the phthalate and lubricating oil-related infrastructure was present. The closest distance from the identified edges of the phthalate to the subject Site (the Lot 57 lot line) is approximate 400 feet.

The TCE (and related chlorinated solvents) plume was detected at limited solvent "hot spot" areas in the northeastern portion of the Registry site. This "hot spot" extends slightly offsite beneath the sidewalk on the south side of Clay Street, but does not extend to the north side of Clay Street, or to the east of the Registry site. The distance from the identified edges of the TCE to the subject Site (the Lot 57 lot line) is approximate 200 feet.

Based on information presented in a 2005 Phase I Environmental Site Assessment prepared by FPM Group for the larger Nuhart & Company facility, the subject Site was used as a storage warehouse until it became vacant in 2004; no manufacturing took place within Lot 57. Prior to Dupont Street Developer, LLC owning the Site, the property was owned by 49 Dupont Realty Corp and Stralin Realty – both reportedly operating it as Nuhart & Company, Inc. Prior to March 1961 the Site was owned by Matthew and Julia Much. Historic documents suggest that while operated by Nuhart & Company, the subject Site was solely used as warehouse storage.

Based on the Phase I Site reconnaissance and review of previous investigations, it appears the entire building on Lot 57 was used to store finished materials and there were no specific areas where former site activities are suspected to have resulted in the release of contaminated media. Based on the previous waste characterization work conducted at the subject Site, there is the potential for historic urban fill material of unknown origin to have been placed on the subject Site during or prior to construction of the existing on-site building.

### **Summary of the Work Performed under the Remedial Investigation**

Roux and FPM on behalf of Dupont Street Developer, LLC performed the following scope of work in accordance with the remedial investigation work plan transmitted to NYC OER on February 10, 2016.

1. Conducted a Site inspection to identify AOCs and physical obstructions (i.e. structures, buildings, etc.);
2. Installed eight soil borings at the project Site, and collected a total of 21 soil samples and two field duplicates for chemical analysis from the soil borings to evaluate soil quality;
3. Installed five groundwater monitoring wells across the Site to establish groundwater flow and collected a total of five groundwater samples and one field duplicate for chemical analysis to evaluate groundwater quality; and
4. Installed seven soil vapor probes around the Site perimeter and collected a total of seven soil vapor samples and three ambient air samples for chemical analysis.

### **Summary of Environmental Findings**

Three distinct geologic strata were encountered at the Site between land surface (sidewalk grade) and a maximum depth of 15 feet. These strata include from land surface downward:

- Fill material, commonly referred to as “historic fill”, which is present across most of the Site with a thickness that ranges from approximately 1 to 4 feet.
- A brown sand and silt strata, with trace amounts of gravel, underlies the “historic fill” strata and extends downward with a thickness of approximately 10 to 13 feet.
- A brown clayey silt strata underlies the sand and silt strata and extends downward to the maximum depth of borings drilled at the Site.
- The average depth to groundwater is about 6.2 feet and the range in depth is from 4.4 ft to 8.74 ft. Groundwater flow, based on the measured depths, is from east to west.

Soil/fill samples collected during the RI were compared to the NYSDEC Part 375-6 Unrestricted Use and Restricted Residential Use (Track 2) Soil Cleanup Objectives (UUSCOs and RRSCO). There were no UUSCOs exceedances for volatile organic compounds (VOCs) and polychlorinated biphenyls (PCBs), and no RRSCO exceedances for Pesticides. The semi-volatile organic compounds (SVOCs), benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-c,d)pyrene] were detected at concentrations above their respective UUSCOs and RRSCO in three of the soil borings at shallow levels; chrysene and

dibenz(a,h)anthracene were detected above their respective UUSCOs and RRSCO from a shallow fill sample collected from 0 to 2 ft bgs; benzo(k)fluoranthene was detected above its UUSCO but below the RRSCO in two samples at 0 to 2 ft bgs; and chrysene was detected above its UUSCO, but below its RRSCO, in one sample at 0-2 ft bgs. Overall, the SVOCs exceedances were observed from the shallow fill soil (0-2 ft bgs). There were no SVOCs exceedance in the intermediate or deep soil samples (4-12 ft bgs) tested. Bis(2-ethylhexyl) phthalate was detected with the maximum concentration of 2,000 µg/kg and was below the Residential Supplemental SCO level. Bis(2-ethylhexyl) phthalate and Di-n-octyl phthalate have been detected in contaminated soil and groundwater beneath the NuHart manufacturing buildings to the west, however, on-going monitoring at the site shows no indication that the low-level soil contamination identified on Lot 57 is associated with those source areas.

Five metals (barium, lead, copper, mercury, and zinc) were detected above Track 1 UUSCOs. Only barium (max. 490 mg/kg) and lead (max. 2500 mg/kg) were detected above the RRSCO. Overall, the findings are consistent with observations for readily available public documents from other historic fill sites in NYC and did not indicate an on-Site release of hazardous substances.

Groundwater samples collected during the RI showed no observation of VOCs, PCBs, and Pesticides that exceed the NYSDEC Ambient Water-Quality Standards and Guidance Values (AWQSGVs). Two out of the five monitoring wells contained SVOC detections exceeding AWQSGVs. Specifically, phenol (3.5µg/L) was found exceeding AWQSGVs in one onsite monitoring well. Other SVOCs exceedances were observed from offsite monitoring well MW-102 (located within the Nuhart property, on adjacent Lot 17 to the west); where benzo[a]anthracene (0.11 µg/L), benzo[a]pyrene (0.11 µg/L), benzo[b]fluoranthene (0.15 µg/L), benzo[k]fluoranthene (0.06 µg/L), chrysene (0.1 µg/L), and indeno[1,2,3-cd]pyrene (0.08 µg/L) were detected. The SVOC concentrations detected above the AWQSGVs were reported as estimated by the laboratory. Bis(2-ethylhexyl) phthalate was detected at 3.9 µg/L and 4.7 µg/L in two onsite monitoring wells, both detections were below the NYSDEC AWQSGV of 5 µg/L. Di-n-octyl phthalate was not detected in any of the groundwater samples on the site. Bis(2-ethylhexyl) phthalate and Di-n-octyl phthalate have been detected in the phthalate plume beneath the Nuhart Registry site to the west, however, on-going monitoring at the site shows no indication that the low-level groundwater contamination identified on Lot 57 are associated with the plume.

Dissolved metals were observed around or slightly above their NYSDEC AWQSGVs. Specifically, antimony ranged from 0.0031 µg/L to 0.0036 µg/L. Iron was detected at 0.338 µg/L. Selenium ranged from 0.017 µg/L to 0.043 µg/L. For the offsite monitoring well (MW-102), lead was detected at 0.0255 µg/L and manganese was detected at 0.3949 µg/L.

Approximately 26 petroleum-related and chlorinated VOCs were detected above method detection limits within the seven soil vapor samples collected. Soil vapor results were compared with the NYSDOH Final Guidance on Soil Vapor Intrusion (October 2006) values. Low concentrations of petroleum-related VOCs were detected in each of the seven soil vapor samples. Benzene detections ranged from 0.783 to 2.67 micrograms per cubic meter (µg/m<sup>3</sup>). Ethylbenzene detections ranged from 0.877 to 2.76 µg/m<sup>3</sup>. Toluene detections ranged from 1.05 to 4.03 µg/m<sup>3</sup>. Total xylenes detections ranged from 2.91 to 12.93 µg/m<sup>3</sup>. The highest concentration detected was 54.5 µg/m<sup>3</sup> of carbon disulfide. Carbon tetrachloride was detected in one indoor air sample and two outdoor air samples, with a maximum concentration of 0.377 µg/m<sup>3</sup>. Tetrachloroethene (PCE) was not detected in any of the soil vapor samples. PCE was detected in the indoor air sample and the outdoor air samples, with a maximum concentration of 0.224 µg/m<sup>3</sup>. TCE was not detected in any of the samples collected at the Site. 1,1,1-trichloroethane (1,1,1-TCA) was detected in one of the soil vapor samples at a concentration of 1.42 µg/m<sup>3</sup>. Cis-1,2-dichloroethene (Cis-1,2-DCE), 1,1-dichloroethene (1,1-DCE), and vinyl chloride were not detected in any soil vapor, indoor air, or outdoor air samples during this RI. The soil vapor survey does not indicate impacts from the TCE plume beneath neighboring areas of the factory building to the west. Based on the VOC concentrations detected and the NYSDOH decision matrices, no further action would be required. Impacts on soil, groundwater and soil vapor from petroleum and chlorinated VOCs have been previously characterized to the west and northwest beneath other areas of the Nuhart factory building.



## REMEDIAL INVESTIGATION REPORT

### **1.0 SITE BACKGROUND**

Dupont Street Developers, LLC (the “Applicant”) has requested to enroll in the New York City Voluntary Cleanup Program (NYC VCP) to investigate and remediate a 0.3-acre (13,000 square foot) site located at 93 Dupont Street in the Greenpoint section of Brooklyn, New York (Site). Residential use is proposed for the property. The RI work was performed between February 18, 2016 and March 11, 2016. 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 93 Dupont Street in the Greenpoint section of Brooklyn, New York and is identified as Block 2487 and Lot 57 on the New York City Tax Map. Figure 1 shows the Site location. The Site is 13,000-square feet and is bounded by residential buildings to the north, Dupont Street to the south, residential buildings to the east, and vacant industrial buildings, also owned by the Dupont Street Developer, LLC, to the west. A map of the site boundary is shown in Figure 2. Currently, the Site is a vacant former warehouse that is a single open room with a narrow elevated catwalk on its north side. The building is constructed primarily of concrete block with a concrete floor.

#### **1.2 Proposed Redevelopment Plan**

The proposed future use of the Site will consist of a new multifamily residential building. The current zoning designation is M1-2/R6A, Industrial and Manufacturing, as well as, Residential. The proposed use is consistent with existing zoning for the property and includes a planned five story, market rate, residential building with one basement floor constructed to approximately 5 feet below grade, which will contain indoor utility/mechanical and residential amenities, bicycle parking, and storage space within the majority of the building footprint. The remainder of the rear lot will be built at the basement depth and completed as outdoor parking with 18 parking spaces. There will be 27 residential units in the building with a gross construction floor area of about 31,623 square feet.

The building height will be approximately 50 feet, with a building footprint of 130 feet wide and 52 feet deep and a 5-foot setback in the front. A 38 foot deep backyard will be completed at a vertical depth of about 5 feet below current grades. There will be a 17 foot wide driveway on the east side of the lot that ramps down to the backyard parking area from street grade. The finished surface cover in the backyard will be concrete slab. The front yard will be completed with concrete paving and ramps.

It is anticipated that demolition of the existing structure will take place prior to excavation across the entire lot, with an excavation depth of approximately 5.5 feet planned. The excavation quantity is estimated (based on a 13,000 sf site footprint and 5.5-ft depth) to be about 2,700 cubic yards (or about 4,300 tons). Excavation is anticipated to be at or extend below the water table in some portions of the building. The existing building will be demolished prior to construction activities.

### **1.3 Description of Surrounding Property**

The adjoining properties have different uses. Immediately to the north are residential properties with the residential structures close to Clay Street with at least partially vegetated backyards that extend to the existing Site building. These properties are zoned R6B. The properties on the north side of Clay Street are zoned M1-2/R6 and include mixed commercial operations and potential residential properties. South of the Site is Dupont Street with residential properties and a senior housing center. These properties are zoned R6B. Residential properties are also located to the east with the same R6B zoning. To the west are additional vacant industrial buildings owned by the Dupont Street Developer, LLC that were formerly used by the Nuhart & Company Plastics Manufacturing Company. A series of investigations on Lots [1, 10, 12, 17, 18, 20, 21, 72, and 78] of the adjacent Nuhart factory site have identified environmental impacts that are currently being managed under NYS DEC authority within the Superfund and Spills programs. Known contamination includes phthalate and TCE plumes, as well as a petroleum spill [and tanks]. These properties are zoned M1-2/R6A. The Office of Environmental Remediation's (NYC OER's) SPEED database did not identify schools, hospitals, or day care facilities within 500 feet of the site.

## **2.0 SITE HISTORY**

### **2.1 Past Uses and Ownership**

Based on information presented in a 2005 Phase I Environmental Site Assessment (Appendix A) prepared by FPM Group for the larger Nuhart & Company facility, the Site was used as a storage warehouse until it became vacant in 2004 and no manufacturing took place within Lot 57. Prior to Dupont Street Developer, LLC owning the Site, the property was owned by 49 Dupont Realty Corp and Stralin Realty – both reportedly operating it as Nuhart & Company, Inc. Prior to March 1961, the Site was owned by Matthew and Julia Much. Historic documents suggest that while operated by Nuhart & Company, the Site was solely used as warehouse storage.

### **2.2 Previous Investigations**

Manufacturing operations took place to the west of the Site at the westerly portions of the Nuhart Plastic facility. A portion of this area is currently an Inactive Hazardous Waste registry site (the Registry site). Seventeen (17) underground storage tanks (USTs) and associated sub-grade pipe trenches were cleaned out and closed in place at the NuHart Registry site (to the west of the subject site) in 2006; this work was conducted under NYSDEC oversight. The tanks included 8 USTs formerly containing plasticizers (phthalates) and 4 USTs containing "Super Hecla" oil (a heavy-weight machine lubricant) located at the Registry site and 5 USTs (3 fuel oil tanks and 2 chemical tanks containing methyl tert-butyl ketone and acetone) located in the associated NuHart manufacturing buildings (Lots 20 and 21). Spill #0601852 was reported to the NYSDEC for a petroleum release associated with the fuel oil USTs. The closest distance from the identified tanks (on Lot 21) to the subject Site (the Lot 57 lot line) is approximate 150 feet.

Phthalates and lubricating oil (Hecla oil), most likely released from the Registry site's tank and piping/trench systems, are present as a LNAPL plume floating on the groundwater surface. The LNAPL plume is present beneath much of the NuHart Registry Site, particularly in the western half of the Registry site where most of the phthalate and lubricating oil-related infrastructure was present. The closest distance from the identified edges of the phthalate to the subject Site (the Lot 57 lot line) is approximate 400 feet.

The TCE (and related chlorinated solvents) plume was detected at limited solvent "hot spot" area in the northeastern portion of the NuHart Registry. This "hot spot" extends slightly offsite beneath the sidewalk on the south side of Clay Street, but does not extend to the north side of Clay Street, or to the east of the Registry site. The distance from the identified edges of the TCE to the subject Site (the Lot 57 lot line) is approximate 200 feet.

To date, the following investigations/studies have been conducted for the entire Former NuHart Plastic Registry site.

- Preliminary Phase I Environmental Site Assessment, prepared by RTP Environmental Associates, Inc. dated September 2004
- Phase I Environmental Site Assessment, prepared by FPM group dated April, 2005;
- Underground Tank Closure Report, prepared by Advanced Site Restoration, LLC, dated July 2006.
- Phase II Site Assessment prepared by Advanced Site Restoration, LLC., dated March 2007;
- Product Testing Report prepared by FPM Group, dated February 23, 2015;
- Test Pit Report, prepared by FPM Group, dated May 28, 2015;
- Remedial Investigative Report prepared by Ecosystems Strategies, Inc., dated July 30, 2015;
- Supplemental Remedial Investigative Reports, prepared by Ecosystems Strategies, Inc., dated October 2015;
- Feasibility Study prepared by FPM Group, dated April 2016;
- Revised Feasibility Study prepared by GZA, dated August 2016.

As part of the previous investigations conducted at the Registry site, one boring was installed at the Site. Specifically, a March 2007 Phase II Site Assessment of 49-55 Dupont Street (Appendix B), prepared by Advanced Site Restoration, LLC included one soil boring (SB-1) that was advanced within Lot 57. Two soil samples were collected from SB-1, one from 1 to 5 feet and a second from 5 to 10 feet below land surface. Soil samples were analyzed for the Spill Technology and Remediation Series Memo #1 (STARS) List for VOCs and SVOCs with no detections reported. In January 2016, a waste characterization sampling program was conducted



by Roux Associates, which included collection of six soil samples spaced uniformly across the Site. These samples were composite samples from the zero to ten foot interval. Field characterization of soils identified fill material in the upper several feet in some borings. Although some analytes were detected, there were no VOCs, SVOCs, PCBs, or pesticides detected above NYSDEC, UUSCOs. One of 25 metals analyzed, iron, was detected above NYSDEC Residential Use SCOs (RUSCOs).

### **2.3 Site Inspection**

Several site inspections have been conducted by Roux Associates to evaluate areas of concern between June 2015 and March 2016; additional inspections were conducted by GZA Environmental of New York (GZA) between August 2016 and September 2016 under the direction of or conducted by the Qualified Environmental Professional (QEP) certifying this report. No specific areas of concern were observed during these inspections.

### **2.4 Areas of Concern**

To the west of the subject Site, the LNAPL plume is present beneath much of the Registry site, particularly in the western half of the Registry site where most of the phthalate and hecla oil-related infrastructure was present. The top of the LNAPL-impacted zone is generally found at about 13 to 15 feet below the top of the existing slab (except in immediate proximity to tanks) at the registry site. The bottom of the LNAPL-impacted zone was generally identified at about 14 to 17 feet below the top of the slab. LNAPL extends to the west of the Registry site; but, not as far as the playground approximate 100 ft to the west of the Registry site, the vacant property to the southwest (Lot 57), or across Clay or Commercial Streets.

The TCE and related chlorinated solvent plume were detected at a limited solvent "hot spot" area in the northeastern portion of the Registry site. This "hot spot" extends slightly off the Registry site beneath the sidewalk on the south side of Clay Street. The TCE impacted soil has been identified only at depth (generally 10 to 25 feet bgs). Soil above 10 feet bgs did not exhibit detections of chlorinated solvent VOCs in excess of the Unrestricted Use Site Cleanup Objectives, with the only exception being soil in the 0 to 5-foot interval of onsite soil boring 2SB-2.

Based on the Phase I, Site inspections, and review of previous investigations, it appears that the area of the Nuhart building located on Lot 57 was used to store finished materials and there were no specific areas where former site activities are suspected to have resulted in the release of contaminated media. Based on the previous waste characterization work conducted at the Site, there is the potential for historic urban fill material of unknown origin to have been placed on the Site during or prior to construction of the existing on-site warehouse building.

### **3.0 PROJECT MANAGEMENT**

#### **3.1 Project Organization**

The QEP responsible for preparation of this RIR is a representative of Goldberg Zoino & Associates of New York, P.C.

#### **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, as well as, the Health and Safety Plan written by Advanced Site Restoration LLC (Appendix C).

#### **3.3 Materials Management**

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

## **4.0 REMEDIAL INVESTIGATION ACTIVITIES**

Roux and FPM on behalf of Dupont Street Developer, LLC performed the following scope of work in accordance with the remedial investigation work plan transmitted to OER on February 10, 2016.

1. Conducted a Site inspection to identify AOCs and physical obstructions (i.e. structures, buildings, etc.);
2. Installed eight soil borings at the project Site, and collected a total of 21t soil samples and two field duplicates for chemical analysis from the soil borings to evaluate soil quality;
3. Installed five groundwater monitoring wells across the Site to establish groundwater flow and collected a total of five groundwater samples and one field duplicate for chemical analysis to evaluate groundwater quality;
4. Installed seven soil vapor probes around the Site perimeter and collected a total of seven soil vapor samples and three ambient air samples for chemical analysis.

### **4.1 Geophysical Investigation**

A geophysical investigation was not performed as part of this scope of work, as no underground storage tanks (USTs), drums, etc. were identified in historic Sanborn Fire Insurance maps, during site inspection, or in any of the other documents reviewed and no historic demolition activities occurred at the Site.

### **4.2 Borings and Monitoring Wells**

#### **Drilling and Soil Logging**

Soil boring locations were identified in the field and are shown on Figure 3. A total of eight soil borings were advanced at the Site and on the adjacent lot as shown on Figure 3.

For all soil borings, soil samples were field screened for VOCs using a photoionization detector (PID). All soils were visually inspected for evidence of impacts (e.g., odors, staining, and visible free product) and the lithology was recorded, based on observation. Geologic logs were prepared by a scientist or engineer for each boring and are provided in Appendix D.



## Geoprobe Drilling Method

The Geoprobe drilling method at the Site involved the advancement of a two-inch diameter direct push core barrel into an undisturbed formation using downward pressure. The sample (generally collected in 5-foot intervals) is extruded from the core barrel within a macro-liner. Upon sample collection, the core barrel is returned to the borehole with a new liner and advanced to the next desired depth interval. Due to the nature and equipment used in this drilling, soil samples are collected in a continuous manner from the beginning of boring to the target depth. Soils were separated into a maximum of two-foot sections, field screened, and observed, with the field representatives observations used to prepare the boring logs.

## **Groundwater Monitoring Well Construction**

Temporary monitoring wells were installed within soil borings at five locations at the Site to evaluate groundwater quality. Wells were constructed of 1-inch inside-diameter, PVC casing and 0.010-inch slot machined screen. The temporary wells were constructed with 10 feet of well screen material and sampled after purging. Monitoring well and groundwater sampling locations are shown in Figure 3. Monitoring well construction logs for each well are provided in Appendix D.

## **Survey**

During the RI, all monitoring well locations were measured from fixed points for horizontal location and surveyed in the field using differential leveling for elevation to the nearest 0.01 foot.

## **Water Level Measurement**

All monitoring wells were gauged with a water level meter on February 18, 2016, February 19, 2016 and March 7, 2016 by Roux Associates and by FPM Group as part of a larger water level measurement round associated with monitoring of 49 Dupont Street, which is under NYSDEC oversight. Water level data is included in Table 2.

## **4.3 Sample Collection and Chemical Analysis**

As there were no specific Areas of Concern, sampling performed as part of the field investigation was conducted for the Site in accordance with the February 10, 2016 remedial investigation work plan, professional judgment, observed water levels, field instrument measurements, odor, or other field indicators. All media including soil, groundwater and soil

vapor have been sampled and evaluated in this 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**

Twenty-one soil samples were collected for chemical analysis during this RI. Data on soil sample collection for chemical analyses, including dates of collection and sample depths, are reported in Tables 1 and 3 and Appendix E. Figure 3 shows the horizontal location of samples collected in this investigation. Soil samples were analyzed for:

- Target Compound List (TCL) VOCs;
- TCL SVOCs;
- Pesticides;
- PCBs; and
- Target Analyte List (TAL) Metals.

Disposable sampling equipment was used for all sample collection. Field equipment blanks (two field blanks and two trip blanks) were collected to assess potential impacts to chemical analysis from sampling equipment. Two duplicate samples were also collected for quality assurance/quality control (QA/QC) purposes. All samples were collected in laboratory supplied containers and placed in coolers with ice. All samples were shipped by courier to the laboratory and analyzed by Alpha Analytical of Westborough, Massachusetts, an ELAP-certified laboratory.

### **Groundwater Sampling**

Five groundwater samples were collected for chemical analysis during this RI. Groundwater sample collection data is reported in Tables 1 and 3 and Appendix E. Figure 3 shows the locations of the groundwater monitoring wells. Groundwater samples were analyzed for:

- TCL VOCs;
- TCL SVOCs;
- Pesticides;

- PCBs; and
- TAL Metals (both total and dissolved).

Groundwater samples were collected using a peristaltic pump and disposable sampling equipment dedicated to each location. Filtered samples were laboratory filtered. Field equipment blanks (one field blank and one trip blank) were collected to assess potential impacts to chemical analysis from sampling equipment. One duplicate sample was also collected for quality assurance/quality control (QA/QC) purposes. All samples were collected in laboratory supplied containers and placed in coolers with ice. All samples were shipped by courier to the laboratory and analyzed by Alpha Analytical of Westborough, Massachusetts, an ELAP-certified laboratory.

### **Soil Vapor Sampling**

Seven soil vapor probes (SV-201 through SV-207) were installed and 10 air samples collected, including two outdoor ambient air samples (OA-302 and OA-303), and one indoor air sample (IA-301) for chemical analysis during this RI. Soil vapor sampling locations are shown in Figure 3. Soil vapor sample collection data is reported in Tables 1 and 3 and Appendix E. Methodologies used for soil vapor assessment conform to the *NYS DOH Final Guidance on Soil Vapor Intrusion, October 2006*.

During this RI, soil vapor points were installed by using a Geoprobe drill rig. New Teflon-lined tubing equipped with a threaded stainless steel fitting was lowered into the borehole and attached to the expendable soil vapor sampling point. With the exception of the SV-206 location, each borehole was filled with sand to 5.0 feet below land surface and a bentonite seal was placed to 4.5 feet below land surface (bls) forming an airtight seal between the tubing and the borehole to prevent infiltration of ambient air. At the SV-206 location, the soil vapor screen was set from 4.0 to 4.5 feet bls. Prior to sample collection, the Teflon-lined tubing was purged of approximately two volumes of the tubing using a vacuum pump set at a rate of 0.2 liters per minute. A tracer gas (i.e., helium) was used to enrich the atmosphere in a shroud covering the borehole in order to test the borehole seal and verify that ambient air was not being drawn into the sample. Following purging and verification with the tracer gas, the soil vapor sample was collected in the laboratory supplied 2.7-liter SUMMA canister.

All SUMMA canister samples were shipped by courier to the laboratory and analyzed by Alpha Analytical of Westborough, Massachusetts, an ELAP-certified laboratory for VOCs.

## 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 Jim Todaro
Chemical Analytical Laboratory	Chemical analytical laboratory(s) used in the RI is NYS ELAP certified and were Alpha Analytical of Westborough, Massachusetts
Chemical Analytical Methods	<p>Soil analytical methods:</p> <ul style="list-style-type: none"><li>• TAL Metals by EPA Method 6010C (rev. 2007);</li><li>• VOCs by EPA Method 8260C (rev. 2006);</li><li>• SVOCs by EPA Method 8270D (rev. 2007);</li><li>• Pesticides by EPA Method 8081B (rev. 2000);</li><li>• PCBs by EPA Method 8082A (rev. 2000);</li></ul> <p>Groundwater analytical methods:</p> <ul style="list-style-type: none"><li>• TAL Metals by EPA Method 6010C (rev. 2007);</li><li>• VOCs by EPA Method 8260C (rev. 2006);</li><li>• SVOCs by EPA Method 8270D (rev. 2007);</li><li>• Pesticides by EPA Method 8081B (rev. 2000);</li><li>• PCBs by EPA Method 8082A (rev. 2000);</li></ul> <p>Soil vapor analytical methods:</p> <ul style="list-style-type: none"><li>• VOCs by EPA Method TO-15.</li></ul>

## Results of Chemical Analyses



Laboratory data for soil, groundwater and soil vapor are summarized in Tables 4A through 4E, Tables 5A through 5E, and Table 6, respectively. Laboratory data deliverables for all samples evaluated in this RIR are provided in digital form in Appendix E.

## **5.0 ENVIRONMENTAL EVALUATION**

### **5.1 Geological and Hydrogeological Conditions**

#### **Stratigraphy**

Three distinct geologic strata were encountered at the Site between land surface (sidewalk grade) and a maximum depth of 15 feet. These strata include from land surface downward:

- Fill material, commonly referred to as “historic fill”, which is present across most of the Site with a thickness that ranges from approximately 1 to 4 feet.
- A brown sand and silt strata with trace amounts of gravel, underlies the “historic fill” strata and extends downward with a thickness of approximately 10 to 13 feet.
- A brown clayey silt strata, underlies the sand and silt strata and extends downward to the maximum depth of borings drilled at the Site.

#### **Hydrogeology**

A table of water level data for all monitoring wells is included in Table 2. The average depth to groundwater is 6.2 feet and the range in depth is 4.4 ft to 8.74 ft. A map of groundwater level elevations and inferred flow lines is shown in Figure 7. Groundwater flow is from east to west.

### **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. Soil/fill samples collected during the RI were compared to NYSDEC Part 375-6 Unrestricted Use (Track 1) and Restricted Residential Use (Track 2) Soil Cleanup Objectives (SCOs). A summary table of data for chemical analyses performed on soil samples is included in Table 4A through 4E. Figure 4 shows the locations and posts the values for soil/fill that exceed the 6NYCRR Part 375-6.8 Track 1 UUSCOs.

A total of 21 soil samples were collected for laboratory analysis from 8 soil borings located at the Site and on the adjacent lot.

#### *VOCs*

There were no VOCs detected above their Track 1 Unrestricted Use SCOs.

#### *SVOCs*

SVOCs benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-c,d)pyrene] were detected at concentrations above their UUSCOs and RRSCOs in three soil

samples (SB-103, SB-105, and SB-108) collected from 0-2 ft bgs (Table 4B); chrysene and dibenz(a,h)anthracene were detected above the UUSCOs and RRSCOs from shallow fill sample SB-103 and SB-105 collected from 0 to 2 ft bgs; benzo(k)fluoranthene was detected above its UUSCO but below the RRSCO in two samples (SB-103 and SB-105) at 0 to 2 ft bgs and chrysene was detected above its UUSCO, but below its RRSCO in sample SB-108, 0-2 ft bgs. Overall, the SVOCs exceedances were observed from the shallow fill soil (0-2 ft bgs). There were no SVOCs exceedance in the intermediate or deep soil samples (4-12 ft bgs) tested. Soil boring SB-103 has the greatest SVOC exceedances, where the concentrations are: benzo[a]anthracene (9,200 µg/kg), benzo[a]pyrene (8,400 µg/kg), benzo[b]fluoranthene (11,000 µg/kg), benzo[k]fluoranthene (3,400 µg/kg), chrysene (9,800 µg/kg), dibenzo[a,h]anthracene (1,300 µg/kg), and indeno[1,2,3-cd]pyrene (5,600 µg/kg). Bis(2-ethylhexyl) phthalate was detected at SB-101, SB-103, SB-104, and SB-108 with the maximum of 2,000 µg/kg at SB-101. These DEHP results were below the Residential Supplemental SCO level. Di-n-octyl phthalate was not detected in any of the soil samples on the site. Bis(2-ethylhexyl) phthalate and Di-n-octyl phthalate have been detected in contaminated soil and groundwater beneath the NuHart manufacturing buildings to the west (Registry site), however, on-going monitoring at the site shows no indication that the low-level soil contamination identified on Lot 57 is associated with those source areas.

### *Metals*

Five metals (barium, lead, copper, mercury, and zinc) were detected above Track 1 UUSCOs. Only barium and lead were detected above the RRSCOs. Specifically, lead was detected above RRSCOs in samples SB-105 (2,500 mg/kg) and SB-108 (680 mg/kg) (Table 4C). Barium was detected above RRSCOs in sample SB-105 (490 mg/kg). All the metal exceedances were observed from samples collected from shallow level soil at 0 to 2 ft bgs. SB-102 (10-12 ft bgs) collected from the offsite adjacent lot have metals above UUSCO for copper (67 mg/kg), lead (200 mg/kg), and zinc (230 mg/kg).

### *PCBs*

There were no exceedances of the SCO for total PCBs at the Site.

### *Pesticides*

There were no exceedances of the RRSCO for pesticides at the Site. P,P'-DDD and P,P'-DDE were detected slightly above the UUSCOs at 4.27 µg/kg and 3.54 µg/kg in the intermediate soil sample SB-101 (5 to 7 ft bgs). P,P'-DDE and P,P'-DDT were detected at 17.9 µg/kg and 77 µg/kg at shallow level soil SB-105 (0-2 ft bls). P,P'-DDD was also detected above the UUSCOs (7.9 µg/kg) at SB-108 (0-2 ft bls).

Overall, the findings are consistent with observations for readily available public documents from other historic fill sites in NYC and did not indicate an on-Site release of hazardous substances.

### **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 Table 5A through 5E. Figure 5 shows the location and posts the values for groundwater that exceed the NYSDEC Ambient Water-Quality Standards and Guidance Values (AWQSGVs).

#### *VOCs*

There were no VOCs detected at concentrations that exceed NYSDEC AWQSGVs.

#### *SVOCs*

Two out of the five monitoring wells contained SVOCs detections exceeding AWQSGVs. Specifically, phenol (3.5 µg/L) was found exceeding AWQSGVs in the onsite monitoring well MW-104. Other SVOCs exceedances were observed from offsite monitoring well MW-102 (located within the Nuhart Registry site property, on adjacent Lot 17 to the west), where benzo[a]anthracene (0.11 µg/L), benzo[a]pyrene (0.11 µg/L), benzo[b]fluoranthene (0.15 µg/L), benzo[k]fluoranthene (0.06 µg/L), chrysene (0.1 µg/L), and indeno[1,2,3-cd]pyrene (0.08 µg/L) were detected. The SVOC concentrations detected above the AWQSGVs were reported as estimated by the laboratory. The exceedances of NYSDEC AWQSGVs for the groundwater samples are shown on Figure 5. Bis(2-ethylhexyl) phthalate was detected at 3.9 µg/L in MW-103 and 4.7 µg/L in MW-104, both detected concentrations are below the NYSDEC AWQSGV of 5 µg/L. Di-n-octyl phthalate was not detected in any of the groundwater samples on the site.



Bis(2-ethylhexyl) phthalate and Di-n-octyl phthalate have been detected in the phthalate plume beneath the Nuhart Registry site to the west, however, on-going monitoring at the site shows no indication that the low-level groundwater contamination identified on Lot 57 are associated with the plume.

#### *Metals (Total)*

Groundwater samples collected from the five wells and analyzed contained one or more metals at total concentrations (not filtered) that exceed the NYSDEC AWQSGVs. Iron and selenium were detected above the AWQSGVs in four of the monitoring wells (MW-101, MW-102, MW-103, and MW-105), with the greatest concentrations of 43.9 µg/L and 0.044 µg/L, respectively. Manganese was detected above the AWQSGVs ranging from 0.34 µg/L at MW-101 to 1.08 µg/L at MW-102. Antimony was detected as exceeding its AWQSGV in MW-103 at 0.00378 µg/L. Other metal exceedances were also observed from the offsite monitoring well MW-102 including: arsenic (0.05676 µg/L), chromium (0.0727 µg/L), lead (1.901 µg/L), mercury (0.00175 µg/L), and thallium (0.00056 µg/L).

Most of these exceedances are not considered to be indicative of groundwater quality at the Site, but rather reflect the presence of sediment within the groundwater sample. The concentrations of dissolved metals, which better reflect the groundwater quality at the Site, are discussed below. The exceedances of NYSDEC AWQSGVs for the groundwater samples are shown on Figure 5.

#### *Metals (Dissolved)*

Dissolved metals were observed around or slightly above their NYSDEC AWQSGVs. Specifically, antimony ranged from 0.0031 µg/L at MW-104 to 0.0036 µg/L at MW-103. Iron was detected in MW-101 at 0.338 µg/L. Selenium ranged from 0.017 µg/L at MW-101 to 0.043 µg/L at MW-103. For the offsite monitoring well MW-102, lead was detected at 0.0255 µg/L and Manganese was detected at 0.3949 µg/L. These exceedances of the NYSDEC AWQSGVs for the groundwater samples are shown on Figure 5.

#### *PCBs*

PCBs were not detected at concentrations that exceed NYSDEC AWQSGVs.

## *Pesticides*

Pesticides were not detected at concentrations that exceed NYSDEC AWQSGVs.

### **5.4 Soil Vapor Chemistry**

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 6.

Figure 6 shows the location and posts the values for soil vapor samples with detected concentrations.

Approximately 26 petroleum-related and chlorinated VOCs were detected above method detection limits within the seven soil vapor samples collected. Soil vapor results were compared with NYS DOH Final Guidance on Soil Vapor Intrusion (October 2006) values. Low concentrations of petroleum-related VOCs were detected in each of the seven soil vapor samples (Table 6). Benzene detections ranged from 0.783 to 2.67 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ), with the maximum detection at SV-205. Ethylbenzene detections ranged from 0.877 to 2.76  $\mu\text{g}/\text{m}^3$ , with the maximum detection at SV-202. Toluene detections ranged from 1.05 to 4.03  $\mu\text{g}/\text{m}^3$ , with the maximum detection at SV-205. Total xylenes detections ranged from 2.91 to 12.93  $\mu\text{g}/\text{m}^3$ , with the maximum detection at SV-202. The highest concentration detected was 54.5  $\mu\text{g}/\text{m}^3$  of carbon disulfide detected at SV-204.

Regulatory guidance on soil vapor and indoor air quality is presented in Matrix 1 and Matrix 2 from the NYSDOH Center for Environmental Health (CEH) Bureau of Environmental Exposure Investigation (BEEI) Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006. Matrix 1 addresses TCE, carbon tetrachloride, and vinyl chloride, and Matrix 2 addresses 1,1-DCE, cis-1,2-DCE, PCE and 1,1,1-TCA. The matrices establish the conditions that require a response (i.e., monitoring, mitigation, or source identification) based on an evaluation of indoor air concentrations and sub-slab vapor concentrations. While the matrices are designed for evaluation of sub-slab and indoor samples and not for pre-development soil vapor sampling, a comparison of analytical results to these standards was done.

Carbon tetrachloride was detected in the indoor air sample and the outdoor air samples, with a maximum concentration of 0.377  $\mu\text{g}/\text{m}^3$  in each of the samples (IA-301, OA-302, OA-303). PCE was not detected in any of the soil vapor samples. PCE was detected in the indoor air

sample and the outdoor air samples, with a maximum concentration of 0.224  $\mu\text{g}/\text{m}^3$  in OA-303. TCE was not detected in any of the samples collected at the Site. 1,1,1-TCA was detected in one of the soil vapor samples at a concentration of 1.42  $\mu\text{g}/\text{m}^3$  in SV-201. Cis-1,2-DCE, 1,1-DCE, and vinyl chloride were not detected in any soil vapor, indoor air, or outdoor air samples during this RI. The soil vapor survey does not indicate impacts from the TCE plume beneath neighboring areas of the factory building to the west (Registry site). Based on the VOC concentrations detected and the NYSDOH decision matrices, no further action would be required. Impacts on soil, groundwater and soil vapor from petroleum and chlorinated VOCs have been previously characterized to the west and northwest beneath other areas of the factory building.

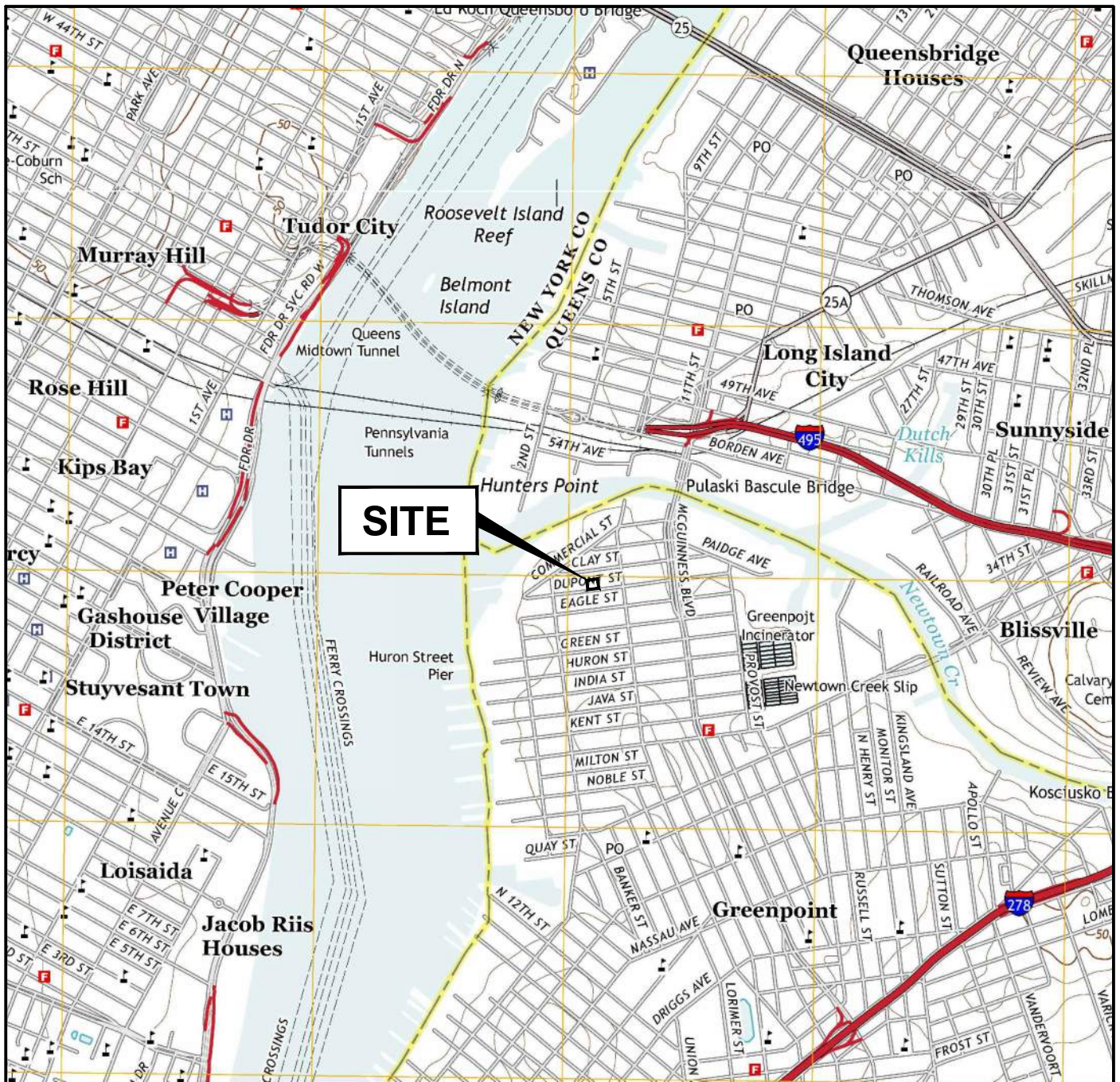
### **5.5 Prior Activity**

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.

The SVOCs and metals detected are consistent with historic fill, which matches the soil lithology observed during boring.

### **5.6 Impediments to Remedial Action**

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



0 1000' 2000' 4000'  
SCALE IN FEET 1" = 2000'

NEW YORK



QUADRANGLE LOCATION

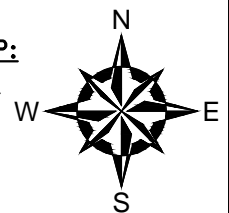
SOURCE:

BASE MAP FROM THE FOLLOWING USGS QUADRANGLE MAP:  
CENTRAL PARK, NY-NJ (2013) & FLUSHING, NY (2016)

DIGITAL TOPOGRAPHIC MAPS PROVIDED BY USGSSTORE.GOV.

CONTOUR ELEVATIONS REFERENCE NAVD 88,  
CONTOURS ARE SHOWN IN FEET AT 10' INTERVALS

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93 DUPONT STREET  
BROOKLYN, NEW YORK

PREPARED BY:



GZAGeoEnvironmental of NY  
Engineers and Scientists  
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PREPARED FOR:

DUPONT STREET  
DEVELOPERS, LLC

SITE LOCATION MAP

PROJ MGR: JB

REVIEWED BY: ZS

CHECKED BY: JB

FIGURE

DESIGNED BY: ZS

DRAWN BY: EM

SCALE: 1" = 2000'

1

DATE:

PROJECT NO.

REVISION NO.

OCTOBER, 2016

12.0076485.00

SHEET NO.





0 100' 200' 400'  
SCALE IN FEET 1" = 200'

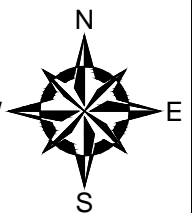
NEW YORK



QUADRANGLE LOCATION

**SOURCE:**

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93 DUPONT STREET  
BROOKLYN, NEW YORK

**PREPARED BY:**



GZA GeoEnvironmental of NY  
Engineers and Scientists  
www.gza.com

**PREPARED FOR:**

DUPONT STREET  
DEVELOPERS, LLC

LOT 57 SITE LOCATION

PROJ MGR: JB

REVIEWED BY: ZS

CHECKED BY: JB

FIGURE

DESIGNED BY: ZS

DRAWN BY: EM

SCALE: 1" = 2000'

2

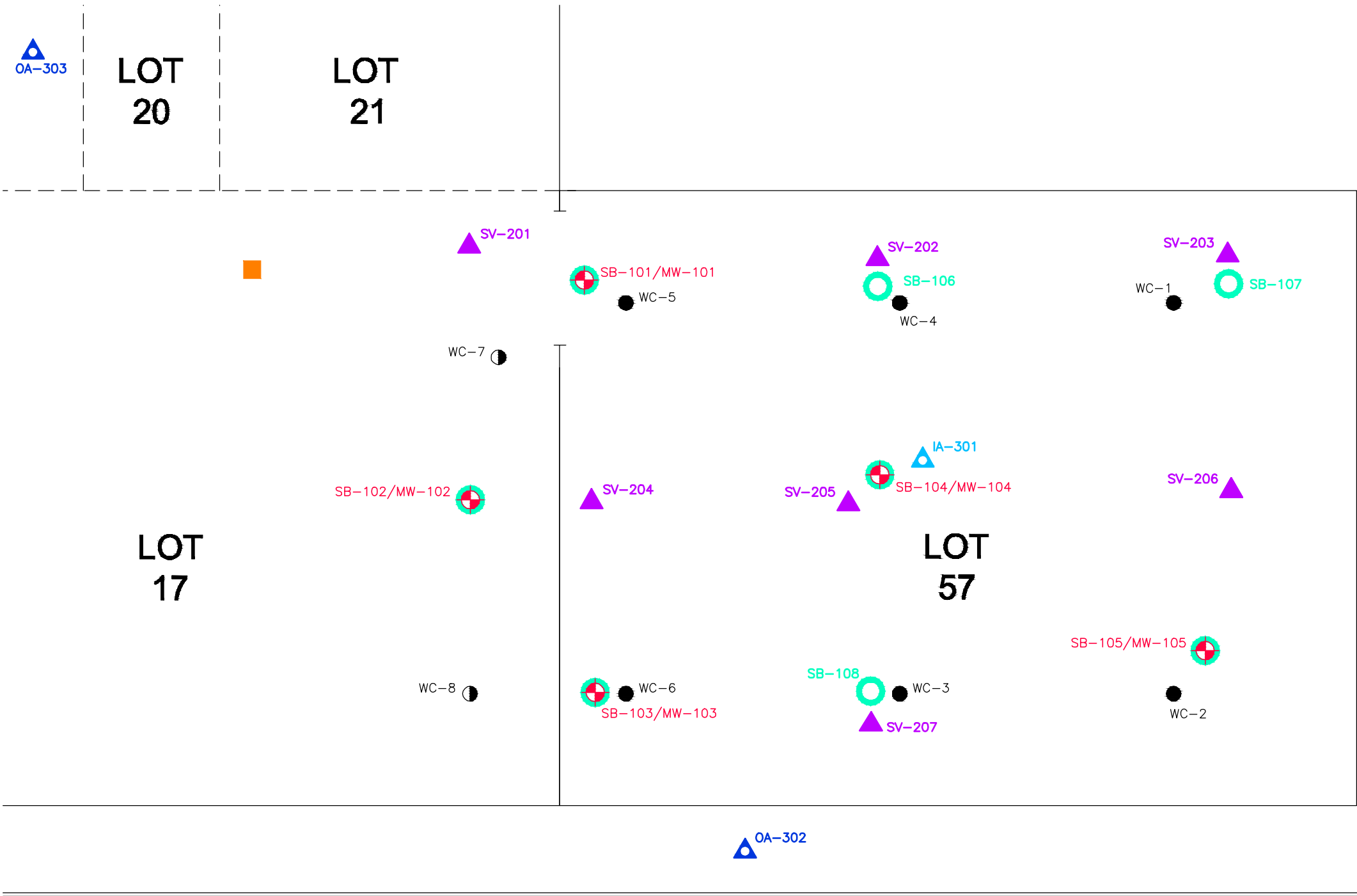
DATE:  
OCTOBER, 2016

PROJECT NO.  
12.0076485.00

REVISION NO.

SHEET NO.

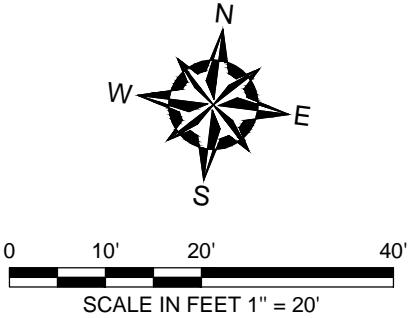
© 2016 - GZA GeoEnvironmental, Inc. GZA-J:\76400'S\12.0076485.00\FIGURES\CAD\TASK-6\76485.00.06.001.DWG FIG-3 OCTOBER 6, 2016 MIGUEL TORRES




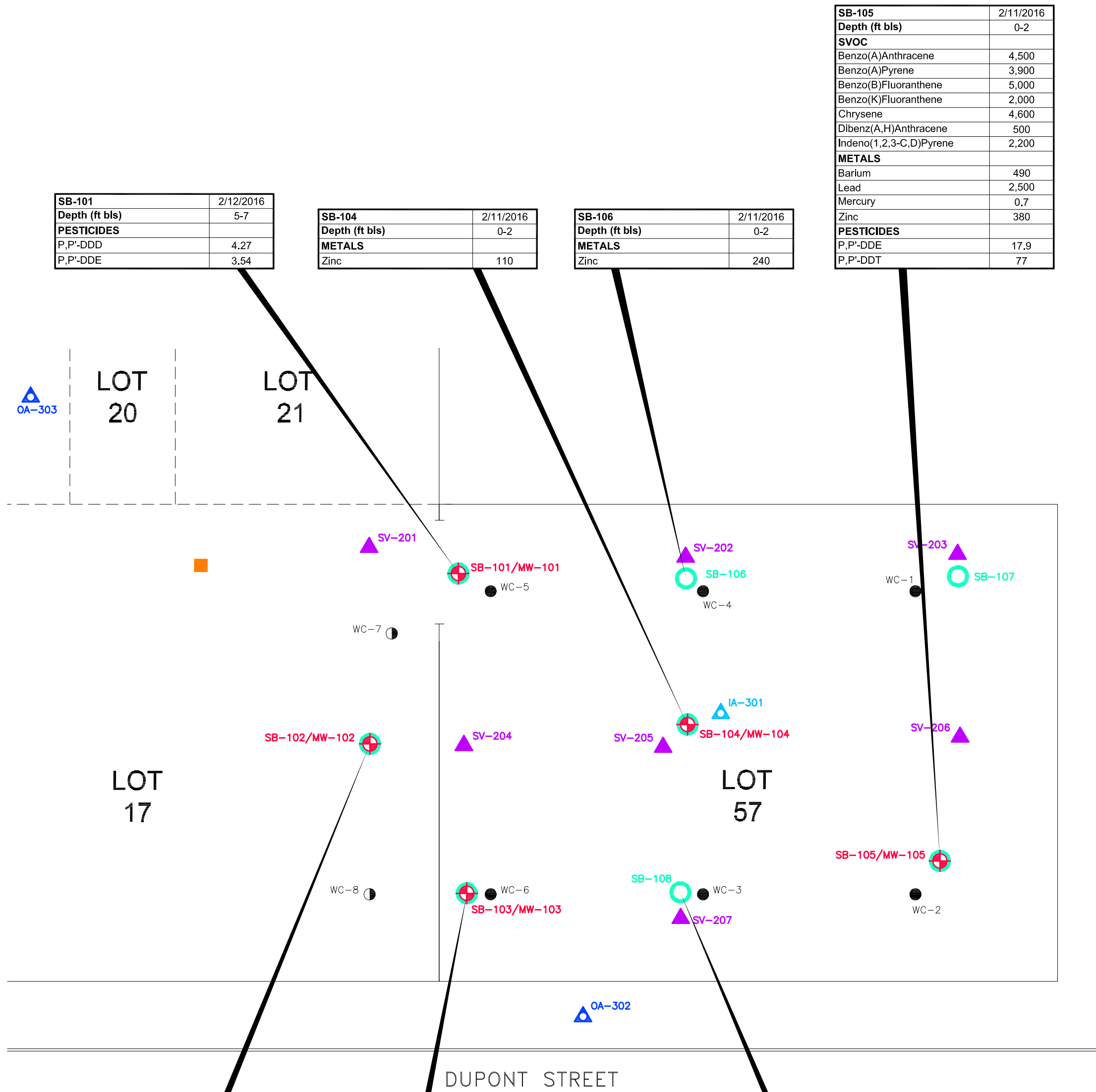
DUPONT STREET

LEGEND

- WC-1 ● LOCATION AND DESIGNATION OF SOIL BORING
- WC-8 ● LOCATION AND DESIGNATION COMPOSITE BORING
- SB-101/MW-101 ● LOCATION AND DESIGNATION OF INSTALLED TEMPORARY MONITORING WELL
- SB-106 ● LOCATION AND DESIGNATION OF INSTALLED SOIL SAMPLE
- SV-201 ▲ LOCATION AND DESIGNATION OF INSTALLED SOIL VAPOR SAMPLE
- IA-301 ▲ LOCATION AND DESIGNATION OF INSTALLED INDOOR AIR SAMPLE
- OA-301 ▲ LOCATION AND DESIGNATION OF INSTALLED OUTDOOR AIR SAMPLE
- LOCATION OF INSTALLED AIR MONITORING STATION



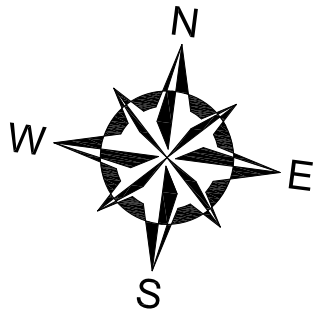
NO.	ISSUE/DESCRIPTION	BY	DATE
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93 DUPONT STREET BROOKLYN, NEW YORK			
SAMPLE LOCATION MAP			
PREPARED BY:  GZA GeoEnvironmental of NY Engineers and Scientists www.gza.com		PREPARED FOR: DUPONT STREET DEVELOPERS, LLC	
PROJ MGR: JB	REVIEWED BY: ZS	CHECKED BY: JB	FIGURE 3 SHEET NO.
DESIGNED BY: ZS	DRAWN BY: EM	SCALE: 1" = 20'	
DATE: OCTOBER, 2016	PROJECT NO. 12.0076485.00	REVISION NO.	




- LEGEND
- WC-1 ● LOCATION AND DESIGNATION OF SOIL BORING
  - WC-8 ● LOCATION AND DESIGNATION COMPOSITE BORING
  - SB-101/MW-101 ● LOCATION AND DESIGNATION OF INSTALLED TEMPORARY MONITORING WELL
  - SB-106 ● LOCATION AND DESIGNATION OF INSTALLED SOIL SAMPLE
  - SV-201 ▲ LOCATION AND DESIGNATION OF INSTALLED SOIL VAPOR SAMPLE
  - IA-301 ▲ LOCATION AND DESIGNATION OF INSTALLED INDOOR AIR SAMPLE
  - OA-301 ▲ LOCATION AND DESIGNATION OF INSTALLED OUTDOOR AIR SAMPLE
  - LOCATION OF INSTALLED AIR MONITORING STATION

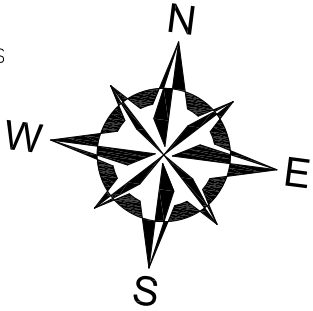
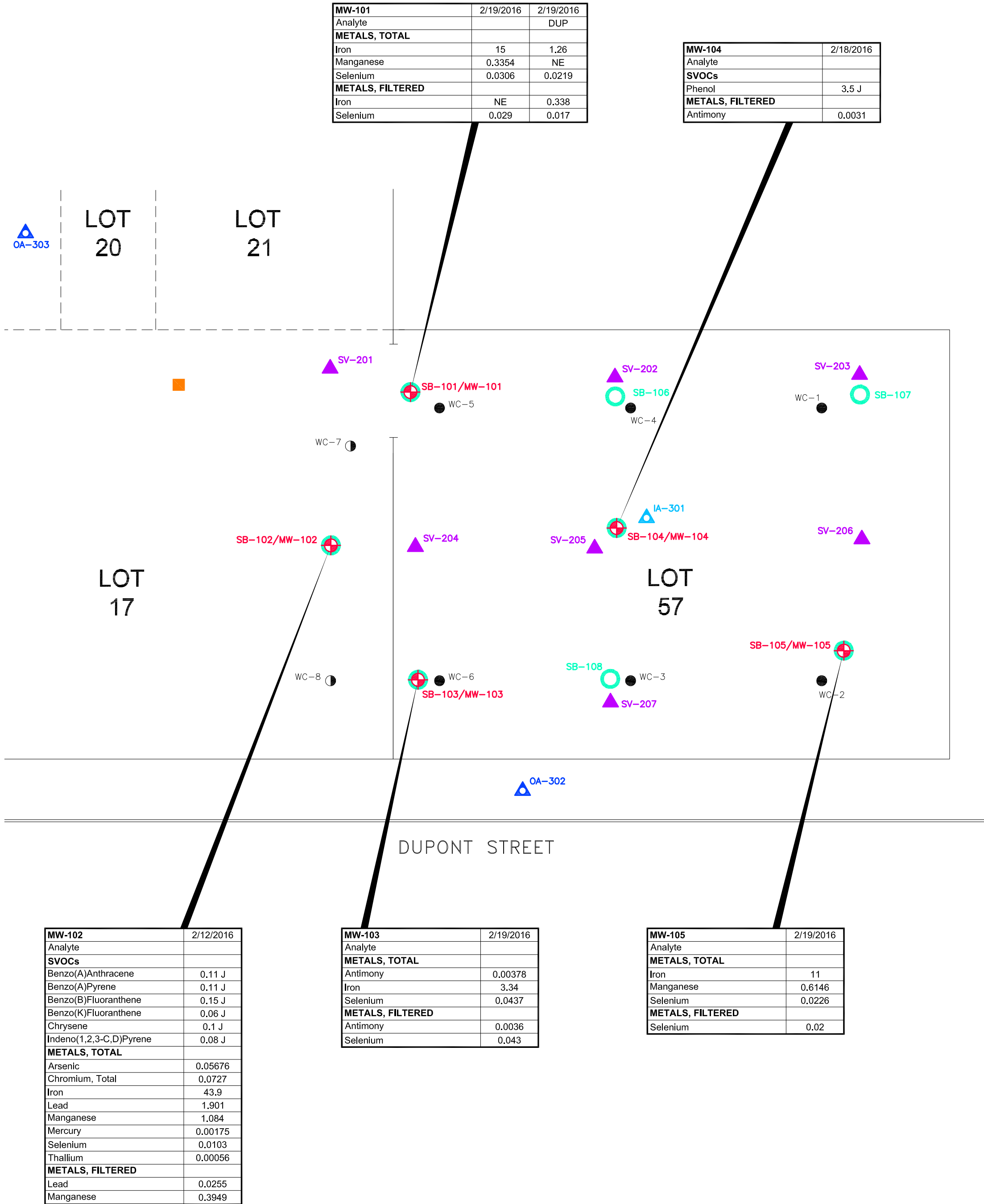
Parameter	Standards*	Standards**
SVOC		
Benzo(A)Anthracene	1,000	1,000
Benzo(A)Pyrene	1,000	1,000
Benzo(B)Fluoranthene	1,000	1,000
Benzo(K)Fluoranthene	800	3,900
Chrysene	1,000	3,900
Dibenz(A,H)Anthracene	330	330
Indeno(1,2,3-C,D)Pyrene	500	500
METALS		
Barium	350	400
Copper	50	270
Lead	63	400
Mercury	0.18	0.81
Zinc	109	10,000
PESTICIDES		
P,P'-DDE	3.3	8,900
P,P'-DDT	3.3	7,900

mg/kg — MILLIGRAMS PER KILOGRAM  
µg/kg — MICROGRAMS PER KILOGRAM  
\* — NYSDEC PART 375 UNRESTRICTED USE STANDARDS  
\*\* — NYSDEC PART 375 RESTRICTED RESIDENTIAL STANDARDS  
NYSDEC — NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
-- — NOT DETECTED ABOVE NYSDEC PART 375 UNRESTRICTED USE STANDARDS  
J — ESTIMATED VALUE  
DUP — DUPLICATE SAMPLE  
SVOCs — SEMIVOLATILE ORGANIC COMPOUNDS  
NE — NO EXCEEDANCE  
FT BLS — FEET BELOW LAND SURFACE



NO.	ISSUE/DESCRIPTION			BY	DATE
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93 DUPONT STREET BROOKLYN, NEW YORK					
SOIL CHEMISTRY RESULTS					
PREPARED BY:  GZA GeoEnvironmental of NY Engineers and Scientists www.gza.com			PREPARED FOR: DUPONT STREET DEVELOPERS, LLC		
PROJ MGR: JB	REVIEWED BY: ZS	CHECKED BY: JB	FIGURE		
DESIGNED BY: ZS	DRAWN BY: EM	SCALE: 1" = 20'	4		
DATE: OCTOBER, 2016	PROJECT NO. 12.0076485.00	REVISION NO.	SHEET NO.		





NO.	ISSUE/DESCRIPTION	BY	DATE
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93 DUPONT STREET BROOKLYN, NEW YORK			
<b>GROUNDWATER CHEMISTRY RESULTS</b>			
PREPARED BY: <b>GZA</b> GeoEnvironmental of NY Engineers and Scientists www.gea.com		PREPARED FOR: DUPONT STREET DEVELOPERS, LLC	
PROJ MGR: JB	REVIEWED BY: ZS	CHECKED BY: JB	FIGURE <b>5</b> SHEET NO.
DESIGNED BY: ZS	DRAWN BY: EM	SCALE: 1" = 20'	
DATE: OCTOBER, 2016	PROJECT NO. 12.0076485.00	REVISION NO.	



SV-205 Analyte VOCs	2/18/2016
1,2,4-Trimethylbenzene	1.29
Acetone	24.7
Benzene	2.67
Carbon Disulfide	3.21
Dichlorodifluoromethane	1.34
Ethanol	18.1
Ethylbenzene	1.94
m,p-Xylene	7.56
Methyl Ethyl Ketone (2-Butanone)	2.07
N-Hexane	0.955
O-Xylene (1,2-Dimethylbenzene)	3.12
Tert-Butyl Alcohol	3.76
Toluene	4.03

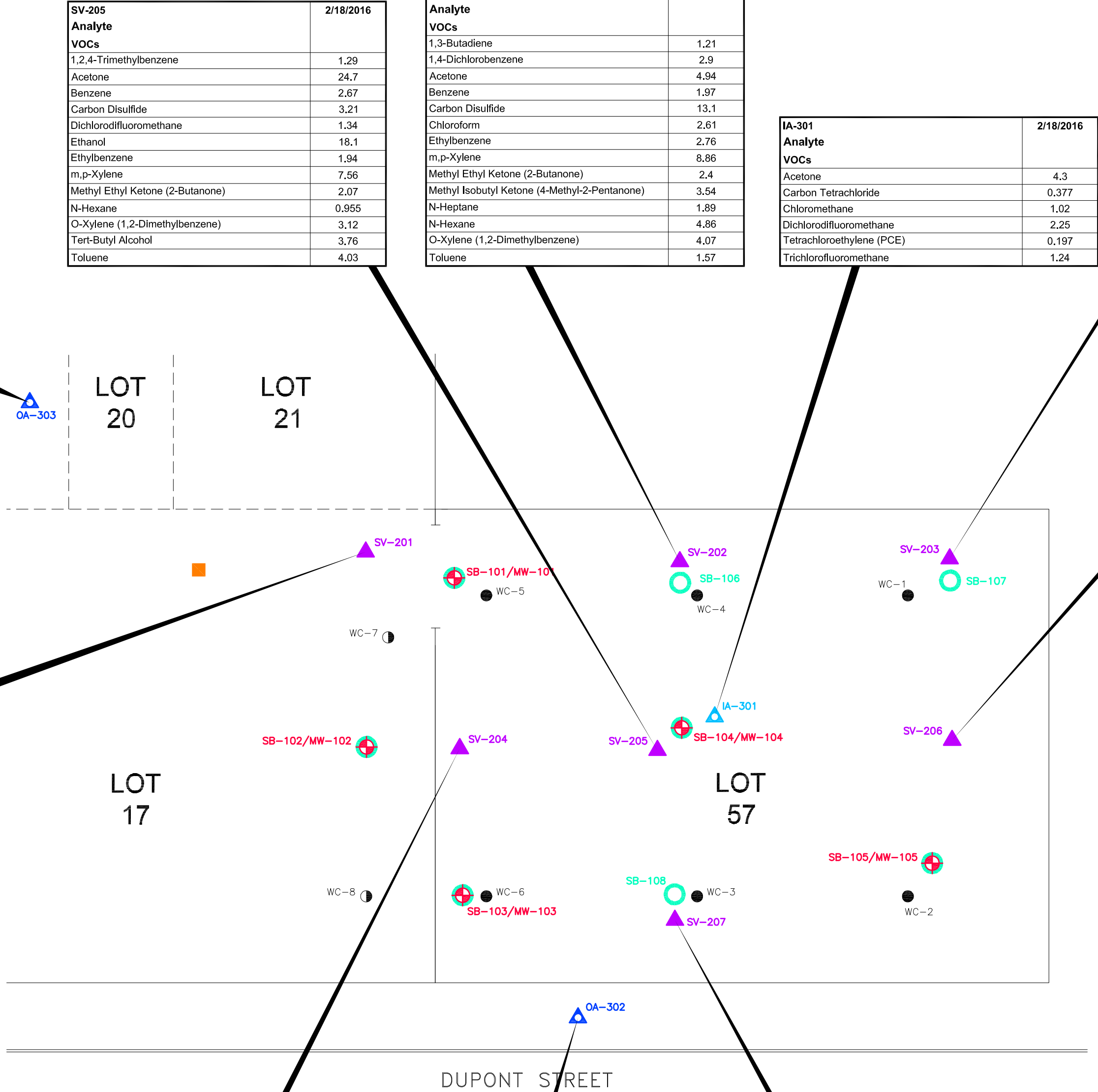
SV-202 Analyte VOCs	2/18/2016
1,3-Butadiene	1.21
1,4-Dichlorobenzene	2.9
Acetone	4.94
Benzene	1.97
Carbon Disulfide	13.1
Chloroform	2.61
Ethylbenzene	2.76
m,p-Xylene	8.86
Methyl Ethyl Ketone (2-Butanone)	2.4
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	3.54
N-Heptane	1.89
N-Hexane	4.86
O-Xylene (1,2-Dimethylbenzene)	4.07
Toluene	1.57

SV-203 Analyte VOCs	2/18/2016
1,4-Dichlorobenzene	2.54
Acetone	5.8
Carbon Disulfide	0.797
Chloroform	10.8
Dichlorodifluoromethane	1.56
m,p-Xylene	1.94
Methyl Ethyl Ketone (2-Butanone)	1.83
O-Xylene (1,2-Dimethylbenzene)	0.969
Trichlorofluoromethane	1.24

SV-206 Analyte VOCs	2/18/2016
1,4-Dichlorobenzene	2.86
Acetone	13.9
Benzene	0.907
Carbon Disulfide	7.32
Dichlorodifluoromethane	1.16
Ethylbenzene	0.934
m,p-Xylene	2.83
Methyl Ethyl Ketone (2-Butanone)	2.73
Methylene Chloride	3.58
N-Heptane	1.77
N-Hexane	5.89
O-Xylene (1,2-Dimethylbenzene)	1.56
Toluene	1.05
Trichlorofluoromethane	1.25

SV-201 Analyte VOCs	2/18/2016
1,1,1-Trichloroethane	1.42
Acetone	15.3
Benzene	0.843
Carbon Disulfide	5.17
Chloroform	15.1
Chloromethane	0.597
Cyclohexane	0.85
Dichlorodifluoromethane	1.14
Ethylbenzene	0.877
m,p-Xylene	3.51
Methyl Ethyl Ketone (2-Butanone)	2.78
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	2.14
N-Heptane	1.05
O-Xylene (1,2-Dimethylbenzene)	1.74
Tert-Butyl Alcohol	2.45
Tetrahydrofuran	1.64
Toluene	3.09

OA-303 Analyte VOCs	2/18/2016
Acetone	3.16
Carbon Tetrachloride	0.377
Chloromethane	0.964
Dichlorodifluoromethane	2.2
Tetrachloroethylene (PCE)	0.224
Trichlorofluoromethane	1.24



- LEGEND
- WC-1 ● LOCATION AND DESIGNATION OF SOIL BORING
  - WC-8 ● LOCATION AND DESIGNATION COMPOSITE BORING
  - SB-101/MW-101 ● LOCATION AND DESIGNATION OF INSTALLED TEMPORARY MONITORING WELL
  - SB-106 ● LOCATION AND DESIGNATION OF INSTALLED SOIL SAMPLE
  - SV-201 ▲ LOCATION AND DESIGNATION OF INSTALLED SOIL VAPOR SAMPLE
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  - OA-301 ▲ LOCATION AND DESIGNATION OF INSTALLED OUTDOOR AIR SAMPLE
  - LOCATION OF INSTALLED AIR MONITORING STATION

NOTE

1) BASED ON THE VOC CONCENTRATIONS DETECTED AND THE NYSDOH DECISION MATRICES, NO FURTHER ACTION IS NEEDED.

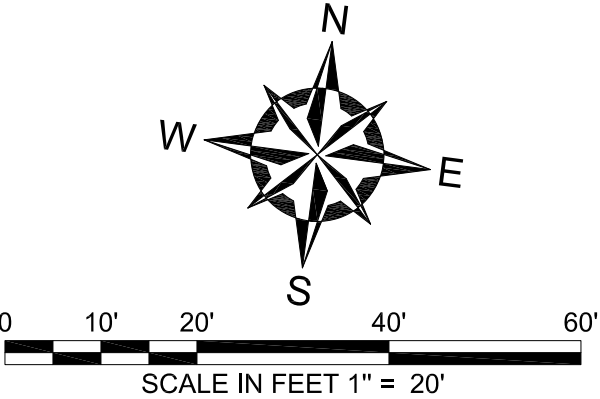
CONCENTRATIONS IN  $\mu\text{g}/\text{m}^3$

$\mu\text{g}/\text{m}^3$  - MICROGRAMS PER CUBIC METER

VOCs - VOLATILE ORGANIC COMPOUNDS

ND - COMPOUND WAS ANALYZED FOR BUT NOT DETECTED

D - A SECONDARY ANALYSIS AFTER DILUTION DUE TO EXCEEDANCE OF THE CALIBRATION RANGE IN THE ORIGINAL SAMPLE



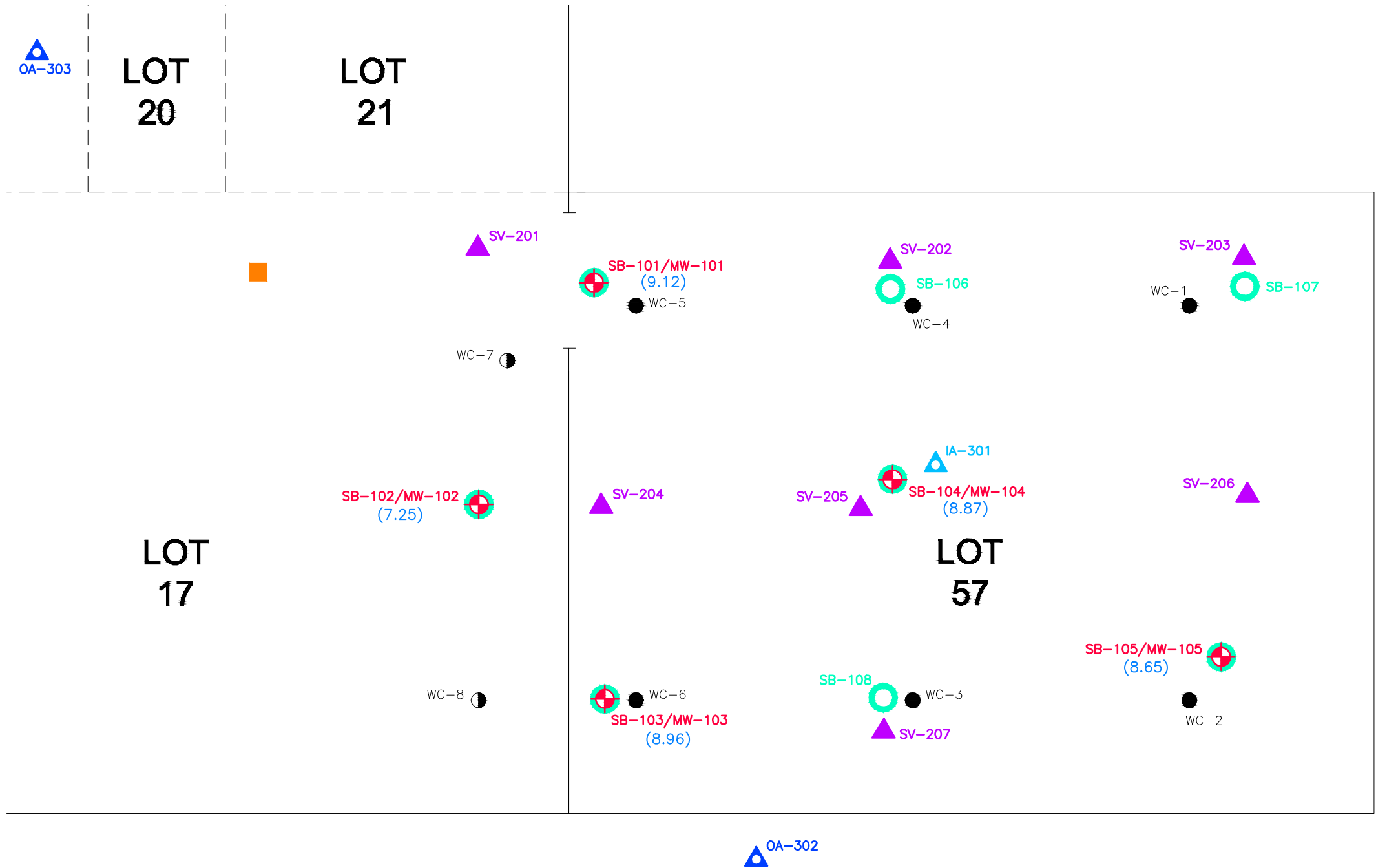
SV-204 Analyte VOCs	2/18/2016
1,2,4-Trimethylbenzene	1.29
Acetone	23.8
Carbon Disulfide	54.5
Chloromethane	0.417
Ethanol	20.3
Ethyl Acetate	2.21
Ethylbenzene	1.33
Isopropanol	1.36
m,p-Xylene	6.3
Methyl Ethyl Ketone (2-Butanone)	3.42
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	2.68
N-Hexane	0.867
O-Xylene (1,2-Dimethylbenzene)	2.47
Tert-Butyl Alcohol	6.43
Toluene	2.31
Trichlorofluoromethane	1.24

OA-302 Analyte VOCs	2/18/2016
Acetone	3.61
Carbon Tetrachloride	0.377
Chloromethane	0.927
Dichlorodifluoromethane	2.48
Tetrachloroethylene (PCE)	0.142
Trichlorofluoromethane	1.21

SV-207 Analyte VOCs	2/18/2016
1,4-Dichlorobenzene	3.18
Acetone	8.01
Benzene	0.783
Carbon Disulfide	9.68
Dichlorodifluoromethane	1.14
Ethylbenzene	1.36
m,p-Xylene	5.08
N-Heptane	0.971
N-Hexane	2.4
O-Xylene (1,2-Dimethylbenzene)	2.89
Toluene	1.27

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93 DUPONT STREET BROOKLYN, NEW YORK			
SOIL VAPOR CHEMISTRY RESULTS			
PREPARED BY: GZA GeoEnvironmental of NY Engineers and Scientists www.gza.com	PREPARED FOR: DUPONT STREET DEVELOPERS, LLC		
PROJ MGR: JB DESIGNED BY: ZS DATE: OCTOBER, 2016	REVIEWED BY: ZS DRAWN BY: EM PROJECT NO. 12,0076485.00	CHECKED BY: JB SCALE: 1" = 20' REVISION NO.	FIGURE 6 SHEET NO.

© 2016 - GZA GeoEnvironmental, Inc. GZA-\\GZAHAM1\JOBS\76400\S\12.0076485.00\FIGURES\CAD\TASK-6\76485.00.06.001.DWG FIG-7 OCTOBER 6, 2016 ZHAN SHU



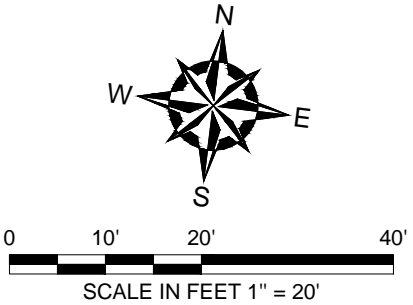
DUPONT STREET


LEGEND

- WC-1 LOCATION AND DESIGNATION OF SOIL BORING
- WC-8 LOCATION AND DESIGNATION COMPOSITE BORING
- SB-101/  
MW-101 LOCATION AND DESIGNATION OF  
INSTALLED TEMPORARY MONITORING  
WELL
- SB-106 LOCATION AND DESIGNATION OF  
INSTALLED SOIL SAMPLE
- SV-201 LOCATION AND DESIGNATION OF  
INSTALLED SOIL VAPOR SAMPLE
- IA-301 LOCATION AND DESIGNATION OF  
INSTALLED INDOOR AIR SAMPLE
- OA-301 LOCATION AND DESIGNATION OF  
INSTALLED OUTDOOR AIR SAMPLE
- LOCATION OF INSTALLED AIR  
MONITORING STATION
- (8.87) AVERAGE GROUNDWATER ELEVATION  
(IN FEET)

NOTE

- 1) MOST RECENT GROUNDWATER ELEVATIONS WERE MEASURED ON OCTOBER 4, 2016.
- 2) BASED ON THE REGIONAL GROUNDWATER ELEVATION INFORMATION, THE GROUNDWATER FLOW DIRECTION IS FROM EAST TO WEST.



NO.	ISSUE/DESCRIPTION	BY	DATE
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93 DUPONT STREET BROOKLYN, NEW YORK			
GROUNDWATER ELEVATION MAP			
PREPARED BY:  GZA GeoEnvironmental of NY Engineers and Scientists www.gza.com		PREPARED FOR: DUPONT STREET DEVELOPERS, LLC	
PROJ MGR: JB	REVIEWED BY: ZS	CHECKED BY: JB	FIGURE <b>7</b> SHEET NO.
DESIGNED BY: ZS	DRAWN BY: EM	SCALE: 1" = 20'	
DATE: OCTOBER, 2016	PROJECT NO. 12.0076485.00	REVISION NO.	

**Table 1. Construction Details for Soil Borings and Monitoring Wells**  
**93 Dupont Street**  
**Brooklyn, New York**

	Identification Number	Date of construction	Total Depth	Diameter	Ground surface elevation	Screened interval (Elevation Range)	Construction Material (PVC, steel, etc)	GPS Coordinates
Soil Borings	SB-101	2/11/2016 to 2/12/2016	15 ft	2 inches	NA	15 ft	NA	NA
	SB-102		15 ft	2 inches				
	SB-103		15 ft	2 inches				
	SB-104		15 ft	2 inches				
	SB-105		15 ft	2 inches				
	SB-106		15 ft	2 inches				
	SB-107		15 ft	2 inches				
	SB-108		15 ft	2 inches				
Monitor Wells	MW-101	2/18/2016 to 2/19/2016	10 ft	1 inch	NA	10	PVC	NA
	MW-102		10 ft	1 inch				
	MW-103		10 ft	1 inch				
	MW-104		10 ft	1 inch				
	MW-105		10 ft	1 inch				
Soil Vapor Borings	SV-101	2/18/2016	5	NA	NA	NA	Teflon-lined tubing	NA
	SV-102		5					
	SV-103		5					
	SV-104		4.5					
	SV-105		5					
	SV-106		5					
	SV-107		5					
Indoor Air Sampling	IA-301		NA				NA	
Outdoor Air Sampling	OA-302		NA				NA	
	OA-303		NA				NA	

**Table 2. Summary of Groundwater Gauging Results, - 93 Dupont Street  
Block 2487 Lot 57, Brooklyn, New York**

<b>Well Designation</b>	<b>Date Measured</b>	<b>Top of Casing Elevation</b>	<b>Depth to Water (ft)</b>	<b>Water Table Elevation</b>
MW-101	2/18/2016	14.67	4.44	10.23
MW-102	2/18/2016	14.80	7.04	7.76
MW-103	2/18/2016	14.76	4.40	10.36
MW-104	2/18/2016	14.70	4.93	9.77
MW-105	2/18/2016	14.70	5.25	9.45
MW-101	2/19/2016	14.67	4.90	9.77
MW-102	2/19/2016	14.80	7.12	7.68
MW-103	2/19/2016	14.76	5.66	9.10
MW-104	2/19/2016	14.70	5.18	9.52
MW-105	2/19/2016	14.70	5.45	9.25
MW-101	3/7/2016	14.67	5.17	9.50
MW-102	3/7/2016	14.80	7.31	7.49
MW-103	3/7/2016	14.76	6.54	8.22
MW-104	3/7/2016	14.70	5.38	9.32
MW-105	3/7/2016	14.70	5.68	9.02
MW-101	10/4/2016	14.67	7.70	6.97
MW-102	10/4/2016	14.80	8.74	6.06
MW-103	10/4/2016	14.76	6.61	8.15
MW-104	10/4/2016	14.70	7.85	6.85
MW-105	10/4/2016	14.70	7.83	6.87

**NOTES:**

GZA gauged the wells on October 4, 2016. All the previous gauging data were provided by Roux.



**Table 3. Analytical Methods Summary**  
**93 Dupont Street**  
**Brooklyn, New York**

Matrix	Number of Samples	Analytical parameters measured	Analytical methods	Number of duplicate samples	Number and type of QA/QC samples
Soil	21 Samples from 8 Soil Borings	TCL VOCs, TCL SVOCs, PCBs, TAL Metal, Pesticides	TAL Metals by EPA Method 6010C (rev. 2007);	2	2 Field Blank and 2 Trip Blank
			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);		
Groundwater	5 Samples from 5 Monitoring Wells	TCL VOCs, TCL SVOCs, PCBs, TAL Metal, Pesticides	TAL Metals by EPA Method 6010C (rev. 2007);	1	1 Field Blank and 1 Trip Blank
			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);		
Soil vapor	7 Sub- slab Samples and 3 Ambient Air Samples	VOCs	TO-15 VOCs	NA	NA

Table 4A. Summary of Volatile Organic Compounds in Soil, 93 Dupont Street, Brooklyn, New York

DRAFT

Sample Designation: Date Sampled: Sample Depth (ft bls): Sample Type:					SB-101 12 Feb 2016 0 - 2 N	SB-101 12 Feb 2016 10 - 12 N	SB-101 12 Feb 2016 5 - 7 N	SB-101 12 Feb 2016 5 - 7 FD	SB-102 12 Feb 2016 0 - 2 N	SB-102 12 Feb 2016 10 - 12 N	SB-102 12 Feb 2016 5 - 7 N	SB-103 12 Feb 2016 0 - 2 N	SB-103 12 Feb 2016 10 - 12 N	SB-103 12 Feb 2016 4 - 6 N	SB-104 11 Feb 2016 0 - 2 N	SB-104 11 Feb 2016 10 - 12 N
Paramter	Part 375 Unrestricted Use SCO	CP-51 Residential Supplemental SCO	Part 375 Restricted Residential SCO	Units												
1,1,1,2-Tetrachloroethane	--	--	--	UG/KG	1.2 U	1.1 U	1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	4.4 U	1.1 U	1.1 U	1.1 U
1,1,1-Trichloroethane	680	--	100000	UG/KG	1.2 U	1.1 U	1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	4.4 U	1.1 U	1.1 U	1.1 U
1,1,2,2-Tetrachloroethane	--	35000	--	UG/KG	1.2 U	1.1 U	1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	4.4 U	1.1 U	1.1 U	1.1 U
1,1,2-Trichloroethane	--	--	--	UG/KG	1.7 U	1.7 U	1.6 U	1.6 U	1.8 U	1.7 U	1.7 U	1.7 U	6.6 U	1.6 U	1.7 U	1.7 U
1,1-Dichloroethane	270	--	26000	UG/KG	1.7 U	1.7 U	1.6 U	1.6 U	1.8 U	1.7 U	1.7 U	1.7 U	6.6 U	1.6 U	1.7 U	1.7 U
1,1-Dichloroethene	330	--	100000	UG/KG	1.2 U	1.1 U	1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	4.4 U	1.1 U	1.1 U	1.1 U
1,1-Dichloropropene	--	--	--	UG/KG	5.8 U	5.6 U	5.2 U	5.4 U	6 U	5.6 U	5.6 U	5.8 U	22 U	5.5 U	5.6 U	5.6 U
1,2,3-Trichlorobenzene	--	--	--	UG/KG	5.8 U	5.6 U	5.2 U	5.4 U	6 U	5.6 U	5.6 U	5.8 U	22 U	5.5 U	5.6 U	5.6 U
1,2,3-Trichloropropane	--	80000	--	UG/KG	12 U	11 U	10 U	11 U	12 U	11 U	11 U	12 U	44 U	11 U	11 U	11 U
1,2,4,5-Tetramethylbenzene	--	--	--	UG/KG	4.6 U	4.5 U	4.2 U	4.3 U	4.8 U	4.5 U	4.5 U	4.6 U	18 U	4.4 U	4.5 U	4.5 U
1,2,4-Trichlorobenzene	--	--	--	UG/KG	5.8 U	5.6 U	5.2 U	5.4 U	6 U	5.6 U	5.6 U	5.8 U	22 U	5.5 U	5.6 U	5.6 U
1,2,4-Trimethylbenzene	3600	--	52000	UG/KG	5.8 U	5.6 U	5.2 U	5.4 U	6 U	5.6 U	5.6 U	5.8 U	22 U	5.5 U	5.6 U	5.6 U
1,2-Dibromo-3-Chloropropane	--	--	--	UG/KG	5.8 U	5.6 U	5.2 U	5.4 U	6 U	5.6 U	5.6 U	5.8 U	22 U	5.5 U	5.6 U	5.6 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	--	UG/KG	4.6 U	4.5 U	4.2 U	4.3 U	4.8 U	4.5 U	4.5 U	4.6 U	18 U	4.4 U	4.5 U	4.5 U
1,2-Dichlorobenzene	1100	--	100000	UG/KG	5.8 U	5.6 U	5.2 U	5.4 U	6 U	5.6 U	5.6 U	5.8 U	22 U	5.5 U	5.6 U	5.6 U
1,2-Dichloroethane	20	--	3100	UG/KG	1.2 U	1.1 U	1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	4.4 U	1.1 U	1.1 U	1.1 U
Dichloroethylenes	--	--	--	UG/KG	1.2 U	1.1 U	1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	4.4 U	1.1 U	1.1 U	1.1 U
1,2-Dichloropropane	--	--	--	UG/KG	4 U	3.9 U	3.7 U	3.8 U	4.2 U	4 U	3.9 U	4 U	15 U	3.8 U	3.9 U	4 U
1,3,5-Trimethylbenzene (Mesitylene)	8400	--	52000	UG/KG	5.8 U	5.6 U	5.2 U	5.4 U	6 U	5.6 U	5.6 U	5.8 U	22 U	5.5 U	5.6 U	5.6 U
1,3-Dichlorobenzene	2400	--	49000	UG/KG	5.8 U	5.6 U	5.2 U	5.4 U	6 U	5.6 U	5.6 U	5.8 U	22 U	5.5 U	5.6 U	5.6 U
1,3-Dichloropropane	--	--	--	UG/KG	5.8 U	5.6 U	5.2 U	5.4 U	6 U	5.6 U	5.6 U	5.8 U	22 U	5.5 U	5.6 U	5.6 U
Total, 1,3-Dichloropropene (Cis And Trans)	--	--	--	UG/KG	1.2 U	1.1 U	1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	4.4 U	1.1 U	1.1 U	1.1 U
1,4-Dichlorobenzene	1800	--	13000	UG/KG	5.8 U	5.6 U	5.2 U	5.4 U	6 U	5.6 U	5.6 U	5.8 U	22 U	5.5 U	5.6 U	5.6 U
1,4-Diethyl Benzene	--	--	--	UG/KG	4.6 U	4.5 U	4.2 U	4.3 U	4.8 U	4.5 U	4.5 U	4.6 U	18 U	4.4 U	4.5 U	4.5 U
1,4-Dioxane (P-Dioxane)	100	--	13000	UG/KG	120 U	110 U	100 U	110 U	120 U	110 U	110 U	120 U	440 U	110 U	110 U	110 U
2,2-Dichloropropane	--	--	--	UG/KG	5.8 U	5.6 U	5.2 U	5.4 U	6 U	5.6 U	5.6 U	5.8 U	22 U	5.5 U	5.6 U	5.6 U
Methyl Ethyl Ketone (2-Butanone)	120	100000	100000	UG/KG	12 U	11 U	10 U	11 U	12 U	11 U	11 U	12 U	44 U	11 U	11 U	11 U
2-Hexanone	--	--	--	UG/KG	12 U	11 U	10 U	11 U	12 U	11 U	11 U	12 U	44 U	11 U	11 U	11 U
4-Ethyltoluene	--	--	--	UG/KG	4.6 U	4.5 U	4.2 U	4.3 U	4.8 U	4.5 U	4.5 U	4.6 U	18 U	4.4 U	4.5 U	4.5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	--	UG/KG	12 U	11 U	10 U	11 U	12 U	11 U	11 U	12 U	44 U	11 U	11 U	11 U
Acetone	50	--	100000	UG/KG	3.6 J	16	5.2 J	10 J	2.7 J	3.4 J	2.2 J	18	22 J	13	2.8 J	11 U
Acrylonitrile	--	--	--	UG/KG	12 U	11 U	10 U	11 U	12 U	11 U	11 U	12 U	44 U	11 U	11 U	11 U
Benzene	60	--	4800	UG/KG	1.2 U	1.1 U	1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	4.4 U	1.1 U	1.1 U	1.1 U
Bromobenzene	--	--	--	UG/KG	5.8 U	5.6 U	5.2 U	5.4 U	6 U	5.6 U	5.6 U	5.8 U	22 U	5.5 U	5.6 U	5.6 U
Bromochloromethane	--	--	--	UG/KG	5.8 U	5.6 U	5.2 U	5.4 U	6 U	5.6 U	5.6 U	5.8 U	22 U	5.5 U	5.6 U	5.6 U
Bromodichloromethane	--	--	--	UG/KG	1.2 U	1.1 U	1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	4.4 U	1.1 U	1.1 U	1.1 U
Bromoform	--	--	--	UG/KG	4.6 U	4.5 U	4.2 U	4.3 U	4.8 U	4.5 U	4.5 U	4.6 U	18 U	4.4 U	4.5 U	4.5 U
Bromomethane	--	--	--	UG/KG	2.3 U	2.2 U	2.1 U	2.1 U	2.4 U	2.3 U	2.2 U	2.3 U	8.8 U	2.2 U	2.2 U	2.3 U
Carbon Disulfide	--	100000	--	UG/KG	12 U	11 U	10 U	11 U	12 U	11 U	11 U	12 U	44 U	11 U	11 U	11 U
Carbon Tetrachloride	760	--	2400	UG/KG	1.2 U	1.1 U	1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	4.4 U	1.1 U	1.1 U	1.1 U
Chlorobenzene	1100	--	100000	UG/KG	1.2 U	1.1 U	1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	4.4 U	1.1 U	1.1 U	1.1 U
Chloroethane	--	--	--	UG/KG	2.3 U	2.2 U	2.1 U	2.1 U	2.4 U	2.3 U	2.2 U	2.3 U	8.8 U	2.2 U	2.2 U	2.3 U
Chloroform	370	--	49000	UG/KG	1.7 U	1.7 U	1.6 U	1.6 U	1.8 U	1.7 U	1.7 U	1.7 U	6.6 U	1.6 U	1.7 U	1.7 U
Chloromethane	--	--	--	UG/KG	5.8 U	5.6 U	5.2 U	5.4 U	6 U	5.6 U	5.6 U	5.8 U	22 U	5.5 U	5.6 U	5.6 U
Cis-1,2-Dichloroethylene	250	--	100000	UG/KG	1.2 U	1.1 U	1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	4.4 U	1.1 U	1.1 U	1.1 U
Cis-1,3-Dichloropropene	--	--	--	UG/KG	1.2 U	1.1 U	1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	4.4 U	1.1 U	1.1 U	1.1 U
Dibromochloromethane	--	--	--	UG/KG	1.2 U	1.1 U	1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	4.4 U	1.1 U	1.1 U	1.1 U
Dibromomethane	--	--	--	UG/KG	12 U	11 U	10 U	11 U	12 U	11 U	11 U	12 U	44 U	11 U	11 U	11 U

Table 4A. Summary of Volatile Organic Compounds in Soil, 93 Dupont Street, Brooklyn, New York

DRAFT

Sample Designation: Date Sampled: Sample Depth (ft bls): Sample Type:					SB-101 12 Feb 2016 0 - 2 N	SB-101 12 Feb 2016 10 - 12 N	SB-101 12 Feb 2016 5 - 7 N	SB-101 12 Feb 2016 5 - 7 FD	SB-102 12 Feb 2016 0 - 2 N	SB-102 12 Feb 2016 10 - 12 N	SB-102 12 Feb 2016 5 - 7 N	SB-103 12 Feb 2016 0 - 2 N	SB-103 12 Feb 2016 10 - 12 N	SB-103 12 Feb 2016 4 - 6 N	SB-104 11 Feb 2016 0 - 2 N	SB-104 11 Feb 2016 10 - 12 N
Paramter	Part 375 Unrestricted Use SCO	CP-51 Residential Supplemental SCO	Part 375 Restricted Residential SCO	Units												
Dichlorodifluoromethane	--	--	--	UG/KG	12 U	11 U	10 U	11 U	12 U	11 U	11 U	12 U	44 U	11 U	11 U	11 U
Diethyl Ether (Ethyl Ether)	--	--	--	UG/KG	5.8 U	5.6 U	5.2 U	5.4 U	6 U	5.6 U	5.6 U	5.8 U	22 U	5.5 U	5.6 U	5.6 U
Ethylbenzene	1000	--	41000	UG/KG	1.2 U	1.1 U	1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	4.4 U	1.1 U	1.1 U	1.1 U
Hexachlorobutadiene	--	--	--	UG/KG	5.8 U	5.6 U	5.2 U	5.4 U	6 U	5.6 U	5.6 U	5.8 U	22 U	5.5 U	5.6 U	5.6 U
Isopropylbenzene (Cumene)	--	100000	--	UG/KG	1.2 U	1.1 U	1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	4.4 U	1.1 U	1.1 U	1.1 U
Tert-Butyl Methyl Ether	930	--	100000	UG/KG	2.3 U	2.2 U	2.1 U	2.1 U	2.4 U	2.3 U	2.2 U	2.3 U	8.8 U	2.2 U	2.2 U	2.3 U
Methylene Chloride	50	--	100000	UG/KG	12 U	11 U	10 U	11 U	12 U	11 U	11 U	12 U	44 U	11 U	11 U	11 U
Naphthalene	12000	--	100000	UG/KG	5.8 U	5.6 U	5.2 U	0.26 J	6 U	5.6 U	5.6 U	5.8 U	22 U	0.29 J	5.6 U	5.6 U
N-Butylbenzene	12000	--	100000	UG/KG	1.2 U	1.1 U	1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	4.4 U	1.1 U	1.1 U	1.1 U
N-Propylbenzene	3900	--	100000	UG/KG	1.2 U	1.1 U	1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	4.4 U	1.1 U	1.1 U	1.1 U
2-Chlorotoluene	--	--	--	UG/KG	5.8 U	5.6 U	5.2 U	5.4 U	6 U	5.6 U	5.6 U	5.8 U	22 U	5.5 U	5.6 U	5.6 U
O-Xylene (1,2-Dimethylbenzene)	--	--	--	UG/KG	2.3 U	2.2 U	2.1 U	2.1 U	2.4 U	2.3 U	2.2 U	2.3 U	1.1 J	2.2 U	2.2 U	2.3 U
m,p-Xylene	--	--	--	UG/KG	2.3 U	2.2 U	2.1 U	2.1 U	2.4 U	2.3 U	2.2 U	2.3 U	2.2 J	2.2 U	2.2 U	2.3 U
4-Chlorotoluene	--	--	--	UG/KG	5.8 U	5.6 U	5.2 U	5.4 U	6 U	5.6 U	5.6 U	5.8 U	22 U	5.5 U	5.6 U	5.6 U
Cymene	--	--	--	UG/KG	1.2 U	1.1 U	1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	4.4 U	1.1 U	1.1 U	1.1 U
Sec-Butylbenzene	11000	--	100000	UG/KG	1.2 U	1.1 U	1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	4.4 U	1.1 U	1.1 U	1.1 U
Styrene	--	--	--	UG/KG	2.3 U	2.2 U	2.1 U	2.1 U	2.4 U	2.3 U	2.2 U	2.3 U	8.8 U	2.2 U	2.2 U	2.3 U
T-Butylbenzene	5900	--	100000	UG/KG	5.8 U	5.6 U	5.2 U	5.4 U	6 U	5.6 U	5.6 U	5.8 U	22 U	5.5 U	5.6 U	5.6 U
Tetrachloroethylene (PCE)	1300	--	19000	UG/KG	1.2 U	1.1 U	1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	4.4 U	1.1 U	1.1 U	1.1 U
Toluene	700	--	100000	UG/KG	1.7 U	1.7 U	0.22 J	0.31 J	1.8 U	1.7 U	1.7 U	0.23 J	1.1 J	0.36 J	0.24 J	0.6 J
Trans-1,2-Dichloroethene	190	--	100000	UG/KG	1.7 U	1.7 U	1.6 U	1.6 U	1.8 U	1.7 U	1.7 U	1.7 U	6.6 U	1.6 U	1.7 U	1.7 U
Trans-1,3-Dichloropropene	--	--	--	UG/KG	1.2 U	1.1 U	1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	4.4 U	1.1 U	1.1 U	1.1 U
Trans-1,4-Dichloro-2-Butene	--	--	--	UG/KG	5.8 U	5.6 U	5.2 U	5.4 U	6 U	5.6 U	5.6 U	5.8 U	22 U	5.5 U	5.6 U	5.6 U
Trichloroethylene (TCE)	470	--	21000	UG/KG	1.2 U	1.1 U	1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	4.4 U	1.1 U	1.1 U	1.1 U
Trichlorofluoromethane	--	--	--	UG/KG	5.8 U	5.6 U	5.2 U	5.4 U	6 U	5.6 U	5.6 U	5.8 U	22 U	5.5 U	5.6 U	5.6 U
Vinyl Acetate	--	--	--	UG/KG	12 U	11 U	10 U	11 U	12 U	11 U	11 U	12 U	44 U	11 U	11 U	11 U
Vinyl Chloride	20	--	900	UG/KG	2.3 U	2.2 U	2.1 U	2.1 U	2.4 U	2.3 U	2.2 U	2.3 U	8.8 U	2.2 U	2.2 U	2.3 U
Xylenes	260	--	100000	UG/KG	2.3 U	2.2 U	2.1 U	2.1 U	2.4 U	2.3 U	2.2 U	2.3 U	3.3 J	2.2 U	2.2 U	2.3 U

J - Estimated value  
U - Indicates that the compound was analyzed for but not detected  
FD - Duplicate sample  
µg/kg - Micrograms per kilogram  
ft bls - Feet below land surface  
NYSDEC - New York State Department of Environmental Conservation  
SCO - Soil Cleanup Objectives  
SSCO - Supplemental Soil Cleanup Objectives  
-- No SCO or SSCO available  
Bold data indicates that parameter was detected above the NYSDEC Part 375 Unrestricted Use SCO  
Shaded data indicates that parameter was detected above the NYSDEC CP-51 Residential SSCO  
Red data indicates that parameter was detected above the NYSDEC Part 375 Restricted Residential SCO

Table 4A. Summary of Volatile Organic Compounds in Soil, 93 Dupont Street, Brooklyn, New York

DRAFT

Sample Designation: Date Sampled: Sample Depth (ft bls): Sample Type:					SB-104 11 Feb 2016 5 - 7 N	SB-105 11 Feb 2016 0 - 2 N	SB-105 11 Feb 2016 10 - 12 N	SB-106 11 Feb 2016 0 - 2 N	SB-106 11 Feb 2016 10 - 12 N	SB-107 11 Feb 2016 0 - 2 N	SB-107 11 Feb 2016 10 - 12 N	SB-108 11 Feb 2016 0 - 2 N	SB-108 11 Feb 2016 0 - 2 FD	SB-108 11 Feb 2016 10 - 12 N	SB-108 11 Feb 2016 4 - 6 N
Paramter	Part 375 Unrestricted Use SCO	CP-51 Residential Supplemental SCO	Part 375 Restricted Residential SCO	Units											
1,1,1,2-Tetrachloroethane	--	--	--	UG/KG	1 U	1.2 U	1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U
1,1,1-Trichloroethane	680	--	100000	UG/KG	1 U	1.2 U	1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U
1,1,2,2-Tetrachloroethane	--	35000	--	UG/KG	1 U	1.2 U	1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U
1,1,2-Trichloroethane	--	--	--	UG/KG	1.5 U	1.8 U	1.6 U	1.7 U	1.9 U	1.6 U	1.6 U	1.7 U	1.8 U	1.6 U	1.6 U
1,1-Dichloroethane	270	--	26000	UG/KG	1.5 U	1.8 U	1.6 U	1.7 U	1.9 U	1.6 U	1.6 U	1.7 U	1.8 U	1.6 U	1.6 U
1,1-Dichloroethene	330	--	100000	UG/KG	1 U	1.2 U	1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U
1,1-Dichloropropene	--	--	--	UG/KG	5 U	6 U	5.2 U	5.8 U	6.2 U	5.5 U	5.4 U	5.7 U	5.9 U	5.5 U	5.4 U
1,2,3-Trichlorobenzene	--	--	--	UG/KG	5 U	6 U	5.2 U	5.8 U	6.2 U	5.5 U	5.4 U	5.7 U	5.9 U	5.5 U	5.4 U
1,2,3-Trichloropropane	--	80000	--	UG/KG	10 U	12 U	10 U	12 U	12 U	11 U	11 U	11 U	12 U	11 U	11 U
1,2,4,5-Tetramethylbenzene	--	--	--	UG/KG	4 U	4.8 U	4.1 U	4.7 U	5 U	4.4 U	4.3 U	4.5 U	4.7 U	4.4 U	4.3 U
1,2,4-Trichlorobenzene	--	--	--	UG/KG	5 U	6 U	5.2 U	5.8 U	6.2 U	5.5 U	5.4 U	5.7 U	5.9 U	5.5 U	5.4 U
1,2,4-Trimethylbenzene	3600	--	52000	UG/KG	5 U	6 U	5.2 U	5.8 U	6.2 U	5.5 U	5.4 U	5.7 U	5.9 U	5.5 U	5.4 U
1,2-Dibromo-3-Chloropropane	--	--	--	UG/KG	5 U	6 U	5.2 U	5.8 U	6.2 U	5.5 U	5.4 U	5.7 U	5.9 U	5.5 U	5.4 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	--	UG/KG	4 U	4.8 U	4.1 U	4.7 U	5 U	4.4 U	4.3 U	4.5 U	4.7 U	4.4 U	4.3 U
1,2-Dichlorobenzene	1100	--	100000	UG/KG	5 U	6 U	5.2 U	5.8 U	6.2 U	5.5 U	5.4 U	5.7 U	5.9 U	5.5 U	5.4 U
1,2-Dichloroethane	20	--	3100	UG/KG	1 U	1.2 U	1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U
Dichloroethylenes	--	--	--	UG/KG	1 U	1.2 U	1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U
1,2-Dichloropropane	--	--	--	UG/KG	3.5 U	4.2 U	3.6 U	4.1 U	4.3 U	3.8 U	3.8 U	4 U	4.1 U	3.8 U	3.8 U
1,3,5-Trimethylbenzene (Mesitylene)	8400	--	52000	UG/KG	5 U	6 U	5.2 U	5.8 U	6.2 U	5.5 U	5.4 U	5.7 U	5.9 U	5.5 U	5.4 U
1,3-Dichlorobenzene	2400	--	49000	UG/KG	5 U	6 U	5.2 U	5.8 U	6.2 U	5.5 U	5.4 U	5.7 U	5.9 U	5.5 U	5.4 U
1,3-Dichloropropane	--	--	--	UG/KG	5 U	6 U	5.2 U	5.8 U	6.2 U	5.5 U	5.4 U	5.7 U	5.9 U	5.5 U	5.4 U
Total, 1,3-Dichloropropene (Cis And Trans)	--	--	--	UG/KG	1 U	1.2 U	1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U
1,4-Dichlorobenzene	1800	--	13000	UG/KG	5 U	6 U	5.2 U	5.8 U	6.2 U	5.5 U	5.4 U	5.7 U	5.9 U	5.5 U	5.4 U
1,4-Diethyl Benzene	--	--	--	UG/KG	4 U	4.8 U	4.1 U	4.7 U	5 U	4.4 U	4.3 U	4.5 U	4.7 U	4.4 U	4.3 U
1,4-Dioxane (P-Dioxane)	100	--	13000	UG/KG	100 U	120 U	100 U	120 U	120 U	110 U	110 U	110 U	120 U	110 U	110 U
2,2-Dichloropropane	--	--	--	UG/KG	5 U	6 U	5.2 U	5.8 U	6.2 U	5.5 U	5.4 U	5.7 U	5.9 U	5.5 U	5.4 U
Methyl Ethyl Ketone (2-Butanone)	120	100000	100000	UG/KG	10 U	3.5 J	10 U	12 U	12 U	11 U	11 U	11 U	1.5 J	11 U	11 U
2-Hexanone	--	--	--	UG/KG	10 U	12 U	10 U	12 U	12 U	11 U	11 U	11 U	12 U	11 U	11 U
4-Ethyltoluene	--	--	--	UG/KG	4 U	4.8 U	4.1 U	4.7 U	5 U	4.4 U	4.3 U	4.5 U	4.7 U	4.4 U	4.3 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	--	UG/KG	10 U	12 U	10 U	12 U	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Acetone	50	--	100000	UG/KG	3.1 J	36	4.4 J	8.1 J	2.7 J	11 U	18	3.8 J	15	1.4 J	4.3 J
Acrylonitrile	--	--	--	UG/KG	10 U	12 U	10 U	12 U	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Benzene	60	--	4800	UG/KG	1 U	1.2 U	1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U
Bromobenzene	--	--	--	UG/KG	5 U	6 U	5.2 U	5.8 U	6.2 U	5.5 U	5.4 U	5.7 U	5.9 U	5.5 U	5.4 U
Bromochloromethane	--	--	--	UG/KG	5 U	6 U	5.2 U	5.8 U	6.2 U	5.5 U	5.4 U	5.7 U	5.9 U	5.5 U	5.4 U
Bromodichloromethane	--	--	--	UG/KG	1 U	1.2 U	1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U
Bromoform	--	--	--	UG/KG	4 U	4.8 U	4.1 U	4.7 U	5 U	4.4 U	4.3 U	4.5 U	4.7 U	4.4 U	4.3 U
Bromomethane	--	--	--	UG/KG	2 U	2.4 U	2.1 U	2.3 U	2.5 U	2.2 U	2.2 U	2.3 U	2.4 U	2.2 U	2.1 U
Carbon Disulfide	--	100000	--	UG/KG	10 U	12 U	10 U	12 U	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Carbon Tetrachloride	760	--	2400	UG/KG	1 U	1.2 U	1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U
Chlorobenzene	1100	--	100000	UG/KG	1 U	1.2 U	1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U
Chloroethane	--	--	--	UG/KG	2 U	2.4 U	2.1 U	2.3 U	2.5 U	2.2 U	2.2 U	2.3 U	2.4 U	2.2 U	2.1 U
Chloroform	370	--	49000	UG/KG	1.5 U	1.8 U	1.6 U	1.7 U	1.9 U	1.6 U	1.6 U	1.7 U	1.8 U	1.6 U	1.6 U
Chloromethane	--	--	--	UG/KG	5 U	6 U	5.2 U	5.8 U	6.2 U	5.5 U	5.4 U	5.7 U	5.9 U	5.5 U	5.4 U
Cis-1,2-Dichloroethylene	250	--	100000	UG/KG	1 U	1.2 U	1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U
Cis-1,3-Dichloropropene	--	--	--	UG/KG	1 U	1.2 U	1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U
Dibromochloromethane	--	--	--	UG/KG	1 U	1.2 U	1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U
Dibromomethane	--	--	--	UG/KG	10 U	12 U	10 U	12 U	12 U	11 U	11 U	11 U	12 U	11 U	11 U



Table 4A. Summary of Volatile Organic Compounds in Soil, 93 Dupont Street, Brooklyn, New York

DRAFT

Sample Designation: Date Sampled: Sample Depth (ft bls): Sample Type:					SB-104 11 Feb 2016 5 - 7 N	SB-105 11 Feb 2016 0 - 2 N	SB-105 11 Feb 2016 10 - 12 N	SB-106 11 Feb 2016 0 - 2 N	SB-106 11 Feb 2016 10 - 12 N	SB-107 11 Feb 2016 0 - 2 N	SB-107 11 Feb 2016 10 - 12 N	SB-108 11 Feb 2016 0 - 2 N	SB-108 11 Feb 2016 0 - 2 FD	SB-108 11 Feb 2016 10 - 12 N	SB-108 11 Feb 2016 4 - 6 N
Paramter	Part 375 Unrestricted Use SCO	CP-51 Residential Supplemental SCO	Part 375 Restricted Residential SCO	Units											
Dichlorodifluoromethane	--	--	--	UG/KG	10 U	12 U	10 U	12 U	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Diethyl Ether (Ethyl Ether)	--	--	--	UG/KG	5 U	6 U	5.2 U	5.8 U	6.2 U	5.5 U	5.4 U	5.7 U	5.9 U	5.5 U	5.4 U
Ethylbenzene	1000	--	41000	UG/KG	1 U	1.2 U	1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U
Hexachlorobutadiene	--	--	--	UG/KG	5 U	6 U	5.2 U	5.8 U	6.2 U	5.5 U	5.4 U	5.7 U	5.9 U	5.5 U	5.4 U
Isopropylbenzene (Cumene)	--	100000	--	UG/KG	1 U	1.2 U	1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U
Tert-Butyl Methyl Ether	930	--	100000	UG/KG	2 U	2.4 U	2.1 U	2.3 U	2.5 U	2.2 U	2.2 U	2.3 U	2.4 U	2.2 U	2.1 U
Methylene Chloride	50	--	100000	UG/KG	10 U	12 U	10 U	12 U	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Naphthalene	12000	--	100000	UG/KG	5 U	6 U	5.2 U	5.8 U	1.3 J	5.5 U	5.4 U	5.7 U	5.9 U	5.5 U	5.4 U
N-Butylbenzene	12000	--	100000	UG/KG	1 U	1.2 U	1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U
N-Propylbenzene	3900	--	100000	UG/KG	1 U	1.2 U	1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U
2-Chlorotoluene	--	--	--	UG/KG	5 U	6 U	5.2 U	5.8 U	6.2 U	5.5 U	5.4 U	5.7 U	5.9 U	5.5 U	5.4 U
O-Xylene (1,2-Dimethylbenzene)	--	--	--	UG/KG	2 U	2.4 U	2.1 U	2.3 U	2.5 U	2.2 U	2.2 U	2.3 U	0.42 J	2.2 U	2.1 U
m,p-Xylene	--	--	--	UG/KG	2 U	2.4 U	2.1 U	2.3 U	2.5 U	2.2 U	2.2 U	2.3 U	0.86 J	2.2 U	2.1 U
4-Chlorotoluene	--	--	--	UG/KG	5 U	6 U	5.2 U	5.8 U	6.2 U	5.5 U	5.4 U	5.7 U	5.9 U	5.5 U	5.4 U
Cymene	--	--	--	UG/KG	1 U	1.2 U	1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U
Sec-Butylbenzene	11000	--	100000	UG/KG	1 U	1.2 U	1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U
Styrene	--	--	--	UG/KG	2 U	2.4 U	2.1 U	2.3 U	2.5 U	2.2 U	2.2 U	2.3 U	2.4 U	2.2 U	2.1 U
T-Butylbenzene	5900	--	100000	UG/KG	5 U	6 U	5.2 U	5.8 U	6.2 U	5.5 U	5.4 U	5.7 U	5.9 U	5.5 U	5.4 U
Tetrachloroethylene (PCE)	1300	--	19000	UG/KG	1 U	1.2 U	1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U
Toluene	700	--	100000	UG/KG	0.25 J	1.8 U	1.6 U	1.7 U	0.32 J	0.26 J	1.6 U	0.25 J	0.26 J	0.26 J	0.22 J
Trans-1,2-Dichloroethene	190	--	100000	UG/KG	1.5 U	1.8 U	1.6 U	1.7 U	1.9 U	1.6 U	1.6 U	1.7 U	1.8 U	1.6 U	1.6 U
Trans-1,3-Dichloropropene	--	--	--	UG/KG	1 U	1.2 U	1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U
Trans-1,4-Dichloro-2-Butene	--	--	--	UG/KG	5 U	6 U	5.2 U	5.8 U	6.2 U	5.5 U	5.4 U	5.7 U	5.9 U	5.5 U	5.4 U
Trichloroethylene (TCE)	470	--	21000	UG/KG	1 U	1.2 U	1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U
Trichlorofluoromethane	--	--	--	UG/KG	5 U	6 U	5.2 U	5.8 U	6.2 U	5.5 U	5.4 U	5.7 U	5.9 U	5.5 U	5.4 U
Vinyl Acetate	--	--	--	UG/KG	10 U	12 U	10 U	12 U	12 U	11 U	11 U	11 U	12 U	11 U	11 U
Vinyl Chloride	20	--	900	UG/KG	2 U	2.4 U	2.1 U	2.3 U	2.5 U	2.2 U	2.2 U	2.3 U	2.4 U	2.2 U	2.1 U
Xylenes	260	--	100000	UG/KG	2 U	2.4 U	2.1 U	2.3 U	2.5 U	2.2 U	2.2 U	2.3 U	1.3 J	2.2 U	2.1 U

J - Estimated value  
U - Indicates that the compound was analyzed for but not detected  
FD - Duplicate sample  
µg/kg - Micrograms per kilogram  
ft bls - Feet below land surface  
NYSDEC - New York State Department of Environmental Conservation  
SCO - Soil Cleanup Objectives  
SSCO - Supplemental Soil Cleanup Objectives  
-- No SCO or SSCO available  
Bold data indicates that parameter was detected above the NYSDEC Part 375 Unrestricted Use SCO  
Shaded data indicates that parameter was detected above the NYSDEC CP-51 Residential SSCO  
Red data indicates that parameter was detected above the NYSDEC Part 375 Restricted Residential SCO

Table 4B. Summary of Semivolatile Organic Compounds in Soil, 93 Dupont Street, Brooklyn, New York

DRAFT

Sample Designation: Date Sampled: Sample Depth (ft bls): Sample Type:					SB-101 12 Feb 2016 0 - 2 N	SB-101 12 Feb 2016 10 - 12 N	SB-101 12 Feb 2016 5 - 7 N	SB-101 12 Feb 2016 5 - 7 FD	SB-102 12 Feb 2016 0 - 2 N	SB-102 12 Feb 2016 10 - 12 N	SB-102 12 Feb 2016 5 - 7 N	SB-103 12 Feb 2016 0 - 2 N	SB-103 12 Feb 2016 10 - 12 N	SB-103 12 Feb 2016 4 - 6 N	SB-104 11 Feb 2016 0 - 2 N	SB-104 11 Feb 2016 10 - 12 N
Paramter	Part 375 Unrestricted Use SCO	CP-51 Residential Supplemental SCO	Part 375 Restricted Residential SCO	Units												
1,2,4,5-Tetrachlorobenzene	--	--	--	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
1,2,4-Trichlorobenzene	--	--	--	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
1,2-Dichlorobenzene	1100	--	100000	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
1,3-Dichlorobenzene	2400	--	49000	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
1,4-Dichlorobenzene	1800	--	13000	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
2,4,5-Trichlorophenol	--	100000	--	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
2,4,6-Trichlorophenol	--	--	--	UG/KG	120 U	120 U	120 U	120 U	120 U	120 U	120 U	130 U	120 U	120 U	120 U	130 U
2,4-Dichlorophenol	--	100000	--	UG/KG	180 U	180 U	180 U	180 U	180 U	180 U	170 U	190 U	180 U	180 U	180 U	190 U
2,4-Dimethylphenol	--	--	--	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
2,4-Dinitrophenol	--	100000	--	UG/KG	980 U	950 U	960 U	950 U	930 U	990 U	930 U	1000 U	970 U	980 U	960 U	1000 U
2,4-Dinitrotoluene	--	--	--	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
2,6-Dinitrotoluene	--	1030	--	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
2-Chloronaphthalene	--	--	--	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
2-Chlorophenol	--	100000	--	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
2-Methylnaphthalene	--	410	--	UG/KG	240 U	240 U	240 U	240 U	230 U	250 U	230 U	200 J	240 U	240 U	240 U	260 U
2-Methylphenol (O-Cresol)	330	--	100000	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
2-Nitroaniline	--	--	--	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
2-Nitrophenol	--	--	--	UG/KG	440 U	430 U	430 U	420 U	420 U	440 U	420 U	460 U	440 U	440 U	430 U	460 U
3,3'-Dichlorobenzidine	--	--	--	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
3- And 4- Methylphenol (Total)	--	--	--	UG/KG	290 U	280 U	290 U	280 U	280 U	300 U	280 U	300 U	290 U	290 U	290 U	310 U
3-Nitroaniline	--	--	--	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
4,6-Dinitro-2-Methylphenol	--	--	--	UG/KG	530 U	510 U	520 U	510 U	510 U	530 U	500 U	550 U	530 U	530 U	520 U	560 U
4-Bromophenyl Phenyl Ether	--	--	--	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
4-Chloroaniline	--	100000	--	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
4-Chlorophenyl Phenyl Ether	--	--	--	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
4-Nitroaniline	--	--	--	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
4-Nitrophenol	--	--	--	UG/KG	280 U	280 U	280 U	280 U	270 U	290 U	270 U	300 U	280 U	290 U	280 U	300 U
Acenaphthene	20000	--	100000	UG/KG	160 U	160 U	160 U	160 U	160 U	160 U	150 U	710	160 U	160 U	160 U	170 U
Acenaphthylene	100000	--	100000	UG/KG	160 U	160 U	160 U	160 U	160 U	160 U	150 U	870	160 U	160 U	160 U	170 U
Acetophenone	--	--	--	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
Anthracene	100000	--	100000	UG/KG	120 U	120 U	120 U	120 U	120 U	120 U	120 U	2600	120 U	120 U	120 U	130 U
Benzo(A)Anthracene	1000	--	1000	UG/KG	120 U	120 U	120 U	120 U	120 U	35 J	120 U	9200	37 J	28 J	120 U	130 U
Benzo(A)Pyrene	1000	--	1000	UG/KG	160 U	160 U	160 U	160 U	160 U	160 U	150 U	8400	160 U	160 U	160 U	170 U
Benzo(B)Fluoranthene	1000	--	1000	UG/KG	120 U	120 U	120 U	120 U	120 U	40 J	120 U	11000	44 J	120 U	120 U	130 U
Benzo(G,H,I)Perylene	100000	--	100000	UG/KG	160 U	160 U	160 U	160 U	160 U	29 J	150 U	5200	160 U	160 U	160 U	170 U
Benzo(K)Fluoranthene	800	--	3900	UG/KG	120 U	120 U	120 U	120 U	120 U	120 U	120 U	3400	120 U	120 U	120 U	130 U
Benzoic Acid	--	100000	--	UG/KG	660 U	640 U	650 U	640 U	630 U	670 U	630 U	680 U	660 U	660 U	650 U	690 U
Benzyl Alcohol	--	--	--	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
Biphenyl (Diphenyl)	--	--	--	UG/KG	460 U	450 U	450 U	450 U	440 U	470 U	440 U	82 J	460 U	470 U	460 U	490 U
Bis(2-Chloroethoxy) Methane	--	--	--	UG/KG	220 U	210 U	220 U	210 U	210 U	220 U	210 U	230 U	220 U	220 U	220 U	230 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	--	--	--	UG/KG	180 U	180 U	180 U	180 U	180 U	180 U	170 U	190 U	180 U	180 U	180 U	190 U
Bis(2-Chloroisopropyl) Ether	--	--	--	UG/KG	240 U	240 U	240 U	240 U	230 U	250 U	230 U	250 U	240 U	240 U	240 U	260 U
Bis(2-Ethylhexyl) Phthalate	--	50000	--	UG/KG	1500	390	2000	1200	190 U	200 U	190 U	210 U	240	200 U	1300	300

Table 4B. Summary of Semivolatile Organic Compounds in Soil, 93 Dupont Street, Brooklyn, New York

DRAFT

Sample Designation: Date Sampled: Sample Depth (ft bls): Sample Type:					SB-101 12 Feb 2016 0 - 2 N	SB-101 12 Feb 2016 10 - 12 N	SB-101 12 Feb 2016 5 - 7 N	SB-101 12 Feb 2016 5 - 7 FD	SB-102 12 Feb 2016 0 - 2 N	SB-102 12 Feb 2016 10 - 12 N	SB-102 12 Feb 2016 5 - 7 N	SB-103 12 Feb 2016 0 - 2 N	SB-103 12 Feb 2016 10 - 12 N	SB-103 12 Feb 2016 4 - 6 N	SB-104 11 Feb 2016 0 - 2 N	SB-104 11 Feb 2016 10 - 12 N
Paramter	Part 375 Unrestricted Use SCO	CP-51 Residential Supplemental SCO	Part 375 Restricted Residential SCO	Units												
Benzyl Butyl Phthalate	--	100000	--	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
Carbazole	--	--	--	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	1300	200 U	200 U	200 U	210 U
Chrysene	1000	--	3900	UG/KG	120 U	120 U	120 U	120 U	120 U	33 J	120 U	9800	36 J	26 J	120 U	130 U
Dibenz(A,H)Anthracene	330	--	330	UG/KG	120 U	120 U	120 U	120 U	120 U	120 U	120 U	1300	120 U	120 U	120 U	130 U
Dibenzofuran	7000	--	59000	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	660	200 U	200 U	200 U	210 U
Diethyl Phthalate	--	100000	--	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
Dimethyl Phthalate	--	100000	--	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
Di-N-Butyl Phthalate	--	100000	--	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
Di-N-Octylphthalate	--	100000	--	UG/KG	200 U	200 U	200 U	120 J	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
Fluoranthene	100000	--	100000	UG/KG	120 U	120 U	120 U	120 U	120 U	68 J	120 U	22000	79 J	54 J	120 U	130 U
Fluorene	30000	--	100000	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	770	200 U	200 U	200 U	210 U
Hexachlorobenzene	330	410	1200	UG/KG	120 U	120 U	120 U	120 U	120 U	120 U	120 U	130 U	120 U	120 U	120 U	130 U
Hexachlorobutadiene	--	--	--	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
Hexachlorocyclopentadiene	--	--	--	UG/KG	580 U	570 U	570 U	560 U	560 U	590 U	550 U	600 U	580 U	580 U	570 U	610 U
Hexachloroethane	--	--	--	UG/KG	160 U	160 U	160 U	160 U	160 U	160 U	150 U	170 U	160 U	160 U	160 U	170 U
Indeno(1,2,3-C,D)Pyrene	500	--	500	UG/KG	160 U	160 U	160 U	160 U	160 U	160 U	150 U	5600	160 U	160 U	160 U	170 U
Isophorone	--	100000	--	UG/KG	180 U	180 U	180 U	180 U	180 U	180 U	170 U	190 U	180 U	180 U	180 U	190 U
Naphthalene	12000	--	100000	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	570	200 U	200 U	200 U	210 U
Nitrobenzene	--	3700	--	UG/KG	180 U	180 U	180 U	180 U	180 U	180 U	170 U	190 U	180 U	180 U	180 U	190 U
N-Nitrosodiphenylamine	--	--	--	UG/KG	160 U	160 U	160 U	160 U	160 U	160 U	150 U	170 U	160 U	160 U	160 U	170 U
N-Nitrosodi-N-Propylamine	--	--	--	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
4-Chloro-3-Methylphenol	--	--	--	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
Pentachlorophenol	800	--	6700	UG/KG	160 U	160 U	160 U	160 U	160 U	160 U	150 U	170 U	160 U	160 U	160 U	170 U
Phenanthrene	100000	--	100000	UG/KG	120 U	120 U	120 U	120 U	120 U	52 J	120 U	16000	66 J	37 J	120 U	130 U
Phenol	330	--	100000	UG/KG	200 U	200 U	200 U	200 U	190 U	200 U	190 U	210 U	200 U	200 U	200 U	210 U
Pyrene	100000	--	100000	UG/KG	120 U	120 U	120 U	120 U	120 U	56 J	120 U	21000	75 J	52 J	120 U	130 U

J - Estimated value  
U - Indicates that the compound was analyzed for but not detected  
FD - Duplicate sample  
µg/kg - Micrograms per kilogram  
ft bls - Feet below land surface  
NYSDEC - New York State Department of Environmental Conservation  
SCO - Soil Cleanup Objectives  
SSCO - Supplemental Soil Cleanup Objectives  
-- No SCO or SSCO available  
Bold data indicates that parameter was detected above the NYSDEC Part 375 Unrestricted Use SCO  
Shaded data indicates that parameter was detected above the NYSDEC CP-51 Residential SSCO  
Red data indicates that parameter was detected above the NYSDEC Part 375 Restricted Residential SCO

Table 4B. Summary of Semivolatile Organic Compounds in Soil, 93 Dupont Street, Brooklyn, New York

DRAFT

Sample Designation: Date Sampled: Sample Depth (ft bls): Sample Type:					SB-104 11 Feb 2016 5 - 7 N	SB-105 11 Feb 2016 0 - 2 N	SB-105 11 Feb 2016 10 - 12 N	SB-106 11 Feb 2016 0 - 2 N	SB-106 11 Feb 2016 10 - 12 N	SB-107 11 Feb 2016 0 - 2 N	SB-107 11 Feb 2016 10 - 12 N	SB-108 11 Feb 2016 0 - 2 N	SB-108 11 Feb 2016 0 - 2 FD	SB-108 11 Feb 2016 10 - 12 N	SB-108 11 Feb 2016 4 - 6 N
Paramter	Part 375 Unrestricted Use SCO	CP-51 Residential Supplemental SCO	Part 375 Restricted Residential SCO	Units											
1,2,4,5-Tetrachlorobenzene	--	--	--	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
1,2,4-Trichlorobenzene	--	--	--	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
1,2-Dichlorobenzene	1100	--	100000	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
1,3-Dichlorobenzene	2400	--	49000	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
1,4-Dichlorobenzene	1800	--	13000	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
2,4,5-Trichlorophenol	--	100000	--	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
2,4,6-Trichlorophenol	--	--	--	UG/KG	120 U	120 U	120 U	120 U	130 U	110 U	120 U	120 U	120 U	120 U	120 U
2,4-Dichlorophenol	--	100000	--	UG/KG	170 U	180 U	180 U	180 U	190 U	170 U	180 U	170 U	170 U	180 U	180 U
2,4-Dimethylphenol	--	--	--	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
2,4-Dinitrophenol	--	100000	--	UG/KG	920 U	940 U	940 U	960 U	1000 U	890 U	960 U	930 U	920 U	940 U	950 U
2,4-Dinitrotoluene	--	--	--	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
2,6-Dinitrotoluene	--	1030	--	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
2-Chloronaphthalene	--	--	--	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
2-Chlorophenol	--	100000	--	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
2-Methylnaphthalene	--	410	--	UG/KG	230 U	210 J	240 U	240 U	260 U	220 U	240 U	140 J	120 J	240 U	240 U
2-Methylphenol (O-Cresol)	330	--	100000	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	35 J	190 U	200 U	200 U
2-Nitroaniline	--	--	--	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
2-Nitrophenol	--	--	--	UG/KG	420 U	420 U	420 U	430 U	460 U	400 U	430 U	420 U	410 U	420 U	420 U
3,3'-Dichlorobenzidine	--	--	--	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
3- And 4- Methylphenol (Total)	--	--	--	UG/KG	280 U	42 J	280 U	290 U	310 U	260 U	290 U	280 U	280 U	280 U	280 U
3-Nitroaniline	--	--	--	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
4,6-Dinitro-2-Methylphenol	--	--	--	UG/KG	500 U	510 U	510 U	520 U	550 U	480 U	520 U	500 U	500 U	510 U	510 U
4-Bromophenyl Phenyl Ether	--	--	--	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
4-Chloroaniline	--	100000	--	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
4-Chlorophenyl Phenyl Ether	--	--	--	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
4-Nitroaniline	--	--	--	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
4-Nitrophenol	--	--	--	UG/KG	270 U	280 U	280 U	280 U	300 U	260 U	280 U	270 U	270 U	270 U	280 U
Acenaphthene	20000	--	100000	UG/KG	150 U	600	160 U	160 U	170 U	150 U	160 U	120 J	170	160 U	160 U
Acenaphthylene	100000	--	100000	UG/KG	150 U	650	160 U	160 U	170 U	150 U	160 U	71 J	130 J	160 U	160 U
Acetophenone	--	--	--	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
Anthracene	100000	--	100000	UG/KG	120 U	1900	120 U	120 U	130 U	110 U	120 U	220	430	120 U	120 U
Benzo(A)Anthracene	1000	--	1000	UG/KG	120 U	4500	120 U	120 U	130 U	110 U	120 U	1100	1300	26 J	120 U
Benzo(A)Pyrene	1000	--	1000	UG/KG	150 U	3900	160 U	160 U	170 U	150 U	160 U	1000	1200	160 U	160 U
Benzo(B)Fluoranthene	1000	--	1000	UG/KG	120 U	5000	120 U	120 U	130 U	110 U	120 U	1500	1600	120 U	120 U
Benzo(G,H,I)Perylene	100000	--	100000	UG/KG	150 U	2000	160 U	160 U	170 U	150 U	160 U	630	730	160 U	160 U
Benzo(K)Fluoranthene	800	--	3900	UG/KG	120 U	2000	120 U	120 U	130 U	110 U	120 U	570	680	120 U	120 U
Benzoic Acid	--	100000	--	UG/KG	620 U	640 U	640 U	650 U	690 U	600 U	650 U	630 U	620 U	640 U	640 U
Benzyl Alcohol	--	--	--	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
Biphenyl (Diphenyl)	--	--	--	UG/KG	440 U	71 J	450 U	460 U	490 U	420 U	460 U	440 U	440 U	450 U	450 U
Bis(2-Chloroethoxy) Methane	--	--	--	UG/KG	210 U	210 U	210 U	220 U	230 U	200 U	220 U	210 U	210 U	210 U	210 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	--	--	--	UG/KG	170 U	180 U	180 U	180 U	190 U	170 U	180 U	170 U	170 U	180 U	180 U
Bis(2-Chloroisopropyl) Ether	--	--	--	UG/KG	230 U	240 U	240 U	240 U	260 U	220 U	240 U	230 U	230 U	240 U	240 U
Bis(2-Ethylhexyl) Phthalate	--	50000	--	UG/KG	380	190 J	200 U	200 U	210 U	180 U	200 U	900	590	200 U	200 U



Table 4B. Summary of Semivolatile Organic Compounds in Soil, 93 Dupont Street, Brooklyn, New York

DRAFT

Sample Designation: SB-104 SB-105 SB-105 SB-106 SB-106 SB-107 SB-107 SB-108 SB-108 SB-108 SB-108					SB-104	SB-105	SB-105	SB-106	SB-106	SB-107	SB-107	SB-108	SB-108	SB-108	SB-108
Date Sampled: 11 Feb 2016 11 Feb 2016 11 Feb 2016 11 Feb 2016 11 Feb 2016 11 Feb 2016 11 Feb 2016 11 Feb 2016 11 Feb 2016 11 Feb 2016 11 Feb 2016					11 Feb 2016	11 Feb 2016	11 Feb 2016	11 Feb 2016	11 Feb 2016	11 Feb 2016	11 Feb 2016	11 Feb 2016	11 Feb 2016	11 Feb 2016	11 Feb 2016
Sample Depth (ft bls): 5 - 7 0 - 2 10 - 12 0 - 2 10 - 12 0 - 2 10 - 12 0 - 2 0 - 2 10 - 12 10 - 12					5 - 7	0 - 2	10 - 12	0 - 2	10 - 12	0 - 2	10 - 12	0 - 2	0 - 2	10 - 12	10 - 12
Sample Type: N N N N N N N N FD N N N					N	N	N	N	N	N	N	N	FD	N	N
Paramter	Part 375 Unrestricted Use SCO	CP-51 Residential Supplemental SCO	Part 375 Restricted Residential SCO	Units											
Benzyl Butyl Phthalate	--	100000	--	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
Carbazole	--	--	--	UG/KG	190 U	640	200 U	200 U	210 U	180 U	200 U	240	250	200 U	200 U
Chrysene	1000	--	3900	UG/KG	120 U	4600	120 U	120 U	130 U	110 U	120 U	1200	1400	26 J	120 U
Dibenz(A,H)Anthracene	330	--	330	UG/KG	120 U	500	120 U	120 U	130 U	110 U	120 U	160	180	120 U	120 U
Dibenzofuran	7000	--	59000	UG/KG	190 U	450	200 U	200 U	210 U	180 U	200 U	130 J	150 J	200 U	200 U
Diethyl Phthalate	--	100000	--	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
Dimethyl Phthalate	--	100000	--	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
Di-N-Butyl Phthalate	--	100000	--	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	82 J	200 U	200 U
Di-N-Octylphthalate	--	100000	--	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
Fluoranthene	100000	--	100000	UG/KG	120 U	10000	120 U	120 U	130 U	110 U	120 U	3000	3400	65 J	120 U
Fluorene	30000	--	100000	UG/KG	190 U	670	200 U	200 U	210 U	180 U	200 U	130 J	190	200 U	200 U
Hexachlorobenzene	330	410	1200	UG/KG	120 U	120 U	120 U	120 U	130 U	110 U	120 U	120 U	120 U	120 U	120 U
Hexachlorobutadiene	--	--	--	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
Hexachlorocyclopentadiene	--	--	--	UG/KG	550 U	560 U	560 U	570 U	610 U	530 U	570 U	550 U	550 U	560 U	560 U
Hexachloroethane	--	--	--	UG/KG	150 U	160 U	160 U	160 U	170 U	150 U	160 U	160 U	150 U	160 U	160 U
Indeno(1,2,3-C,D)Pyrene	500	--	500	UG/KG	150 U	2200	160 U	160 U	170 U	150 U	160 U	690	800	160 U	160 U
Isophorone	--	100000	--	UG/KG	170 U	180 U	180 U	180 U	190 U	170 U	180 U	170 U	170 U	180 U	180 U
Naphthalene	12000	--	100000	UG/KG	190 U	370	200 U	200 U	210 U	180 U	200 U	130 J	220	200 U	200 U
Nitrobenzene	--	3700	--	UG/KG	170 U	180 U	180 U	180 U	190 U	170 U	180 U	170 U	170 U	180 U	180 U
N-Nitrosodiphenylamine	--	--	--	UG/KG	150 U	160 U	160 U	160 U	170 U	150 U	160 U	160 U	150 U	160 U	160 U
N-Nitrosodi-N-Propylamine	--	--	--	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
4-Chloro-3-Methylphenol	--	--	--	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
Pentachlorophenol	800	--	6700	UG/KG	150 U	160 U	160 U	160 U	170 U	150 U	160 U	160 U	150 U	160 U	160 U
Phenanthrene	100000	--	100000	UG/KG	120 U	8600	120 U	120 U	130 U	110 U	120 U	2200	2300	49 J	120 U
Phenol	330	--	100000	UG/KG	190 U	200 U	200 U	200 U	210 U	180 U	200 U	190 U	190 U	200 U	200 U
Pyrene	100000	--	100000	UG/KG	120 U	9600	120 U	120 U	130 U	110 U	120 U	2600	3100	54 J	120 U

J - Estimated value  
U - Indicates that the compound was analyzed for but not detected  
FD - Duplicate sample  
µg/kg - Micrograms per kilogram  
ft bls - Feet below land surface  
NYSDEC - New York State Department of Environmental Conservation  
SCO - Soil Cleanup Objectives  
SSCO - Supplemental Soil Cleanup Objectives  
-- No SCO or SSCO available  
Bold data indicates that parameter was detected above the NYSDEC Part 375 Unrestricted Use SCO  
Shaded data indicates that parameter was detected above the NYSDEC CP-51 Residential SSCO  
Red data indicates that parameter was detected above the NYSDEC Part 375 Restricted Residential SCO

Table 4C. Summary of Metals in Soil, 93 Dupont Street, Brooklyn, New York

DRAFT

Sample Designation: Date Sampled: Sample Depth (ft bls): Sample Type:					SB-101 12 Feb 2016 0 - 2 N	SB-101 12 Feb 2016 10 - 12 N	SB-101 12 Feb 2016 5 - 7 N	SB-101 12 Feb 2016 5 - 7 FD	SB-102 12 Feb 2016 0 - 2 N	SB-102 12 Feb 2016 10 - 12 N	SB-102 12 Feb 2016 5 - 7 N	SB-103 12 Feb 2016 0 - 2 N	SB-103 12 Feb 2016 10 - 12 N	SB-103 12 Feb 2016 4 - 6 N	SB-104 11 Feb 2016 0 - 2 N	SB-104 11 Feb 2016 10 - 12 N	SB-104 11 Feb 2016 5 - 7 N	SB-105 11 Feb 2016 0 - 2 N
Paramter	Part 375 Unrestricted Use SCO	CP-51 Residential Supplemental SCO	Part 375 Restricted Residential SCO	Units														
Aluminum	--	--	--	MG/KG	6700	7300	3500	9400	6900	15000	4400	6000	5800	9200	10000	6200	7400	6500
Antimony	--	--	--	MG/KG	4.8 U	4.8 U	4.7 U	4.8	4.7 U	5 U	4.7 U	4.9 U	4.9 U	5 U	1.1 J	4.9 U	0.9 J	1.5 J
Arsenic	13	--	16	MG/KG	3	2.5	2.5	4.1	4.7	12	4.2	3	2.4	5.1	3.3	2.9	2.7	8.5
Barium	350	--	400	MG/KG	22	34	13	34	31	65	20	68	23	9.1	26	23	20	490
Beryllium	7.2	--	72	MG/KG	0.29 J	0.32 J	0.27 J	0.32 J	0.26 J	0.77	0.23 J	0.25 J	0.22 J	0.29 J	0.33 J	0.31 J	0.31 J	0.33 J
Cadmium	2.5	--	4.3	MG/KG	0.96 U	0.95 U	0.94 U	0.93 U	0.93 U	0.81 J	0.93 U	0.98 U	0.97 U	0.99 U	0.92 U	0.98 U	0.93 U	0.94 U
Calcium	--	--	--	MG/KG	1900	620	3600	3400	940	16000	6100	2400	4000	330	2000	730	1200	16000
Chromium, Total	30	--	180	MG/KG	11	9	7.7	17	9.1	27	11	10	10	22	14	11	16	23
Cobalt	--	30	--	MG/KG	6.6	4.3	2.9	6.9	4.9	7.9	3.2	2.4	3.6	5.2	6.7	5.1	6.9	6
Copper	50	--	270	MG/KG	11	8.2	4.7	15	10	67	8.6	19	11	18	15	11	14	38
Iron	--	2000	--	MG/KG	14000	12000	7400	14000	14000	19000	11000	7700	9600	20000	18000	11000	14000	15000
Lead	63	--	400	MG/KG	4.8	14	2.9 J	4.6 U	4.8	200	10	160	12	15	4.6 U	4.9 U	4.7 U	2500
Magnesium	--	--	--	MG/KG	1900	2100	1300	2600	2100	5300	1400	1200	2600	2400	2900	2000	2400	2900
Manganese	1600	--	2000	MG/KG	430	240	74	210	110	340	100	130	110	210	290	110	380	240
Mercury	0.18	--	0.81	MG/KG	0.05 J	0.08 U	0.03 J	0.02 J	0.09	0.09 U	0.02 J	0.27	0.14	0.22	0.05 J	0.08 U	0.02 J	0.7
Nickel	30	--	310	MG/KG	10	9	5.5	13	9.4	26	6.2	5.8	8.3	12	13	10	11	13
Potassium	--	--	--	MG/KG	400	490	460	660	320	2700	460	300	370	520	470	430	450	760
Selenium	3.9	--	180	MG/KG	1.9 U	1.9 U	1.9 U	1.8 U	1.9 U	0.38 J	1.9 U	0.51 J	1.9 U	0.43 J	1.8 U	2 U	1.9 U	0.47 J
Silver	2	--	180	MG/KG	0.96 U	0.95 U	0.94 U	0.93 U	0.93 U	1 U	0.93 U	0.34 J	0.97 U	0.99 U	0.92 U	0.98 U	0.93 U	0.94 U
Sodium	--	--	--	MG/KG	56 J	85 J	48 J	110 J	33 J	220	90 J	75 J	55 J	56 J	78 J	52 J	55 J	150 J
Thallium	--	--	--	MG/KG	1.9 U	1.9 U	1.9 U	1.8 U	1.9 U	2 U	1.9 U	2 U	1.9 U	2 U	1.8 U	2 U	1.9 U	1.9 U
Vanadium	--	100	--	MG/KG	13	11	12	13	12	27	15	10	10	20	18	14	15	26
Zinc	109	--	10000	MG/KG	39	31	18	49	40	230	23	56	29	34	110	43	68	380

J - Estimated value  
U - Indicates that the compound was analyzed for but not detected  
FD - Duplicate sample  
mg/kg - Milligrams per kilogram  
ft bls - Feet below land surface  
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SCO - Soil Cleanup Objectives  
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-- No SCO or SSCO available  
Bold data indicates that parameter was detected above the NYSDEC Part 375 Unrestricted Use SCO  
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Red data indicates that parameter was detected above the NYSDEC Part 375 Restricted Residential SCO

Table 4C. Summary of Metals in Soil, 93 Dupont Street, Brooklyn, New York

DRAFT

Sample Designation: Date Sampled: Sample Depth (ft bls): Sample Type:					SB-105 11 Feb 2016 10 - 12 N	SB-106 11 Feb 2016 0 - 2 N	SB-106 11 Feb 2016 10 - 12 N	SB-107 11 Feb 2016 0 - 2 N	SB-107 11 Feb 2016 10 - 12 N	SB-108 11 Feb 2016 0 - 2 N	SB-108 11 Feb 2016 0 - 2 FD	SB-108 11 Feb 2016 10 - 12 N	SB-108 11 Feb 2016 4 - 6 N
Paramter	Part 375 Unrestricted Use SCO	CP-51 Residential Supplemental SCO	Part 375 Restricted Residential SCO	Units									
Aluminum	--	--	--	MG/KG	5000	8200	3400	5400	11000	9000	8100	8000	6400
Antimony	--	--	--	MG/KG	4.8 U	4.7 U	5.1 U	4.3 U	4.6 U	1.6 J	2.4 J	0.94 J	1 J
Arsenic	13	--	16	MG/KG	3.9	3.4	0.98 J	5.1	2.3	4.2	6.7	3.2	5
Barium	<b>350</b>	--	400	MG/KG	26	23	12	16	110	300	310	35	23
Beryllium	7.2	--	72	MG/KG	0.3 J	0.24 J	0.2 J	0.42 J	0.45 J	0.33 J	0.3 J	0.34 J	0.62
Cadmium	2.5	--	4.3	MG/KG	0.95 U	0.93 U	1 U	0.86 U	0.93 U	0.94 U	0.91 U	0.94 U	0.9 U
Calcium	--	--	--	MG/KG	510	2000	480	450	12000	9000	16000	10000	680
Chromium, Total	30	--	180	MG/KG	10	18	7.6	9.6	27	17	18	15	17
Cobalt	--	30	--	MG/KG	6.1	5.9	2.6	4.7	9.3	8.2	11	5.8	5.1
Copper	<b>50</b>	--	270	MG/KG	8.9	16	5.4	13	23	44	<b>120</b>	16	13
Iron	--	2000	--	MG/KG	12000	15000	7300	15000	22000	20000	29000	16000	21000
Lead	<b>63</b>	--	400	MG/KG	1.7 J	6.2	5.1 U	4.3 U	0.86 J	<b>230</b>	<b>680</b>	11	45 U
Magnesium	--	--	--	MG/KG	1500	2600	1100	1300	9200	4300	6300	5400	1800
Manganese	1600	--	2000	MG/KG	180	160	45	220	380	310	340	340	160
Mercury	<b>0.18</b>	--	0.81	MG/KG	0.08 U	0.076 J	0.08 U	0.02 J	0.02 J	<b>0.28</b>	<b>0.26</b>	0.03 J	0.08 U
Nickel	30	--	310	MG/KG	11	11	6.3	6.7	22	13	16	11	10
Potassium	--	--	--	MG/KG	630	510	420	720	4100	640	650	580	500
Selenium	3.9	--	180	MG/KG	1.9 U	1.9 U	2 U	1.7 U	0.36 J	1.9 U	0.38 J	1.9 U	1.8 U
Silver	2	--	180	MG/KG	0.95 U	0.93 U	1 U	0.86 U	0.93 U	0.94 U	0.91 U	0.94 U	0.9 U
Sodium	--	--	--	MG/KG	190 U	140 J	41 J	28 J	180	110 J	130 J	88 J	64 J
Thallium	--	--	--	MG/KG	1.9 U	1.9 U	2 U	1.7 U	1.8 U	1.9 U	1.8 U	1.9 U	1.8 U
Vanadium	--	100	--	MG/KG	17	15	10	19	31	21	28	16	22
Zinc	<b>109</b>	--	10000	MG/KG	30	<b>240</b>	64	39	58	<b>220</b>	<b>240</b>	44	37

J - Estimated value  
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FD - Duplicate sample  
mg/kg - Milligrams per kilogram  
ft bls - Feet below land surface  
NYSDEC - New York State Department of Environmental Conservation  
SCO - Soil Cleanup Objectives  
SSCO - Supplemental Soil Cleanup Objectives  
-- No SCO or SSCO available  
Bold data indicates that parameter was detected above the NYSDEC Part 375 Unrestricted Use SCO  
Shaded data indicates that parameter was detected above the NYSDEC CP-51 Residential SSCO  
Red data indicates that parameter was detected above the NYSDEC Part 375 Restricted Residential SCO

Table 4D. Summary of Polychlorinated Biphenyls in Soil, 93 Dupont Street, Brooklyn, New York

DRAFT

Sample Designation:					SB-101	SB-101	SB-101	SB-101	SB-102	SB-102	SB-102	SB-103	SB-103	SB-103	SB-104	SB-104
Date Sampled:					12 Feb 2016	12 Feb 2016	12 Feb 2016	12 Feb 2016	12 Feb 2016	12 Feb 2016	12 Feb 2016	12 Feb 2016	12 Feb 2016	12 Feb 2016	11 Feb 2016	11 Feb 2016
Sample Depth (ft bls):					0 - 2	10 - 12	5 - 7	5 - 7	0 - 2	10 - 12	5 - 7	0 - 2	10 - 12	4 - 6	0 - 2	10 - 12
Sample Type:					N	N	N	FD	N	N	N	N	N	N	N	N
Paramter	Part 375 Unrestricted Use SCO	CP-51 Residential Supplemental SCO	Part 375 Restricted Residential SCO	Units												
PCB-1016 (Aroclor 1016)	--	--	--	UG/KG	39.4 U	38.3 U	38.4 U	39.6 U	38.8 U	40.4 U	38.5 U	41 U	39.4 U	39.7 U	39.2 U	40.5 U
PCB-1221 (Aroclor 1221)	--	--	--	UG/KG	39.4 U	38.3 U	38.4 U	39.6 U	38.8 U	40.4 U	38.5 U	41 U	39.4 U	39.7 U	39.2 U	40.5 U
PCB-1232 (Aroclor 1232)	--	--	--	UG/KG	39.4 U	38.3 U	38.4 U	39.6 U	38.8 U	40.4 U	38.5 U	41 U	39.4 U	39.7 U	39.2 U	40.5 U
PCB-1242 (Aroclor 1242)	--	--	--	UG/KG	39.4 U	38.3 U	38.4 U	39.6 U	38.8 U	40.4 U	38.5 U	41 U	39.4 U	39.7 U	39.2 U	40.5 U
PCB-1248 (Aroclor 1248)	--	--	--	UG/KG	39.4 U	38.3 U	38.4 U	39.6 U	38.8 U	40.4 U	38.5 U	41 U	39.4 U	39.7 U	39.2 U	40.5 U
PCB-1254 (Aroclor 1254)	--	--	--	UG/KG	39.4 U	38.3 U	38.4 U	39.6 U	38.8 U	40.4 U	38.5 U	41 U	39.4 U	39.7 U	39.2 U	40.5 U
PCB-1260 (Aroclor 1260)	--	--	--	UG/KG	26.1 J	26.4 J	12.8 J	26.5 J	38.8 U	40.4 U	38.5 U	41 U	39.4 U	39.7 U	14.7 J	40.5 U
PCB-1262 (Aroclor 1262)	--	--	--	UG/KG	39.4 U	38.3 U	38.4 U	39.6 U	38.8 U	40.4 U	38.5 U	41 U	39.4 U	39.7 U	39.2 U	40.5 U
PCB-1268 (Aroclor 1268)	--	--	--	UG/KG	39.4 U	38.3 U	38.4 U	39.6 U	38.8 U	40.4 U	38.5 U	17.9 J	39.4 U	39.7 U	39.2 U	40.5 U
Polychlorinated Biphenyl (PCBs)	100	--	1000	UG/KG	26.1 J	26.4 J	12.8 J	26.5 J	38.8 U	40.4 U	38.5 U	17.9 J	39.4 U	39.7 U	14.7 J	40.5 U

J - Estimated value  
U - Indicates that the compound was analyzed for but not detected  
FD - Duplicate sample  
µg/kg - Micrograms per kilogram  
ft bls - Feet below land surface  
NYSDEC - New York State Department of Environmental Conservation  
SCO - Soil Cleanup Objectives  
SSCO - Supplemental Soil Cleanup Objectives  
-- No SCO or SSCO available  
Bold data indicates that parameter was detected above the NYSDEC Part 375 Unrestricted Use SCO  
Shaded data indicates that parameter was detected above the NYSDEC CP-51 Residential SSCO  
Red data indicates that parameter was detected above the NYSDEC Part 375 Restricted Residential SCO



Table 4D. Summary of Polychlorinated Biphenyls in Soil, 93 Dupont Street, Brooklyn, New York

DRAFT

Sample Designation:					SB-104	SB-105	SB-105	SB-106	SB-106	SB-107	SB-107	SB-108	SB-108	SB-108	SB-108
Date Sampled:					11 Feb 2016	11 Feb 2016	11 Feb 2016	11 Feb 2016	11 Feb 2016	11 Feb 2016	11 Feb 2016	11 Feb 2016	11 Feb 2016	11 Feb 2016	11 Feb 2016
Sample Depth (ft bls):					5 - 7	0 - 2	10 - 12	0 - 2	10 - 12	0 - 2	10 - 12	0 - 2	0 - 2	10 - 12	4 - 6
Sample Type:					N	N	N	N	N	N	N	N	FD	N	N
Paramter	Part 375 Unrestricted Use SCO	CP-51 Residential Supplemental SCO	Part 375 Restricted Residential SCO	Units											
PCB-1016 (Aroclor 1016)	--	--	--	UG/KG	37.7 U	38.7 U	39 U	39.4 U	41 U	36 U	39.5 U	39.5 U	37 U	37.7 U	38.3 U
PCB-1221 (Aroclor 1221)	--	--	--	UG/KG	37.7 U	38.7 U	39 U	39.4 U	41 U	36 U	39.5 U	39.5 U	37 U	37.7 U	38.3 U
PCB-1232 (Aroclor 1232)	--	--	--	UG/KG	37.7 U	38.7 U	39 U	39.4 U	41 U	36 U	39.5 U	39.5 U	37 U	37.7 U	38.3 U
PCB-1242 (Aroclor 1242)	--	--	--	UG/KG	37.7 U	38.7 U	39 U	39.4 U	41 U	36 U	39.5 U	39.5 U	37 U	37.7 U	38.3 U
PCB-1248 (Aroclor 1248)	--	--	--	UG/KG	37.7 U	38.7 U	39 U	39.4 U	41 U	36 U	39.5 U	39.5 U	37 U	37.7 U	38.3 U
PCB-1254 (Aroclor 1254)	--	--	--	UG/KG	37.7 U	38.7 U	39 U	39.4 U	41 U	36 U	39.5 U	39.5 U	37 U	37.7 U	38.3 U
PCB-1260 (Aroclor 1260)	--	--	--	UG/KG	13.2 J	13 J	39 U	39.4 U	41 U	36 U	39.5 U	39.5 U	37 U	37.7 U	38.3 U
PCB-1262 (Aroclor 1262)	--	--	--	UG/KG	37.7 U	38.7 U	39 U	39.4 U	41 U	36 U	39.5 U	39.5 U	37 U	37.7 U	38.3 U
PCB-1268 (Aroclor 1268)	--	--	--	UG/KG	37.7 U	38.7 U	39 U	39.4 U	41 U	36 U	39.5 U	39.5 U	37 U	37.7 U	38.3 U
Polychlorinated Biphenyl (PCBs)	100	--	1000	UG/KG	13.2 J	13 J	39 U	39.4 U	41 U	36 U	39.5 U	39.5 U	37 U	37.7 U	38.3 U

J - Estimated value  
U - Indicates that the compound was analyzed for but not detected  
FD - Duplicate sample  
µg/kg - Micrograms per kilogram  
ft bls - Feet below land surface  
NYSDEC - New York State Department of Environmental Conservation  
SCO - Soil Cleanup Objectives  
SSCO - Supplemental Soil Cleanup Objectives  
-- No SCO or SSCO available  
Bold data indicates that parameter was detected above the NYSDEC Part 375 Unrestricted Use SCO  
Shaded data indicates that parameter was detected above the NYSDEC CP-51 Residential SSCO  
Red data indicates that parameter was detected above the NYSDEC Part 375 Restricted Residential SCO

Table 4E. Summary of Pesticides in Soil, 93 Dupont Street, Brooklyn, New York

DRAFT

Sample Designation: Date Sampled: Sample Depth (ft bls): Sample Type:					SB-101 12 Feb 2016 0 - 2 N	SB-101 12 Feb 2016 10 - 12 N	SB-101 12 Feb 2016 5 - 7 N	SB-101 12 Feb 2016 5 - 7 FD	SB-102 12 Feb 2016 0 - 2 N	SB-102 12 Feb 2016 10 - 12 N	SB-102 12 Feb 2016 5 - 7 N	SB-103 12 Feb 2016 0 - 2 N	SB-103 12 Feb 2016 10 - 12 N	SB-103 12 Feb 2016 4 - 6 N	SB-104 11 Feb 2016 0 - 2 N	SB-104 11 Feb 2016 10 - 12 N
Paramter	Part 375 Unrestricted Use SCO	CP-51 Residential Supplemental SCO	Part 375 Restricted Residential SCO	Units												
P,P'-DDD	3.3	--	13000	UG/KG	1.91 U	1.88 U	1.93 U	4.27	1.9 U	1.95 U	1.84 U	2.02 U	1.88 U	1.92 U	1.89 U	1.97 U
P,P'-DDE	3.3	--	8900	UG/KG	0.854 J	0.894 J	3.54	2.06	1.9 U	1.95 U	1.84 U	2.02 U	1.88 U	1.92 U	0.542 J	1.97 U
P,P'-DDT	3.3	--	7900	UG/KG	3.59 U	3.52 U	3.61 U	3.29 J	3.56 U	3.65 U	3.44 U	3.79 U	3.53 U	3.61 U	3.55 U	3.69 U
Aldrin	5	--	97	UG/KG	1.91 U	1.88 U	1.93 U	1.88 U	1.9 U	1.95 U	1.84 U	2.02 U	1.88 U	1.92 U	1.89 U	1.97 U
Alpha Bhc (Alpha Hexachlorocyclohexane)	20	--	480	UG/KG	0.798 U	0.781 U	0.803 U	0.782 U	0.791 U	0.812 U	0.764 U	0.843 U	0.785 U	0.802 U	0.789 U	0.82 U
Beta Bhc (Beta Hexachlorocyclohexane)	36	--	360	UG/KG	1.91 U	1.88 U	1.93 U	1.88 U	1.9 U	1.95 U	1.84 U	2.02 U	1.88 U	1.92 U	1.89 U	1.97 U
Chlordane	--	--	--	UG/KG	15.6 U	15.2 U	15.7 U	15.2 U	15.4 U	15.8 U	14.9 U	16.4 U	15.3 U	15.6 U	15.4 U	16 U
cis-Chlordane	94	--	4200	UG/KG	2.39 U	2.34 U	2.41 U	2.34 U	2.37 U	2.44 U	2.29 U	2.53 U	2.36 U	2.4 U	0.8 J	2.46 U
Delta BHC (Delta Hexachlorocyclohexane)	40	--	100000	UG/KG	1.91 U	1.88 U	1.93 U	1.88 U	1.9 U	1.95 U	1.84 U	2.02 U	1.88 U	1.92 U	1.89 U	1.97 U
Dieldrin	5	--	200	UG/KG	1.2 U	0.906 J	1.81 PI	0.669 JPI	1.19 U	1.22 U	1.15 U	1.26 U	1.18 U	1.2 U	0.649 J	1.23 U
Alpha Endosulfan	2400	--	24000	UG/KG	1.91 U	1.88 U	1.93 U	1.88 U	1.9 U	1.95 U	1.84 U	2.02 U	1.88 U	1.92 U	1.89 U	1.97 U
Beta Endosulfan	2400	--	24000	UG/KG	1.91 U	1.88 U	1.93 U	1.88 U	1.9 U	1.95 U	1.84 U	2.02 U	1.88 U	1.92 U	1.89 U	1.97 U
Endosulfan Sulfate	2400	--	24000	UG/KG	0.798 U	0.781 U	0.803 U	0.782 U	0.791 U	0.812 U	0.764 U	0.843 U	0.785 U	0.802 U	0.789 U	0.82 U
Endrin	14	--	11000	UG/KG	0.798 U	0.781 U	0.803 U	0.782 U	0.791 U	0.812 U	0.764 U	0.843 U	0.785 U	0.802 U	0.789 U	0.82 U
Endrin Aldehyde	--	--	--	UG/KG	2.39 U	2.34 U	2.41 U	2.34 U	2.37 U	2.44 U	2.29 U	2.53 U	2.36 U	1.08 J	2.37 U	2.46 U
Endrin Ketone	--	--	--	UG/KG	1.91 U	1.88 U	1.93 U	1.88 U	1.9 U	1.95 U	1.84 U	2.02 U	1.88 U	1.92 U	1.89 U	1.97 U
Heptachlor	42	--	2100	UG/KG	0.957 U	0.938 U	0.964 U	0.938 U	0.949 U	0.974 U	0.918 U	1.01 U	0.942 U	0.962 U	0.947 U	0.984 U
Heptachlor Epoxide	--	77	--	UG/KG	3.59 U	3.52 U	3.61 U	3.52 U	3.56 U	3.65 U	3.44 U	2.54 J	3.53 U	3.61 U	3.55 U	3.69 U
Gamma Bhc (Lindane)	100	--	1300	UG/KG	0.798 U	0.781 U	0.803 U	0.782 U	0.791 U	0.812 U	0.764 U	0.843 U	0.785 U	0.802 U	0.789 U	0.82 U
Methoxychlor	--	100000	--	UG/KG	3.59 U	3.52 U	3.61 U	3.52 U	3.56 U	3.65 U	3.44 U	3.79 U	3.53 U	3.61 U	3.55 U	3.69 U
Toxaphene	--	--	--	UG/KG	35.9 U	35.2 U	36.1 U	35.2 U	35.6 U	36.5 U	34.4 U	37.9 U	35.3 U	36.1 U	35.5 U	36.9 U
trans-Chlordane	--	540	--	UG/KG	2.39 U	2.34 U	2.41 U	2.34 U	2.37 U	2.44 U	2.29 U	2.53 U	2.36 U	2.4 U	0.847 JPI	2.04 J

J - Estimated value  
U - Indicates that the compound was analyzed for but not detected  
FD - Duplicate sample  
µg/kg - Micrograms per kilogram  
ft bls - Feet below land surface  
NYSDEC - New York State Department of Environmental Conservation  
SCO - Soil Cleanup Objectives  
SSCO - Supplemental Soil Cleanup Objectives  
-- No SCO or SSCO available  
Bold data indicates that parameter was detected above the NYSDEC Part 375 Unrestricted Use SCO  
Shaded data indicates that parameter was detected above the NYSDEC CP-51 Residential SSCO  
Red data indicates that parameter was detected above the NYSDEC Part 375 Restricted Residential SCO

Table 4E. Summary of Pesticides in Soil, 93 Dupont Street, Brooklyn, New York

DRAFT

Sample Designation: Date Sampled: Sample Depth (ft bls): Sample Type:					SB-104 11 Feb 2016 5 - 7 N	SB-105 11 Feb 2016 0 - 2 N	SB-105 11 Feb 2016 10 - 12 N	SB-106 11 Feb 2016 0 - 2 N	SB-106 11 Feb 2016 10 - 12 N	SB-107 11 Feb 2016 0 - 2 N	SB-107 11 Feb 2016 10 - 12 N	SB-108 11 Feb 2016 0 - 2 N	SB-108 11 Feb 2016 0 - 2 FD	SB-108 11 Feb 2016 10 - 12 N	SB-108 11 Feb 2016 4 - 6 N
Paramter	Part 375 Unrestricted Use SCO	CP-51 Residential Supplemental SCO	Part 375 Restricted Residential SCO	Units											
P,P'-DDD	3.3	--	13000	UG/KG	1.78 U	1.87 U	1.82 U	1.96 U	2.02 U	1.77 U	1.9 U	1.89 U	7.9	1.85 U	1.85 U
P,P'-DDE	3.3	--	8900	UG/KG	1.78 U	17.9	1.82 U	1.96 U	2.02 U	1.77 U	1.9 U	2.2	2.01	1.85 U	1.85 U
P,P'-DDT	3.3	--	7900	UG/KG	3.33 U	77	3.41 U	3.68 U	3.79 U	3.31 U	3.57 U	1.9 JPI	3.46 U	3.47 U	3.47 U
Aldrin	5	--	97	UG/KG	1.78 U	1.87 U	1.82 U	1.96 U	2.02 U	1.77 U	1.9 U	1.89 U	1.84 U	1.85 U	1.85 U
Alpha Bhc (Alpha Hexachlorocyclohexane)	20	--	480	UG/KG	0.74 U	0.78 U	0.757 U	0.817 U	0.842 U	0.736 U	0.793 U	0.789 U	0.769 U	0.77 U	0.772 U
Beta Bhc (Beta Hexachlorocyclohexane)	36	--	360	UG/KG	1.78 U	1.87 U	1.82 U	1.96 U	2.02 U	1.77 U	1.9 U	1.89 U	1.84 U	1.85 U	1.85 U
Chlordane	--	--	--	UG/KG	14.4 U	15.2 U	14.8 U	15.9 U	16.4 U	14.3 U	15.5 U	15.4 U	15 U	15 U	15 U
cis-Chlordane	94	--	4200	UG/KG	1.02 J	2.34 U	2.27 U	1.46 J	1.52 J	1.83 J	1.52 JPI	1.71 J	1.4 J	1.77 J	2.32 U
Delta BHC (Delta Hexachlorocyclohexane)	40	--	100000	UG/KG	1.78 U	1.87 U	1.82 U	1.96 U	2.02 U	1.77 U	1.9 U	1.89 U	1.84 U	1.85 U	1.85 U
Dieldrin	5	--	200	UG/KG	1.11 U	1.17 U	1.14 U	1.22 U	1.26 U	1.1 U	1.19 U	1.18 U	1.15 U	1.16 U	1.16 U
Alpha Endosulfan	2400	--	24000	UG/KG	1.78 U	1.87 U	1.82 U	1.96 U	2.02 U	1.77 U	1.9 U	1.89 U	1.84 U	1.85 U	1.85 U
Beta Endosulfan	2400	--	24000	UG/KG	1.78 U	1.87 U	1.82 U	1.96 U	2.02 U	1.77 U	1.9 U	1.89 U	1.84 U	1.85 U	1.85 U
Endosulfan Sulfate	2400	--	24000	UG/KG	0.74 U	0.78 U	0.757 U	0.817 U	0.842 U	0.736 U	0.793 U	0.789 U	0.769 U	0.77 U	0.772 U
Endrin	14	--	11000	UG/KG	0.74 U	0.78 U	0.757 U	0.817 U	0.842 U	0.736 U	0.793 U	0.789 U	0.769 U	0.77 U	0.772 U
Endrin Aldehyde	--	--	--	UG/KG	2.22 U	2.34 U	2.27 U	2.45 U	2.53 U	2.21 U	2.38 U	2.37 U	2.31 U	2.31 U	2.32 U
Endrin Ketone	--	--	--	UG/KG	1.78 U	1.87 U	1.82 U	1.96 U	2.02 U	1.77 U	1.9 U	1.89 U	1.84 U	1.85 U	1.85 U
Heptachlor	42	--	2100	UG/KG	0.888 U	0.936 U	0.909 U	0.98 U	1.01 U	0.883 U	0.952 U	0.947 U	0.923 U	0.924 U	0.926 U
Heptachlor Epoxide	--	77	--	UG/KG	3.33 U	3.51 U	3.41 U	3.68 U	3.79 U	3.31 U	3.57 U	3.55 U	3.46 U	3.47 U	3.47 U
Gamma Bhc (Lindane)	100	--	1300	UG/KG	0.74 U	0.78 U	0.757 U	0.817 U	0.842 U	0.736 U	0.793 U	0.789 U	0.769 U	0.77 U	0.772 U
Methoxychlor	--	100000	--	UG/KG	3.33 U	3.51 U	3.41 U	3.68 U	3.79 U	3.31 U	3.57 U	3.55 U	3.46 U	3.47 U	3.47 U
Toxaphene	--	--	--	UG/KG	33.3 U	35.1 U	34.1 U	36.8 U	37.9 U	33.1 U	35.7 U	35.5 U	34.6 U	34.7 U	34.7 U
trans-Chlordane	--	540	--	UG/KG	2.22 U	2.02 JPI	0.72 JPI	1.46 J	1.13 JPI	2 J	3.24	1.47 JPI	1.02 JPI	0.888 JPI	0.97 JPI

J - Estimated value  
U - Indicates that the compound was analyzed for but not detected  
FD - Duplicate sample  
µg/kg - Micrograms per kilogram  
ft bls - Feet below land surface  
NYSDEC - New York State Department of Environmental Conservation  
SCO - Soil Cleanup Objectives  
SSCO - Supplemental Soil Cleanup Objectives  
-- No SCO or SSCO available  
Bold data indicates that parameter was detected above the NYSDEC Part 375 Unrestricted Use SCO  
Shaded data indicates that parameter was detected above the NYSDEC CP-51 Residential SSCO  
Red data indicates that parameter was detected above the NYSDEC Part 375 Restricted Residential SCO

**Table 5A. Summary of Volatile Organic Compounds in Groundwater, 93 Dupont Street, Brooklyn, New York**

**DRAFT**

Sample Designation: Sample Date: Sample Type: Total or Dissolved:			MW-101 19 Feb 2016 FD T	MW-101 19 Feb 2016 N T	MW-102 19 Feb 2016 N T	MW-103 19 Feb 2016 N T	MW-104 18 Feb 2016 N T	MW-105 19 Feb 2016 N T
Parameter	NYSDEC Ambient Water Quality Standards	NYSDEC Ambient Water Quality Guidance Values						
1,1,1,2-Tetrachloroethane	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	2.5 U	2.5 U	0.72 J	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	0.5 U	0.5 U	2.2	0.19 J	0.5 U	0.5 U
1,1-Dichloropropene	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	2 U	2 U	2 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichloroethylenes	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloropropane	1	--	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropane (Cis And Trans)	0.4	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	3	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	2 U	2 U	2 U	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	250 U	250 U	250 U	250 U	250 U	250 U
2,2-Dichloropropane	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	--	50	5 U	5 U	5 U	5 U	5 U	5 U
4-Ethyltoluene	--	--	2 U	2 U	2 U	2 U	2 U	2 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	--	50	5 U	5 U	5 U	5 U	4.2 J	5 U
Acrylonitrile	5	--	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	1	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromochloromethane	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	--	50	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	--	60	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U



**Table 5A. Summary of Volatile Organic Compounds in Groundwater, 93 Dupont Street, Brooklyn, New York**

**DRAFT**

Sample Designation: Sample Date: Sample Type: Total or Dissolved:			MW-101 19 Feb 2016 FD T	MW-101 19 Feb 2016 N T	MW-102 19 Feb 2016 N T	MW-103 19 Feb 2016 N T	MW-104 18 Feb 2016 N T	MW-105 19 Feb 2016 N T
Parameter	NYSDEC Ambient Water Quality Standards	NYSDEC Ambient Water Quality Guidance Values						
Chloromethane	--	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	--	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	5	--	5 U	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	5	--	5 U	5 U	5 U	5 U	5 U	5 U
Diethyl Ether (Ethyl Ether)	--	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methylene Chloride	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Chlorotoluene	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cymene	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,2-Dichloroethene	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,4-Dichloro-2-Butene	--	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	5 U	5 U	5 U	5 U	5 U	5 U
Vinyl Chloride	2	--	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	5	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

DUP - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 5B. Summary of Semivolatile Organic Compounds in Groundwater, 93 Dupont Street, Brooklyn, New York**

**DRAFT**

Sample Designation:			MW-101	MW-101	MW-102	MW-103	MW-104	MW-105
Sample Date:			19 Feb 2016	19 Feb 2016	19 Feb 2016	19 Feb 2016	18 Feb 2016	19 Feb 2016
Sample Type:			FD	N	N	N	N	N
Total or Dissolved:			T	T	T	T	T	T
Parameter	NYSDEC Ambient Water Quality Standards	NYSDEC Ambient Water Quality Guidance Values						
1,2,4,5-Tetrachlorobenzene	--	--	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5	--	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichlorobenzene	3	--	2 U	2 U	2 U	2 U	2 U	2 U
1,3-Dichlorobenzene	3	--	2 U	2 U	2 U	2 U	2 U	2 U
1,4-Dichlorobenzene	3	--	2 U	2 U	2 U	2 U	2 U	2 U
2,4,5-Trichlorophenol	--	--	5 U	5 U	5 U	5 U	5 U	5 U
2,4,6-Trichlorophenol	--	--	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dichlorophenol	5	--	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dimethylphenol	--	50	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dinitrophenol	--	10	20 U	20 U	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	5	--	5 U	5 U	5 U	5 U	5 U	5 U
2,6-Dinitrotoluene	5	--	5 U	5 U	5 U	5 U	5 U	5 U
2-Chloronaphthalene	--	10	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
2-Chlorophenol	--	--	2 U	2 U	2 U	2 U	2 U	2 U
2-Methylnaphthalene	--	--	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
2-Methylphenol (O-Cresol)	--	--	5 U	5 U	5 U	5 U	5 U	5 U
2-Nitroaniline	5	--	5 U	5 U	5 U	5 U	5 U	5 U
2-Nitrophenol	--	--	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	5	--	5 U	5 U	5 U	5 U	5 U	5 U
3- And 4- Methylphenol (Total)	--	--	5 U	5 U	5 U	5 U	5 U	5 U
3-Nitroaniline	5	--	5 U	5 U	5 U	5 U	5 U	5 U
4,6-Dinitro-2-Methylphenol	--	--	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl Phenyl Ether	--	--	2 U	2 U	2 U	2 U	2 U	2 U
4-Chloroaniline	5	--	5 U	5 U	5 U	5 U	5 U	5 U
4-Chlorophenyl Phenyl Ether	--	--	2 U	2 U	2 U	2 U	2 U	2 U
4-Nitroaniline	5	--	5 U	5 U	5 U	5 U	5 U	5 U
4-Nitrophenol	--	--	10 U	10 U	10 U	10 U	4.2 J	10 U
Acenaphthene	--	20	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Acenaphthylene	--	20	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Acetophenone	--	--	5 U	5 U	5 U	5 U	5 U	5 U
Anthracene	--	50	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(A)Anthracene	--	<b>0.002</b>	0.2 U	0.2 U	<b>0.11 J</b>	0.2 U	0.2 U	0.2 U
Benzo(A)Pyrene	<b>0</b>	--	0.2 U	0.2 U	<b>0.11 J</b>	0.2 U	0.2 U	0.2 U
Benzo(B)Fluoranthene	--	<b>0.002</b>	0.2 U	0.2 U	<b>0.15 J</b>	0.2 U	0.2 U	0.2 U
Benzo(G,H,I)Perylene	--	--	0.2 U	0.2 U	0.07 J	0.2 U	0.2 U	0.2 U
Benzo(K)Fluoranthene	--	<b>0.002</b>	0.2 U	0.2 U	<b>0.06 J</b>	0.2 U	0.2 U	0.2 U
Benzoic Acid	--	--	50 U	50 U	50 U	50 U	17 J	50 U
Benzyl Alcohol	--	--	2 U	2 U	2 U	2 U	2 U	2 U
Biphenyl (Diphenyl)	--	--	2 U	2 U	2 U	2 U	2 U	2 U
Bis(2-Chloroethoxy) Methane	5	--	5 U	5 U	5 U	5 U	5 U	5 U

**Table 5B. Summary of Semivolatile Organic Compounds in Groundwater, 93 Dupont Street, Brooklyn, New York**

**DRAFT**

Sample Designation:			MW-101	MW-101	MW-102	MW-103	MW-104	MW-105
Sample Date:			19 Feb 2016	19 Feb 2016	19 Feb 2016	19 Feb 2016	18 Feb 2016	19 Feb 2016
Sample Type:			FD	N	N	N	N	N
Total or Dissolved:			T	T	T	T	T	T
Parameter	NYSDEC Ambient Water Quality Standards	NYSDEC Ambient Water Quality Guidance Values						
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	1	--	2 U	2 U	2 U	2 U	2 U	2 U
Bis(2-Chloroisopropyl) Ether	5	--	2 U	2 U	2 U	2 U	2 U	2 U
Bis(2-Ethylhexyl) Phthalate	5	--	3 U	3 U	3 U	3.9	4.7	3 U
Benzyl Butyl Phthalate	--	50	5 U	5 U	5 U	5 U	5 U	5 U
Carbazole	--	--	2 U	2 U	2 U	2 U	2 U	2 U
Chrysene	--	<b>0.002</b>	0.2 U	0.2 U	<b>0.1 J</b>	0.2 U	0.2 U	0.2 U
Dibenz(A,H)Anthracene	--	--	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Dibenzofuran	--	--	2 U	2 U	2 U	2 U	2 U	2 U
Diethyl Phthalate	--	50	5 U	5 U	5 U	5 U	5 U	5 U
Dimethyl Phthalate	--	50	5 U	5 U	5 U	5 U	5 U	5 U
Di-N-Butyl Phthalate	50	--	5 U	5 U	5 U	5 U	5 U	5 U
Di-N-Octylphthalate	--	--	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	--	50	0.2 U	0.2 U	0.17 J	0.2 U	0.2 U	0.2 U
Fluorene	--	50	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Hexachlorobenzene	0.04	--	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
Hexachlorobutadiene	0.5	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Hexachlorocyclopentadiene	5	--	20 U	20 U	20 U	20 U	20 U	20 U
Hexachloroethane	5	--	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
Indeno(1,2,3-C,D)Pyrene	--	<b>0.002</b>	0.2 U	0.2 U	<b>0.08 J</b>	0.2 U	0.2 U	0.2 U
Isophorone	--	50	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	--	10	0.2 U	0.2 U	0.06 J	0.2 U	0.2 U	0.2 U
Nitrobenzene	0.4	--	2 U	2 U	2 U	2 U	2 U	2 U
N-Nitrosodiphenylamine	--	50	2 U	2 U	2 U	2 U	2 U	2 U
N-Nitrosodi-N-Propylamine	--	--	5 U	5 U	5 U	5 U	5 U	5 U
4-Chloro-3-Methylphenol	--	--	2 U	2 U	2 U	2 U	2 U	2 U
Pentachlorophenol	1	--	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
Phenanthrene	--	50	0.2 U	0.2 U	0.08 J	0.2 U	0.2 U	0.2 U
Phenol	<b>1</b>	--	5 U	5 U	5 U	5 U	<b>3.5 J</b>	5 U
Pyrene	--	50	0.2 U	0.2 U	0.16 J	0.2 U	0.2 U	0.2 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

DUP - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 5C. Summary of Metals in Groundwater, 93 Dupont Street, Brooklyn, New York

DRAFT

Sample Designation: Sample Date: Sample Type: Total or Dissolved:			MW-101 19 Feb 2016 FD T	MW-101 19 Feb 2016 FD D	MW-101 19 Feb 2016 N T	MW-101 19 Feb 2016 N D	MW-102 19 Feb 2016 N T	MW-102 19 Feb 2016 N D	MW-103 19 Feb 2016 N T	MW-103 19 Feb 2016 N D	MW-104 18 Feb 2016 N T	MW-104 18 Feb 2016 N D	MW-105 19 Feb 2016 N T	MW-105 19 Feb 2016 N D
Parameter	NYSDEC Ambient Water Quality Standards	NYSDEC Ambient Water Quality Guidance Values												
Aluminum	--	--	0.232	0.002 J	6.87	0.005 J	25.2	0.003 J	2.5	0.01 U	0.116	0.013	6.56	0.004 J
Antimony	<b>0.003</b>	--	0.00111 J	0.0016 J	0.00172 J	0.0014 J	0.00229 J	0.0009 J	<b>0.00378</b>	<b>0.0036</b>	0.00197 J	<b>0.0031</b>	0.0021 J	0.0019 J
Arsenic	<b>0.025</b>	--	0.00308	0.002	0.01191	0.0015	<b>0.05676</b>	0.0021	0.00195	0.0012	0.00085	0.0009	0.00493	0.0014
Barium	1	--	0.02886	0.0256	0.07804	0.0298	0.7764	0.0327	0.03904	0.0241	0.01147	0.0108	0.09051	0.0361
Beryllium	--	0.003	0.0005 U	0.0005 U	0.00079	0.0005 U	0.00253	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.00042 J	0.0005 U
Cadmium	0.005	--	0.0002 U	0.0002 U	0.00021	0.0002 U	0.00185	0.0005	0.00023	0.00017 J	0.0002 U	0.0002 U	0.00017 J	0.0002 U
Calcium	--	--	80.1	64.4	80.4	73.5	204	156	185	163	86.6	64.6	214	180
Chromium, Total	<b>0.05</b>	--	0.00181	0.0009 J	0.01849	0.0009 J	<b>0.0727</b>	0.0019	0.00501	0.0018	0.00155	0.0015	0.01469	0.002
Cobalt	--	--	0.00156	0.0013	0.00979	0.0018	0.03115	0.0018	0.00418	0.0026	0.00047	0.0004 J	0.0082	0.0005
Copper	0.2	--	0.00277	0.0014	0.01909	0.0017	0.1008	0.003	0.00958	0.0019	0.0013	0.001	0.01752	0.0039
Iron	<b>0.3</b>	--	<b>1.26</b>	<b>0.338</b>	<b>15</b>	0.05 U	<b>43.9</b>	0.05 U	<b>3.34</b>	0.05 U	0.181	0.05 U	<b>11</b>	0.05 U
Lead	<b>0.025</b>	--	0.00099 J	0.0002 J	0.01395	0.0002 J	<b>1.901</b>	<b>0.0255</b>	0.00348	0.002 U	0.001 U	0.002 U	0.01454	0.002 U
Magnesium	--	--	7.71	6.45	9.8	7.92	41.9	37.5	32.3	32.1	7.68	7.64	37.9	36.5
Manganese	<b>0.3</b>	--	0.2383	0.2132	<b>0.3354</b>	0.2002	<b>1.084</b>	<b>0.3949</b>	0.1512	0.1115	0.08462	0.083	<b>0.6146</b>	0.135
Mercury	<b>0.0007</b>	--	0.0002 U	0.0002 U	0.0002 U	0.0002 U	<b>0.00175</b>	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	0.1	--	0.00313	0.0015 J	0.0147	0.0021	0.05251	0.0039	0.01278	0.0087	0.00271	0.0026	0.01717	0.003
Potassium	--	--	14.4	12.8	15.1	15.4	12.6	11.8	10.7	11.1	11.7	11	13.4	13.6
Selenium	<b>0.01</b>	--	<b>0.0219</b>	<b>0.017</b>	<b>0.0306</b>	<b>0.029</b>	<b>0.0103</b>	0.008	<b>0.0437</b>	<b>0.043</b>	0.00669	0.006	<b>0.0226</b>	<b>0.02</b>
Silver	0.05	--	0.0004 U	0.0005 U	0.0004 U	0.0004 U	0.00033 J	0.0004 U	0.0004 U	0.0004 U	0.0004 U	0.0004 U	0.0004 U	0.0004 U
Sodium	--	--	55.5	45	57.5	56.1	43.7	46.9	64	56.6	24	23.8	26.8	27
Thallium	--	<b>0.0005</b>	0.0005 U	0.0004 U	6E-05 J	0.0005 U	<b>0.00056</b>	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Vanadium	--	--	0.00175 J	0.005 U	0.03199	0.0006 J	0.1167	0.0026 J	0.00614	0.0016 J	0.00157 J	0.0009 J	0.01871	0.001 J
Zinc	--	2	0.00466 J	0.0095 J	0.06507	0.0079 J	0.6424	0.0267	0.05378	0.0292	0.00289 J	0.0142	0.07757	0.014

NYSDEC - New York State Department of Environmental Conservation  
AWQSGVs - Ambient Water-Quality Standards and Guidance Values  
µg/L -Micrograms per liter  
J - Estimated Value  
U - Compound was analyzed for but not detected  
DUP - Duplicate  
- - No NYSDEC AWQSGV available  
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs



**Table 5D. Summary of Polychlorinated Biphenyls in Groundwater, 93 Dupont Street, Brooklyn, New York**

**DRAFT**

Sample Designation: Sample Date: Sample Type: Total or Dissolved:			MW-101 19 Feb 2016 FD T	MW-101 19 Feb 2016 N T	MW-102 19 Feb 2016 N T	MW-103 19 Feb 2016 N T	MW-104 18 Feb 2016 N T	MW-105 19 Feb 2016 N T
Parameter	NYSDEC Ambient Water Quality Standards	NYSDEC Ambient Water Quality Guidance Values						
PCB-1016 (Aroclor 1016)	--	--	0.083 U	0.083 U	0.115 U	0.083 U	0.083 U	0.083 U
PCB-1221 (Aroclor 1221)	--	--	0.083 U	0.083 U	0.115 U	0.083 U	0.083 U	0.083 U
PCB-1232 (Aroclor 1232)	--	--	0.083 U	0.083 U	0.115 U	0.083 U	0.083 U	0.083 U
PCB-1242 (Aroclor 1242)	--	--	0.083 U	0.083 U	0.115 U	0.083 U	0.083 U	0.083 U
PCB-1248 (Aroclor 1248)	--	--	0.083 U	0.083 U	0.115 U	0.083 U	0.083 U	0.083 U
PCB-1254 (Aroclor 1254)	--	--	0.083 U	0.083 U	0.115 U	0.083 U	0.083 U	0.083 U
PCB-1260 (Aroclor 1260)	--	--	0.083 U	0.083 U	0.115 U	0.083 U	0.083 U	0.083 U
PCB-1262 (Aroclor 1262)	--	--	0.083 U	0.083 U	0.115 U	0.083 U	0.083 U	0.083 U
PCB-1268 (Aroclor 1268)	--	--	0.083 U	0.083 U	0.115 U	0.083 U	0.083 U	0.083 U
Polychlorinated Biphenyl (PCBs)	0.09	--	0.083 U	0.083 U	0.115 U	0.083 U	0.083 U	0.083 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

DUP - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 5E. Summary of Pesticides in Groundwater, 93 Dupont Street, Brooklyn, New York**
**DRAFT**

Sample Designation: Sample Date: Sample Type: Total or Dissolved:			MW-101 19 Feb 2016 FD T	MW-101 19 Feb 2016 N T	MW-102 19 Feb 2016 N T	MW-103 19 Feb 2016 N T	MW-104 18 Feb 2016 N T	MW-105 19 Feb 2016 N T
Parameter	NYSDEC Ambient Water Quality Standards	NYSDEC Ambient Water Quality Guidance Values						
P,P'-DDD	0.3	--	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
P,P'-DDE	0.2	--	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
P,P'-DDT	0.2	--	0.04 U	0.04 U	0.018 J	0.04 U	0.04 U	0.04 U
Aldrin	0	--	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Alpha Bhc (Alpha Hexachlorocyclohexane)	--	--	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Beta Bhc (Beta Hexachlorocyclohexane)	--	--	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Chlordane	0.05	--	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
cis-Chlordane	--	--	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Delta BHC (Delta Hexachlorocyclohexane)	--	--	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Dieldrin	0.004	--	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Alpha Endosulfan	--	--	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Beta Endosulfan	--	--	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Endosulfan Sulfate	--	--	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Endrin	0	--	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Endrin Aldehyde	5	--	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Endrin Ketone	--	--	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Heptachlor	0.04	--	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Heptachlor Epoxide	0.03	--	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Gamma Bhc (Lindane)	--	--	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Methoxychlor	35	--	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Toxaphene	0.06	--	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-Chlordane	0	0	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

DUP - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 6. Summary of Indoor Air and Soil Vapor Chemical Results, 93 Dupont Street, Brooklyn, New York

DRAFT

Parameter	NYSDOH Air Guideline Value	Sub-Slab Vapor Concentration for Indoor Air Concentration < 0.25				Sample Designation: Sample Date:	IA-301 2/18/2016	OA-302 2/18/2016	OA-303 2/18/2016	SV-201 2/18/2016	SV-202 2/18/2016	SV-203 2/18/2016	SV-204 2/18/2016	SV-205 2/18/2016	SV-206 2/18/2016	SV-207 2/18/2016
		Matrix 1		Matrix 2												
		Monitor	Mitigate	Monitor	Mitigate											
1,1,1-Trichloroethane	--	--	--	100	1000	UG/M3	0.109 U	0.109 U	0.109 U	<b>1.42</b>	1.09 U	1.09 U	1.09 U	1.09 U	1.09 U	1.09 U
1,1,2,2-Tetrachloroethane	--	--	--	--	--	UG/M3	1.37 U	1.37 U	1.37 U	1.37 U	1.37 U	1.37 U	1.37 U	1.37 U	1.37 U	1.37 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	--	--	--	--	UG/M3	1.53 U	1.53 U	1.53 U	1.53 U	1.53 U	1.53 U	1.53 U	1.53 U	1.53 U	1.53 U
1,1,2-Trichloroethane	--	--	--	--	--	UG/M3	1.09 U	1.09 U	1.09 U	1.09 U	1.09 U	1.09 U	1.09 U	1.09 U	1.09 U	1.09 U
1,1-Dichloroethane	--	--	--	--	--	UG/M3	0.809 U	0.809 U	0.809 U	0.809 U	0.809 U	0.809 U	0.809 U	0.809 U	0.809 U	0.809 U
1,1-Dichloroethene	--	--	--	100	1000	UG/M3	0.079 U	0.079 U	0.079 U	0.793 U	0.793 U	0.793 U	0.793 U	0.793 U	0.793 U	0.793 U
1,2,4-Trichlorobenzene	--	--	--	--	--	UG/M3	1.48 U	1.48 U	1.48 U	1.48 U	1.48 U	1.48 U	1.48 U	1.48 U	1.48 U	1.48 U
1,2,4-Trimethylbenzene	--	--	--	--	--	UG/M3	0.983 U	0.983 U	0.983 U	0.983 U	0.983 U	0.983 U	<b>1.29</b>	<b>1.29</b>	0.983 U	0.983 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	--	--	--	UG/M3	1.54 U	1.54 U	1.54 U	1.54 U	1.54 U	1.54 U	1.54 U	1.54 U	1.54 U	1.54 U
1,2-Dichlorobenzene	--	--	--	--	--	UG/M3	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
1,2-Dichloroethane	--	--	--	--	--	UG/M3	0.809 U	0.809 U	0.809 U	0.809 U	0.809 U	0.809 U	0.809 U	0.809 U	0.809 U	0.809 U
1,2-Dichloropropane	--	--	--	--	--	UG/M3	0.924 U	0.924 U	0.924 U	0.924 U	0.924 U	0.924 U	0.924 U	0.924 U	0.924 U	0.924 U
1,2-Dichlorotetrafluoroethane	--	--	--	--	--	UG/M3	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
1,3,5-Trimethylbenzene (Mesitylene)	--	--	--	--	--	UG/M3	0.983 U	0.983 U	0.983 U	0.983 U	0.983 U	0.983 U	0.983 U	0.983 U	0.983 U	0.983 U
1,3-Butadiene	--	--	--	--	--	UG/M3	0.442 U	0.442 U	0.442 U	0.442 U	<b>1.21</b>	0.442 U	0.442 U	0.442 U	0.442 U	0.442 U
1,3-Dichlorobenzene	--	--	--	--	--	UG/M3	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
1,4-Dichlorobenzene	--	--	--	--	--	UG/M3	1.2 U	1.2 U	1.2 U	1.2 U	<b>2.9</b>	<b>2.54</b>	1.2 U	1.2 U	<b>2.86</b>	<b>3.18</b>
1,4-Dioxane (P-Dioxane)	--	--	--	--	--	UG/M3	0.721 U	0.721 U	0.721 U	0.721 U	0.721 U	0.721 U	0.721 U	0.721 U	0.721 U	0.721 U
2,2,4-Trimethylpentane	--	--	--	--	--	UG/M3	0.934 U	0.934 U	0.934 U	0.934 U	0.934 U	0.934 U	0.934 U	0.934 U	0.934 U	0.934 U
2-Hexanone	--	--	--	--	--	UG/M3	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
4-Ethyltoluene	--	--	--	--	--	UG/M3	0.983 U	0.983 U	0.983 U	0.983 U	0.983 U	0.983 U	0.983 U	0.983 U	0.983 U	0.983 U
Acetone	--	--	--	--	--	UG/M3	<b>4.3</b>	<b>3.61</b>	<b>3.16</b>	<b>15.3</b>	<b>4.94</b>	<b>5.8</b>	<b>23.8</b>	<b>24.7</b>	<b>13.9</b>	<b>8.01</b>
Allyl Chloride (3-Chloropropene)	--	--	--	--	--	UG/M3	0.626 U	0.626 U	0.626 U	0.626 U	0.626 U	0.626 U	0.626 U	0.626 U	0.626 U	0.626 U
Benzene	--	--	--	--	--	UG/M3	0.639 U	0.639 U	0.639 U	<b>0.843</b>	<b>1.97</b>	0.639 U	0.639 U	<b>2.67</b>	<b>0.907</b>	<b>0.783</b>
Benzyl Chloride	--	--	--	--	--	UG/M3	1.04 U	1.04 U	1.04 U	1.04 U	1.04 U	1.04 U	1.04 U	1.04 U	1.04 U	1.04 U
Bromodichloromethane	--	--	--	--	--	UG/M3	1.34 U	1.34 U	1.34 U	1.34 U	1.34 U	1.34 U	1.34 U	1.34 U	1.34 U	1.34 U
Bromoform	--	--	--	--	--	UG/M3	2.07 U	2.07 U	2.07 U	2.07 U	2.07 U	2.07 U	2.07 U	2.07 U	2.07 U	2.07 U
Bromomethane	--	--	--	--	--	UG/M3	0.777 U	0.777 U	0.777 U	0.777 U	0.777 U	0.777 U	0.777 U	0.777 U	0.777 U	0.777 U
Carbon Disulfide	--	--	--	--	--	UG/M3	0.623 U	0.623 U	0.623 U	<b>5.17</b>	<b>13.1</b>	<b>0.797</b>	<b>54.5</b>	<b>3.21</b>	<b>7.32</b>	<b>9.68</b>
Carbon Tetrachloride	--	5*	250	--	--	UG/M3	<b>0.377</b>	<b>0.377</b>	<b>0.377</b>	1.26 U	1.26 U	1.26 U	1.26 U	1.26 U	1.26 U	1.26 U
Chlorobenzene	--	--	--	--	--	UG/M3	0.921 U	0.921 U	0.921 U	0.921 U	0.921 U	0.921 U	0.921 U	0.921 U	0.921 U	0.921 U
Chloroethane	--	--	--	--	--	UG/M3	0.528 U	0.528 U	0.528 U	0.528 U	0.528 U	0.528 U	0.528 U	0.528 U	0.528 U	0.528 U
Chloroform	--	--	--	--	--	UG/M3	0.977 U	0.977 U	0.977 U	<b>15.1</b>	<b>2.61</b>	<b>10.8</b>	0.977 U	0.977 U	0.977 U	0.977 U
Chloromethane	--	--	--	--	--	UG/M3	<b>1.02</b>	<b>0.927</b>	<b>0.964</b>	<b>0.597</b>	0.413 U	0.413 U	<b>0.417</b>	0.413 U	0.413 U	0.413 U
Cis-1,2-Dichloroethylene	--	--	--	100	1000	UG/M3	0.079 U	0.079 U	0.079 U	0.793 U	0.793 U	0.793 U	0.793 U	0.793 U	0.793 U	0.793 U
Cis-1,3-Dichloropropene	--	--	--	--	--	UG/M3	0.908 U	0.908 U	0.908 U	0.908 U	0.908 U	0.908 U	0.908 U	0.908 U	0.908 U	0.908 U
Cyclohexane	--	--	--	--	--	UG/M3	0.688 U	0.688 U	0.688 U	<b>0.85</b>	0.688 U	0.688 U	0.688 U	0.688 U	0.688 U	0.688 U
Dibromochloromethane	--	--	--	--	--	UG/M3	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Dichlorodifluoromethane	--	--	--	--	--	UG/M3	<b>2.25</b>	<b>2.48</b>	<b>2.2</b>	<b>1.14</b>	0.989 U	<b>1.56</b>	0.989 U	<b>1.34</b>	<b>1.16</b>	<b>1.14</b>
Ethanol	--	--	--	--	--	UG/M3	9.42 U	9.42 U	9.42 U	9.42 U	9.42 U	9.42 U	<b>20.3</b>	<b>18.1</b>	9.42 U	9.42 U

Table 6. Summary of Indoor Air and Soil Vapor Chemical Results, 93 Dupont Street, Brooklyn, New York

DRAFT

Parameter	NYSDOH Air Guideline Value	Sub-Slab Vapor Concentration for Indoor Air Concentration < 0.25				Sample Designation: Sample Date:	IA-301 2/18/2016	OA-302 2/18/2016	OA-303 2/18/2016	SV-201 2/18/2016	SV-202 2/18/2016	SV-203 2/18/2016	SV-204 2/18/2016	SV-205 2/18/2016	SV-206 2/18/2016	SV-207 2/18/2016
		Matrix 1		Matrix 2												
		Monitor	Mitigate	Monitor	Mitigate											
Ethyl Acetate	--	--	--	--	--	UG/M3	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	<b>2.21</b>	1.8 U	1.8 U	1.8 U
Ethylbenzene	--	--	--	--	--	UG/M3	0.869 U	0.869 U	0.869 U	<b>0.877</b>	<b>2.76</b>	0.869 U	<b>1.33</b>	<b>1.94</b>	<b>0.934</b>	<b>1.36</b>
Hexachlorobutadiene	--	--	--	--	--	UG/M3	2.13 U	2.13 U	2.13 U	2.13 U	2.13 U	2.13 U	2.13 U	2.13 U	2.13 U	2.13 U
Isopropanol	--	--	--	--	--	UG/M3	1.23 U	1.23 U	1.23 U	1.23 U	1.23 U	1.23 U	<b>1.36</b>	1.23 U	1.23 U	1.23 U
m,p-Xylene	--	--	--	--	--	UG/M3	1.74 U	1.74 U	1.74 U	<b>3.51</b>	<b>8.86</b>	<b>1.94</b>	<b>6.3</b>	<b>7.56</b>	<b>2.83</b>	<b>5.08</b>
Methyl Ethyl Ketone (2-Butanone)	--	--	--	--	--	UG/M3	1.47 U	1.47 U	1.47 U	<b>2.78</b>	<b>2.4</b>	<b>1.83</b>	<b>3.42</b>	<b>2.07</b>	<b>2.73</b>	1.47 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	--	--	--	UG/M3	2.05 U	2.05 U	2.05 U	<b>2.14</b>	<b>3.54</b>	2.05 U	<b>2.68</b>	2.05 U	2.05 U	2.05 U
Methylene Chloride	60	--	--	--	--	UG/M3	1.74 U	1.74 U	1.74 U	1.74 U	1.74 U	1.74 U	1.74 U	1.74 U	<b>3.58</b>	1.74 U
N-Heptane	--	--	--	--	--	UG/M3	0.82 U	0.82 U	0.82 U	<b>1.05</b>	<b>1.89</b>	0.82 U	0.82 U	0.82 U	<b>1.77</b>	<b>0.971</b>
N-Hexane	--	--	--	--	--	UG/M3	0.705 U	0.705 U	0.705 U	0.705 U	<b>4.86</b>	0.705 U	<b>0.867</b>	<b>0.955</b>	<b>5.89</b>	<b>2.4</b>
O-Xylene (1,2-Dimethylbenzene)	--	--	--	--	--	UG/M3	0.869 U	0.869 U	0.869 U	<b>1.74</b>	<b>4.07</b>	<b>0.969</b>	<b>2.47</b>	<b>3.12</b>	<b>1.56</b>	<b>2.89</b>
Styrene	--	--	--	--	--	UG/M3	0.852 U	0.852 U	0.852 U	0.852 U	0.852 U	0.852 U	0.852 U	0.852 U	0.852 U	0.852 U
Tert-Butyl Alcohol	--	--	--	--	--	UG/M3	1.52 U	1.52 U	1.52 U	<b>2.45</b>	1.52 U	1.52 U	<b>6.43</b>	<b>3.76</b>	1.52 U	1.52 U
Tert-Butyl Methyl Ether	--	--	--	--	--	UG/M3	0.721 U	0.721 U	0.721 U	0.721 U	0.721 U	0.721 U	0.721 U	0.721 U	0.721 U	0.721 U
Tetrachloroethylene (PCE)	100	--	--	100	1000	UG/M3	<b>0.197</b>	<b>0.142</b>	<b>0.224</b>	1.36 U	1.36 U	1.36 U	1.36 U	1.36 U	1.36 U	1.36 U
Tetrahydrofuran	--	--	--	--	--	UG/M3	1.47 U	1.47 U	1.47 U	<b>1.64</b>	1.47 U	1.47 U	1.47 U	1.47 U	1.47 U	1.47 U
Toluene	--	--	--	--	--	UG/M3	0.754 U	0.754 U	0.754 U	<b>3.09</b>	<b>1.57</b>	0.754 U	<b>2.31</b>	<b>4.03</b>	<b>1.05</b>	<b>1.27</b>
Trans-1,2-Dichloroethene	--	--	--	--	--	UG/M3	0.793 U	0.793 U	0.793 U	0.793 U	0.793 U	0.793 U	0.793 U	0.793 U	0.793 U	0.793 U
Trans-1,3-Dichloropropene	--	--	--	--	--	UG/M3	0.908 U	0.908 U	0.908 U	0.908 U	0.908 U	0.908 U	0.908 U	0.908 U	0.908 U	0.908 U
Trichloroethylene (TCE)	5	50	250	--	--	UG/M3	0.107 U	0.107 U	0.107 U	1.07 U	1.07 U	1.07 U	1.07 U	1.07 U	1.07 U	1.07 U
Trichlorofluoromethane	--	--	--	--	--	UG/M3	<b>1.24</b>	<b>1.21</b>	<b>1.24</b>	1.12 U	1.12 U	<b>1.24</b>	<b>1.24</b>	1.12 U	<b>1.25</b>	1.12 U
Vinyl Bromide	--	--	--	--	--	UG/M3	0.874 U	0.874 U	0.874 U	0.874 U	0.874 U	0.874 U	0.874 U	0.874 U	0.874 U	0.874 U
Vinyl Chloride	--	50	250	--	--	UG/M3	0.051 U	0.051 U	0.051 U	0.511 U	0.511 U	0.511 U	0.511 U	0.511 U	0.511 U	0.511 U

U - Indicates that the compound was analyzed for but not detected  
ug/m3 - Micrograms per cubic meter  
Bold data indicates that parameter was detected  
Shaded data indicates that parameter was detected above levels to be monitored in accordance with the Final NYSDOH CEH BEEI Soil Vapor Intrusion Guidance of October 2006  
Boxed data indicates that parameter was detected above levels to be mitigated in accordance with the Final NYSDOH CEH BEEI Soil Vapor Intrusion Guidance of October 2006  
\* - Sub-Slab Vapor concentration action for Indoor Air Concentration at 0.25 to < 1  
NYSDOH - New York State Department of Health  
CEH - Center for Environmental Health  
BEEI - Bureau of Environmental Exposure Investigation



## Appendix A Phase 1 Report

**PHASE I  
ENVIRONMENTAL SITE ASSESSMENT  
FOR THE PROPERTY LOCATED AT  
49-55 DUPONT STREET  
BROOKLYN, NEW YORK**



**PREPARED FOR  
49 DUPONT REALTY CORPORATION**

**PREPARED BY**  
*FPM*group™  
**909 MARCONI AVENUE  
RONKONKOMA, NEW YORK 11779**

**APRIL 2005**

## PHASE I ENVIRONMENTAL SITE ASSESSMENT

### Conducted on

Address: 49-55 Dupont Street  
Brooklyn, New York  
Block 2487, Lots 1, 10, 12, 17, 18, 20, 21, 57, 72, and 78

FPM File No: 859-05-01

### Prepared for

Client Name: 49 Dupont Realty Corp.

Location: 49 Dupont Street  
Brooklyn, New York

Ben T. Cancemi  
Site Inspector/Report Preparer/Senior Hydrogeologist

Ben Cancemi (SOD)  
Signature

Marc R. Spencer  
Records Reviewer/Hydrogeologist

Marc Spencer (SOD)  
Signature

Dr. Kevin J. Phillips, P.E.  
Reviewer/Principal

Kevin J. Phillips (SOD)  
Signature

### Prepared by

FPM Group  
909 Marconi Avenue  
Ronkonkoma, NY 11779  
(Tel) 631-737-6200  
(Fax) 631-737-2410

**FPM**

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- A Local, County, Federal Records, and Previous Investigations
- B State and Federal Database Records Search
- C Sanborn Fire Insurance Maps and Aerial Photographs
- D Photolog
- E Material Safety Data Sheets

## **DISCLAIMER**

Conclusions from this data are limited to those areas focused on in the study and represent our best judgment using analytical techniques and our past experience. Even though our investigation has been scientific and thorough, it is possible that certain areas of this property may pose environmental concerns that yet are undiscovered. In addition, environmental regulations may change in the future and could have an effect on our conclusions.



## EXECUTIVE SUMMARY

FPM Group (FPM) performed a Phase I Environmental Site Assessment (ESA) for the property at 49-55 Dupont Street, Greenpoint, Kings Borough, New York City, New York 11222. Significant observations concerning the subject property are as follows:

- The subject property is located at 49-55 Dupont Street and is currently referenced by the following tax map numbers: Block 2487, Lots 1, 10, 12, 17, 18, 20, 21, 57, 72, and 78.
- The property is developed with a one to four-story 87,240-square-foot masonry industrial building, which was historically utilized for manufacturing, warehouse, office, storage, maintenance, and shipping and receiving areas. The site building is presently utilized by NuHart and Company, Inc. for the storage of vinyl products. The facility ceased manufacturing operations in mid-2004.
- The current owner of the property is 49 Dupont Realty Corporation, which has owned the property since 1983 when the ownership of the various lots was consolidated. The subject property was developed for plastic manufacturing purposes in the late 1940s and early 1950s and has remained relatively unchanged since that time. Prior to the 1940s, commercial uses for the subject property included a boiler shop for the Logan Iron Works, two stable buildings, the Gaites Peach & Co. gas and electric light fixture factory, a sheet metal works, a soap manufacturer, a warehouse, a recooperage, storage, a private garage, a water proofing manufacturer, and an iron works and a scrap metal facility.
- The regional groundwater flow direction at the property appears to be to the west-northwest. The depth to groundwater at the subject property is estimated to be approximately 15 feet below grade based upon USGS topographic and water table map information.
- The subject property is presently zoned for factory/industrial use (F1, F4, and F9). A proposed zoning map was obtained from the City Planning Department and indicated that the subject property vicinity is proposed to be rezoned for manufacturing/residential use (M1-2/R6A).

- A Preliminary Phase I ESA was performed on the subject property by RTP Environmental Associates, Inc. in September 2004. Several potential environmental areas of concern (AOCs) were recognized in this study.
- The subject property is connected to the municipal sewer system, as evident by the numerous sewer vents situated on the north and south sides of the building. Two oil water separators were also present and utilize an oil water skimmer to remove separate-phase oil from the facility's sewerage.
- Evidence of three subgrade structures was identified in the northwestern storage area. These structures were reported to be utilized as pits in association with three former printing presses. These structures are presently covered with steel plating and have been reported to have been backfilled with sand. These pits may contain a bottom drain, which could potentially discharge directly to the subsurface soil and groundwater.
- One loading dock drain was identified in the northern shipping area dock. The connection to the municipal storm water system could not be confirmed. No visible indications of contamination were noted in this structure. Without positive confirmation regarding the connection to the municipal sewer system, this drain may be an area of concern.
- Roofing, floor tiles, pipe and boiler insulation materials were identified as suspect asbestos-containing materials and appeared to be in a non-friable condition. Confirmation of the asbestos content of these materials must be determined prior to the contemplated demolition.
- A total of 14 storage tanks, both aboveground and underground, were identified during the visual reconnaissance. The presence of two additional underground storage tanks is also suspected. These tanks, presumably all single-walled steel, are reported to have been installed during site development between the 1950's and 1960's. These tanks were noted to contain fuel oil, lubricating oil, plasticizers, acetone, and methyl tert butyl ketone. These tanks did not appear on either the chemical bulk or petroleum bulk storage databases.

- Four large silos are present along the western portion of the subject property and are utilized for the bulk storage of poly vinyl chloride resin. The residual contents of these silos could not be confirmed at the time of the inspection.
- A drum storage area is present at the subject property and was noted to contain several full and partially full drums of petroleum-like substances. In addition, several open top drums, reportedly containing plasticizer, were present at various locations around the facility.
- Numerous concrete-lined piping chaseways are present throughout the manufacturing and maintenance areas and also in the boiler and hydrotherm rooms. An oily liquid, reportedly a plasticizer, is present in the majority of these trenches and reportedly flows to or is pumped into one of two oil water separators. An oil skimmer with a collection drum is set up at each oil water separator; however, it appears these units are not currently in use. Each of these could be a conduit for seepage if cracks have developed in the concrete.
- The subject property was identified in the environmental database report as a small quantity Resource Conservation and Recovery Act generator of hazardous waste. No violations were noted in association with these activities. No other sites of potential environmental concern were identified on the database report with the exception of closed spills associated with Con Ed transformer vaults located adjoining the subject property within the sidewalk along Dupont Street. No violations were noted and no further information was provided.

Based on available records and observations made during the Phase I ESA and the contemplated redevelopment of the subject property, FPM has the following recommendations:

- All drums and containers situated throughout the facility containing waste liquids should be properly removed and disposed of by a licensed waste scavenger.
- All storage tanks at the site should be properly registered, their contents properly characterized and disposed, cleaned, and closed in accordance with all applicable local, state, and federal regulations.

- All pipe chaseways and oil water separators should be pumped of all liquids and cleaned of residual oil. All generated wastes should be properly removed and disposed of by a licensed waste scavenger.
- In addition, all trenches, pits, and other subgrade features and areas which were not accessible during the initial inspection should be examined to determine the potential presence of issues of environmental concern.
- The historic use of underground storage tanks (USTs) and subsurface structures may have resulted in the release of contaminants to subsurface soils at the subject property. Particular areas of concern include the USTs, the piping chaseways, the loading dock drainage structure, oil-water separators, drum storage areas and printing press pits. To identify potential areas of concern, soil borings are recommended in these areas to determine the presence and extent of contamination.
- The quality of groundwater beneath the subject property is of concern due to the historic usage of liquid plasticizers, acetone, MTBK and petroleum products identified at the site, in addition to potential offsite sources. To determine the quality of groundwater, it is recommended that monitoring wells be installed to identify potential contamination and confirm the groundwater flow direction.
- Due to the contemplated redevelopment of the subject property for residential purposes and the site's historic manufacturing activities, soil vapor sampling should be performed to determine if property conditions are suitable for residential use.

Additional environmental issues should be addressed prior to or during the planned demolition of the property buildings. These issues include the following:

- All suspect asbestos-containing materials (ACMs) should be tested to confirm the presence of asbestos. All identified ACMs should be properly removed and disposed either prior to or during building demolition.

- The freight elevator is reportedly hydraulically controlled and the hydraulic oil may potentially contain PCBs. The oil should be tested and properly disposed prior to demolition activities.



## **SECTION 1.0 INTRODUCTION**

### **1.1 Objectives of the Phase I Environmental Site Assessment**

The primary objective of this Phase I Environmental Site Assessment (ESA) is to identify recognized environmental conditions at the subject property. Recognized environmental conditions refers to the presence or likely presence of hazardous substances or petroleum products under conditions that indicate an existing release, a past release, or a material threat of a release into structures on the property or into the ground, groundwater, or surface water of the property.

This Phase I ESA has been prepared for compliance with the American Society for Testing and Materials (ASTM) Standard Practice E 1527-00 for Phase I ESAs (2000). A Phase I ESA prepared following this Standard is intended to permit the user to satisfy one of the requirements to qualify for the Innocent Landowner Defense under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) by having performed appropriate inquiry into previous ownership and uses of the property consistent with good commercial or customary practice. A Phase I ESA also assesses business environmental risk in association with the current or planned use of the property.

Additional objectives of the Phase I ESA include the identification of environmental conditions which are in noncompliance with applicable local, state, or federal laws or regulations and recognition of property conditions or practices which may lead to future environmental liability.

### **1.2 Methodology**

FPM Group (FPM) was retained by Dupont Realty to perform a Phase I ESA for the property located at 49-55 Dupont Street, Greenpoint, Kings Borough, New York City, New York 11101. The property is currently referenced as Block 2487, Lots 1, 10, 12, 17,18, 20,21, 57, 72, and 78. The property contains a variable height one-to four-story masonry industrial building located east of Franklin Street and between Dupont and Clay Street.

The study focused on the property history with regard to past land use and development, underground storage tanks (USTs), aboveground storage tanks (ASTs), chemical or hazardous materials spills, storage, use, or generation, and any other pertinent information that would indicate a potential source and/or pathway of contamination at the property. This report presents the procedures, results, and conclusions of the Phase I ESA.

## **SECTION 2.0 ENVIRONMENTAL SETTING**

The following is a summary of the physical characteristics in the vicinity of the property.

### **2.1 Hydrogeology**

Groundwater in the vicinity of the subject property is derived from infiltration of precipitation through the ground surface and surficial deposits to the water table. Approximately half of the precipitation that reaches the land surface infiltrates and enters the groundwater system. The water table is the upper limit of the groundwater reservoir and is bounded beneath by impervious bedrock which is located approximately 100 feet below ground surface based on information from the United States Geological Survey (USGS) Open File Report 81-1186 (Reconnaissance of the Ground-Water Resources of Kings and Queens Counties, New York, 1981).

The regional groundwater flow direction at the property area was obtained from the March-April 2000 United States Geological Survey (USGS) Water Table Elevation Map (Busciolano, 2001). According to the map, the general groundwater flow direction beneath the property is to the west-southwest and the water table elevation is approximately 5 feet above mean sea level (MSL)

### **2.2 Topography and Drainage**

The surface topography of the subject property and vicinity was obtained from the US Geological Survey, Brooklyn, N.Y. 15' Quadrangle (1967, photorevised 1979). The topographic elevation of the subject property is approximately 20 feet above MSL. Therefore, the depth to groundwater at the subject property is generally expected to be within 15 feet of the ground surface. The East River and Newtown Creek are situated within a quarter-mile to the west and north of the subject property, respectively.

## **SECTION 3.0 RECORDS REVIEW**

### **3.1 Historical Documents**

The objective of this portion of the study is to reconstruct the property history as it pertains to land use and development based on historic agency records. Factors such as chemical spills or storage, USTs, and other information that would indicate a potential source of contamination at or in the vicinity of the property were investigated. For this purpose, information was requested from the following sources:

- Kings County Office of the City Register
- Department of City Planning, City of New York
- New York City Building Department, Kings County Office
- City of New York Fire Department (FDNY)
- New York City Department of Environmental Protection (NYCDEP)
- The New York City Department of Health (NYCDOH)
- The New York State Department of Environmental Conservation (NYSDEC)
- The United States Environmental Protection Agency (USEPA)
- Environmental Data Resources, Inc.

The property is presently identified by the Kings County Office of the City Register by the following Tax Map numbers: Block 2487 and Lots 1, 10, 12, 17, 18, 20, 21, 57, 72, and 78. A copy of the current lot layout is included in Appendix A. Prior to the consolidation of the subject property in the late 1940s and early 1950s, the property consisted of a number of separate lots, as discussed below.

Information regarding ownership history of the subject property was obtained from the Kings County Office of the City Register and is summarized in Table 3.1.1. The current owner of the subject property is 49 Dupont Realty Corp., which has owned the property since September 1983. Prior to 1983 the subject property appears to have been owned as separate lots by several real estate or manufacturing entities, including Stralin Realty, Harte & Co., Inc., Chem. Fabrics Co, 20 Clay Corp., and Duclay. Ownership by

**TABLE 3.1.1**  
**OWNERSHIP HISTORY FOR 49-55 DUPONT STREET**  
**BROOKLYN, NEW YORK**  
**BLOCK 2487, LOTS 1, 10, 12, 17, 18, 20, 21, 57, 72, 78**

Address/Lot	Owner	Date
49-55 Dupont Street, Lot 78	49 Dupont Realty Corp.	9/21/83 to present
	Dynamit Nobel-Harte, Inc. As successors to Duclay Realty, Stralin Realty, Harte & Co., Inc.	Circa 1970s to 9/21/83
No address - 414 feet from Manhattan Avenue (p/o Lot 57?)	49 Dupont Realty Corp.	9/21/83 to present
	Stralin Realty	3/13/61 to circa 1970s
	Matthew & Julia Much	Prior to 3/13/61
85 Dupont Street, p/o Lot 58	49 Dupont Realty Corp.	9/21/83 to present
	Stralin Realty	2/11/60 to circa 1970s
	Frank & Hazel Murphy	Prior to 2/11/60
87 Dupont Street, p/o Lot 58	49 Dupont Realty Corp.	9/21/83 to present
	Stralin Realty	2/11/60 to circa 1970s
	Jennie Roden	Prior to 2/11/70
No address – 398 feet from Manhattan Avenue	49 Dupont Realty Corp.	9/21/83 to present
	Stralin Realty	2/11/60 to circa 1970s
	Rose Hamish	Prior to 2/11/60
57-59 Dupont Street, p/o Lot 58	49 Dupont Realty Corp.	9/21/83 to present
	Harte & Co., Inc.	12/31/53 to circa 1970s
	George & Heinrich Geother	1/18/50 to 12/31/53
	Florence Logan	Prior to 1/18/50
61-65 Dupont Street, Lot 72	49 Dupont Realty Corp.	9/21/83 to present
	Harte & Co., Inc.	1/21/53 to circa 1970s
	John Hassall, Inc.	Prior to 1/21/53



**TABLE 3.1.1 (CONTINUED)**  
**OWNERSHIP HISTORY FOR 49-55 DUPONT STREET**  
**BROOKLYN, NEW YORK**

<b>Address/Lot</b>	<b>Owner</b>	<b>Date</b>
Lot 20, Clay Street (p/o Lot 72?)	49 Dupont Realty Corp.	9/21/83 to present
	Harte & Co., Inc.	12/13/49 to circa 1970s
	Florence Lambert	Prior to 12/13/49
Lot 21, 34-36 Clay Street	49 Dupont Realty Corp.	9/21/83 to present
	Harte & Co., Inc.	10/26/49 to circa 1970s
	Florence Lambert	Prior to 10/26/94
Lot 70, Dupont Street	49 Dupont Realty Corp.	9/21/83 to present
	Harte & Co., Inc.	3/1/49 to circa 1970s
	Duclay Realty	4/18/46 to 3/1/49
	William Doughty	Prior to 4/18/46
Lot 18, Clay Street	49 Dupont Realty Corp.	9/21/83 to present
	Harte & Co., Inc.	2/9/49 to circa 1970s
	Florence Lambert	Prior to 2/9/49
Lot 78, Dupont Street	49 Dupont Realty Corp.	9/21/83 to present
	Harte & Co., Inc.	3/5/48 to circa 1970s
	Chem. Fabrics Co.	4/11/46 to 3/5/48
	Simon & Francis Poper	Prior to 4/11/46
Lots 10, 12, 17 20 Clay Street	49 Dupont Realty Corp.	9/21/83 to present
	Harte & Co., Inc.	12/17/47 to circa 1970s
	20 Clay Corp.	12/20/46 to 12/17/47
	William Doughty	Prior to 12/20/46
Corner of Dupont Street & Franklin Street, Lot 1	49 Dupont Realty Corp.	9/21/83 to present
	Duclay Realty	8/7/45 to circa 1970s
	Amelia Scott	Prior to 8/7/45

Source: Kings County Office of the City Register

these entities began in 1949 as the various parcels that comprise the subject property were purchased from their former residential owners. Consolidation of ownership of the current subject property appears to have been completed by 1960. Prior to ownership by the real estate/manufacturing entities, the subject property parcels appear to have been owned by individuals and were used primarily for residential purposes, as discussed in Section 4.

Zoning information was acquired from the Department of City Planning, City of New York website ([www.nyc.gov/html/dcp/pdf/zone/map12c.pdf](http://www.nyc.gov/html/dcp/pdf/zone/map12c.pdf)) on April 19, 2005. The website indicated that the proposed zoning for the vicinity of the subject property is M1-2/R6A; manufacturing/residential use. The Kings County Building Department website indicates that the property is currently zoned as F1, F4, and F9; factory/industrial use. A copy of the proposed zoning map is included in Appendix A.

The Kings County Office of the New York City Building Department was visited on April 12, 2005 to request any information the Department may maintain for the subject property. The Building Department online database ([www.nyc.gov/html/dob/html/bis.html](http://www.nyc.gov/html/dob/html/bis.html)) was also reviewed and pertinent records were requested for the subject property. Available information on the Building Department website included certificates of occupancy and alteration permits. Several minor violations were noted on the website; however, each of these violations was resolved. When this information was requested at the Building Department, none of the information was available. None of the available information reviewed appears to pose an environmental concern. Copies of the Building Department request and the information obtained from the Building Department website are provided in Appendix A.

The FDNY was contacted on April 3, 2005 and information pertaining to tanks, tank removals, violations and tank leaks was requested. No information had been received from the Fire Department at the time this report was prepared. If any information is subsequently received, it will be reviewed and any pertinent information will be forwarded as an addendum to this report. Copies of the Fire Department requests are included in Appendix A.

The NYCDEP was contacted on April 4, 2005 and information regarding the use, storage and disposal of hazardous waste, USTs, ASTs, environmental inspections, violations, and remediation was

requested. FPM was notified on April 14, 2005 that a response will be received in approximately 30 days. When the files are made available from any divisions of the NYCDEP, they will be reviewed and any pertinent information will be forwarded as an addendum to this report. Copies of the NYCDEP request and response are included in Appendix A.

The NYCDOH was contacted on April 4, 2005 and information regarding chemical or hazardous material storage and/or disposal, USTs, ASTs, inspections, remediations, and industrial files was requested. A response was received on April 13, 2005 indicating that the Department's Bureau of Environmental Health Services maintains records for the subject property. Several attempts have been made to contact the Bureau; however, no response has been received as of the time of this report. FPM will continue to correspond with the Bureau until the files are made accessible. When the files are made available, they will be reviewed and any pertinent information will be forwarded as an addendum to this report. Copies of the NYCDOH request and response are included in Appendix A.

The NYSDEC was contacted on April 3, 2005 and information including hazardous waste substance regulation, sampling, remediations, violations, waste disposal, discharge monitoring, non-compliance, inspections and monitoring, and engineering was requested. A response was received on April 6, 2005 indicating that the Department was in receipt of the request. When the files are made available, they will be reviewed and any pertinent information will be forwarded as an addendum to this report. Copies of the NYSDEC request and response are included in Appendix A.

The USEPA Region II database was accessed on April 19, 2005 ([www.epa.gov/region02/](http://www.epa.gov/region02/)) and a list of Resource Conservation and Recovery Act (RCRA) sites in the subject property vicinity was obtained. The subject property, as discussed in Section 3.2, is listed as a RCRA generator of hazardous waste. Several other listings pertaining to the subject property for air emissions requirements and compliance listings were also noted on the USEPA website. The USEPA website also indicated that the subject property is not listed as a Comprehensive Environmental Resource Conservation and Liability Information Systems (CERCLIS) site, or a No Further Remedial Action Planned (NFRAP) site.

### 3.2 Federal and State Environmental Records Sources

Standard federal and state databases were accessed by Environmental Data Resources, Inc. to identify areas of potential concern in the vicinity of the subject property. The search distances were chosen in accordance with the ASTM Standard for Phase I ESAs (ASTM, E 1527-00, Section 7.2.1.1) as summarized in Table 3.2.1. Table 3.2.1 also includes the federal and state database information summary, the proximity of the properties of environmental concern to the subject property, and the hydrologic position of the properties of environmental concern with respect to the subject property. The results of the federal and state database search are included in Appendix B. It should be noted that sites whose hydrogeologic locations, with respect to the subject property, are downgradient or are located on the opposite side of a surface water body are not listed. Based on their location, these sites are unlikely to present an environmental concern.

The subject property is listed on the RCRA database as a small quantity generator of hazardous waste (generates between 100 and 1,000 kilograms per month) and has been assigned the USEPA RCRA identification number NYD001468354. Four violations are noted with this listing; however, all appear to have been compliance related issues and all have been resolved.

A Con Ed transformer vault, likely located within the sidewalk adjoining the subject property, is listed on the RCRA database as a small quantity generator and has been assigned the USEPA RCRA identification number NYP004006656. No violations were noted and no further information was provided. Based on the information provided, this site does not appear to present a significant environmental concern.

Interflo Technologies, adjoining the subject property to the north across Clay Street, is also listed on the RCRA database as a small quantity generator and has been assigned the USEPA RCRA identification number NY0000374314. Numerous compliance violations were noted; however, all of these violations have been resolved. Based on the information provided, this site does not appear to present a significant environmental concern.

**TABLE 3.2.1**  
**FEDERAL AND STATE DATABASE INFORMATION SUMMARY**  
**49-55 DUPONT STREET**  
**BROOKLYN, NEW YORK**

Database	Search Distance (Miles)	Site	Proximity to Subject Property
<b>FEDERAL</b>			
NPL	1.0	None	-
CERCLIS/NFRAP	0.5	None	-
RCRIS-TSD	0.5	None	-
RCRIS Generator/ Transporter	Site and Adjoining	NuHart & Co., Inc. 49 Dupont Street	Site
		Con Ed 55 Dupont Street	Adjoining SW Upgradient
		Interflo Technologies 19 Clay Street	Adjoining NE Upgradient
RCRA-CORRACTS	1.0	None	-
ERNS	Site	None	-
<b>STATE</b>			
HWS/HSS	1.0	Michael Ferone (Brick) Co. 247 Greene Street	1,907 feet SE Crossgradient
		Polystyrene Recycling, Inc. 220 Dupont Street	1,981 feet E Crossgradient
		Pronto Demolition Corp. 73 Provost Street	2,517 feet SE Crossgradient
LUST (active and site and adjoining inactive only)	0.5	None	-
PBS	Site and Adjoining	None	-
SWF	0.5	None	-
SPILLS (active and/or site and adjoining inactive only)	0.25	Steven Supply Co. 15 Clay Street (closed)	Adjoining N Downgradient
		V # 1109 & V #852 20 Clay Street (closed)	Adjoining N Downgradient
		Vault # VS2364, 1109, 852 10 Clay Street (closed)	Adjoining NW Downgradient



**TABLE 3.2.1 (CONTINUED)**  
**FEDERAL AND STATE DATABASE INFORMATION SUMMARY**  
**49-55 DUPONT STREET**  
**BROOKLYN, NEW YORK**

Database	Search Distance (Miles)	Site	Proximity to Subject Property
SPILLS (active and/or site and adjoining inactive only) (Cont'd)	0.25	Vault 852 10-20 Clay Street (closed)	Adjoining NW Downgradient
		VS 1106 2-20 Clay Street (closed)	Adjoining NW Downgradient
		Manhole 64829 Franklin Avenue/Dupont Street (closed)	Adjoining SW Crossgradient

Source: Environmental Data Resources, Inc.

Several sites located on Clay Street adjoining the subject property to the north, including Steven Supply Co. and several transformer vaults, are listed on the NYSDEC Spills database for closed spills. A manhole at the intersection of Franklin Street and Dupont Street is also listed on the NYSDEC Spills database for three closed spills. Based on the information provided in the database report, these sites do not appear to present a significant environmental concern.

Three sites, Michael Ferone (Brick) Co., Polystyrene Recycling, Inc., and Pronto Demolition Corp., are listed on the New York State Inactive Hazardous Waste Disposal Site list. These sites are located hydraulically crossgradient of the subject property and do not appear to present a significant environmental concern.

There were no other sites located within the ASTM-designated search radii that appear to present a significant environmental concern to the subject property.

### **3.3 Previous Investigations**

A Preliminary Phase I ESA was performed on the subject property by RTP Environmental Associates, Inc. in September 2004. Re-use of the property for commercial/industrial purposes appears to have been contemplated. Potential environmental concerns recognized in this study include the presence of ten 10,000-gallon USTs beneath the building, and the long-term manufacturing use of the parcel with documented industrial activities since at least 1887. It was recognized that integrity testing may be necessary on the three USTs containing oil (fuel oil, lubricating/mineral oil) and that the other USTs related to plastics manufacturing may require investigation in the event that the USTs were to be reused. Cleaning of the structure was indicated and the need to update the structure to current NYC Building Code was also recognized.

If the property was to be converted to residential use, then additional investigations were indicated to be likely. Demolition and waste disposal would also present issues. Pertinent portions of the Preliminary Phase I ESA report are included in Appendix A.

## **SECTION 4.0 HISTORY OF DEVELOPMENT**

Historical information relating to development of the property was obtained primarily through review of the Sanborn Fire Insurance maps provided by Environmental Data Resources, Inc. (EDR). Additional information was obtained through review of a city directory abstract provided by EDR, historic topographic maps from EDR, and aerial photographs from EDR and AeroGraphics Corp. Historical records information previously described in Section 3 is also incorporated where pertinent. Copies of pertinent portions of the Sanborn Maps, the city directory abstract, and other relevant documents are included in Appendix C.

### Late 1800s

An 1887 Sanborn Map shows the subject property consists of a number of individual parcels. Parcels adjoining Dupont Street are developed with two- and three-story residences. A small stable is present behind one of the residences. Parcels adjoining Clay Street at the east end of the property are occupied by a stable, a shed, iron storage, and a machine shop and coal shed operated as the Glen Cove Machine Co. Several parcels in the central portion of the property adjoining Clay Street are vacant. The west end of the subject property is occupied by a piano plate manufacturer and foundry. This facility includes an area for flasks, a cleaning area, a sand shed, and a japanning and bronzing area.

The area to the north of the property (downgradient) is occupied by the Logan Iron Works and the area to the northwest (also downgradient) is occupied by lumber storage. The areas to the south and east of the property (upgradient) are occupied by residences and a public school. The area to the west appears to be undeveloped.

### Early 1900s

The subject property underwent further commercial/industrial development at this time with development of the vacant parcels and conversion of some of the residential parcels to commercial use. City directories for this time period show a number of residences on and nearby the subject property and a 1900 topographic map shows the property vicinity to be developed as primarily residential.

A 1905 Sanborn Map shows that many of the parcels adjoining Dupont Street remain as residences. However, several former residences in the middle of the parcel have been redeveloped into a boiler shop for the Logan Iron Works. Two stable buildings have been constructed immediately east of the iron works. The iron works extends across the width of the property and adjoins Clay Street. The Glen Cove Machine Co. is no longer present. Several additional commercial/industrial operations have been added, including the Gaites Peach & Co. gas and electric light fixture factory and a sheet metal works. Several tanks are present at the light fixture factory. The west end of the subject property is now occupied by the East River Co., which appears to manufacture soap. At least one tank appears to be present on this parcel.

By 1916 the Logan Iron Works boiler shop had been converted to a warehouse and the light fixture factory was converted to a recooperage. Storage was also present in other parcels formerly occupied by the Logan Iron Works. The northern end of the property appears vacant.

In 1942 the east side of the property remained developed with residences. However, the recooperage building and an adjoining residence and wagon house had been removed; this portion of the property was now vacant. The former warehouse had been reconstructed into two buildings, including a private garage and a water proofing manufacturer. An iron works and a scrap metal facility are also present. The west end of the property remained vacant.

A 1947 topographic map shows dense development in the subject property vicinity with two large structures on the west portion of the property and two rows of apparent attached structures on the east end of the property.

The adjoining properties remained largely unchanged during this time, although increasing commercial/industrial development is visible in the surrounding area and some of the former residential areas to the northwest have been converted to commercial uses.

### 1950s

The subject property underwent a major change in use in the late 1940s and 1950s when it was redeveloped with a plastic manufacturing factory. Property ownership information presented in Section 3.1 documents the purchase of individual lots by several real estate/manufacturing entities beginning in 1949.

Assembly of the current subject property appears to have been completed by 1960. No significant changes were noted on the adjoining properties at this time.

A 1951 Sanborn Map shows that residences remain present on the east side of the property along Clay Street. The private garage has now been converted to a nail warehouse and the adjoining iron works remains present. The remainder of the subject property, including the entire west end and all of the property along Clay Street, has been converted to various facilities associated with the Harte & Co, Inc. Chemical Fabrics Company, a manufacturer of plastic film. The associated facilities include warehouses and offices, manufacturing areas, a shipping area, ink storage, and a boiler house.

A 1954 aerial photo shows several larger buildings on the west end of the property. Open areas are present between the buildings. The southeast portion of the property appears to be occupied by residences. A 1956 topographic map shows dense development in the subject property vicinity.

#### 1960s to Present

From the 1960s to the present day the entire subject property has been used for various operations associated with the manufacture of plastic film. The adjoining property uses remained largely unchanged. City directories between 1960 and 1976 show Harte & Co. chemical fabrics/plastics fabrics to have occupied the property during this time. Duroflex Hart, Inc is shown as occupying the property between 1985 and 1997. Nuhart & Co, Inc. and Hartflex Co., Inc. are also shown occupying the property during this time. Topographic maps from 1967, 1979 and 1995 show dense development in the subject property vicinity.

A 1965 Sanborn Map shows that the remaining residences on the subject property had been removed by 1965 and were replaced with manufacturing facilities associated with the Harte & Co. plastic manufacturing plant. A number of these facilities were noted as having been rebuilt in 1953. The iron works and nail warehouse had also been replaced with a storage building for Harte & Co. No changes were noted since 1951 for the remainder of the subject property.

1966, 1975, 1984 and 1994 aerial photos from EDR show the entire property to be occupied by large attached manufacturing-type buildings that appear to be consistent with the present-day building.



Open areas are not evident, although shadow patterns suggest that some of the buildings on the west-central portion of the property are taller than others.

Aerial photographs for the years 1976 and 1991 obtained from AeroGraphics Corp. illustrate the subject property consistent with the information obtained from the Sanborn Maps. Both photographs show little to no change in the subject property between 1976 and 1991.

Sanborn Maps dating from 1978 to 1996 show no changes to the subject property during this time. To the south of the property, the adjoining school was removed between 1965 and 1978. Residences to the west of the school were removed between 1978 and 1979. This area remained vacant until between 1993 and 1995 when a senior citizen housing facility was constructed. The remainder of the adjoining properties remained essentially unchanged.

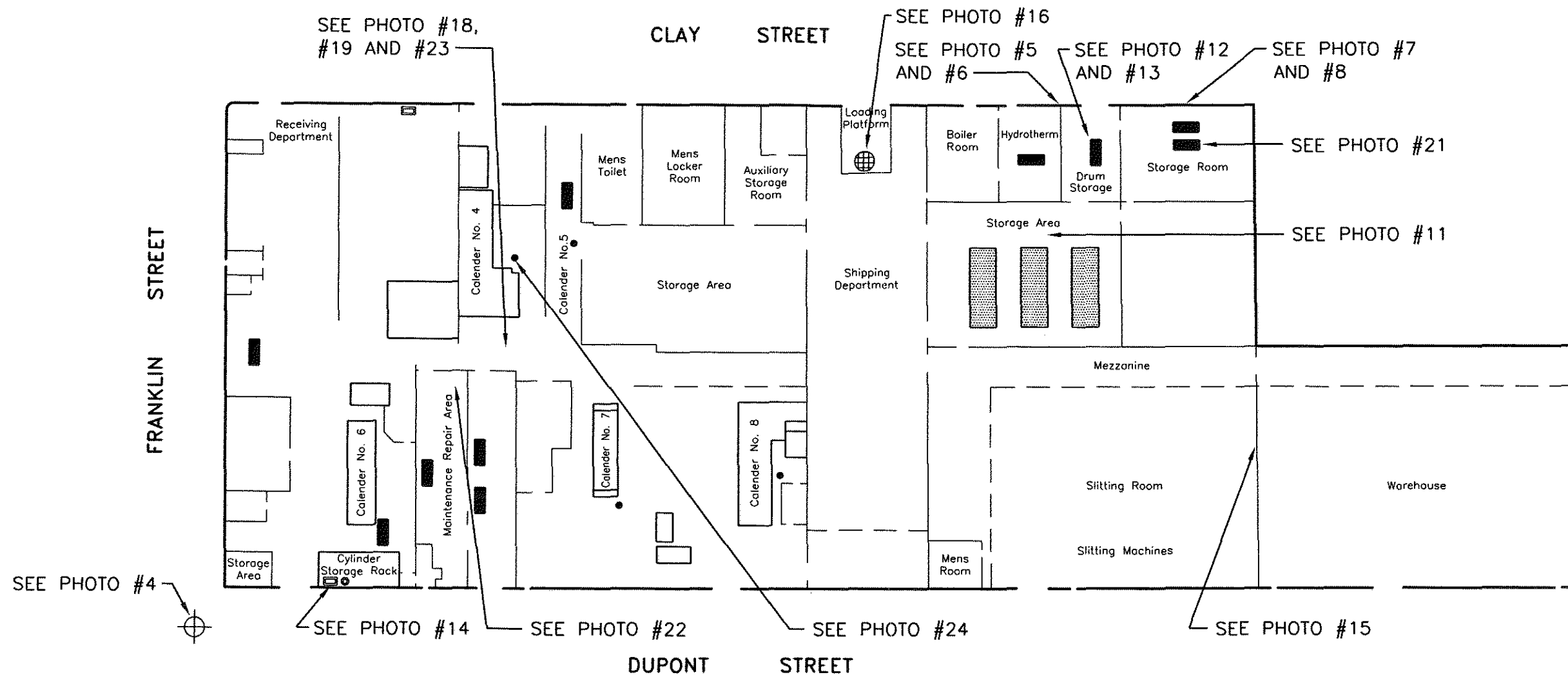
### Summary

In the late 1800s the subject property was mostly developed with two- and three-story residences, a stable, a shed, iron storage, a piano plate manufacturer and foundry, and a machine shop and coal shed operated as the Glen Cove Machine Co. Several parcels in the central portion of the property were vacant. The subject property underwent further commercial/industrial development in the early 1900s with the development of the vacant parcels and conversion of some of the residential parcels to commercial use. Commercial/industrial facilities onsite in the early 1900s included a boiler shop for the Logan Iron Works, two stable buildings, the Gaites Peach & Co. gas and electric light fixture factory, a sheet metal works, a soap manufacturer, a warehouse, a recooperage, storage, a private garage, a water proofing manufacturer, an iron works and a scrap metal facility. The subject property underwent a major change in use in the late 1940s and 1950s when it was re-developed with a portion of the current plastic manufacturing factory. By 1965 the entire property had been redeveloped with the plastic manufacturing facility, and remained essentially unchanged to the present. The surrounding area is generally developed with residential structures. Some historic commercial/industrial uses have occurred on properties to the north and west (downgradient).

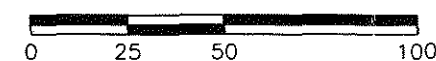
## **SECTION 5.0 PROPERTY RECONNAISSANCE**

FPM personnel performed a visual inspection at the subject property on April 12, 2005. Mr. Sammy Kallimutoo, a Nuhart & Company facility engineer for more than 10 years, and Mr. Alex Folkman, were present during the inspection and provided information concerning former property operations. The subject property is entirely developed with a one-to four-story masonry structure and occupies approximately 87,240 square feet situated east of Franklin Street between Dupont and Clay Street in the Greenpoint section of Brooklyn, New York. Each portion of the property, with an emphasis on areas of potential environmental concern, is described in more detail below. It should be noted that the presence of stocked goods and various pieces of manufacturing equipment situated throughout the facility inhibited portions of the visual reconnaissance.

The subject property was initially developed for the manufacturing of plastic products in the 1940s by Chemical Fabrics, Inc. and has been used for this purpose up until its closure in 2004 by Nuhart & Company, Inc. Other commercial uses prior to 1940 were also noted and were previously discussed in Section 4.0. The former operation generally consisted of the manufacturing of plastic goods from raw materials (poly vinyl chloride and plasticizers) to finished products. The manufacturing process included the blending of the raw materials and colored pigments, which were then subsequently fed to a mill and then extruded to a calendar machine, which fabricated thin vinyl sheets. Other facility operations included office areas, manufacturing equipment maintenance, warehousing, and shipping and receiving activities. A site plan showing the facility layout is included as Figure 5.1. A table summarizing all known and suspected storage tanks is presented as Table 5.1. A photolog documenting property conditions is included in Appendix D. Material safety data sheets for the manufacturing related chemicals are included in Appendix E.



APPROXIMATE SCALE IN FEET:



LEGEND:

- SUSPECTED UST
- UST
- MONITORING WELL
- STORM DRAIN

FPM GROUP

FIGURE 5.1  
SITE PLAN

49 DUPONT STREET  
BROOKLYN, NY

Drawn By: J.S. | Checked By: B.C. | Date: 5/2/05

SOURCE: RTP ENVIRONMENTAL ASSOCIATES, INC. (2004)

**TABLE 5.1  
STORAGE TANK SUMMARY  
NUHART AND COMPANY, INC  
45 DUPONT STREET, BROOKLYN, NEW YORK**

<b>Tank No.</b>	<b>UST/AST</b>	<b>Size (gallons)</b>	<b>Material Stored</b>	<b>Construction and Location</b>	<b>AOC*****</b>
1	UST	10,000	#2 fuel oil	Drum Storage Room	2a
2	UST	10,000	#2 fuel oil	Hydrotherm Room	2b
3	UST	1,500	Acetone*	Northeast Storage Room	1a
4	UST	1,500	Methyl Tert Butyl Ketone*	Northeast Storage Room	1b
5	UST	10,000	DINP/ DOP	Calendar 5 Area	4a
6	UST	10,000	DINP/ DOP	Calendar 6 Area	4b
7	UST	10,000	711 (Diundecyl Phthalate**)	Calendar 6 Area	4c
8	UST	10,000	Extra Super Hecla (Lubricating Oil)	Maintenance Area	3
9	UST	10,000	DINP/ DOP	Maintenance Area	4d
10	UST	10,000	DINP/ DOP	Maintenance Area	4e
11	UST/AST ?	?	Unknown***	Calendar 7 Area	6a
12	UST/AST ?	?	Unknown***	Calendar 7 Area	6b
13	AST	est. 200	Oil Reservoir****	Calendar 5 Area	5a
14	AST	est. 200	Oil Reservoir****	Calendar 6 Area	5b
15	AST	est. 200	Oil Reservoir****	Calendar 7 Area	5c
16	AST	est. 200	Oil Reservoir****	Calendar 8 Area	5d

Notes:

DINP – Diisononyl phthalate

DOP – Dioctyl phthalate

\*1,500-gallon UST information based upon tank chart information

\*\*711 processing oil, believed to be Diundecyl Phthalate based upon trade name and common usage as plasticizer.

\*\*\*UST//AST believed to be present due to presence of likely tank level gauges and subsurface structures.

\*\*\*\*Oil reservoirs for calendar equipment as noted and reported by NuHart representative and visual observations.

\*\*\*\*\*See Figure 6.1

## FIRST FLOOR

### Warehouse/Former Slitting Machine Room / Shipping Area

This area consists of an approximately 36,000-square-foot section of the property developed with a variable height one-story structure. A mezzanine for additional storage is also present in the warehouse and former slitting machine areas. Two loading docks are also present within the shipping area, one of which was noted to contain a drain. The drain was noted to be overflowing and a connection to the public sewer could not be confirmed. At the time of the inspection portions of the warehouse and former slitting machine area are being utilized for the storage of finished goods, which are reported to consist mostly of vinyl garden houses and vinyl sheet rolls. In addition, the area is also being utilized for the storage of manufacturing related equipment. Numerous small (1 ft. x 1 ft.) steel plates, located on the floors, were noted throughout these areas and appear to generally have been utilized as access for roof drainage cleanouts.

### Northeast Storage Area

This area, consisting of approximately 7,800 square feet, was noted to be mostly empty at the time of the reconnaissance, with the exception of storage for some finished goods. In a portion of the storage area, three possible subgrade structures were noted, as evident by the presence of large steel plates. These areas were reportedly pits associated with former printing presses. Two of these pits have reportedly been filled in with sand.

In the northeastern most portion of the storage area, two tank level gauges, two fills, and two vents were identified. A tank chart adjacent to the tank gauges indicated that two 1,500-gallon capacity USTs were present and had been utilized for the storage of acetone and MTBK (methyl tert butyl ketone). The site representative noted that he had no knowledge of these tanks. In addition, several large empty steel and polyethylene containers were noted in this room and were reportedly utilized for the storage of waste oil.

### Boiler Room / Hydrotherm Room / Drum Storage Area

The boiler and hydrotherm room both contain boilers that previously provided high pressure steam



for both onsite heating and manufacturing purposes. These units were operated primarily on natural gas with fuel oil backup. Covered trenches are present throughout these rooms and reportedly contain piping to support the boiler equipment. Several portions of the trenches were noted to contain an oily substance.

Two 10,000-gallon capacity fuel oil USTs are reported to be located beneath the hydrotherm room and the drum storage room. Fills and vents for these USTs were noted outside of the building along Clay Street. Oil staining was noted on the wall beneath these vents and appears to be the result of overfilling during oil deliveries.

The drum storage area situated adjacent to the hydrotherm room was noted to contain several partially filled drums and containers. The contents of these drums and open containers appear to be a petroleum-based substances.

#### Manufacturing and Maintenance Areas

The manufacturing area, situated in the western portion of the building, formerly contained five large calendar machines. At the time of the visual reconnaissance, only portions of these machines were still present. Concrete-lined piping chaseways for steam, cooling, hydraulic, and plasticizer piping were reported to be present within trenches. In addition, reservoirs (presumably containing hydraulic oil) and sumps were also present within most of these chaseways. An oily substance, reportedly the plasticizer, was also present within the accessible chaseways and is reportedly pumped or directed to one of the two oil-water separators situated within this portion of the building.

As discussed above, two oil-water separators are present within the manufacturing area and are centrally located along the northern and southern building perimeters. These units consist of skimmers which remove the oil and contain it with 55-gallon drums for disposal. The residual water is reportedly discharged to the municipal sewer system. At the time of the visual reconnaissance the units were noted to still contain oil.

Five 10,000-gallon capacity USTs reportedly containing plasticizers [diiononyl phthalates (DINP), dioctyl phthalates (DOP), or diundecyl phthalate (Sanitizer 711)], and one 10,000-gallon lubricating oil (extra hecla super) UST were also present in the manufacturing/maintenance areas. Two other USTs are

also suspected, based upon the remnants of two tank level gauges, to be below steel plates in the southeastern manufacturing area (calendar 7 area).

#### Receiving Area

The receiving area is situated in the northwestern corner of the building and contained a loading dock and three large silos. The silos extended to above the third story roof and were utilized for the storage of poly vinyl chloride resins. A freight elevator was also present in this area and reportedly utilizes a non-telescopic hydraulic piston to move the elevator between first and fourth floors. Access to the elevator equipment was not available at the time of the inspection.

#### **SECOND FLOOR**

The second floor, situated generally in the vicinity of the southwestern portion of the building's perimeter, was utilized for office space. No manufacturing or storage was performed in this area.

#### **THIRD FLOOR**

The third floor was generally situated above the calendar machines and beneath PVC resin mixing and scaling room. This area was utilized to transfer tubs full of pre-measured PVC resin to the banburies situated above the calendar machines. In addition, this area was reportedly utilized to store pigments for the colorization of the plastics. No pigments or other chemicals were present at the time of the inspection.

#### **FOURTH FLOOR**

The fourth floor portion of the building was situated along the western perimeter of the property and below roof mounted PVC resin silos. This floor was entirely utilized for the mixing and weighing of PVC resin. No issues of concern were identified at the time of the inspection.

#### **ROOF TOP**

From the vantage point of the third floor roof, the facility roof top was viewed to identify any additional vent lines associated with unknown USTs. No additional vent pipes were identified; however, it should be noted that no vent lines associated with plasticizer or lubrication oil USTs were readily identifiable. Several scrubbers to process manufacturing exhaust were also present and reportedly utilized a spraying mist to remove particulates. The water generated during this process was reportedly discharged

to the municipal sewer system.

## **PROPERTY-WIDE ISSUES**

### Utilities:

Electricity is provided to the site by Consolidated Edison via several subgrade transformers located within the sidewalk. Water and sewerage is provided by the New York City Department of Environmental Protection and was evident by numerous water meters and sanitary vents located around the facility.

### Radon:

Radon is not anticipated to be a concern. Based on the 1993 U.S. Geological Survey Open File Report 93-292-B entitled "Geologic Radon Potential of EPA Region 2", the average indoor radon concentration in Kings County is 1.4 picocuries per liter, which is among the lowest concentrations in the New York State. The USEPA recommends that action be taken to reduce indoor radon concentrations if they exceed four picocuries per liter. Radon does not appear to be a concern at the subject property.

### Radiation:

There was no indication that past or present property activities may have included the generation or storage of radiation sources at the subject property.

### Suspected Asbestos-Containing Materials:

During the site inspection, a non-invasive visual survey was performed to evaluate the potential presence of suspect asbestos-containing materials (ACMs). Within the context of this survey and the reviewed information, the following materials were identified as suspect ACMs:

- Pipe insulation in select areas throughout the building;
- Floor tiles in select areas throughout the building;
- Roofing materials; and
- Boiler and hydrotherm insulation.

A comprehensive asbestos inspection and sampling is recommended to confirm the presence and potential quantities of ACMs

Adjoining Property Descriptions:

Commercial properties are located to the north (across Clay Street) of the subject property including: River Trucking and Rigging, Stephen Supply, Inc., and UFO Technologies. It was noted that an approximately 10,000-gallon fiberglass storage tank is presently situated against the River Trucking & Rigging Property; however, no indications of it being in use were noted. Residential dwellings were noted to adjoin to the east and are also located across Dupont Street. A city park was also noted to the west across Franklin Street. Based on visual observations of the adjoining facilities from the vantage point of the subject property and nearby public streets, it does not appear that any of these properties poses an environmental concern to the subject property.

## **SECTION 6.0**

### **CONCLUSION/RECOMMENDATIONS**

Based upon the results of the Phase I ESA, which included a review of available public information, aerial photography, Sanborn Fire Insurance maps, a local, state, and federal database search, interviews with facility representatives, FPM's facility inspection as documented in the attached photo log, and the contemplated redevelopment of the subject property for residential usage, FPM has identified the following areas of concern (AOCs): USTs, subgrade piping chase ways, printing press pits, drum storage area, oil water separators, and the north shipping dock drainage structure. In addition, it should be noted that all areas which were inaccessible at the time of the initial visual survey should be made accessible to identify other potential AOCs. A table listing the identified AOCs and a figure showing their locations are included as Table 6.1 and Figure 6.1, respectively. Each AOC is identified with a corresponding recommendation for further investigation. Detailed sampling plans and a cost estimate will be prepared under separate cover.



**TABLE 6.1**  
**IDENTIFIED AREAS OF CONCERN**  
**NUHART AND COMPANY, INC**  
**45 DUPONT STREET, BROOKLYN, NEW YORK**

Area of Concern	Description	Recommended Action
1	Solvent USTs (Acetone and MTBK) Two 1,500-gallon	<ul style="list-style-type: none"> <li>Gauge and collect sample from each storage tank for waste classification and disposal parameters.</li> <li>Properly register UST in accordance with all regulations, then empty, clean and remove.</li> <li>Perform soil borings and collect soil and groundwater samples around each UST to determine the presence or absence of contamination. (1)</li> </ul>
2	Fuel Oil USTs Two 10,000-gallon	
3	Lubricating Oil UST One 10,000-gallon	
4	Plasticizer USTs Five 10,000-gallon	
5	Oil Reservoir ASTs Four est. 200-gallon ASTs	<ul style="list-style-type: none"> <li>Gauge and collect sample from each storage tank for waste classification and disposal parameters.</li> <li>Empty, clean and remove.</li> </ul>
6	Suspected USTs	<ul style="list-style-type: none"> <li>Clear area of equipment/stock and remove steel plating to allow evaluation of sub grade structures.</li> <li>If storage tanks are found then properly close and evaluate as noted in AOCs 1 through 4</li> </ul>
7	Oil Water Separators (two)	<ul style="list-style-type: none"> <li>Pump out and clean oil water separator sumps. Dispose of liquids by a licensed waste scavenger.</li> <li>Inspect for cracks. If present, perform soil borings and collect soil and groundwater samples to determine presence or absence of contamination. (1)</li> </ul>

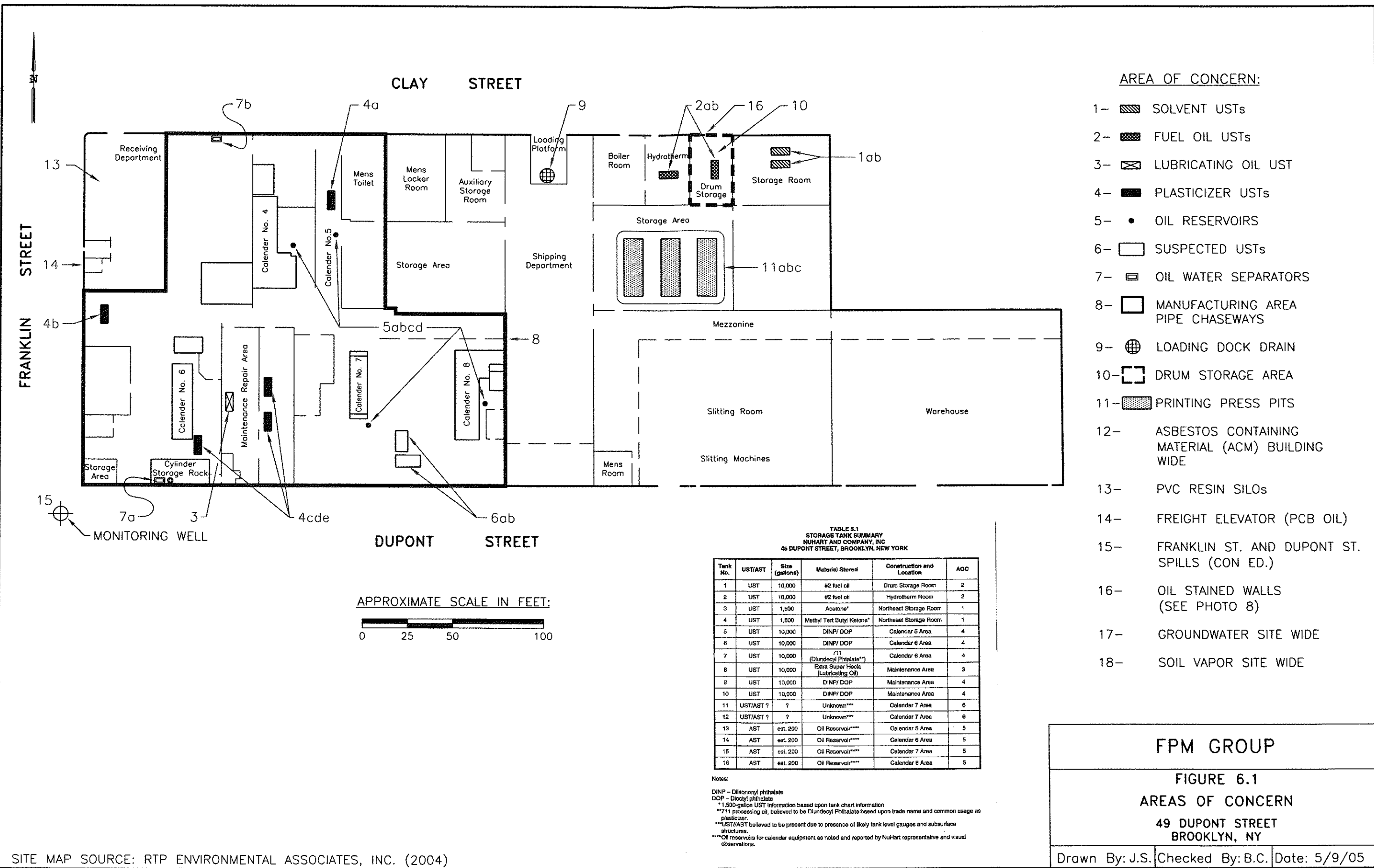
**TABLE 6.1 (CONTINUED)**  
**IDENTIFIED AREAS OF CONCERN**  
**NUHART AND COMPANY, INC**  
**45 DUPONT STREET, BROOKLYN, NEW YORK**

Area of Concern	Description	Recommended Action
8	Sub grade Pipe Chaseways	<ul style="list-style-type: none"> <li>• Pump out and remove piping, clean chaseways. Dispose of liquids by a licensed waste scavenger.</li> <li>• Perform soil borings and collect soil and groundwater samples to determine presence or absence of contamination. (1)</li> </ul>
9	Loading Dock Drain	<ul style="list-style-type: none"> <li>• Access drain, confirm leaching pool or public sewer connection.</li> <li>• If a leaching pool, perform soil boring to collect soil and groundwater samples to determine the presence or absence of contamination. (1)</li> </ul>
10	Drum Storage Area	<ul style="list-style-type: none"> <li>• Properly remove and dispose of all drums and open vessels.</li> <li>• Inspect for cracks. If cracks present, perform soil boring to collect soil and groundwater samples to determine if past usage has caused contamination to the subsurface. (1)</li> </ul>
11	Printing Press Pits	<ul style="list-style-type: none"> <li>• Three structures formally utilized for printing related equipment have been backfilled. One soil boring should be installed into each pit through the backfill and slab and soil and groundwater samples should be taken to identify contamination associated with past usage. (1)</li> </ul>
12	Asbestos	<ul style="list-style-type: none"> <li>• Numerous materials potentially containing asbestos were noted throughout the facility including piping insulation, floor tiles, roofing materials and boiler insulation. These items should be tested to determine the presence of asbestos.</li> <li>• Should asbestos containing materials be confirmed by testing, they should be properly removed and disposed.</li> </ul>

**TABLE 6.1 (CONTINUED)**  
**IDENTIFIED AREAS OF CONCERN**  
**NUHART AND COMPANY, INC**  
**45 DUPONT STREET, BROOKLYN, NEW YORK**

Area of Concern	Description	Recommended Action
13	PVC Silos	<ul style="list-style-type: none"> <li>All the PVC resin silos should be emptied and their contents properly disposed. The silos should also be cleaned prior to demolition activities.</li> </ul>
14	Freight Elevator	<ul style="list-style-type: none"> <li>The associated hydraulic equipment and surrounding areas should be made accessible and examined for signs of leakage.</li> <li>The surface around the equipment should be tested for PCBs. (1)</li> </ul>
15	Franklin / Dupont Street Spills	<ul style="list-style-type: none"> <li>Several spills associated with below grade transformers have been documented and reported as being closed by the NYSDEC.</li> <li>Soil sampling should be conducted, where feasible, to confirm if historic spills have impacted the subject property.</li> </ul>
16	Oil Stained Walls (see Photo 8)	<ul style="list-style-type: none"> <li>Oil staining was noted below two fuel oil vent pipes. A soil boring should be advanced in this area to collect soil and groundwater samples to identify if contamination has occurred. (1)</li> </ul>
17	Groundwater Sitewide	<ul style="list-style-type: none"> <li>Groundwater sampling should be performed at several areas of concern. Several permanent monitoring wells are proposed to identify the groundwater flow direction and quality upgradient and downgradient of the facility.</li> </ul>
18	Soil Gas Sitewide	<ul style="list-style-type: none"> <li>Due to the site's historical manufacturing usage and contemplated redevelopment for residential purposes, soil gas sampling should be conducted at locations throughout the facility to assess the potential for subsurface soil gas concerns. (1)</li> </ul>

(1) Detailed sampling and analysis plan to be provided under separate cover.



SITE MAP SOURCE: RTP ENVIRONMENTAL ASSOCIATES, INC. (2004)

FPM GROUP

FIGURE 6.1  
AREAS OF CONCERN  
49 DUPONT STREET  
BROOKLYN, NY

Drawn By: J.S. | Checked By: B.C. | Date: 5/9/05

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## Appendix B Phase II Report



**ADVANCED SITE RESTORATION, LLC**  
ENVIRONMENTAL SERVICES

# **Phase II Site Assessment**

**49-55 Dupont Street, Brooklyn, New York 11222**  
**NYSDEC SPILL # 06-01852**



*Prepared on Behalf of:*  
**49 Dupont Realty Corporation**

*Prepared By:*  
**Advanced Site Restoration, LLC**

March 2007

  
Christopher P. Tomasello, I.H.  
Project Professional

  
Steven Muller, CEC  
Project Manager

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## 1.0 SCOPE OF PROJECT

This Phase II Site Investigation Report documents the results of the subsurface soil and groundwater investigation at the subject site. This investigation was conducted by Advanced Site Restoration, LLC (ASR), on behalf of 49 Dupont Realty Corporation. All work is in accordance with New York State Department of Environmental Conservation (NYSDEC), Spill Prevention Operations Technology Series (SPOTS) Memo #14, Site Assessments at Bulk Storage Facilities (August 1994). The scope of this investigation includes the following:

- The review of the New York State regulatory agency records for the site and the immediate surrounding area.
- An investigation into the possible sources of off site contamination.
- The collection of soil samples from inside the building at the subject site and off site, directly adjacent to the building.
- The documentation of soil characteristics and conditions.
- The advancement of groundwater monitoring wells both inside the building at the subject site and off site, directly adjacent to the building.
- The collection of groundwater samples from inside the building at the subject site and off site, directly adjacent to the building. .
- A survey of the area in and around the subject site.
- The construction of a Groundwater Gradient Map.
- The construction of both groundwater and soil Contaminant Plume Maps.
- A summary of the analytical findings respective to the NYSDEC TAGM 4046, Allowable Soil Concentrations and Groundwater Quality Standards.
- Develop recommendations based on the findings of this investigation.

## 2.0 GENERAL SITE INFORMATION

Site Description: The subject site is legally identified as New York City Tax Block 2487, Tax Lots 1, 10, 12, 17, 18, 20, 21, 57, 72, and 78. The current owner since 1983 is the 49 Dupont Realty Corporation.

The subject site is a former manufacturing facility. The New York City Department of Finance Occupancy Code is "F-9, Factory Industrial." According to the Sanborn Map Report from Environmental Data Resources, Inc. (EDR), industrial activity at the subject site dates as far back as 1887.

Historic use of the site has included manufacturing, office, storage, shipping and receiving. More recently, the site had been used as a plastic manufacturing facility since approximately 1950. According to *FPM Group* who completed a Phase I Site Assessment, dated April 2005 for the subject site, reported that commercial uses prior to 1950 included a boiler shop for Logan Ironworks, two stable buildings, a gas and light fixture factory, a sheet metal works, a soap manufacturer, a water proofing manufacturer, and a scrap metal facility.

The North American Industry Classification System (NAICS) listing for the subject site is "Plastic Fitting and Plastic Manufacturing". The factory at the subject site was most recently used to manufacture vinyl sheeting. It had been used as such a facility for the greater part of the 20<sup>th</sup> Century. As of 2004, the factory ended its manufacturing operations.

According to the United States Geological Survey (USGS) Brooklyn, New York 7.5 Minute Series Topographical Map (1995), the Site is situated at an approximate elevation of 13 feet above mean sea level. The location of the Site is shown on the Site Location Map, Figure 1, Appendix A.

In September of 2004, a visual reconnaissance of the site was performed by *RTP Environmental Associates* (RTP). Materials potentially containing asbestos were reported throughout the site. Four (4) silos used to store raw materials were observed on the west side of the property. RTP also reported a drum storage area with drums containing petroleum products. Plasticizers were also found in several areas of the subject site in drums and in concrete lined piping trenches. The on-site contamination, including that of plasticizers has been fully delineated in preparation for environmental remediation.

The environmental work currently being performed by ASR began in May 2006. To address the underground storage tanks (USTs), ASR collected samples from inside each UST. The seventeen (17) USTs were cleaned, rinsed and filled with foam to close them in place in accordance with all NYSDEC regulations. In July of 2006, the tanks were properly registered with the submittal of an updated Petroleum Bulk Storage and Chemical Bulk Storage application to the NYSDEC. Upon completion of the UST decommissioning, ASR prepared and submitted to the NYSDEC a Tank Closure Report dated July, 2006. ASR continued the subsurface investigation activities with the collection of soil and groundwater samples and the installation of a monitoring well network to fully delineate the identified soil and groundwater contamination (see Section 6.0). During future development of a comprehensive remedial plan, ASR has installed and currently maintains an Interim Remedial Measure (IRM) which consists of recovering free phase product (plasticizer) by pumping from two (2) locations. In addition, daily hand bailing is currently being performed. (see Section 9.0)

Surrounding Land Use: The surrounding use of the site is a mix of commercial, residential, and manufacturing. There are a number of mixed use lots with both residential and manufacturing. To the north of the site is a warehouse and a hardware store beyond which is an automotive lot (Figure 2-Aerial Photograph, Appendix A). To the east down Clay Street and Dupont Street are several multi-family residential units. To the south across Dupont Street there are apartments and more residential units. To the west is a small city park.

Sensitive Receptor Survey: A limited sensitive receptor survey was performed to identify any potential sensitive receptors in the vicinity of the subject site. No potable water wells were identified on or in the immediate vicinity of the subject site. The nearest surface water body is New Town Creek, which outflows into the East River located approximately 600 feet northwest of the subject site. As mentioned in the Surrounding Land Use Section, there are residential units to the east and the south of the subject site. Major utilities including water, sanitary, electric and natural gas have also been identified under the streets of Franklyn, Clay, and Commercial.



### **3.0 REGIONAL GEOLOGY/HYDROGEOLOGY**

The subject site is located in Brooklyn, New York. The elevation of the site, as presented on the United States Geologic Survey (USGS), Brooklyn Quadrangle Map (1995), is approximately 13 feet above sea level (Figure – 1, Appendix A). The subject site lies within an area classified as Urban Land. This soil type consists of urbanized areas where the majority of surface is covered with buildings, roads, driveways, parking lots, and other manmade structures.

Based on our measurements, the groundwater table is located between 10 ft and 12 ft below grade surface (bgs). This is consistent with a USGS Survey of Water Table Elevation map available to ASR. A northwesterly groundwater flow direction was determined by ASR from a survey of monitoring wells installed on and off site. This groundwater flow direction is supported location and proximity to New Town Creek and the East River, (Figure 6 - Groundwater Gradient Map, Appendix A).

### **4.0 PREVIOUS INVESTIGATIONS/HISTORICAL REVIEW**

The subject site is classified as a Small Quantity, RCRA Hazardous Waste Generator.

RTP Environmental Associates, Inc. of Westbury, New York, conducted a Preliminary Phase I Site Assessment in September, 2004. The report identified the following areas of concern (AOC):

- Identify environmental concerns regarding the 10,000 gallon USTs
- Test the integrity of certain tanks
- Clean the inside of the building
- Get the building up to code with NYC Building Dept.
- Perform additional environmental investigations
- Identify the means of demolition and waste disposal

RTP reports that the main areas of “potential environmental concern” within the property are the USTs and the piping/vent lines associated with them.

In addition to the aforementioned report, FPM Group of Ronkonkoma, New York, conducted a Phase I Environmental Site Assessment in April 2005. This report was much more detailed than the RTP report. FPM Group identified several AOCs. They include:

- UST's, both known and suspected
- Oil-Water Separator
- Sub grade pipe chaseways (trenches)
- Loading Dock Drain
- Drum Storage Area
- Printing Press Pits

- Asbestos
- Silos
- Freight Elevator
- Oil Stained Walls
- Groundwater and soil gas (site wide)

## 5.0 PLASTICIZER IDENTIFICATION

During the manufacturing process to produce various plastic and vinyl products the subject site stored a group of chemicals commonly referred to as plasticizers. These plasticizers include:

Bis(2-ethylhexyl)terephthalate	(Eastman DOTP)
Bis(2-ethylhexyl)adipate	(Eastman DOA)
Phthalate mix	(DINP Plasticizer)
Palatinol 711P phthalate	(BASF 711P)

The listed plasticizers were stored in several large (up to 10,000 gallon) USTs and used depending on the final product. Storage of hecla oil (machine lubricant), fuel oil and acetone was also identified in various USTs. During the subsurface investigation activities for UST closure, plasticizer as a free light non aqueous liquid (LNAPL) was identified in several groundwater monitoring wells.

Between May and December 2006, ASR installed a monitoring well network consisting of 17 groundwater monitoring wells (2 inch diameter) and ten (10) product recovery wells (4 inch diameter). This monitoring well network delineated the vertical and horizontal extent of the LNAPL (Figure - 8, Appendix - A).

In an effort to identify the nature and source of the LNAPL, the above list of plasticizers were supplied to a laboratory and used as a reference to fingerprint match the LNAPL in monitoring wells MW-4 through MW-7, RW-2, RW-3, and RW-5. The results were inconclusive since multiple plasticizers were identified in the same monitoring wells and the references themselves consisted of blends of other compounds including phthalates.

After the delineation of the LNAPL, ASR installed a series of ten (10) strategically located product recovery wells as part of an interim remedial measure (IRM). This IRM was developed and implemented to begin the process of removing LNAPL from the groundwater table. This action is currently ongoing and has successfully recovered over 2,300 gallons of LNAPL plasticizer as of March 27, 2007. The IRM currently consists of two (2) product only pumps and daily hand bailing from all wells containing LNAPL.

### 5.1 Fuel Oil

In addition to plasticizer LNAPL, fuel oil has also been identified as a LNAPL in a confined area in close proximity to the underground fuel oil tank. Monitoring wells MW-1 in the building and MW-9 in the sidewalk adjacent to the fuel oil UST contain LNAPL. The thickness of product in the wells can not be accurately determined due to the high

viscosity of the product. Based on observations made on-site, LNAPL thickness in the monitoring wells appears to be less than one (1) inch. A four (4) inch diameter recovery well (RW-7) was installed adjacent to the fuel oil UST as part of the IRM.

## **6.0 SUBSURFACE SOIL DELINIATION**

Given the size of the subject property, an extensive sampling protocol was developed. ASR staff designed a sampling network that was biased to the locations of the UST's (Borehole & Well Location Map, Figure - 2, Appendix A)

Between May 3, 2006 and July 24, 2006 ASR conducted 41 soil borings through the subject site. The sampling was conducted using a geoprobe direct push sampling rig, collecting discrete soil samples from grade to the groundwater table. At least one (1) sample from each borehole was submitted to a state certified laboratory for analysis of VOCs and SVOCs by EPA Method 8260 Stars and EPA Method 8270 Stars respectively. Several borehole locations were also sampled for pesticides by EPA Method 8081, PCBs by EPA Method 8082, and total RCRA Metals.

The results indicated detectable concentrations of VOCs in the soil samples from nine (9) of the 41 borehole locations, and detectable SVOCs (including plasticizers) in the soil samples from 30 of the 41 locations. Of the 30 samples containing detectable levels of SVOCs, 21 contained only plasticizers. The extent of soil contamination above NYSDEC guidance values was used to develop a Soil Impact Map indicating the delineated extent of the soil contamination by phthalates.

Mercury was detected in one (1) sample collected from soil boring SB-4 on May 2, 2006. Subsequently, the NYSDEC requested that the horizontal and vertical extent of the mercury identified in SB-4 be fully delineated. On December 7, 2006, ASR returned to this location and collected soil samples from the same location and depth as SB-4, five (5) feet north and 5 ft south. The samples were delivered to a state certified laboratory and analyzed for mercury only. The results indicated no detection of mercury in any of the samples collected, including the sample collected from the same location as SB-4.

The soil sample analytical results are summarized in the tables following Section 11.0.

## **7.0 GROUNDWATER MONITORING WELL INSTALLATIONS**

To obtain additional information about the nature of the contaminant, assist in delineating the extent and provide a means to collected groundwater samples, ASR installed a monitoring well network. This network consists of 16 groundwater monitoring wells, four (4) of which are located inside the building. The monitoring wells were installed between May and December, 2006. Photographs of the well installations are attached in Appendix B. In general the well construction consists of 10 feet of 2 inch diameter well screen intersecting the groundwater table with soil riser pipe to the surface. Monitoring wells installed in the building were left stubbed up two feet above grade, and the wells installed in the sidewalks were completed below grade and

covered with a small bolt down manhole cover. Boring logs detailing the subsurface soil classifications and well construction are attached as Appendix – C.

## **8.0 GROUNDWATER SAMPLING ACTIVITIES and RESULTS**

Shortly after the installation of each groundwater monitoring well, ASR returned to the site and gauged the well for depth to water and/or the detection of LNAPL using a sonic product interface probe. Of the 16 groundwater monitoring wells installed by ASR, six (6) contained various thickness of LNAPLs. Due to the presence of floating product, groundwater samples were not obtained from MW-1, MW-4 through MW-7, and MW-9. Groundwater samples from the remaining monitoring wells were collected and delivered to a state certified laboratory for analysis of VOCs and SVOCs by EPA Method 8260 Stars and EPA Method 8270 Stars respectively.

The groundwater sampling results indicated detectable concentrations of VOCs in the groundwater at three (3) of the ten (10) monitoring wells sampled, and detectable SVOCs (including plasticizers) in the groundwater samples from seven (7) of the ten (10) locations. The extent of groundwater contamination above NYSDEC guidance values developed a VOC Plume Map indicating the delineated extent of the soil contamination by phthalates.

No detection of VOCs or SVOCs above NSDEC guidance values were detected in the groundwater monitoring wells located across the adjacent streets.

The groundwater sample analytical results are summarized in the tables following Section 11.0.

## **9.0 INTERIM REMEDIAL MEASURE**

During the field and data collection activities to develop the Phase II environmental site assessment, it was determined that the thickness and extent of the LNAPL identified on the subject site was sufficient enough to design and implement an interim remedial measure. Between October and December, 2006 ASR installed a total of ten (10) four (4) inch diameter product recovery wells. In November, 2006 two (2) recovery wells (RW-3 and RW-10) were retrofitted to maintain pumping units supplied by Spillbuster, Inc. The pumps use an auto seeking computer controlled mechanism to identify the product and groundwater interface. The pumps are designed to maintain less than one (1) inch of product in the well creating a cone-of-depression. Groundwater is not pumped by this system. The recovered product is pumped into 400 gallon capacity totes provided by the site. In addition to pumping, hand bailing of product is performed at the additional recovery wells and any monitoring wells which contain LNAPL. To date over 2,300 gallons of product has been recovered from the site. This IRM is anticipated to continue for product recovery.

## **10.0 GENERATED WASTE DISPOSAL**

During the field activities of the Phase II investigation, drill cuttings were generated. Specifically, the soil cuttings from the installation of groundwater monitoring wells and product recovery wells. A total of three (3) drums of soil were generated. Due to the concentration of Phthalate in the soil cuttings the drums were classified as Hazardous Soils for transportation and disposal to a certified disposal facility. In addition to the soil cuttings several drums of soil and liquid were generated during the UST closure activities. These drum were also properly classified, transported and disposed of at a certified disposal facility. Manifests and Bills of Lading are attached as Appendix – E.

## **11.0 SUMMARY**

### **Free Floating Product**

Under the west side of the building extending into the sidewalk of Franklyn and Clay Streets is a plume of free floating phthalate. This product plume has been delineated and does not extend beyond Franklyn, Clay or Commercial Streets. The plume appears to be stable; this is expected with the decommissioning of all USTs. An IRM has been designed, installed and maintained since November, 2006 and has recovered to date over 2,300 gallons of product.

### **Soil Sample Results**

In the west side of the building at the subject site, several phthalates (plasticizers) were detected at levels above and below the NYSDEC, "Allowable Soil Concentrations." These two phthalates, Bis(2-ethylhexyl)phthalate and Di-n-octylphthalate (believed to be DOTP and DINP respectfully), were detected in several soil boring samples taken from the western portion of the building. In addition, phthalates were detected in the soil below the sidewalk adjacent to the west side of the property. The two phthalates were also detected in the soil under the sidewalk adjacent to the north side of the building (Soil Plume Map, Appendix A).

The analysis of a series of samples collected from the west side of the building indicated the presence of several SVOCs both above and below the NYSDEC, "Allowable Soil Concentrations." This plume was found to be down groundwater gradient of hecla oil USTs. Lower levels of several SVOCs were also detected in the northeast portion of the property in the area of the Fuel Oil USTs.

Overall, VOCs were detected in a total of nine (9) soil borings, with the total VOCs ranging from 17 ppb to 40,500 ppb. The higher levels of VOCs were detected near the hecla oil tanks and #2 fuel oil tanks.

### **Groundwater Samples Results Summary**

The phthalates detected inside the building, Bis(2-ethylhexyl)phthalate and Di-n-octylphthalate, were also detected in the groundwater inside the building. During the off site groundwater investigation, the phthalates were detected in wells directly adjacent to the building to the west. Based on the results of the groundwater monitoring wells, a plume of phthalates appears to be beneath the western portion of the building as well as down gradient under the sidewalk. No



detection of VOCs or SVOCs above NYSDEC guidance values were detected in the groundwater monitoring wells located across the adjacent streets.

VOCs in the groundwater were detected around the fuel oil UST in the northeast portion of the subject site.

### **Conclusion**

Based on research, monitoring data and the analysis of the soil and groundwater samples collected in and adjacent to the subject site, several conclusions are suggested. It is suggested that a significant amount of plasticizers are currently adhered to the subsurface soils on the western portion of the subject site. Free floating phthalates (LNAPLs) has been identified in several monitoring wells in the western portion of the subject site as well as in the adjacent sidewalk on Franklyn Avenue and Clay Street.

Several smaller areas of soil and groundwater believed to be contaminated with oil constituents exist within the phthalate plume. A small area of VOC contamination exists in the north east portion of the property.

Based on the estimated volume of the contaminants detected, it is suggested that the phthalate plume is the largest area of concern. The phthalate plume, along with other minor contamination will be addressed as stated in the following section.

### **Recommendations**

Based on the recognized environmental conditions identified during the Phase II Site Assessment, ASR makes the following recommendations for the subject property referenced as 49-55 Dupont Street in Brooklyn, New York:

- Continue the existing IRM, with a consideration of product recovery enhancement.
- Develop a conceptual design and potential work plan for excavation and removal of soil with the greatest concentration of phthalates.
- Coordinate on going remediation with the future use of the property.
- Consider removal of the USTs that are suspected of being the source of the product as a method for potential increased product recovery in the source area.
- Continue monitoring and sampling on and off-site groundwater monitoring wells on a quarterly schedule.

## Soil Sampling Results Tables

**TABLE - 1**  
**Soil Analytical Results (ppb)**

Parameter	TAGM 4046	SB-1		SB-2		SB-3		SB-4		SB-5		SB-6		SB-7	
		1-5ft	5-10ft	1-5ft	10-12ft	1-5ft	5-10ft	1-5ft	13-15ft	1-5ft	10-12ft	1-5ft	14-16ft	1-5ft	11-13ft
VOCs (ug/kg)															
1,2,4-Trimethylbenzene	130	ND	ND	ND	1,700	ND	ND	ND	ND	ND	260	ND	ND	ND	ND
1,3,5-Trimethylbenzene	33	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	ND	ND	ND	ND
p-Isopropyltoluene	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	37	ND	ND	ND	ND
Benzene	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	55	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m,p-Xylenes	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	45	ND	ND	ND	ND
MTBE	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	130	ND	ND	ND	ND	ND	ND	ND	ND	ND	70	ND	ND	ND	ND
n-Butylbenzene	120	ND	ND	ND	ND	ND	ND	ND	ND	ND	56	ND	ND	ND	ND
n-Propylbenzene	37	ND	ND	ND	ND	ND	ND	ND	ND	ND	35	ND	ND	ND	ND
o-Xylene	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	54	ND	ND	ND	ND
SVOCs (ug/kg)															
Acenaphthene	920	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	370	ND
Anthracene	7,000	ND	ND	ND	ND	ND	ND	1,800	ND	1,700	ND	550	ND	620	ND
Benzo [a] anthracene	28	ND	ND	ND	ND	ND	ND	3,900	ND	3,500	ND	2,000	ND	2,800	ND
Benzo [a] pyrene	110	ND	ND	ND	ND	ND	ND	2,700	ND	2,000	ND	1,300	ND	1,900	ND
Benzo [b] fluoranthene	11	ND	ND	ND	ND	ND	ND	2,400	ND	2,300	ND	1,400	ND	1,800	ND
Benzo [g,h,i] perylene	80,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	390	ND	600	ND
Benzo [k] fluoranthene	11	ND	ND	ND	ND	ND	ND	2,900	ND	1,900	ND	1,100	ND	1,400	ND
Chrysene	4	ND	ND	ND	ND	ND	ND	4,000	ND	3,300	ND	1,800	ND	2,600	ND
Dibenze [a,h] anthracene	1,650,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	340	ND
Fluoranthene	19,000	ND	ND	ND	ND	ND	ND	11,000	ND	8,300	ND	4,600	ND	5,500	ND
Fluorene	3,650	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno [1,2,3-cd] pyrene	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	500	ND	680	ND
Naphthalene	130	ND	ND	ND	ND	ND	ND	2,000	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	2,180	ND	ND	ND	ND	ND	ND	13,000	ND	8,400	ND	2,700	ND	4,000	ND
Pyrene	6,650	ND	ND	ND	ND	ND	ND	9,000	ND	7,100	ND	4,000	ND	5,100	ND
Bis(2-ethylhexyl)phthalate	4,350	ND	ND	ND	ND	ND	190	ND	140,000	ND	150,000	ND	12,000,000	4,800	6,800
Di-n-octylphthalate	1,200	ND	ND	ND	ND	ND	ND	ND	200,000	ND	ND	ND	ND	ND	ND

Guidance value is the NYSDEC Soil Cleanup Objective based on NYSDEC's TAGM 4046, dated January 24, 1994, revised August 22, 2001.

NS - Not Sampled

ND - Not detected above laboratory's minimum detection limit.

**TABLE - 1**  
**Soil Analytical Results (ppb)**

Parameter	TAGM 4046	SB-8	SB-9	SB-10	SB-11	SB-12	SB-13	SB-14	SB-15	SB-16	SB-17	SB-18	SB-19
<b>VOCs (ug/kg)</b>													
1,2,4-Trimethylbenzene	130	ND	ND	ND	ND	ND	ND	11,000	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	33	ND	ND	ND	ND	ND	ND	2,300	ND	ND	ND	ND	ND
p-Isopropyltoluene	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	55	ND	ND	ND	ND	ND	ND	860	ND	ND	ND	ND	ND
Isopropylbenzene	23	ND	ND	ND	ND	ND	ND	660	ND	ND	ND	ND	ND
m,p-Xylenes	12	ND	ND	ND	ND	ND	ND	2,300	ND	ND	ND	ND	ND
MTBE	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	130	ND	ND	ND	ND	ND	ND	14,000	ND	ND	ND	ND	ND
n-Butylbenzene	120	ND	ND	ND	ND	ND	ND	2,600	ND	ND	ND	ND	ND
n-Propylbenzene	37	ND	ND	ND	ND	ND	ND	1,400	ND	ND	ND	ND	ND
o-Xylene	12	ND	ND	ND	ND	ND	ND	650	ND	ND	ND	ND	ND
sec-Butylbenzene	110	ND	ND	ND	ND	ND	ND	870	ND	ND	ND	ND	ND
Toluene	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>SVOCs (ug/kg)</b>													
Acenaphthene	920	ND	ND	ND	ND	ND	ND	ND	ND	ND	580	ND	ND
Anthracene	7,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	390	ND	ND
Benzo [a] anthracene	28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [a] pyrene	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [b] fluoranthene	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [g,h,i] perylene	80,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [k] fluoranthene	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenze [a,h] anthracene	1,650,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	19,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	3,650	ND	ND	ND	ND	ND	ND	ND	ND	ND	340	ND	ND
Indeno [1,2,3-cd] pyrene	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	270	ND	ND
Naphthalene	130	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	2,180	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,500	ND	ND
Pyrene	6,650	ND	ND	ND	ND	ND	ND	ND	ND	ND	710	ND	ND
Bis(2-ethylhexyl)phthalate	4,350	280	170	ND	260	ND	370	ND	ND	ND	500	ND	ND
Di-n-octylphthalate	1,200	ND	ND	ND	ND	ND	ND	ND	ND	300	ND	ND	ND

Guidance value is the NYSDEC Soil Cleanup Objective based on NYSDEC's TAGM 4046, dated January 24, 1994, revised August 22, 2001.  
NS - Not Sampled  
ND - Not detected above laboratory's minimum detection limit.

**TABLE - 1**  
**Soil Analytical Results (ppb)**

Parameter	TAGM 4046	SB-20	SB-21	SB-23	SB-24	SB-32	SB-34	SB-36	SB-37	SB-38a	SB-38b	SB-39
<b>VOCs (ug/kg)</b>												
1,2,4-Trimethylbenzene	130	ND	ND	ND	ND	ND	74	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	33	ND	ND	ND	ND	ND	30	ND	ND	ND	ND	ND
p-Isopropyltoluene	110	ND	ND	ND	ND	ND	11	ND	ND	ND	ND	210
Benzene	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	55	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	190
m,p-Xylenes	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	130	ND	ND	ND	ND	ND	28	ND	ND	ND	ND	ND
n-Butylbenzene	120	ND	ND	ND	ND	ND	25	ND	ND	ND	ND	930
n-Propylbenzene	37	ND	ND	ND	ND	ND	10	ND	ND	ND	ND	740
o-Xylene	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	110	ND	ND	ND	ND	ND	12	ND	ND	ND	ND	400
Toluene	15	ND	ND	ND	ND	ND	27	ND	ND	ND	ND	ND
<b>SVOCs (ug/kg)</b>												
Acenaphthene	920	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	13,000
Anthracene	7,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	25,000
Benzo [a] anthracene	28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	44,000
Benzo [a] pyrene	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	33,000
Benzo [b] fluoranthene	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	26,000
Benzo [g,h,i] perylene	80,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8,600
Benzo [k] fluoranthene	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	32,000
Chrysene	4	ND	ND	220	ND	ND	ND	ND	ND	ND	ND	48,000
Dibenze [a,h] anthracene	1,650,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	19,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	88,000
Fluorene	3,650	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	17,000
Indeno [1,2,3-cd] pyrene	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10,000
Naphthalene	130	ND	ND	1,600	ND	ND	ND	ND	ND	ND	ND	12,000
Phenanthrene	2,180	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	86,000
Pyrene	6,650	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	80,000
Bis(2-ethylhexyl)phthalate	4,350	ND	ND	380	14,000	1,500	610,000	ND	100,000	3,500	ND	ND
Di-n-octylphthalate	1,200	ND	ND	ND	16,000	ND	41,000	1,000	8,300	ND	1,000	ND

Guidance value is the NYSDEC Soil Cleanup Objective based on NYSDEC's TAGM 4046, dated January 24, 1994, revised August 22, 2001.  
NS – Not Sampled  
ND – Not detected above laboratory's minimum detection limit.



**TABLE - 1**  
**Soil Analytical Results (ppb)**

Parameter	TAGM 4046	SB-44	SB-46	SB-48	SB-49	SB-50	SB-51	SB-52	SB-56	SB-57	SB-58	SB-59
<b>VOCs (ug/kg)</b>												
1,2,4-Trimethylbenzene	130	73	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	55	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m,p-Xylenes	12	62	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	130	170	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	120	130	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	37	58	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>SVOCs (ug/kg)</b>												
Acenaphthene	920	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	7,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [a] anthracene	28	ND	ND	ND	ND	ND	ND	840	ND	ND	ND	ND
Benzo [a] pyrene	110	ND	ND	ND	ND	ND	ND	780	ND	ND	ND	ND
Benzo [b] fluoranthene	11	ND	ND	ND	ND	ND	ND	730	ND	ND	ND	ND
Benzo [g,h,i] perylene	80,000	ND	ND	ND	ND	ND	ND	280	ND	ND	ND	ND
Benzo [k] fluoranthene	11	ND	ND	ND	ND	ND	ND	590	ND	ND	ND	ND
Chrysene	4	ND	220	ND	ND	ND	ND	740	ND	ND	ND	ND
Dibenze [a,h] anthracene	1,650,000	ND	ND	ND	ND	ND	ND	210	ND	ND	ND	ND
Fluoranthene	19,000	ND	ND	ND	ND	ND	ND	1,200	ND	ND	ND	ND
Fluorene	3,650	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno [1,2,3-cd] pyrene	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	130	ND	ND	ND	690	220	ND	ND	ND	ND	ND	ND
Phenanthrene	2,180	ND	ND	ND	ND	ND	ND	570	ND	ND	ND	ND
Pyrene	6,650	ND	ND	ND	ND	ND	ND	1,300	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	4,350	20,000,000	340	4,800	230	3,700	34,000	3,400	ND	ND	ND	ND
Di-n-octylphthalate	1,200	ND	ND	ND	330	1,000	11,000	460	ND	6,800	ND	ND

Guidance value is the NYSDEC Soil Cleanup Objective based on NYSDEC's TAGM 4046, dated January 24, 1994, revised August 22, 2001.

NS - Not Sampled

ND - Not detected above laboratory's minimum detection limit.

**TABLE - 1**  
**Soil Analytical Results (ppb)**

Parameter	TAGM 4046	MW-5		MW-6		MW-7		MW-8		MW-9		MW-10		MW-11
		4-9ft	10-15ft	5-10ft	10-15ft	5-10ft	10-15ft	5-10ft	10-15ft	5-10ft	10-15ft	5-10ft	10-15ft	
<b>VOCs (ug/kg)</b>														
1,2,4-Trimethylbenzene	130	ND	420	ND	ND	ND	35	ND	ND	ND	ND	ND	ND	8-10ft
1,3,5-Trimethylbenzene	33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	55	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m,p-Xylenes	12	ND	ND	ND	ND	ND	36	ND	ND	ND	ND	ND	ND	ND
MTBE	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	130	ND	220	ND	ND	ND	ND	ND	ND	4,000	3,600	ND	ND	ND
n-Butylbenzene	120	ND	ND	ND	ND	ND	ND	ND	ND	1,100	1,100	ND	ND	ND
n-Propylbenzene	37	ND	ND	ND	ND	ND	ND	ND	ND	850	1,100	ND	ND	ND
o-Xylene	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	110	ND	ND	31	ND	ND	ND	ND	ND	720	690	ND	ND	ND
Toluene	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>SVOCs (ug/kg)</b>														
Acenaphthene	920	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	170
Anthracene	7,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	320
Benzo [a] anthracene	28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	350
Benzo [a] pyrene	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	180
Benzo [b] fluoranthene	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [g,h,i] perylene	80,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [k] fluoranthene	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	210
Chrysene	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	320
Dibenze [a,h] anthracene	1,650,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	19,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	740
Fluorene	3,650	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	170
Indeno [1,2,3-cd] pyrene	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	130	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	2,180	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	890
Pyrene	6,650	ND	ND	ND	ND	ND	ND	ND	ND	5,600	17,000	ND	ND	600
Bis(2-ethylhexyl)phthalate	4,350	ND	6,700,000	9,500,000	1,900,000	3,600	1,700,000	ND	12,000	ND	59,000	ND	6,300	ND
Di-n-octylphthalate	1,200	ND	1,300,000	ND	180,000	ND	ND	ND	ND	ND	ND	ND	ND	ND

Guidance value is the NYSDEC Soil Cleanup Objective based on NYSDEC's TAGM 4046, dated January 24, 1994, revised August 22, 2001.

NS - Not Sampled

ND - Not detected above laboratory's minimum detection limit

**TABLE - 1**  
**Soil Analytical Results (ppb)**

Parameter	TAGM 4046	MW-12 8-10ft	MW-13 8-10ft	MW-14 8-10ft	MW-15 8-10ft	MW-16 8-10ft	ASR-11			ASR-12		
							5-10ft	10-15ft	5-10ft	10-15ft	5-10ft	10-15ft
<b>VOCs (ug/kg)</b>												
1,2,4-Trimethylbenzene	130	73	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	55	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m,p-Xylenes	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	130	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	120	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	37	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>SVOCs (ug/kg)</b>												
Acenaphthene	920	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	7,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [a] anthracene	28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [a] pyrene	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [b] fluoranthene	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [g,h,i] perylene	80,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [k] fluoranthene	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenze [a,h] anthracene	1,650,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	19,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	3,650	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno [1,2,3-cd] pyrene	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	130	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	2,180	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	6,650	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	4,350	ND	ND	ND	ND	ND	ND	190	ND	ND	ND	ND
Di-n-octylphthalate	1,200	ND	ND	ND	ND	ND	990	ND	ND	ND	ND	ND

Guidance value is the NYSDEC Soil Cleanup Objective based on NYSDEC's TAGM 4046, dated January 24, 1994, revised August 22, 2001.  
NS - Not Sampled  
ND - Not detected above laboratory's minimum detection limit

## Groundwater Sampling Results Tables

**TABLE - 1**  
**Soil Analytical Results (ppb)**

Parameter	TAGM 4046	MW- 12 8-10ft	MW-13 8-10ft	MW-14 8-10ft	MW-15 8-10ft	MW-16 8-10ft	ASR-11 5-10ft 10-15ft	ASR-12 5-10ft 10-15ft
<b>VOCs (ug/kg)</b>								
1,2,4-Trimethylbenzene	130	73	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	33	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	110	ND	ND	ND	ND	ND	ND	ND
Benzene	0.6	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	55	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	23	ND	ND	ND	ND	ND	ND	ND
m,p-Xylenes	12	ND	ND	ND	ND	ND	ND	ND
MTBE	1.2	ND	ND	ND	ND	ND	ND	ND
Naphthalene	130	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	120	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	37	ND	ND	ND	ND	ND	ND	ND
o-Xylene	12	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	110	ND	ND	ND	ND	ND	ND	ND
Toluene	15	ND	ND	ND	ND	ND	ND	ND
<b>SVOCs (ug/kg)</b>								
Acenaphthene	920	ND	ND	ND	ND	ND	ND	ND
Anthracene	7,000	ND	ND	ND	ND	ND	ND	ND
Benzo [a] anthracene	28	ND	ND	ND	ND	ND	ND	ND
Benzo [a] pyrene	110	ND	ND	ND	ND	ND	ND	ND
Benzo [b] fluoranthene	11	ND	ND	ND	ND	ND	ND	ND
Benzo [g,h,i] perylene	80,000	ND	ND	ND	ND	ND	ND	ND
Benzo [k] fluoranthene	11	ND	ND	ND	ND	ND	ND	ND
Chrysene	4	ND	ND	ND	ND	ND	ND	ND
Dibenze [a,h] anthracene	1,650,000	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	19,000	ND	ND	ND	ND	ND	ND	ND
Fluorene	3,650	ND	ND	ND	ND	ND	ND	ND
Indeno [1,2,3-cd] pyrene	32	ND	ND	ND	ND	ND	ND	ND
Naphthalene	130	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	2,180	ND	ND	ND	ND	ND	ND	ND
Pyrene	6,650	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	4,350	ND	ND	ND	ND	ND	190	ND
Di-n-octylphthalate	1,200	ND	ND	ND	ND	990	ND	ND

Guidance value is the NYSDEC Soil Cleanup Objective based on NYSDEC's TAGM 4046, dated January 24, 1994, revised August 22, 2001.  
NS - Not Sampled  
ND - Not detected above laboratory's minimum detection limit



**TABLE - 2**  
**Groundwater Sampling Results Data**

Parameter	TOGS 1.1.1	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10
<b>VOCs (ug/L)</b>											
1,2,4-Trimethylbenzene	5	ND	ND	ND	ND	6	11	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	11	ND
Isopropylbenzene	5	5	ND	ND	ND	ND	ND	ND	ND	8	ND
m,p-Xylenes	10	ND	ND	ND	ND	ND	ND	ND	ND	11	ND
MTBE	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	75	ND	ND	ND	8	ND	ND	ND	71	ND
n-Butylbenzene	5	6	ND	ND	ND	ND	ND	ND	ND	6	ND
n-Propylbenzene	5	7	ND	ND	ND	ND	ND	ND	ND	10	ND
o-Xylene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	5	9	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>SVOCs (ug/L)</b>											
Acenaphthene	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [a] anthracene	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [a] pyrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [b] fluoranthene	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [g,h,i] perylene	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [k] fluoranthene	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenze [a,h] anthracene	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	50	75	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno [1,2,3-cd] pyrene	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	99	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	50	110	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	5	ND	60	31	120,000	780,000	1,300,000	370,000	89	ND	6
Di-n-octylphthalate	50	ND	ND	ND	160,000	90,000	ND	ND	ND	ND	ND

Guidance value is the NYSDEC Groundwater Quality Standards based on NYSDEC's TOGS 1.1.1, dated October 22, 1993, revised June 1998.  
NS - Not Sampled

ND - Not detected above laboratory's minimum detection limit.

**TABLE - 2**  
**Groundwater Sampling Results Data**

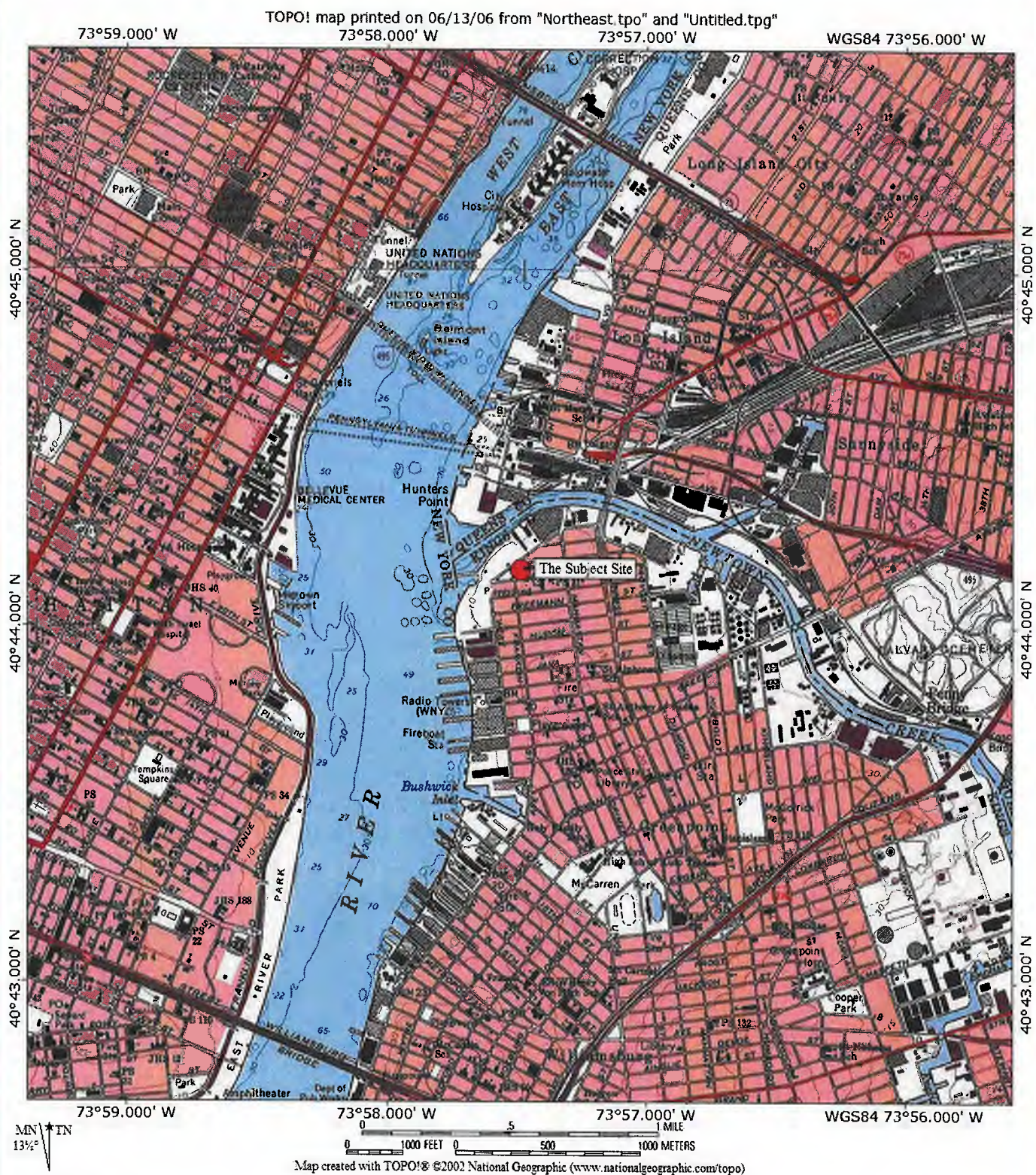
Parameter	TOGS 1.1.1	MW-11	MW-12	MW-13	MW-14	ASR-11	ASR-12
<b>VOCs (ug/L)</b>							
1,2,4-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	5	ND	ND	ND	ND	ND	ND
Benzene	1	ND	ND	ND	ND	2	ND
Ethylbenzene	5	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5	ND	ND	ND	ND	ND	ND
m,p-Xylenes	10	ND	ND	ND	ND	ND	ND
MTBE	10	ND	ND	ND	ND	ND	ND
Naphthalene	10	ND	ND	ND	ND	ND	2,300
n-Butylbenzene	5	ND	ND	ND	ND	ND	ND
n-Propylbenzene	5	ND	ND	ND	ND	ND	ND
o-Xylene	5	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	5	ND	ND	ND	ND	ND	ND
Toluene	5	ND	ND	ND	ND	ND	ND
<b>SVOCs (ug/L)</b>							
Acenaphthene	20	ND	ND	ND	ND	ND	ND
Anthracene	50	ND	ND	ND	ND	ND	ND
Benzo [a] anthracene	0.002	ND	ND	ND	ND	ND	ND
Benzo [a] pyrene	ND	ND	ND	ND	ND	ND	ND
Benzo [b] fluoranthene	0.002	ND	ND	ND	ND	ND	ND
Benzo [g,h,i] perylene	0.002	ND	ND	ND	ND	ND	ND
Benzo [k] fluoranthene	0.002	ND	ND	ND	ND	ND	ND
Chrysene	0.002	ND	ND	ND	ND	ND	ND
Dibenze [a,h] anthracene	0.002	ND	ND	ND	ND	ND	ND
Fluoranthene	50	ND	ND	ND	ND	ND	ND
Fluorene	50	ND	ND	ND	ND	ND	ND
Indeno [1,2,3-cd] pyrene	0.002	ND	ND	ND	ND	ND	ND
Naphthalene	10	ND	ND	ND	ND	ND	210
Phenanthrene	50	ND	ND	ND	ND	ND	ND
Pyrene	50	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	5	ND	17	ND	ND	18	ND
Di-n-octylphthalate	50	ND	ND	ND	ND	ND	ND

Guidance value is the NYSDEC Groundwater Quality Standards based on NYSDEC's TOGS 1.1.1, dated October 22, 1993, revised June 1998.  
NS - Not Sampled  
ND - Not detected above laboratory's minimum detection limit.

## **APPENDIX – A**

### **Figures**



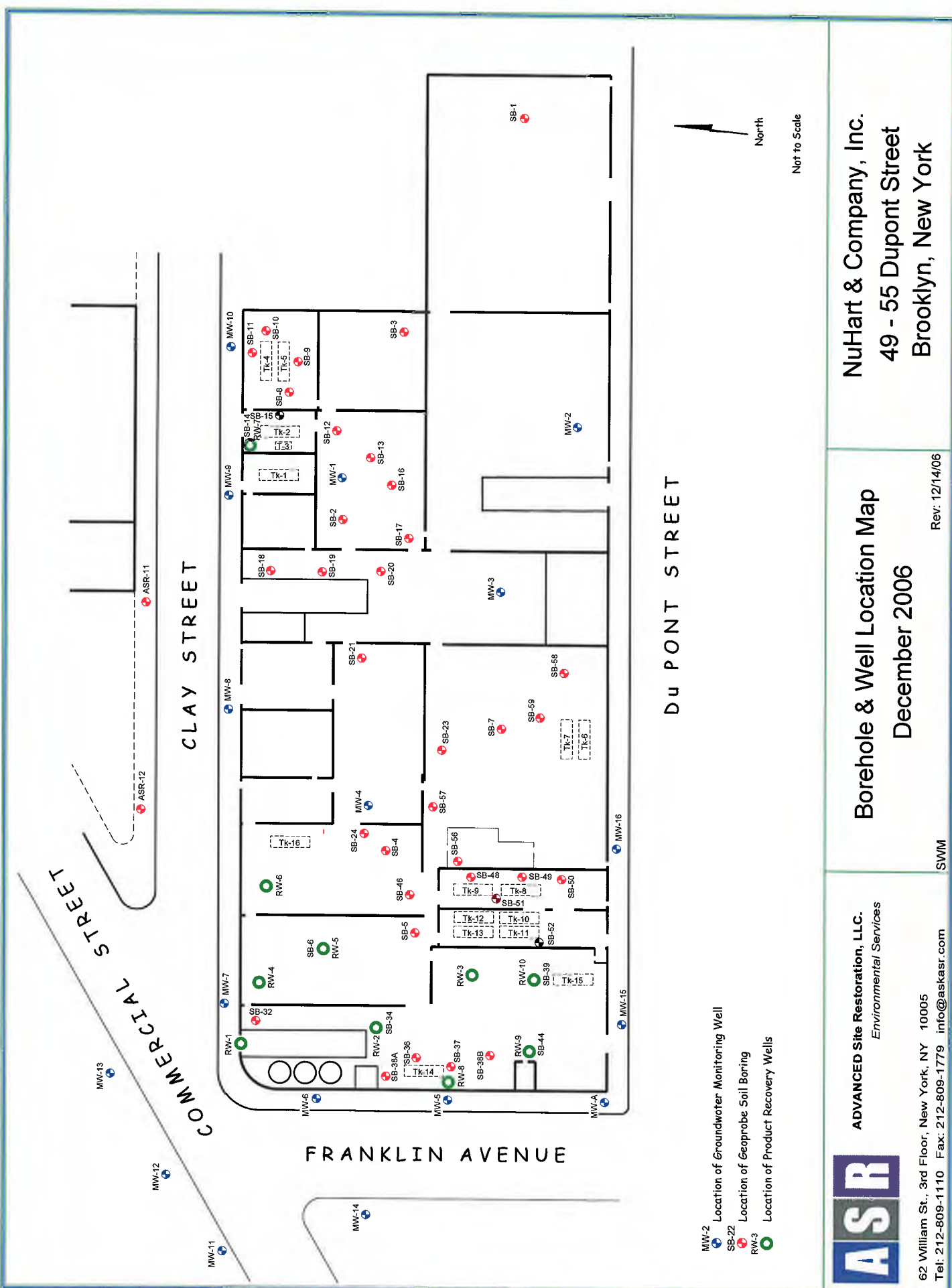


ADVANCED Site Restoration, LLC.  
Environmental Services

62 William St., 3rd Floor, New York, NY 10005  
Tel: 212-809-1110 Fax: 212-809-1779 info@askasr.com

Figure - 1  
Site Location Map  
49-55 Dupont Street  
Brooklyn, New York 11222





NuHart & Company, Inc.  
 49 - 55 Dupont Street  
 Brooklyn, New York

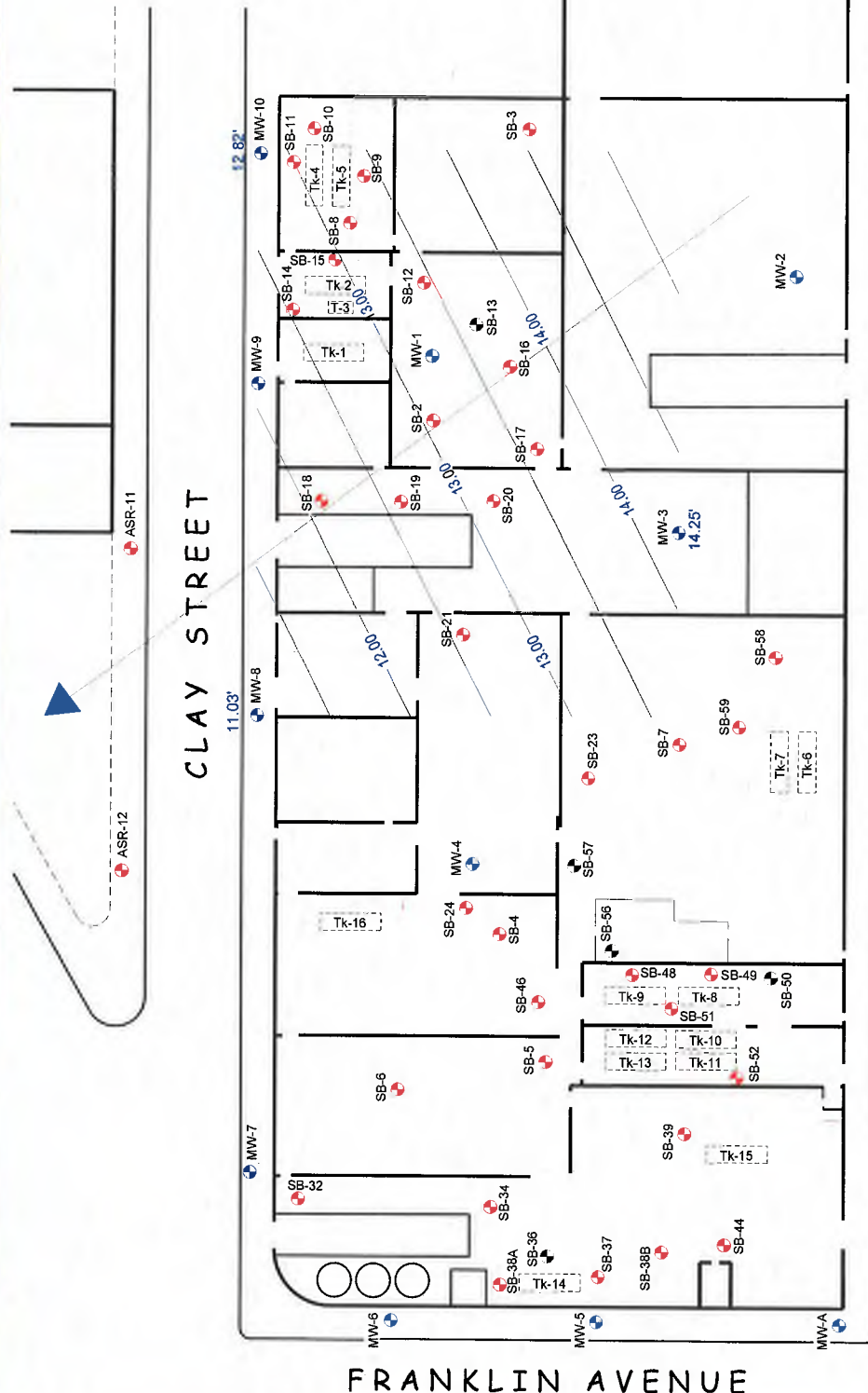
**Borehole & Well Location Map**  
 December 2006

Rev. 12/14/06

**ASR**  
**ADVANCED Site Restoration, LLC.**  
*Environmental Services*

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SWM



Du PONT STREET

MW-2 Location of Groundwater Monitoring Well  
 SB-22 Location of Geoprobe Soil Boring

North  
 Not to Scale



**ADVANCED Site Restoration, LLC.**  
*Environmental Services*

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**Groundwater Gradient Map**

August 1, 2006

Rev. 08/23/06

SWM

**NuHart & Company, Inc.**  
 49 - 55 Dupont Street  
 Brooklyn, New York



COMMERCIAL STREET

FRANKLIN AVENUE



- MW-2 Location of Groundwater Monitoring Well
- SB-22 Location of Geoprobe Soil Boring
- RW-3 Location of Product Recovery Wells
- Area where LNAPL was detected

# LNAPL Map 49 - 55 Dupont Street Brooklyn, New York April 2007

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Environmental Services



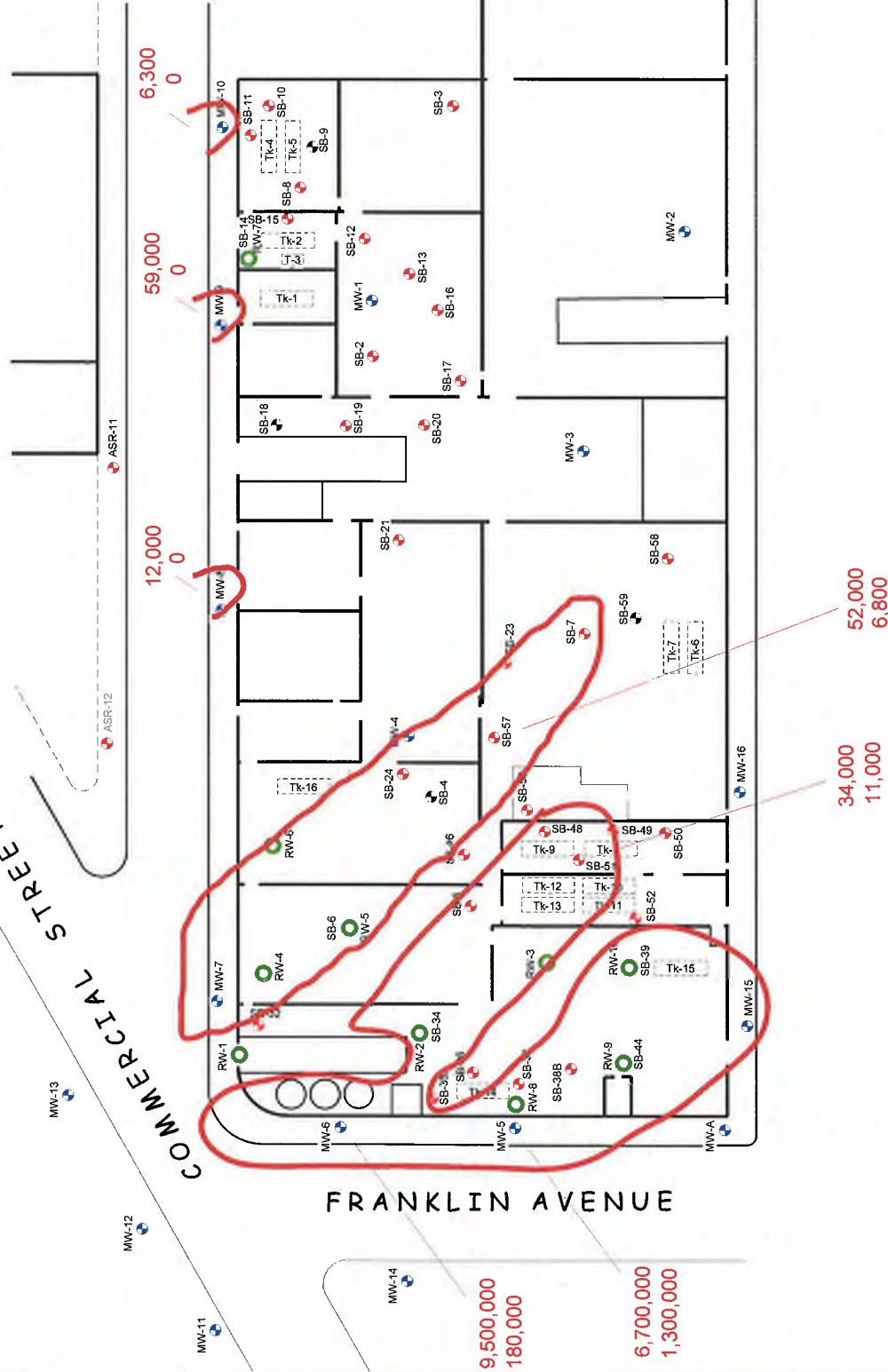
62 William St., 3rd Floor, New York, NY 10005  
Tel: 212-809-1110 Fax: 212-809-1779 info@askasr.com

SWM

Not to Scale

COMMERCIAL STREET

FRANKLIN AVENUE



Total Bis (2-Ethylhexyl) Phthalate  
Total Di-n-Octylphthalate

MW-2 Location of Groundwater Monitoring Well  
SB-22 Location of Geoprobe Soil Boring  
RW-3 Location of Product Recovery Wells  
Area where Bis (2-ethylhexyl) phthalate and Di-n-octylphthalate were detected above NYCDEC TAGM 4046

Phthalates in Soil Exceeding TAGM 4046  
49 - 55 Dupont Street  
Brooklyn, New York  
April 2007

ADVANCED Site Restoration, LLC.  
Environmental Services



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SWM

North

Not to Scale

COMMERCIAL STREET

CLAY STREET

FRANKLIN AVENUE

DUPONT STREET

Total VOCs- 36,640 ppb

Total VOCs- 1,700 ppb

Total VOCs- 657 ppb

Total VOCs- 2,470 ppb



ADVANCED Site Restoration, LLC.  
Environmental Services

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VOCs in Soil Exceeding TAGM 4046  
49 - 55 Dupont Street  
Brooklyn, New York  
April 2007

SWM

MW-2 Location of Groundwater Monitoring Well  
SB-22 Location of Geoprobe Soil Boring  
RW-3 Location of Product Recovery Wells

Area where VOCs detected above NYSDEC TAGM 4046

North  
Not to Scale

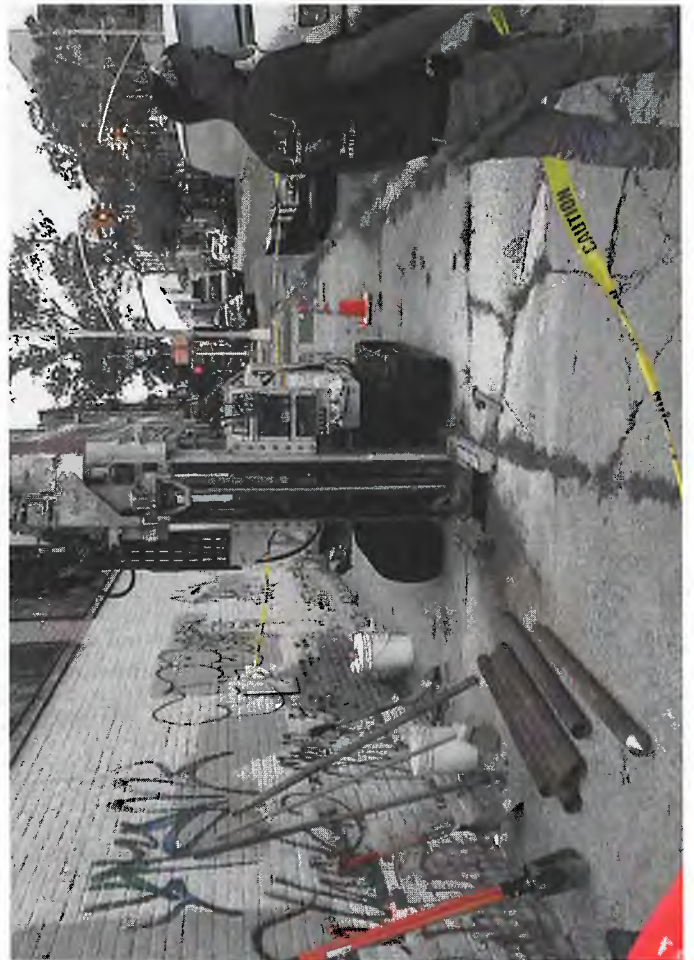
## **APPENDIX – B**

### **Site Photographs**













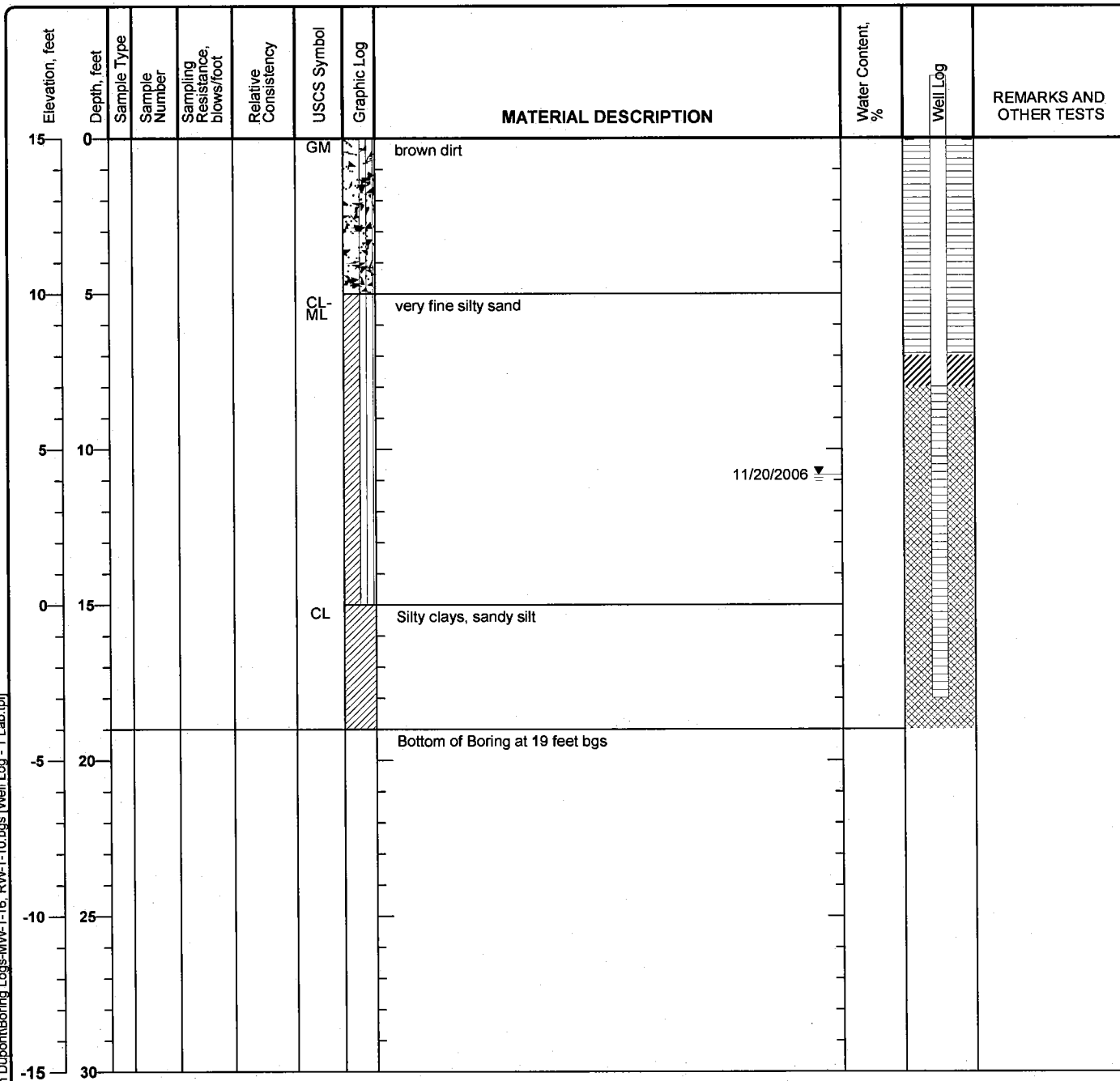
## **APPENDIX - C**

### **Boring Logs**

**Project: Dupont**  
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**  
**Project Number:**

**Log of Boring MW-1**  
 Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level <b>10.83 feet measured on 11/20/2006</b>	Sampling Method(s) <b>None</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Northeast Section of Building, south of Acetone, Fuel Oil tanks</b>	

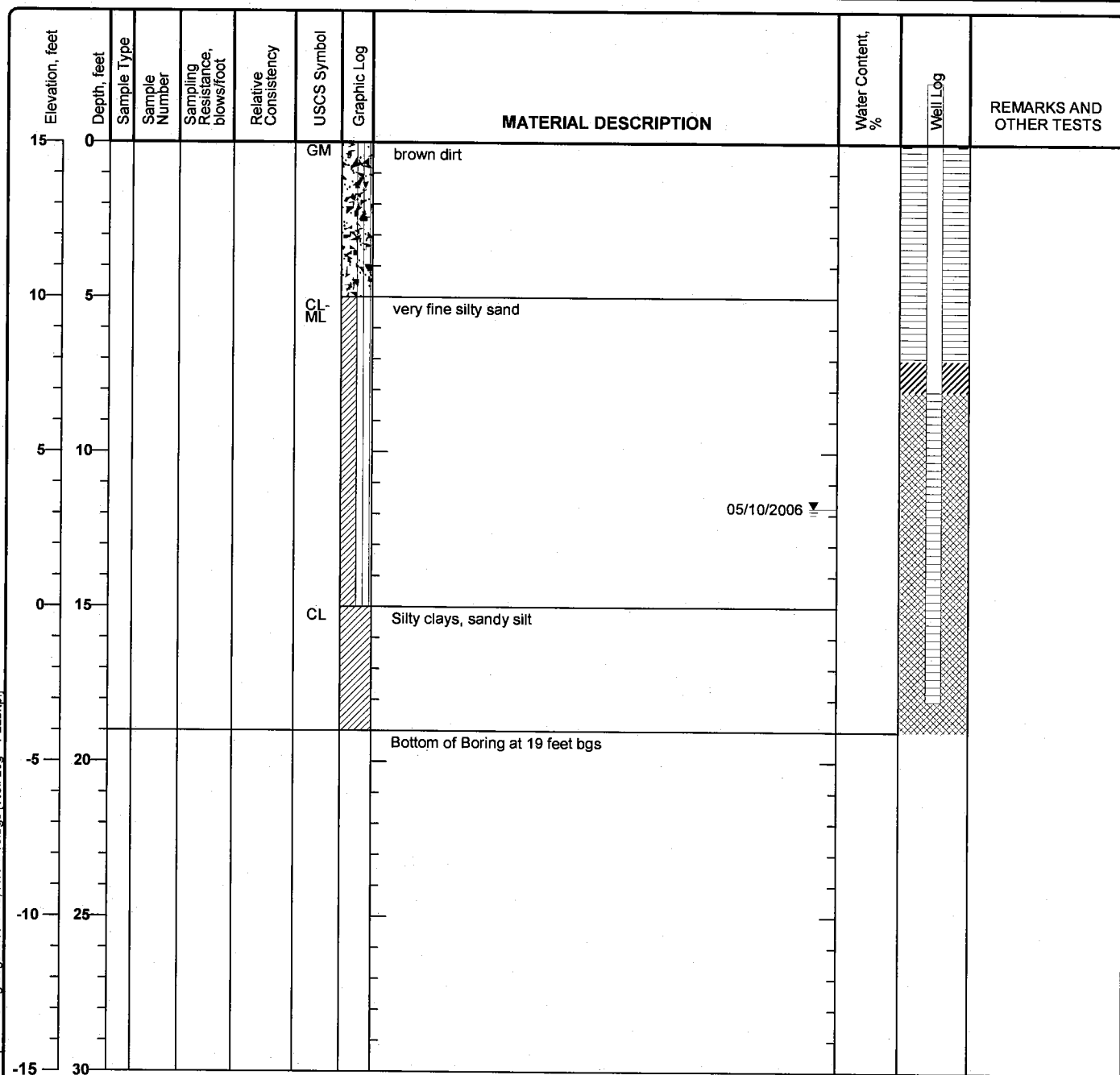


Figure

**Project: Dupont****Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222****Project Number:****Log of Boring MW-2**

Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level <b>11.78 feet measured on and Date Measured 05/10/2006</b>	Sampling Method(s) <b>None</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>South east section of site, away from UST's</b>	



Figure



**Project: Dupont**

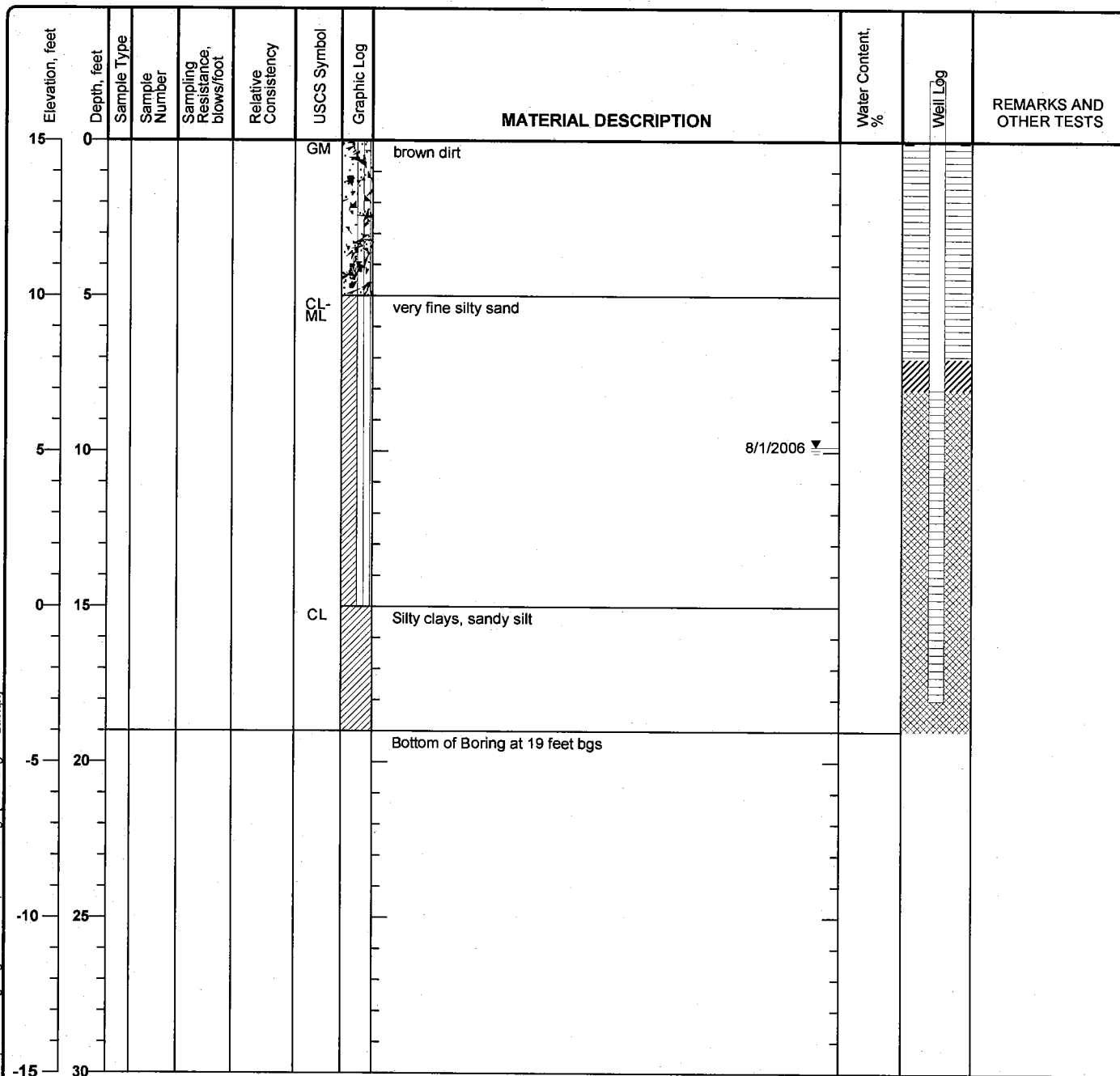
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**

**Project Number:**

## Log of Boring MW-3

Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level <b>9.83 feet measured on and Date Measured 8/1/2006</b>	Sampling Method(s) <b>None</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Center of property, loading dock area, away from UST's</b>	



Figure

**Project: Dupont**

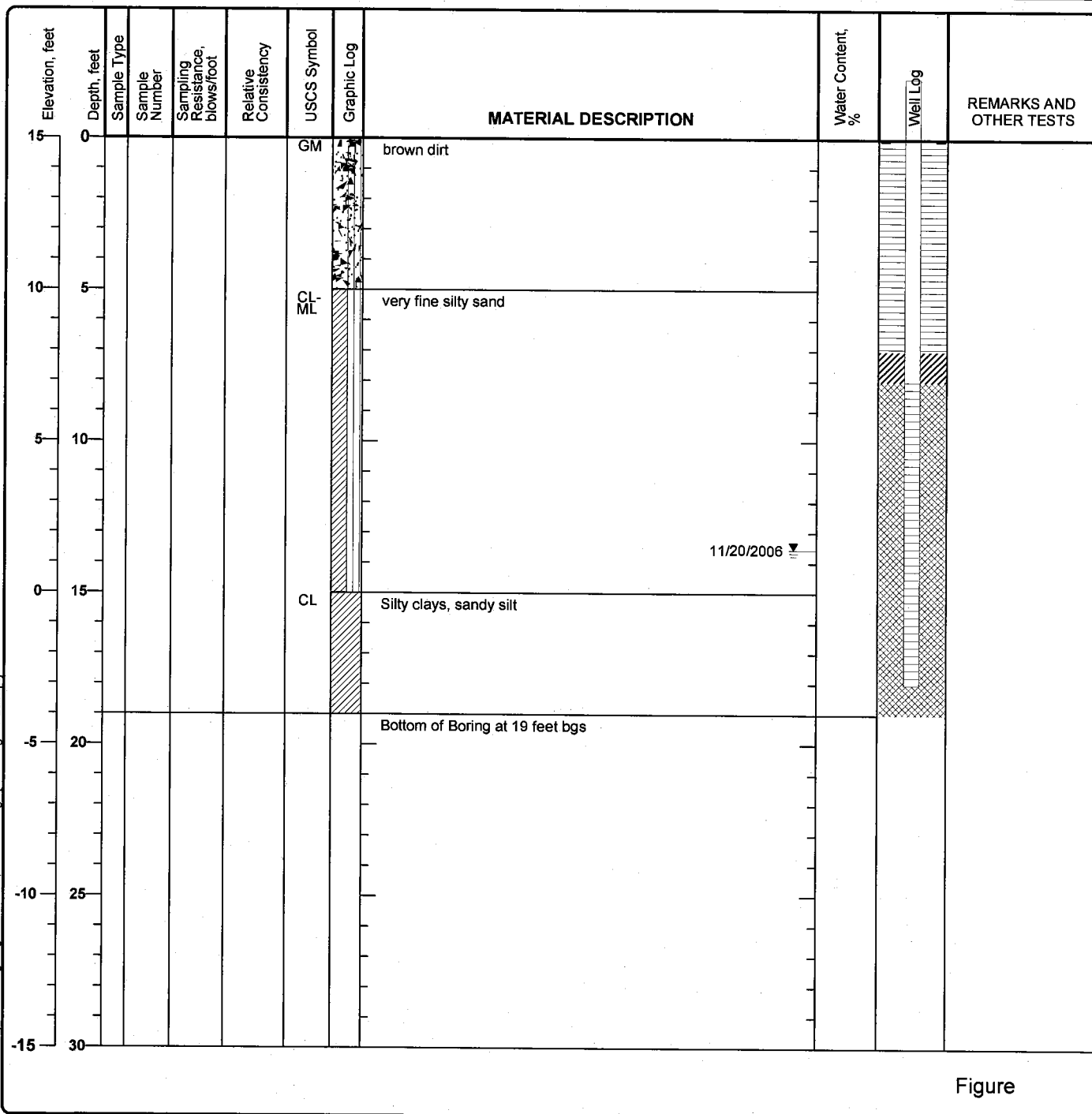
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**

**Project Number:**

## Log of Boring MW-4

Sheet 1 of 1

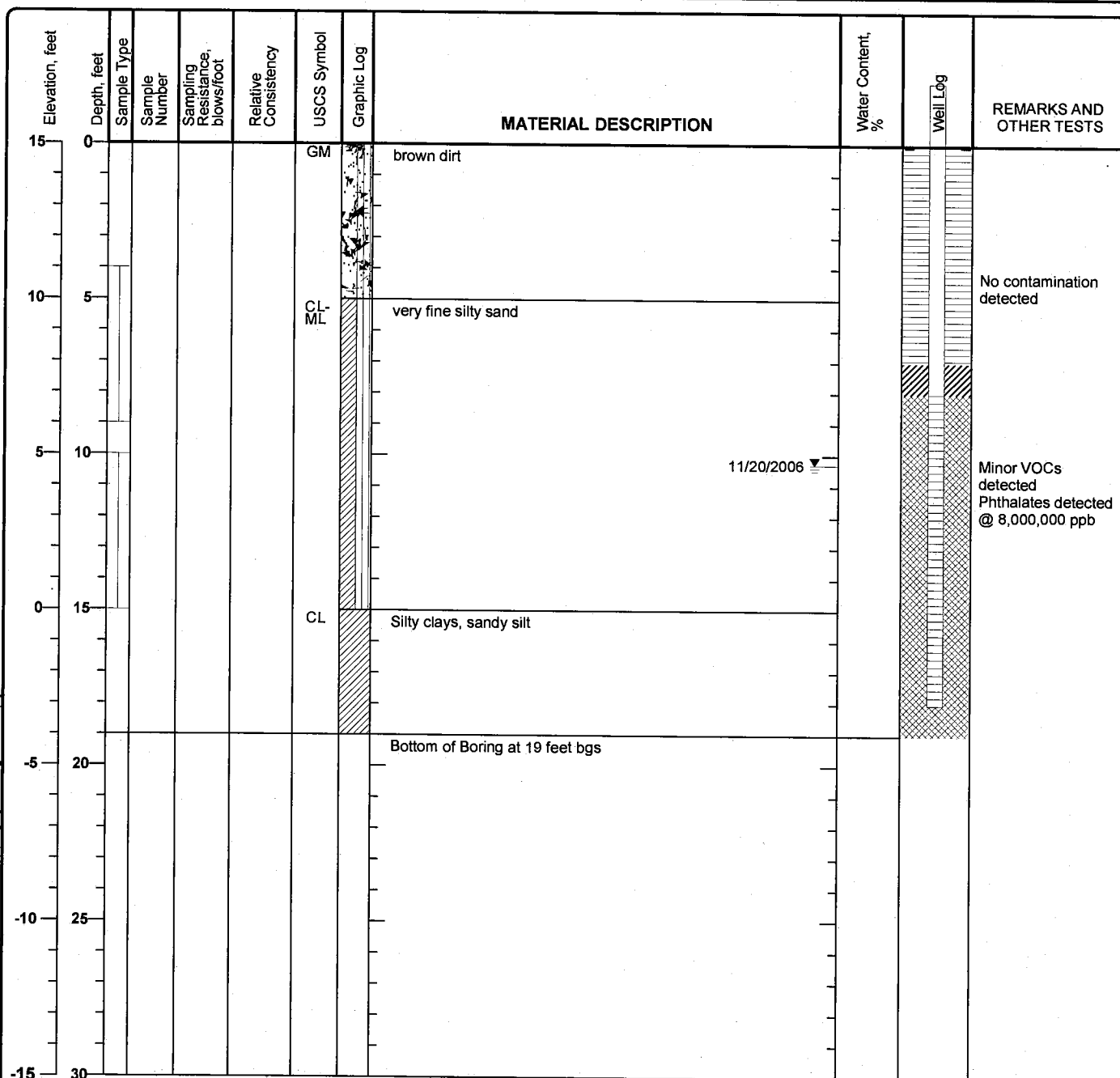
Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level and Date Measured <b>13.56 feet measured on 11/20/2006</b>	Sampling Method(s) <b>None</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>North west section of property, in vicinity of Phthalate and Hecla Oil UST's</b>	



**Project: Dupont****Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222****Project Number:****Log of Boring MW-5**

Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level and Date Measured <b>10.3 feet measured on 11/20/2006</b>	Sampling Method(s) <b>Grab</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Sidewalk along the west side of the property, along Franklin Ave</b>	

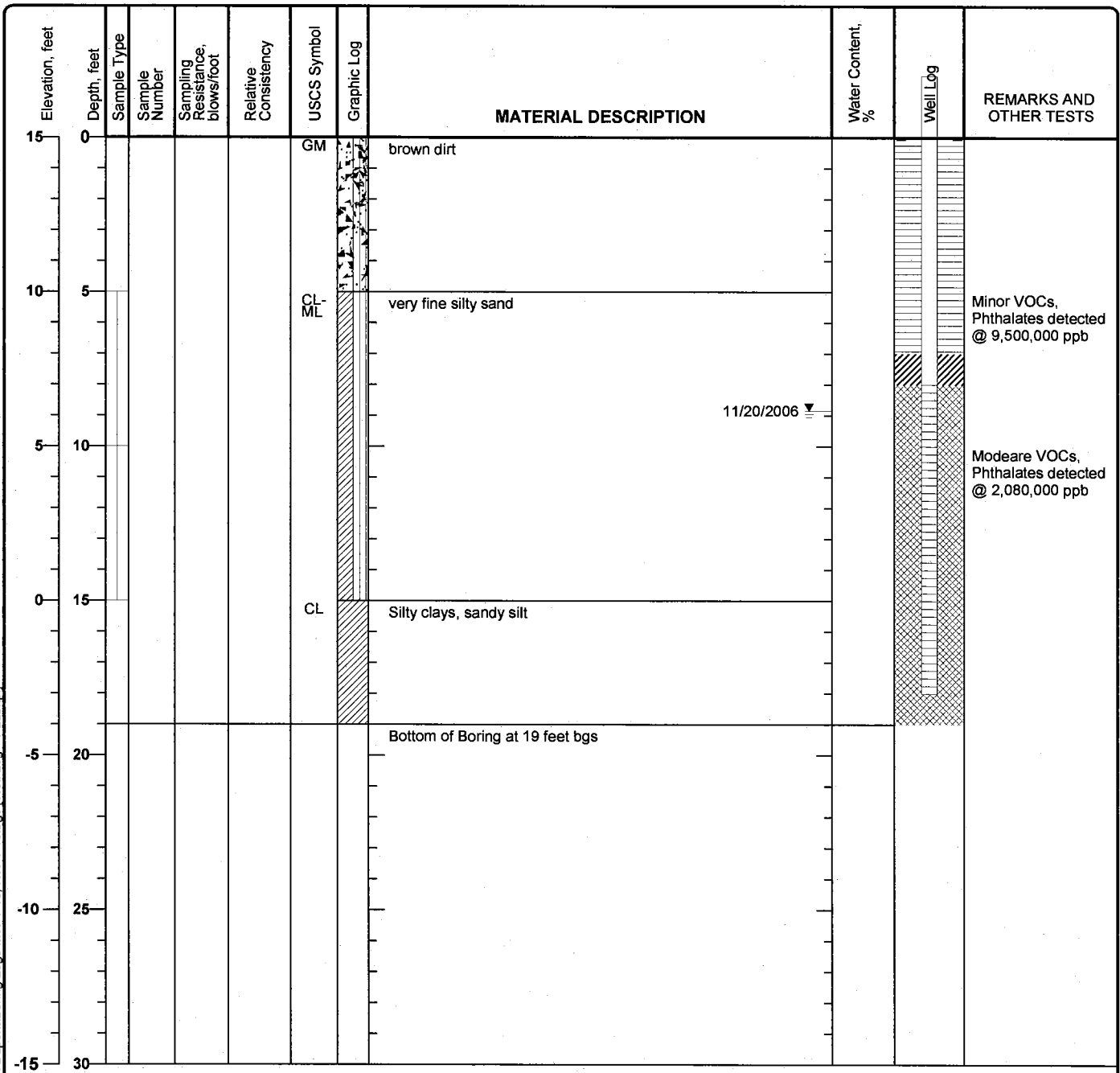


Figure

**Project: Dupont****Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222****Project Number:****Log of Boring MW-6**

Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level <b>8.85 feet measured on and Date Measured 11/20/2006</b>	Sampling Method(s) <b>Grab</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Sidewalk along the north west side of the property, along Franklin Ave</b>	

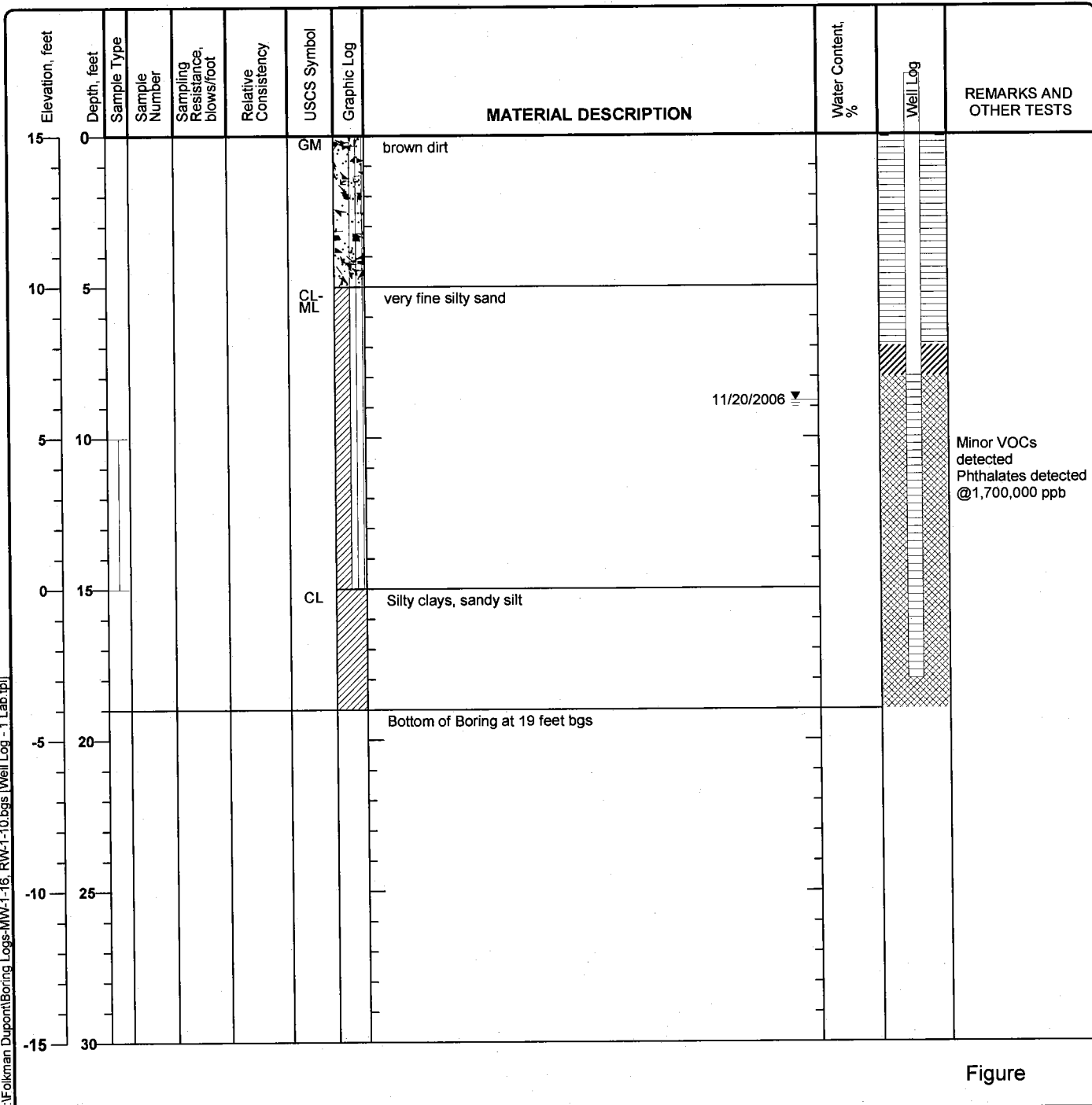


Figure

**Project: Dupont**  
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**  
**Project Number:**

**Log of Boring MW-7**  
 Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level <b>8.8 feet measured on and Date Measured 11/20/2006</b>	Sampling Method(s) <b>Grab</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Sidewalk along the north west side of the property, along Clay Street</b>	





**Project: Dupont**

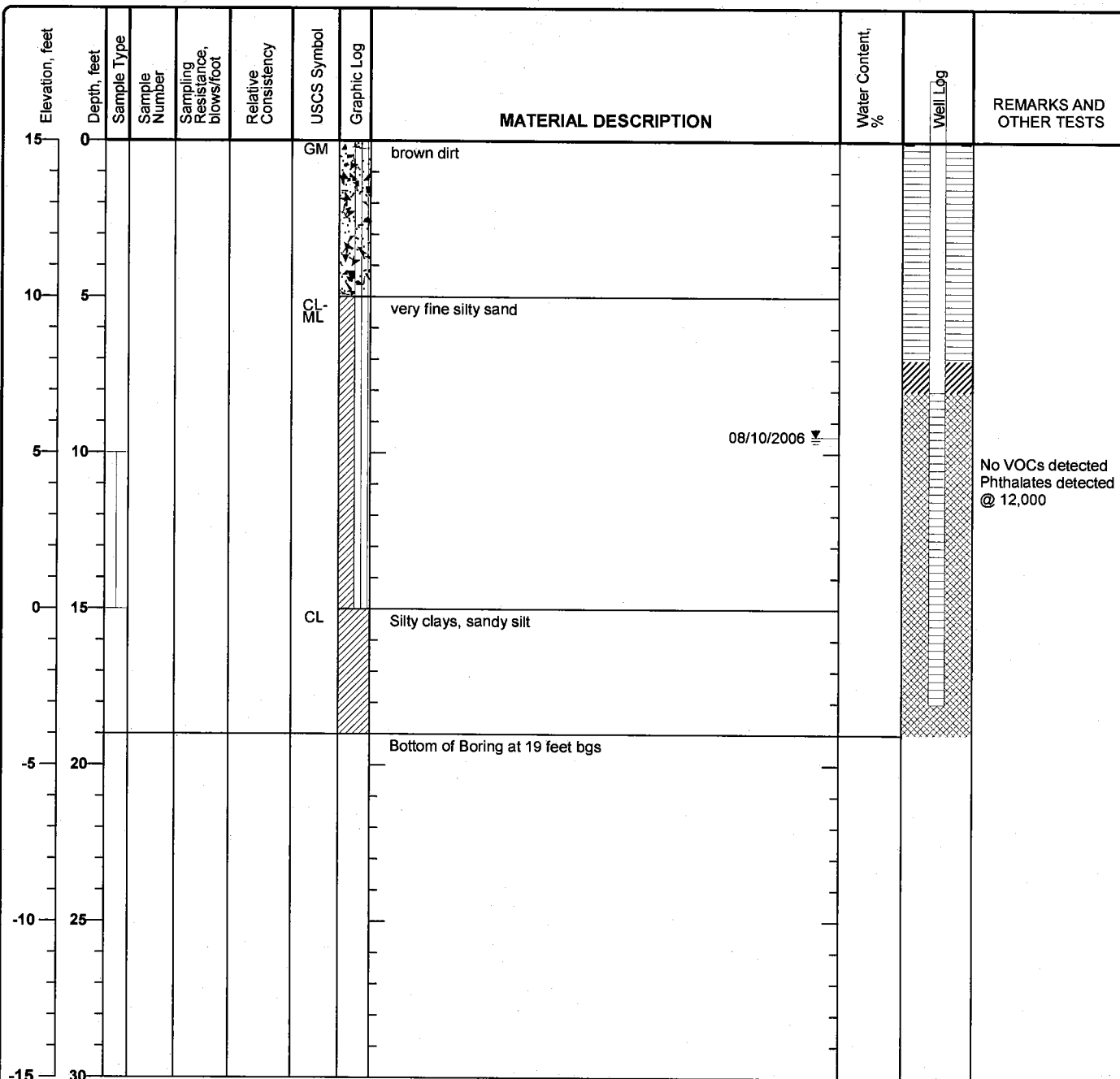
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**

**Project Number:**

# Log of Boring MW-8

Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level <b>9.46 feet measured on and Date Measured 08/10/2006</b>	Sampling Method(s) <b>Grab</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Sidewalk along the north side of the property, along Clay Street</b>	

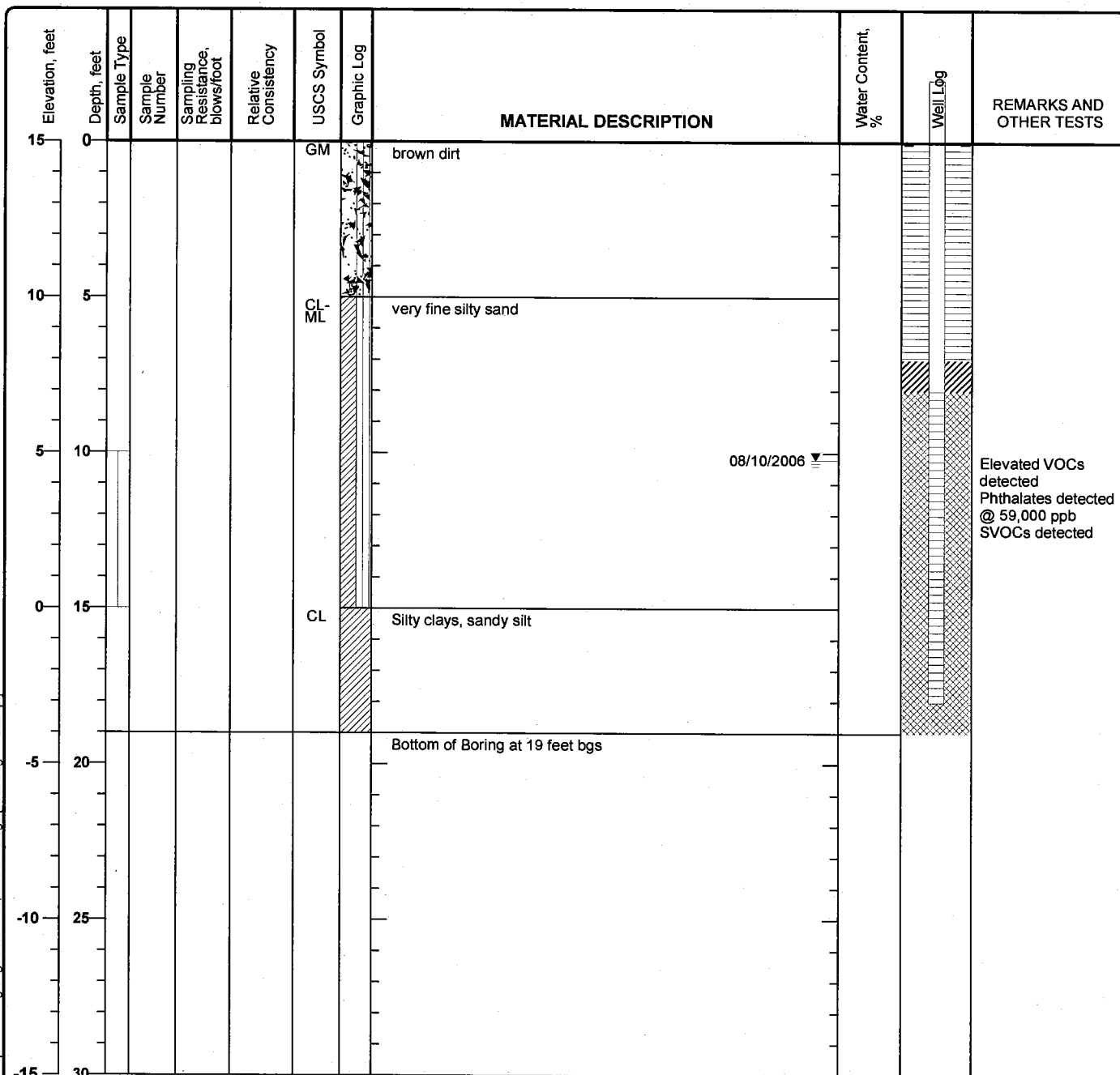


Figure

**Project: Dupont****Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222****Project Number:****Log of Boring MW-9**

Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level <b>10.22 feet measured on 08/10/2006</b>	Sampling Method(s) <b>Grab</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Sidewalk along the north east side of the property, along Clay Street</b>	



**Project: Dupont**

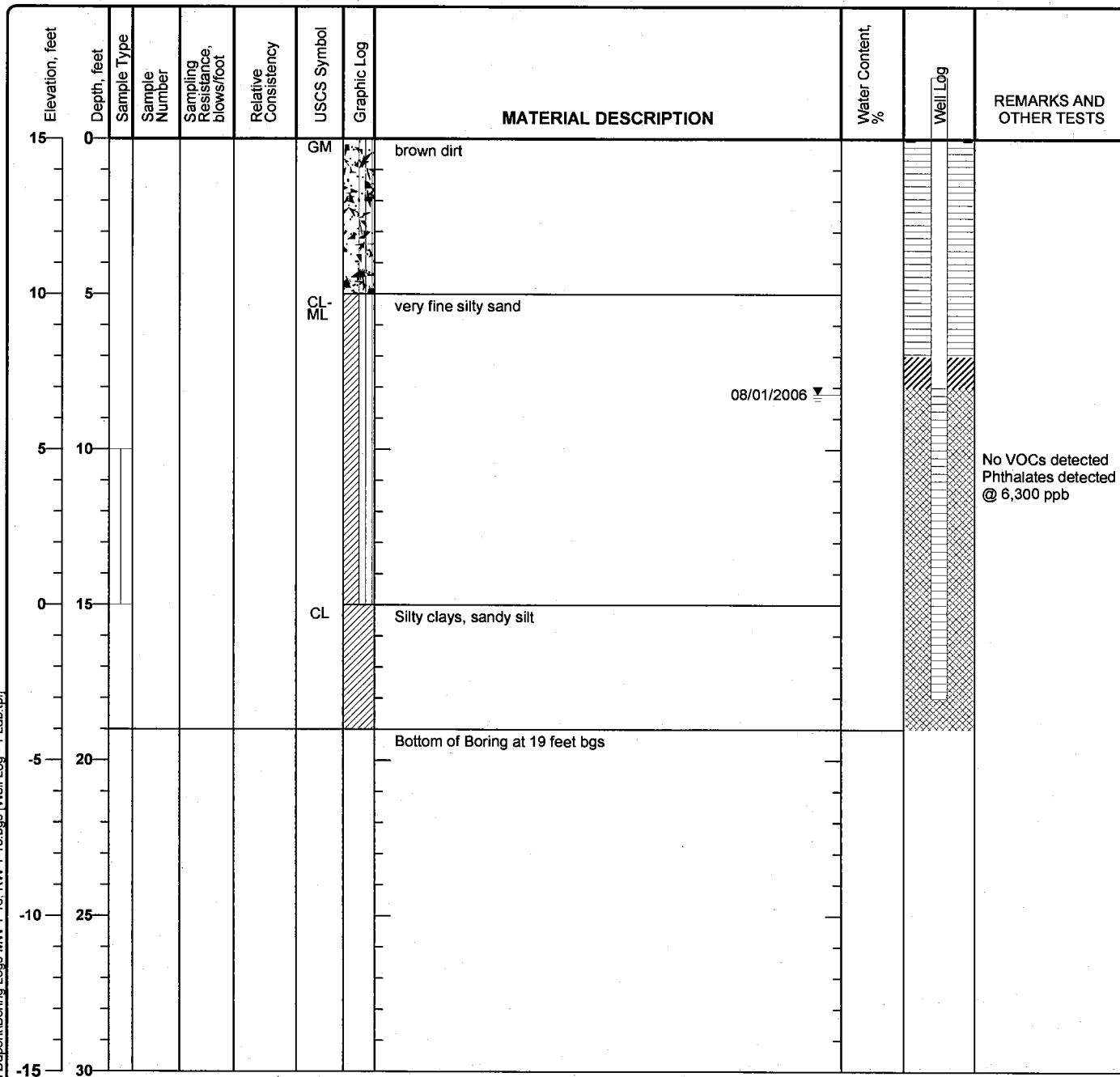
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**

**Project Number:**

# Log of Boring MW-10

Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level <b>8.22 feet measured on 08/01/2006</b>	Sampling Method(s) <b>Grab</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Sidewalk along the north east side of the property, along Clay Street</b>	

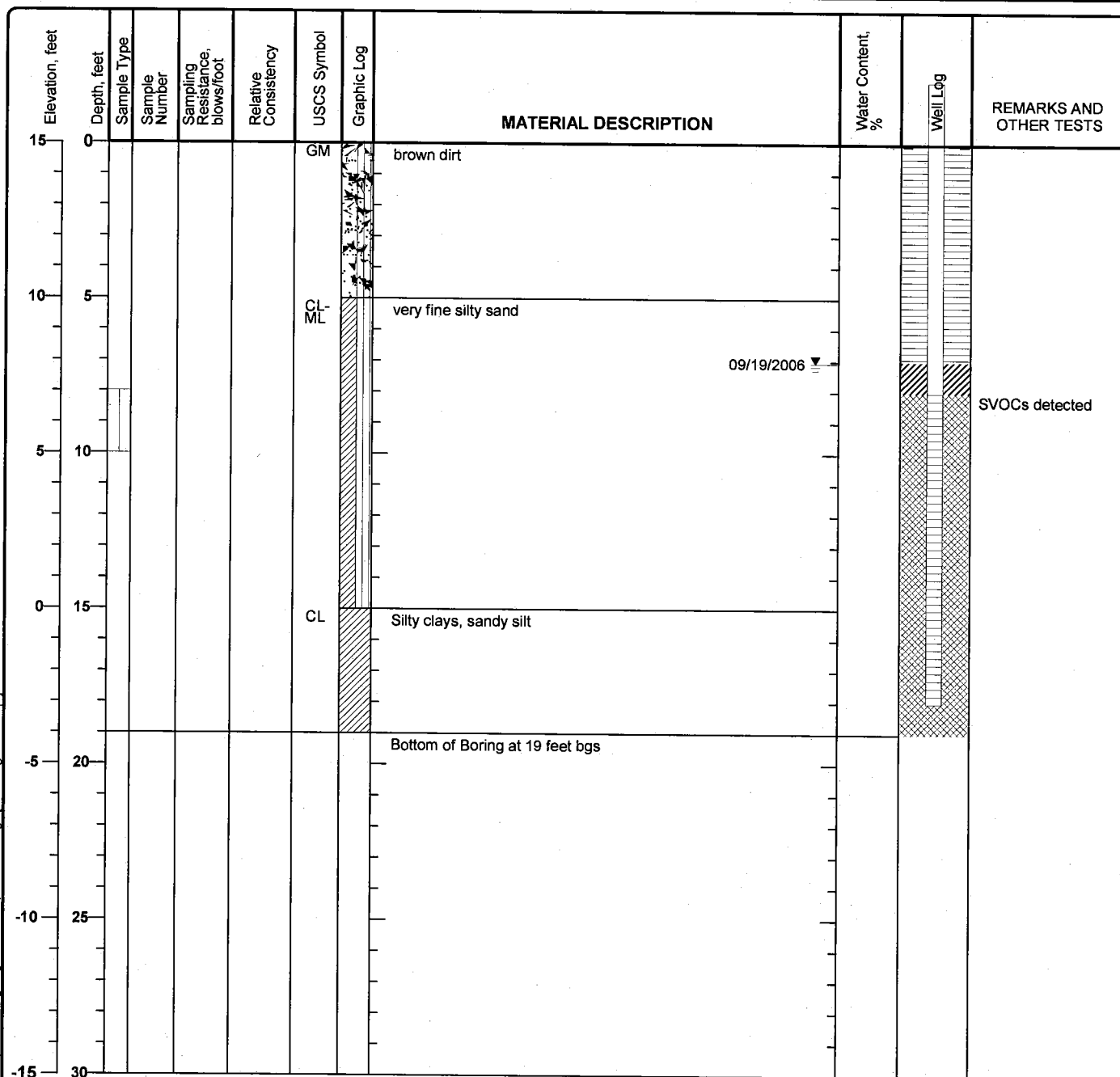


Figure

**Project: Dupont****Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222****Project Number:****Log of Boring MW-11**

Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level <b>7.07 feet measured on and Date Measured 09/19/2006</b>	Sampling Method(s) <b>Grab</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Sidewalk across Commercial Street to the north west of the property</b>	

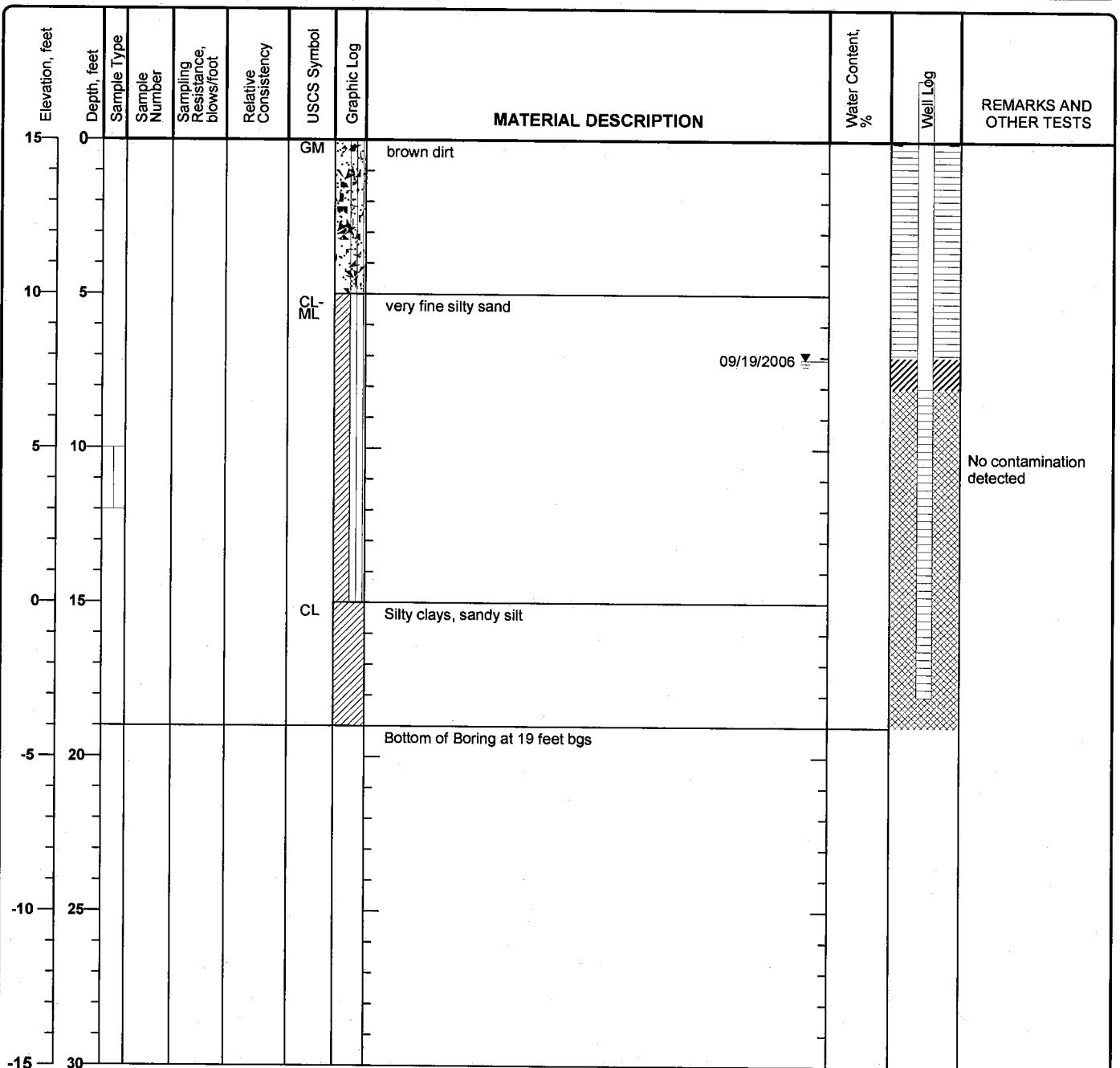


Figure

**Project: Dupont****Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222****Project Number:****Log of Boring MW-12**

Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level <b>7.1 feet measured on and Date Measured 09/19/2006</b>	Sampling Method(s) <b>Grab</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Sidewalk across Commercial Street to the north west of the property</b>	



Figure

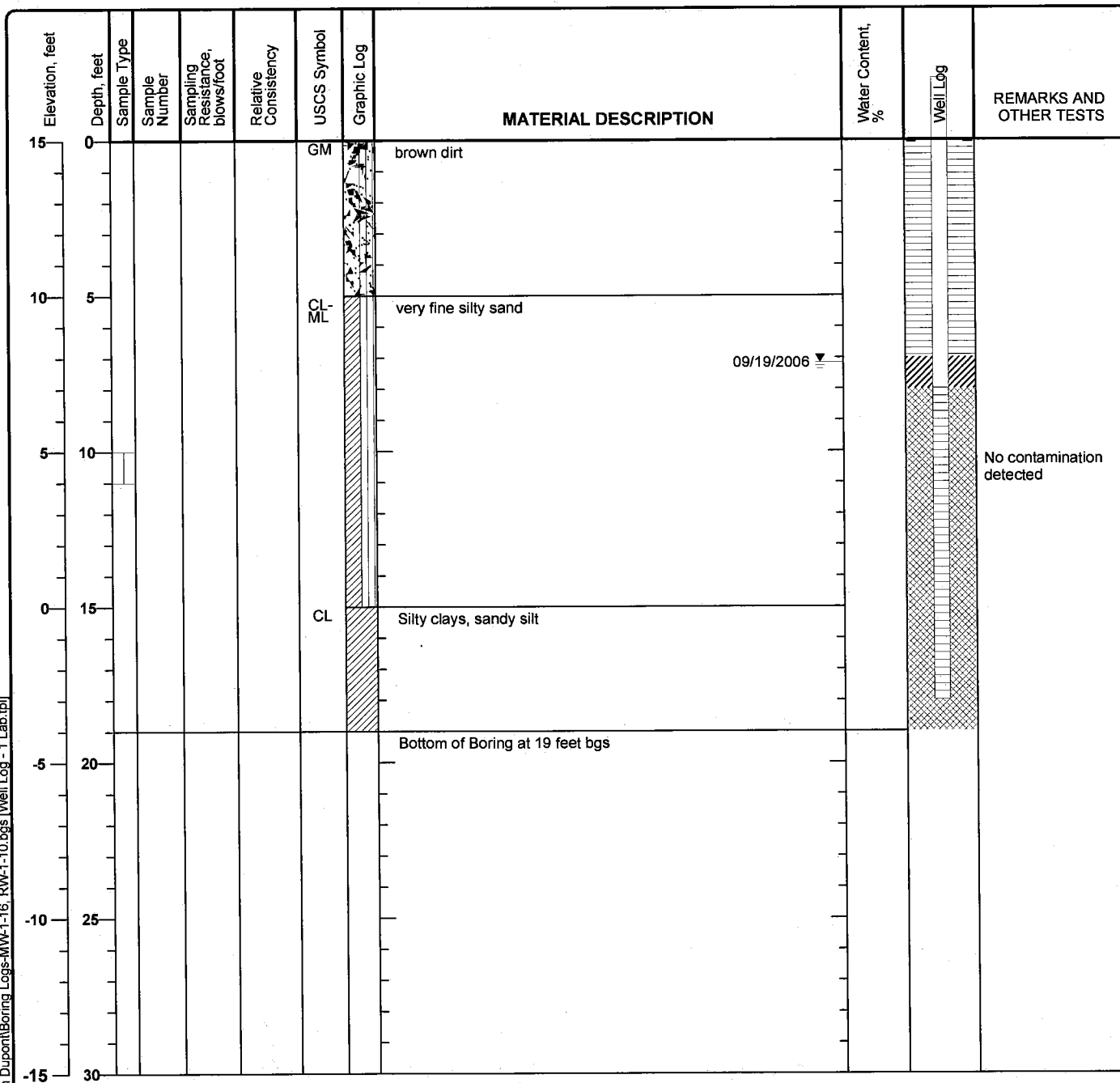


**Project: Dupont**  
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**  
**Project Number:**

# Log of Boring MW-13

Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level <b>7.16 feet measured on and Date Measured 09/19/2006</b>	Sampling Method(s) <b>Grab</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Sidewalk across Commercial Street to the north west of the property</b>	

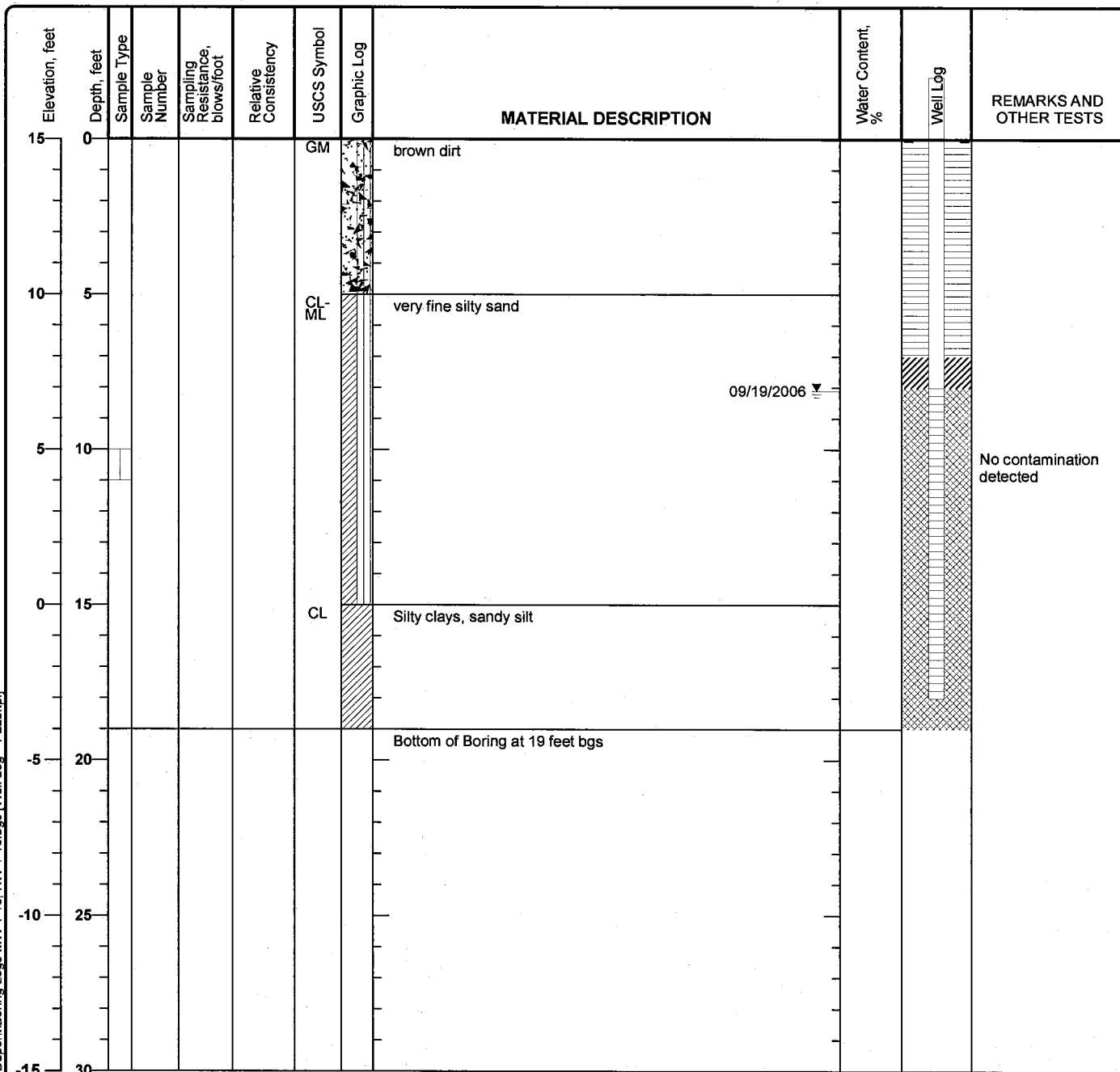


Figure

**Project: Dupont**  
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**  
**Project Number:**

**Log of Boring MW-14**  
 Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level <b>8.11 feet measured on and Date Measured 09/19/2006</b>	Sampling Method(s) <b>Grab</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Sidewalk across Franklin Street to the west of the property</b>	



Figure

**Project: Dupont**

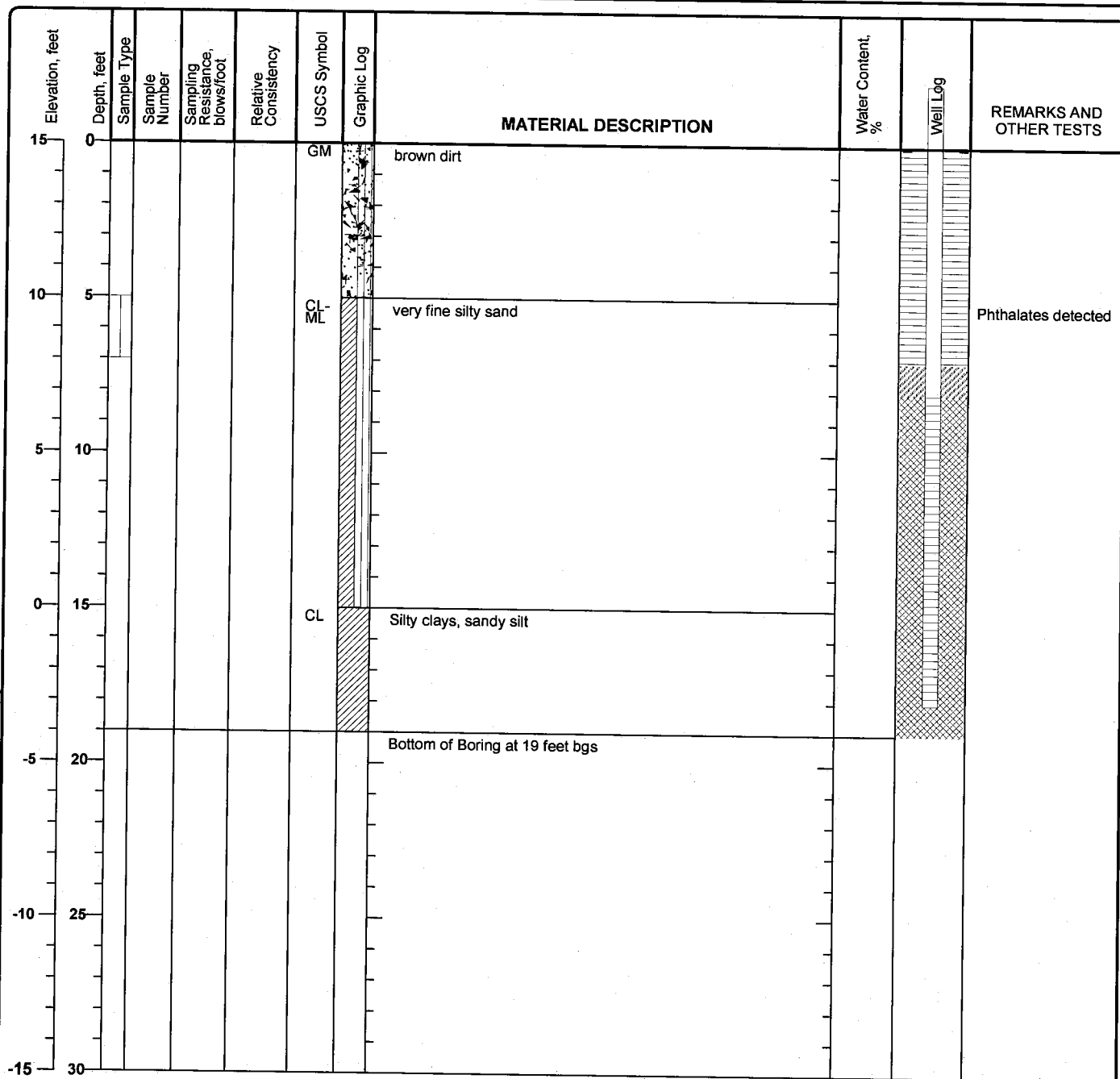
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**

**Project Number:**

## Log of Boring MW-15

Sheet 1 of 1

Date(s) Drilled	May 2006	Logged By	Anthony Adesso	Checked By	Steve Muller
Drilling Method	Direct Push	Drill Bit Size/Type	3 inch	Total Depth of Borehole	19 feet bgs
Drill Rig Type	geo probe	Drilling Contractor	Fenley & Nicol	Approximate Surface Elevation	15 feet
Groundwater Level and Date Measured	Not Measured	Sampling Method(s)	Grab	Hammer Data	
Borehole Backfill	Multiple Backfill Materials	Location	Sidewalk, along the Dupont Street, along the south west section of the site		

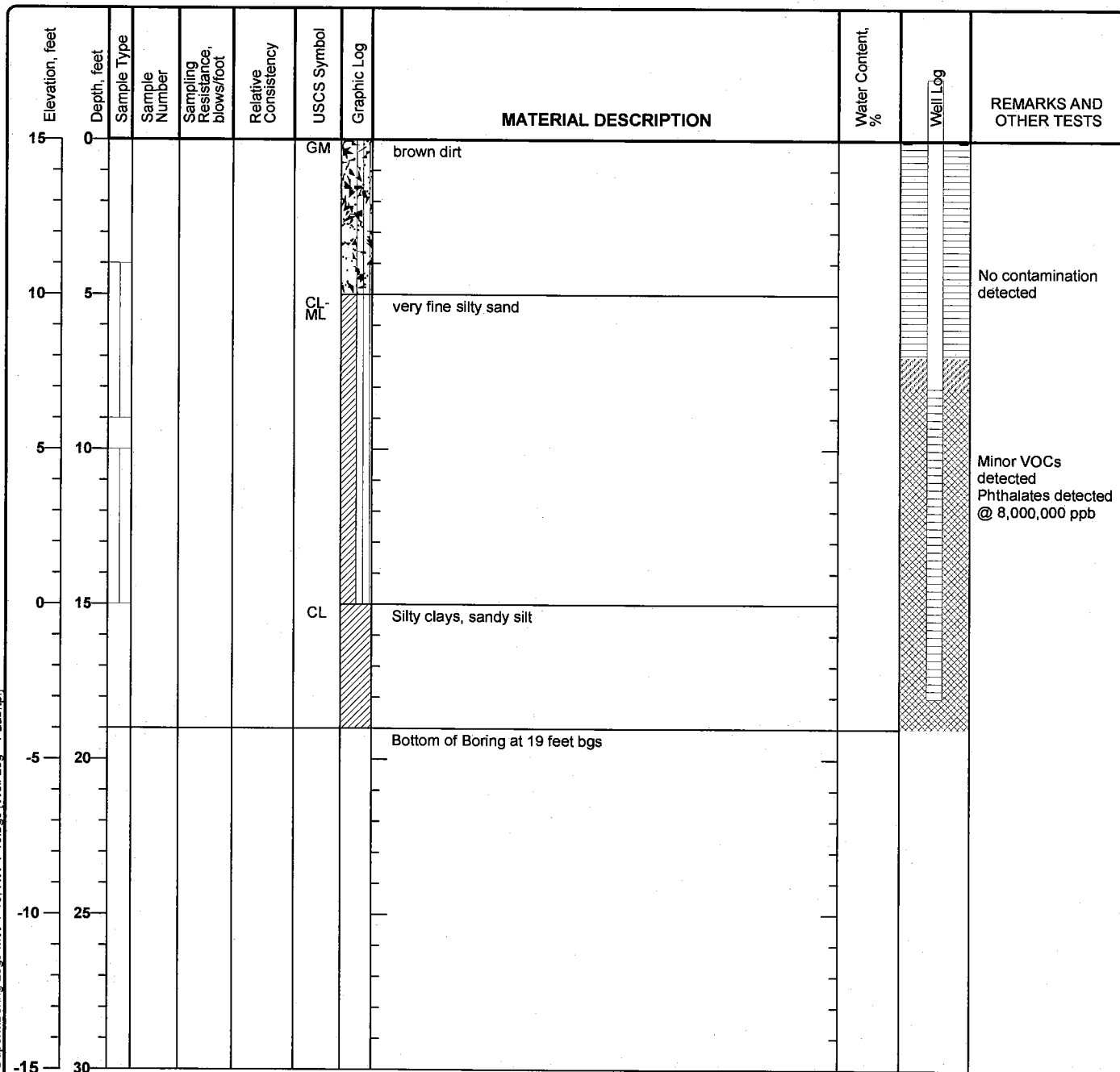


Figure

**Project: Dupont****Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222****Project Number:****Log of Boring MW-16**

Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level and Date Measured <b>Not Measured</b>	Sampling Method(s) <b>Grab</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Sidewalk, along the Dupont Street, along the south west section of the site</b>	



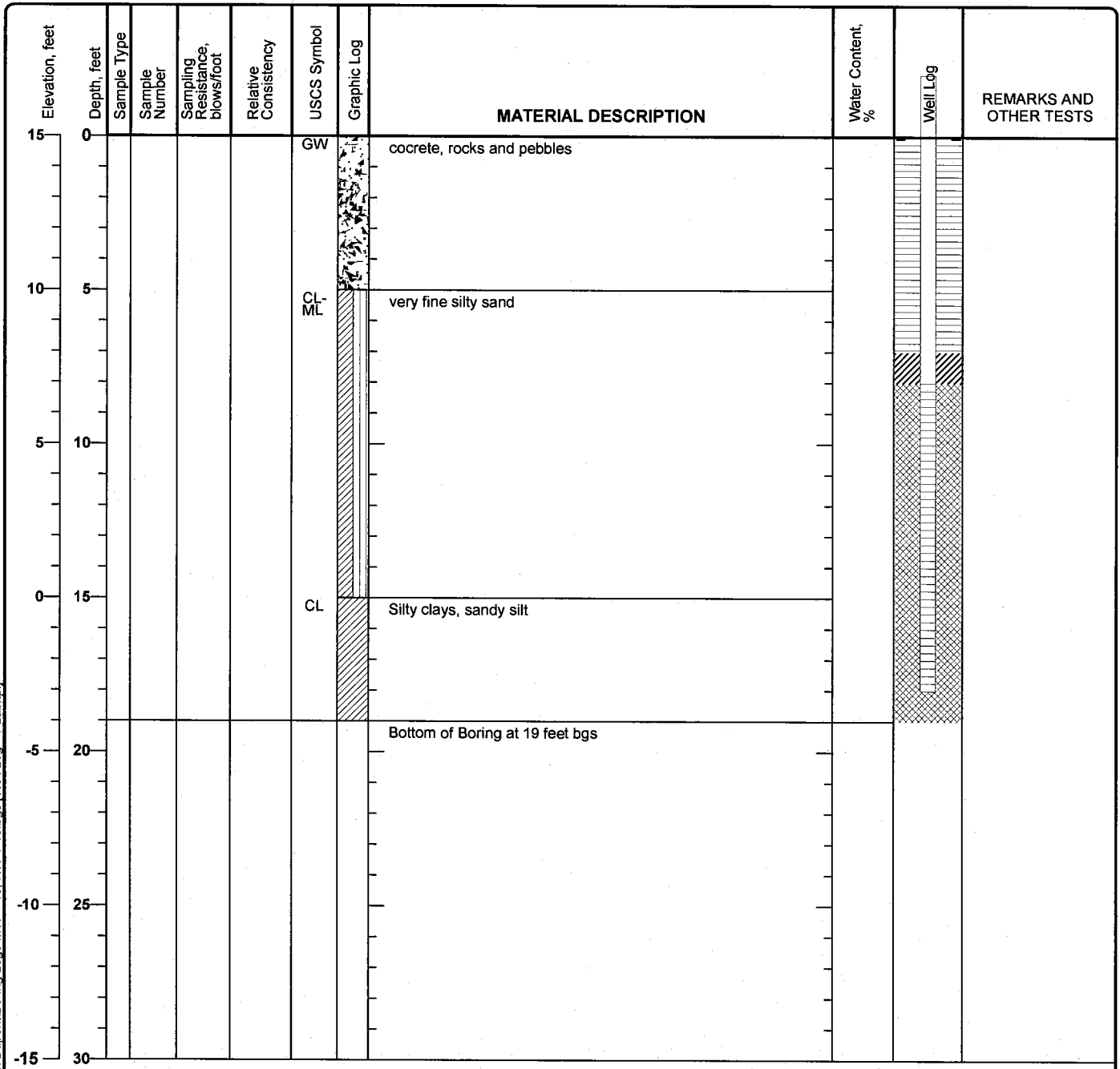
Figure

**Project: Dupont**  
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**  
**Project Number:**

# Log of Boring RW-1

Sheet 1 of 1

Date(s) Drilled <b>October 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Truck Mounted</b>	Drill Bit Size/Type <b>6 5/8 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Aggressive Environmental Inc.</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level and Date Measured <b>Not Measured</b>	Sampling Method(s) <b>None</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Northwest corner of the subject site</b>	



Figure



**Project: Dupont**

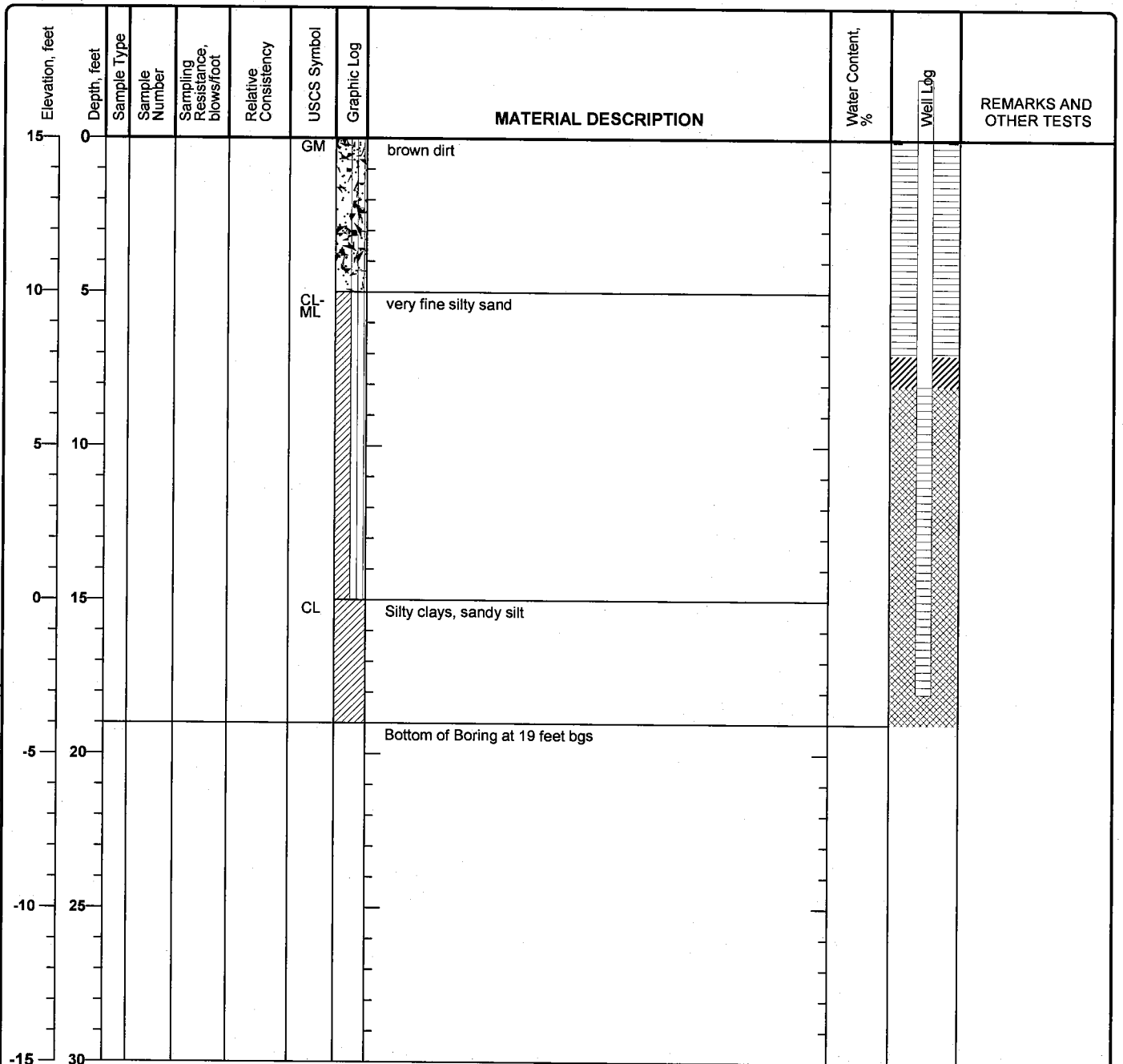
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**

**Project Number:**

## Log of Boring RW-2

Sheet 1 of 1

Date(s) Drilled <b>October 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Truck Mounted</b>	Drill Bit Size/Type <b>6 5/8 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Aggressive Environmental Inc.</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level and Date Measured <b>Not Measured</b>	Sampling Method(s) <b>None</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Far west side of the site, in the center</b>	



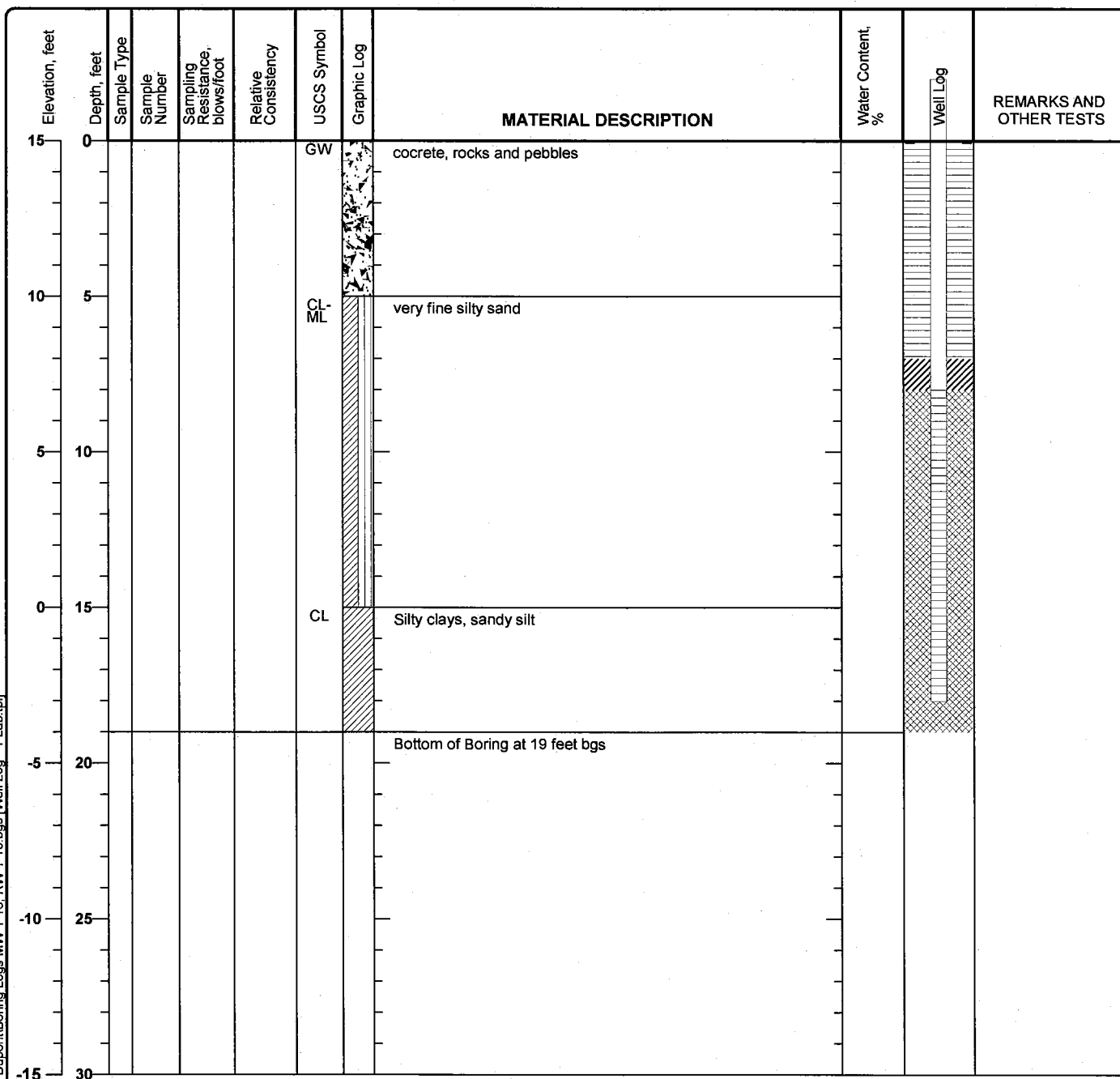
Figure

**Project: Dupont**  
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**  
**Project Number:**

# Log of Boring RW-3

Sheet 1 of 1

Date(s) Drilled	October 2006	Logged By	Anthony Adesso	Checked By	Steve Muller
Drilling Method	Truck Mounted	Drill Bit Size/Type	6 5/8 inch	Total Depth of Borehole	19 feet bgs
Drill Rig Type	geo probe	Drilling Contractor	Aggressive Environmental Inc.	Approximate Surface Elevation	15 feet
Groundwater Level and Date Measured	Not Measured	Sampling Method(s)	None	Hammer Data	
Borehole Backfill	Multiple Backfill Materials	Location	South west section of the site		



Figure

**Project: Dupont**

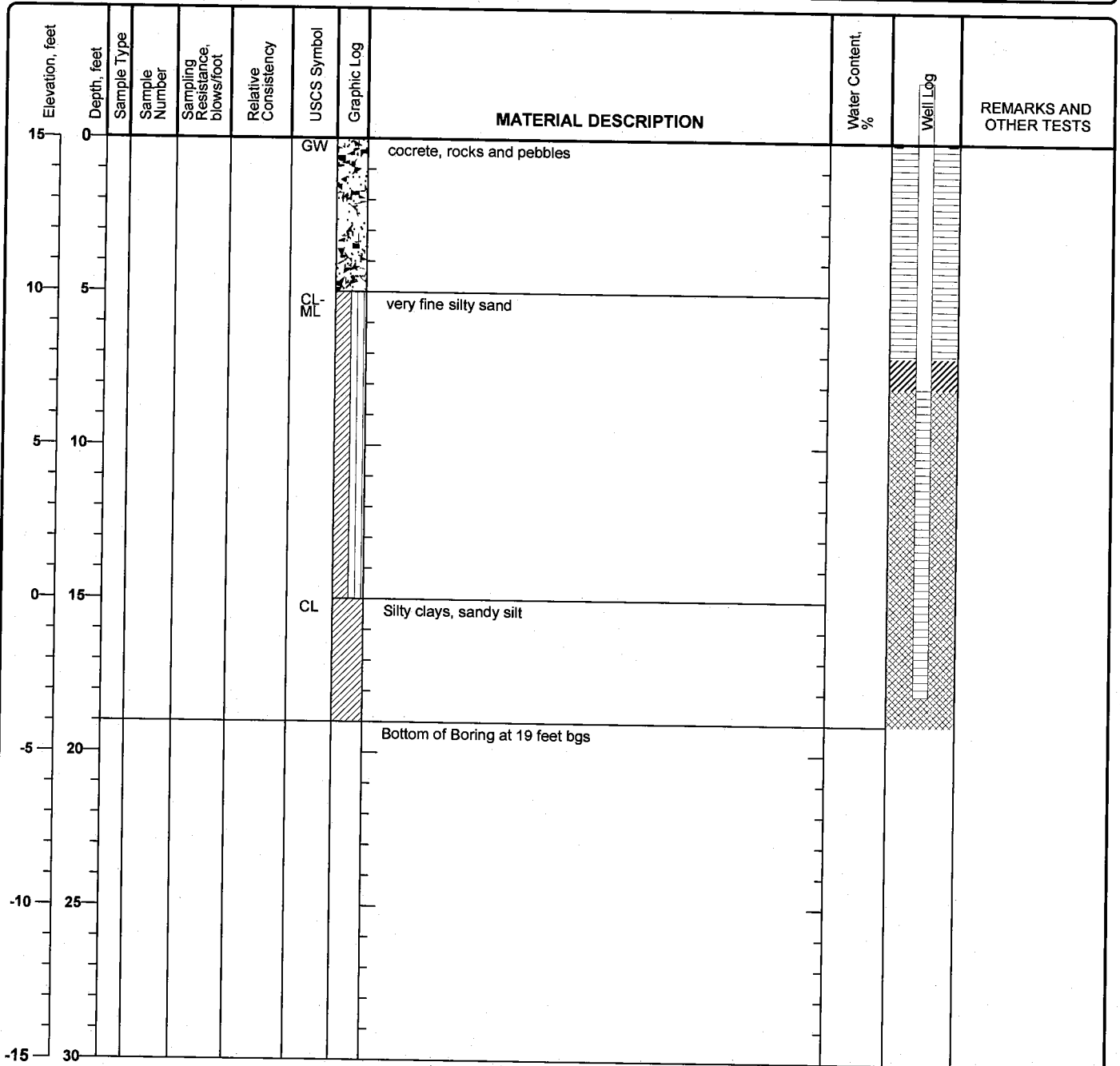
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**

**Project Number:**

## Log of Boring RW-4

Sheet 1 of 1

Date(s) Drilled <b>October 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Truck Mounted</b>	Drill Bit Size/Type <b>6 5/8 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Aggressive Environmental Inc.</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level and Date Measured <b>Not Measured</b>	Sampling Method(s) <b>None</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location	

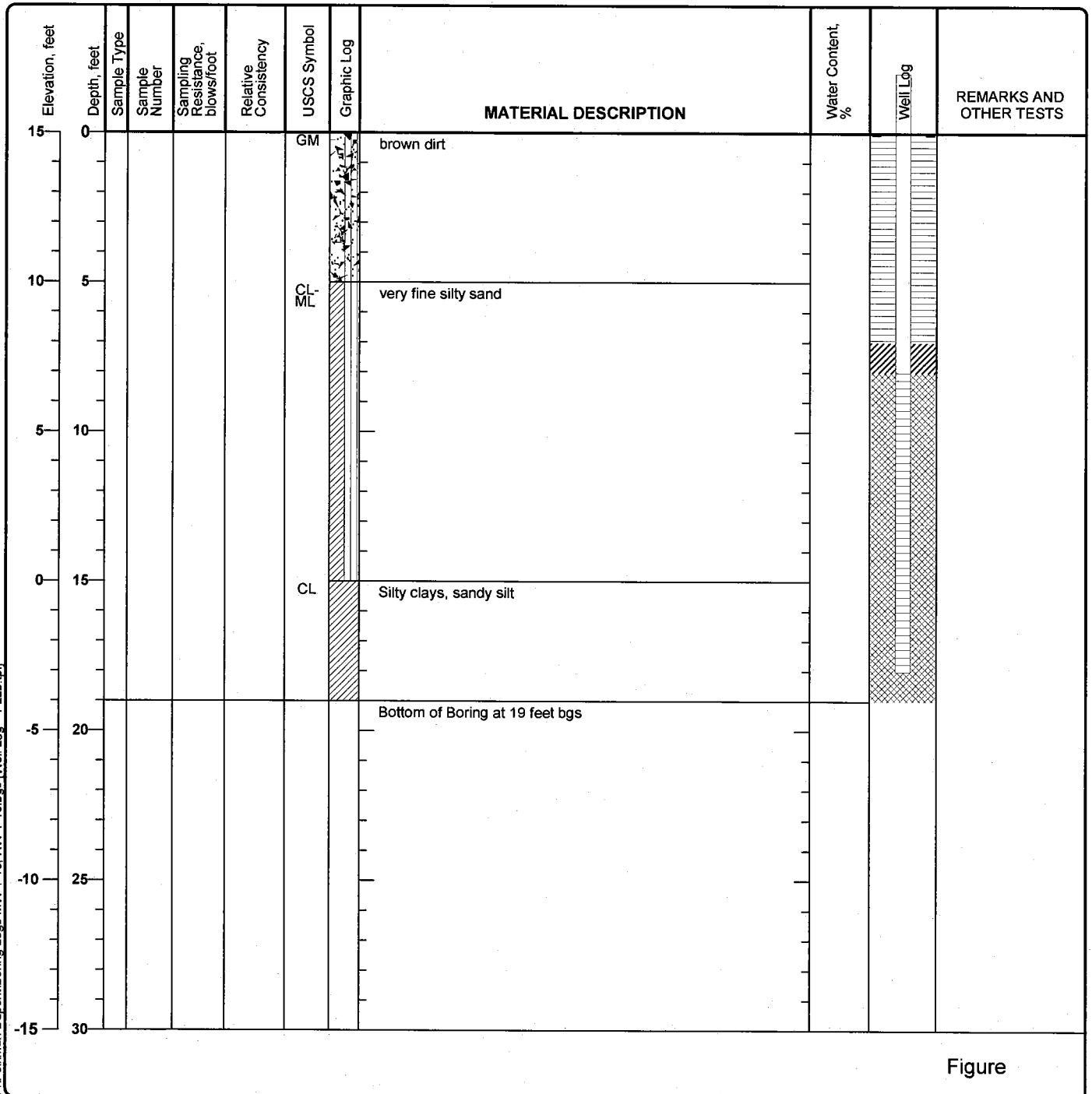


Figure

**Project: Dupont****Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222****Project Number:****Log of Boring RW-5**

Sheet 1 of 1

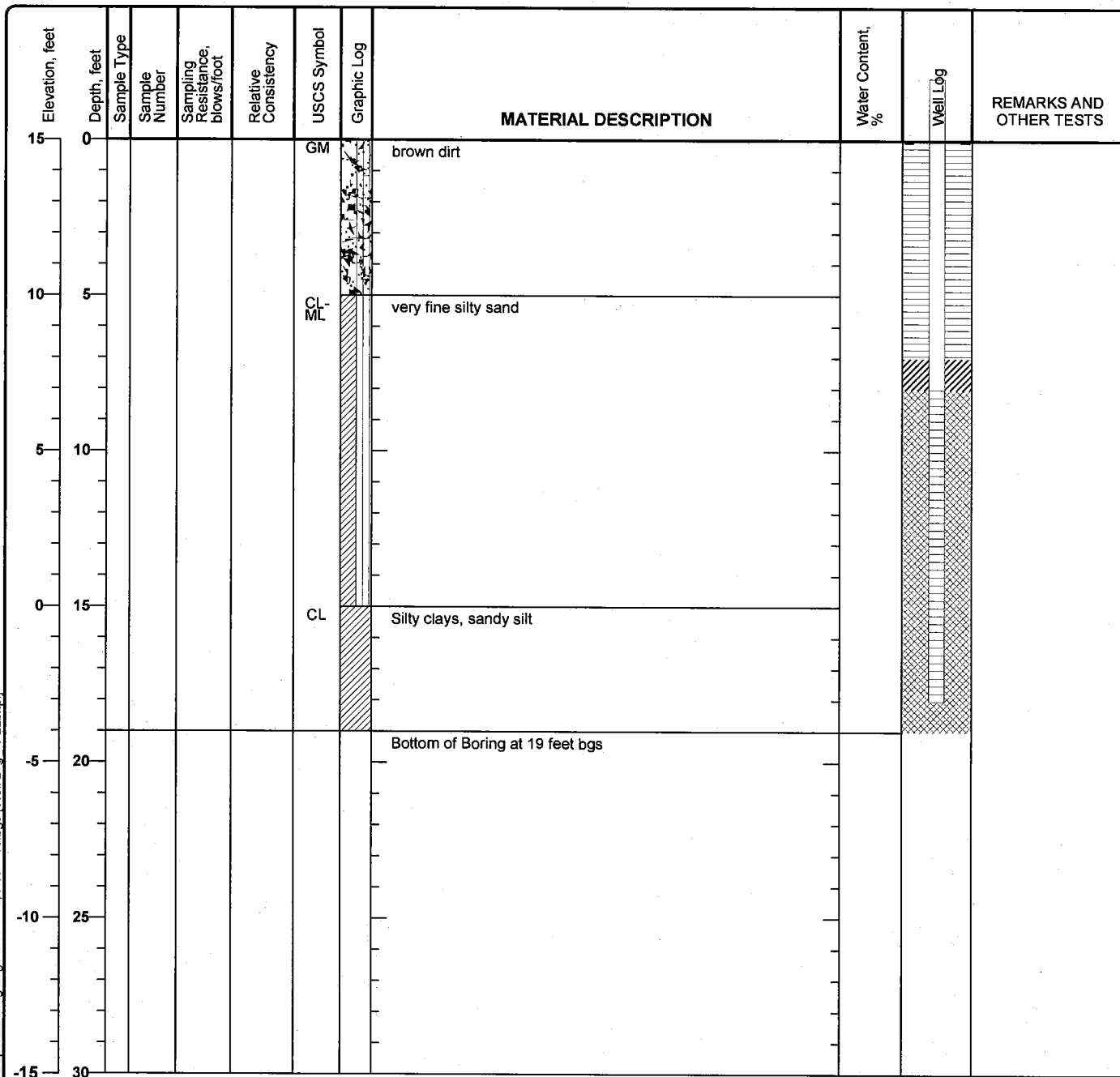
Date(s) Drilled	December 2006	Logged By	Anthony Adesso	Checked By	Steve Muller
Drilling Method	Direct Push	Drill Bit Size/Type	6 5/8 inch	Total Depth of Borehole	19 feet bgs
Drill Rig Type	geo probe	Drilling Contractor	Longshore Environmental	Approximate Surface Elevation	15 feet
Groundwater Level and Date Measured	Not Measured	Sampling Method(s)	None	Hammer Data	
Borehole Backfill	Multiple Backfill Materials	Location	North west section of the subject site		



**Project: Dupont****Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222****Project Number:****Log of Boring RW-6**

Sheet 1 of 1

Date(s) Drilled	December 2006	Logged By	Anthony Adesso	Checked By	Steve Muller
Drilling Method	Direct Push	Drill Bit Size/Type	6 5/8 inch	Total Depth of Borehole	19 feet bgs
Drill Rig Type	geo probe	Drilling Contractor	Longshore Environmental	Approximate Surface Elevation	15 feet
Groundwater Level and Date Measured	Not Measured	Sampling Method(s)	None	Hammer Data	
Borehole Backfill	Multiple Backfill Materials	Location	North west section of the subject site		

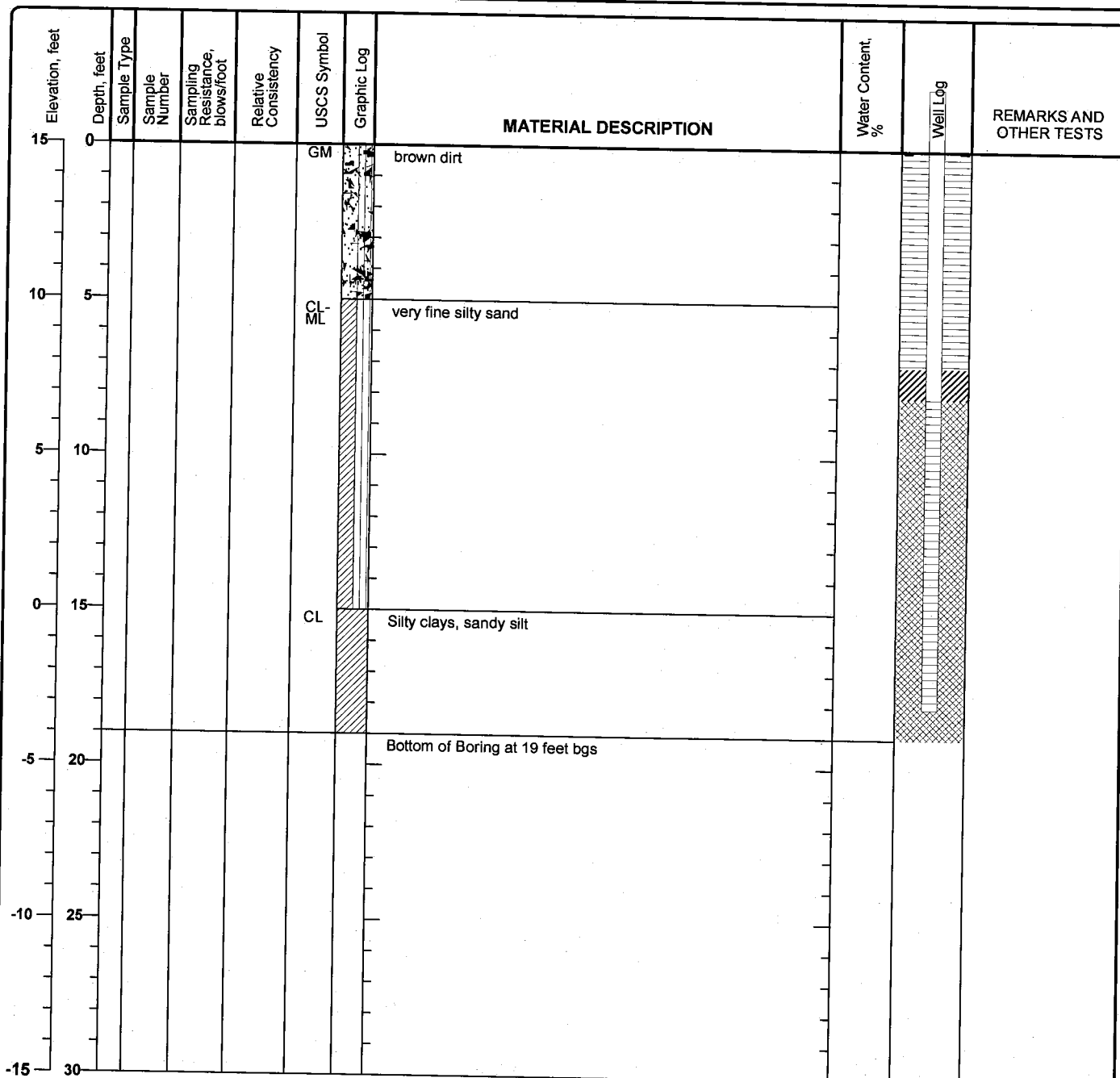


Figure

**Project: Dupont****Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222****Project Number:****Log of Boring RW-7**

Sheet 1 of 1

Date(s) Drilled <b>December 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>6 5/8 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Longshore Environmental</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level and Date Measured <b>Not Measured</b>	Sampling Method(s) <b>None</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>North east section of the subject site, around Acetone, Fuel Oil Tanks</b>	



Figure



**Project: Dupont**

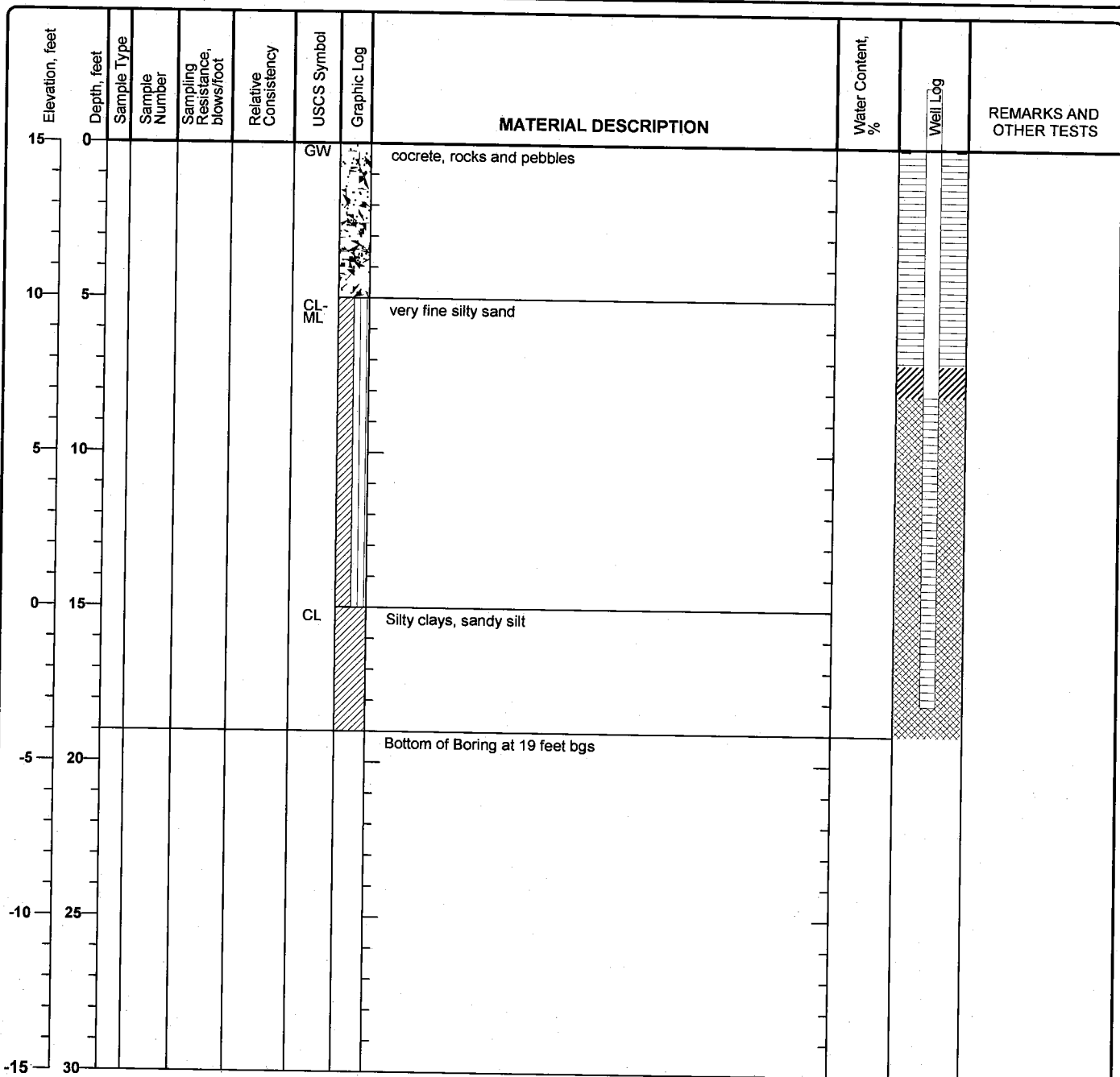
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**

**Project Number:**

## Log of Boring RW-8

Sheet 1 of 1

Date(s) Drilled	December 2006	Logged By	Anthony Adesso	Checked By	Steve Muller
Drilling Method	Direct Push	Drill Bit Size/Type	6 5/8 inch	Total Depth of Borehole	19 feet bgs
Drill Rig Type	geo probe	Drilling Contractor	Longshore Environmental	Approximate Surface Elevation	15 feet
Groundwater Level and Date Measured	Not Measured	Sampling Method(s)	None	Hammer Data	
Borehole Backfill	Multiple Backfill Materials	Location	South west section of the site, to the west of Phthalate & Hecla Oil Tanks		



Figure

**Project: Dupont**

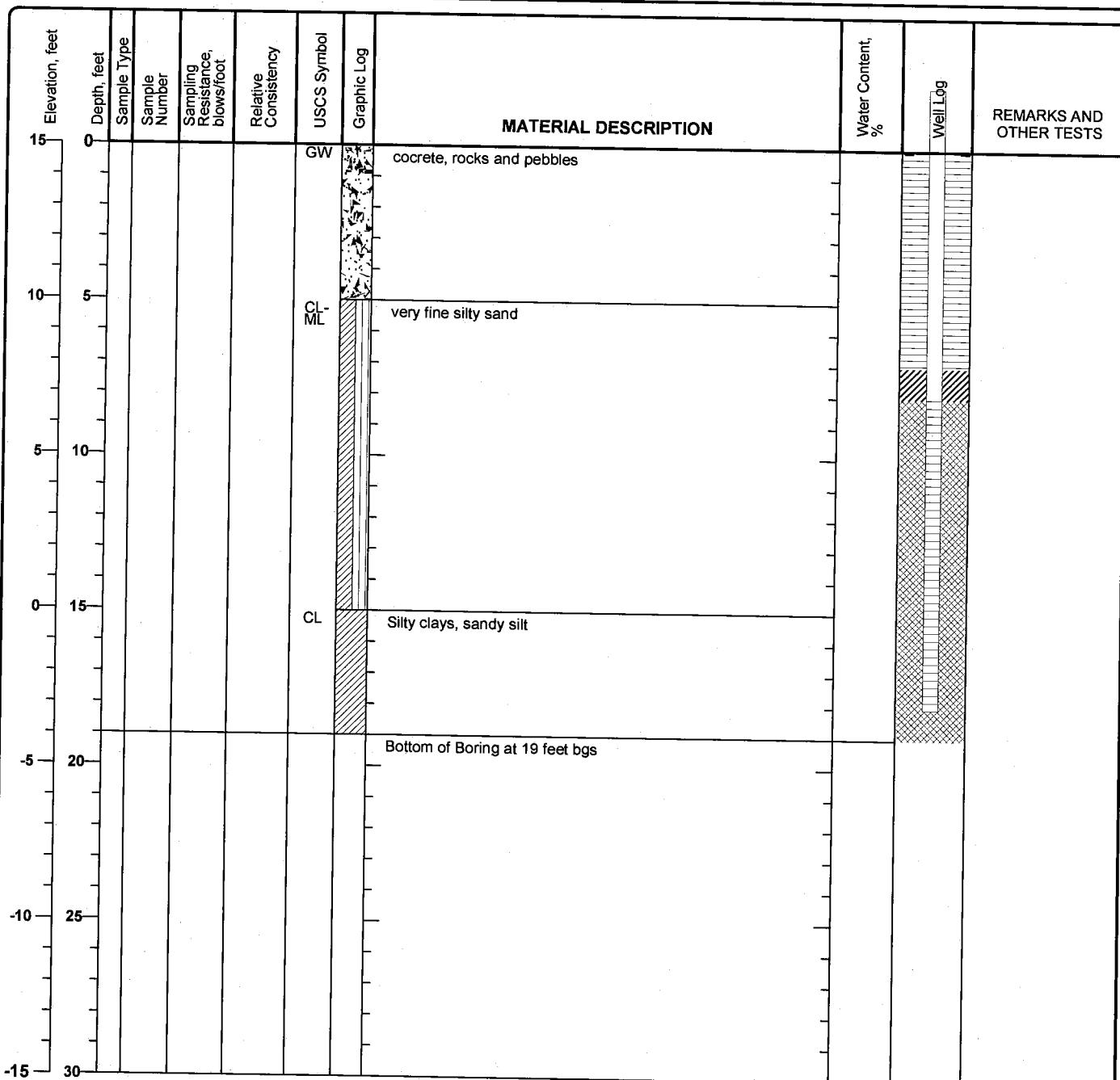
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**

**Project Number:**

## Log of Boring RW-9

Sheet 1 of 1

Date(s) Drilled <b>December 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>6 5/8 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Longshore Environmental</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level and Date Measured <b>Not Measured</b>	Sampling Method(s) <b>None</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>South west section of the site, to the west of Phthalate &amp; Hecla Oil Tanks</b>	



Figure

**Project: Dupont**

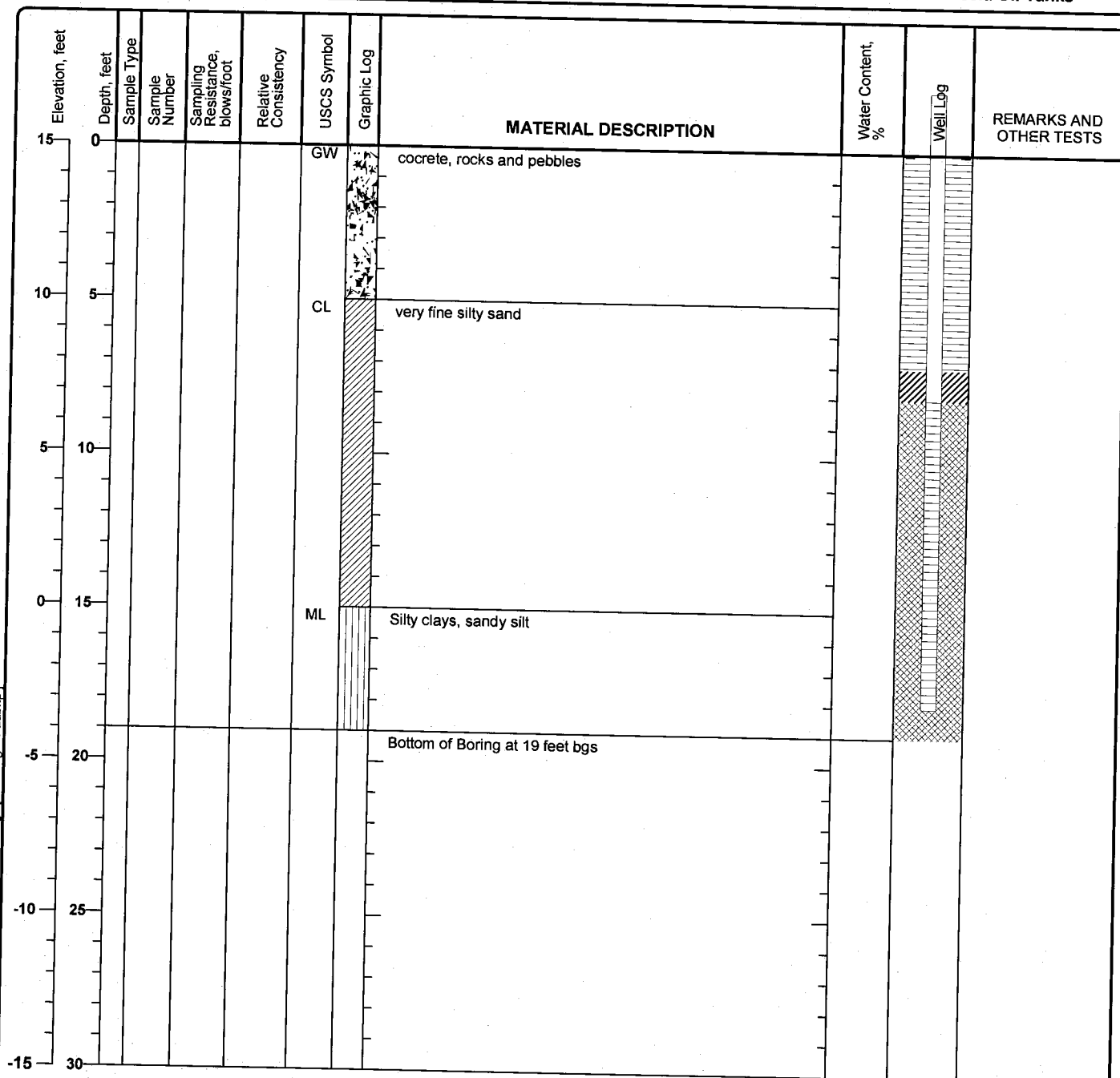
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**

**Project Number:**

## Log of Boring RW-10

Sheet 1 of 1

Date(s) Drilled	December 2006	Logged By	Anthony Adesso	Checked By	Steve Muller
Drilling Method	Direct Push	Drill Bit Size/Type	6 5/8 inch	Total Depth of Borehole	19 feet bgs
Drill Rig Type	geo probe	Drilling Contractor	Longshore Environmental	Approximate Surface Elevation	15 feet
Groundwater Level and Date Measured	Not Measured	Sampling Method(s)	None	Hammer Data	
Borehole Backfill	Multiple Backfill Materials	Location	South west section of the site, to the west of Phthalate & Hecla Oil Tanks		



Figure

## **APPENDIX - D**

### **Laboratory Analytical Reports**

**YORK**  
**ANALYTICAL LABORATORIES, INC.**

# Technical Report

prepared for

**Advanced Site Restoration**  
**62 William St.**  
**New York, NY 10005**  
**Attention: Steve Muller**

Report Date: 5/10/2006  
***Re: Client Project ID: 49 Dupont***  
York Project No.: 06050130

CT License No. PH-0723

New York License No. 10854



Report Date: 5/10/2006  
Client Project ID: 49 Dupont  
York Project No.: 06050130

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

## 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 05/03/06. The project was identified as your project "49 Dupont".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			SB-1/5-10'		SB-2/10-12'	
York Sample ID			06050130-01		06050130-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles-8260 list	SW846-8260	ug/Kg	---	---	---	---
1,1,1,2-Tetrachloroethane			Not detected	10	Not detected	500
1,1,1-Trichloroethane			Not detected	10	Not detected	500
1,1,2,2-Tetrachloroethane			Not detected	10	Not detected	500
1,1,2-Trichloroethane			Not detected	10	Not detected	500
1,1-Dichloroethane			Not detected	10	Not detected	500
1,1-Dichloroethylene			Not detected	10	Not detected	500
1,1-Dichloropropylene			Not detected	10	Not detected	500
1,2,3-Trichlorobenzene			Not detected	10	Not detected	500
1,2,3-Trichloropropane			Not detected	10	Not detected	500
1,2,3-Trimethylbenzene			Not detected	10	Not detected	500
1,2,4-Trichlorobenzene			Not detected	10	Not detected	500
1,2,4-Trimethylbenzene			Not detected	10	1700	500
1,2-Dibromo-3-chloropropane			Not detected	10	Not detected	500
1,2-Dibromoethane			Not detected	10	Not detected	500
1,2-Dichlorobenzene			Not detected	10	Not detected	500
1,2-Dichloroethane			Not detected	10	Not detected	500

**YORK**



Client Sample ID			SB-1/5-10'		SB-2/10-12'	
York Sample ID			06050130-01		06050130-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
1,2-Dichloroethylene (Total)			Not detected	10	Not detected	500
1,2-Dichloropropane			Not detected	10	Not detected	500
1,3,5-Trimethylbenzene			Not detected	10	Not detected	500
1,3-Dichlorobenzene			Not detected	10	Not detected	500
1,3-Dichloropropane			Not detected	10	Not detected	500
1,4-Dichlorobenzene			Not detected	10	Not detected	500
1-Chlorohexane			Not detected	10	Not detected	500
2,2-Dichloropropane			Not detected	10	Not detected	500
2-Chlorotoluene			Not detected	10	Not detected	500
4-Chlorotoluene			Not detected	10	Not detected	500
Benzene			Not detected	10	Not detected	500
Bromobenzene			Not detected	10	Not detected	500
Bromochloromethane			Not detected	10	Not detected	500
Bromodichloromethane			Not detected	10	Not detected	500
Bromoform			Not detected	10	Not detected	500
Bromomethane			Not detected	10	Not detected	500
Carbon tetrachloride			Not detected	10	Not detected	500
Chlorobenzene			Not detected	10	Not detected	500
Chloroethane			Not detected	10	Not detected	500
Chloroform			Not detected	10	Not detected	500
Chloromethane			Not detected	10	Not detected	500
cis-1,3-Dichloropropylene			Not detected	10	Not detected	500
Dibromochloromethane			Not detected	10	Not detected	500
Dibromomethane			Not detected	10	Not detected	500
Dichlorodifluoromethane			Not detected	10	Not detected	500
Ethylbenzene			Not detected	10	Not detected	500
Hexachlorobutadiene			Not detected	10	Not detected	500
Isopropylbenzene			Not detected	10	Not detected	500
Methylene chloride			Not detected	10	Not detected	500
MTBE			Not detected	10	Not detected	500
Naphthalene			Not detected	10	Not detected	500
n-Butylbenzene			Not detected	10	Not detected	500
n-Propylbenzene			Not detected	10	Not detected	500
o-Xylene			Not detected	10	Not detected	500
p- & m-Xylenes			Not detected	10	Not detected	500
p-Isopropyltoluene			Not detected	10	Not detected	500
sec-Butylbenzene			Not detected	10	Not detected	500
Styrene			Not detected	10	Not detected	500
tert-Butylbenzene			Not detected	10	Not detected	500
Tetrachloroethylene			Not detected	10	Not detected	500
Toluene			Not detected	10	Not detected	500
trans-1,3-Dichloropropylene			Not detected	10	Not detected	500
Trichloroethylene			Not detected	10	Not detected	500
Trichlorofluoromethane			Not detected	10	Not detected	500
Vinyl chloride			Not detected	10	Not detected	500
BNA-8270 List	SW846-8270C	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	330
1,2-Dichlorobenzene			Not detected	165	Not detected	330
1,3-Dichlorobenzene			Not detected	165	Not detected	330
1,4-Dichlorobenzene			Not detected	165	Not detected	330
2,4,5-Trichlorophenol			Not detected	165	Not detected	330

**YORK**

Client Sample ID			SB-1/5-10'		SB-2/10-12'	
York Sample ID			06050130-01		06050130-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
2,4,6-Trichlorophenol			Not detected	165	Not detected	330
2,4-Dichlorophenol			Not detected	165	Not detected	330
2,4-Dimethylphenol			Not detected	165	Not detected	330
2,4-Dinitrophenol			Not detected	165	Not detected	330
2,4-Dinitrotoluene			Not detected	165	Not detected	330
2,6-Dinitrotoluene			Not detected	165	Not detected	330
2-Chloronaphthalene			Not detected	165	Not detected	330
2-Chlorophenol			Not detected	165	Not detected	330
2-Methylnaphthalene			Not detected	165	Not detected	330
2-Methylphenol			Not detected	165	Not detected	330
2-Nitroaniline			Not detected	165	Not detected	330
2-Nitrophenol			Not detected	165	Not detected	330
3,3'-Dichlorobenzidine			Not detected	165	Not detected	330
3-Methylphenol			Not detected	165	Not detected	330
3-Nitroaniline			Not detected	165	Not detected	330
4,6-Dinitro-2-methylphenol			Not detected	165	Not detected	330
4-Bromophenyl phenyl ether			Not detected	165	Not detected	330
4-Chloro-3-methyl phenol			Not detected	165	Not detected	330
4-Chloroaniline			Not detected	165	Not detected	330
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	330
4-Methylphenol			Not detected	165	Not detected	330
4-Nitroaniline			Not detected	165	Not detected	330
4-Nitrophenol			Not detected	165	Not detected	330
Acenaphthene			Not detected	165	Not detected	330
Acenaphthylene			Not detected	165	Not detected	330
Aniline			Not detected	165	Not detected	330
Anthracene			Not detected	165	Not detected	330
Benzidine			Not detected	165	Not detected	330
Benzo(a)anthracene			Not detected	165	Not detected	330
Benzo(a)pyrene			Not detected	165	Not detected	330
Benzo(b)fluoranthene			Not detected	165	Not detected	330
Benzo(g,h,i)perylene			Not detected	165	Not detected	330
Benzo(k)fluoranthene			Not detected	165	Not detected	330
Benzyl alcohol			Not detected	165	Not detected	330
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	330
Bis(2-chloroethyl)ether			Not detected	165	Not detected	330
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	330
Bis(2-ethylhexyl)phthalate			Not detected	165	Not detected	330
Butyl benzyl phthalate			Not detected	165	Not detected	330
Chrysene			Not detected	165	Not detected	330
Dibenz(a,h)anthracene			Not detected	165	Not detected	330
Dibenzofuran			Not detected	165	Not detected	330
Diethylphthalate			Not detected	165	Not detected	330
Dimethylphthalate			Not detected	165	Not detected	330
Di-n-butylphthalate			Not detected	165	Not detected	330
Di-n-octylphthalate			Not detected	165	Not detected	330
Fluoranthene			Not detected	165	Not detected	330
Fluorene			Not detected	165	Not detected	330
Hexachlorobenzene			Not detected	165	Not detected	330
Hexachlorobutadiene			Not detected	165	Not detected	330
Hexachlorocyclopentadiene			Not detected	165	Not detected	330

**YORK**

Client Sample ID			SB-1/5-10'		SB-2/10-12'	
York Sample ID			06050130-01		06050130-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Hexachloroethane			Not detected	165	Not detected	330
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	330
Isophorone			Not detected	165	Not detected	330
Naphthalene			Not detected	165	Not detected	330
Nitrobenzene			Not detected	165	Not detected	330
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	330
N-Nitrosodiphenylamine			Not detected	165	Not detected	330
Pentachlorophenol			Not detected	165	Not detected	330
Phenanthrene			Not detected	165	Not detected	330
Phenol			Not detected	165	Not detected	330
Pyrene			Not detected	165	Not detected	330
Pyridine			Not detected	165	Not detected	330

Client Sample ID			SB-3/5-10'		SB-4/13-15'	
York Sample ID			06050130-03		06050130-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles-8260 list	SW846-8260	ug/Kg	---	---	---	---
1,1,1,2-Tetrachloroethane			Not detected	10	Not detected	130
1,1,1-Trichloroethane			Not detected	10	Not detected	130
1,1,2,2-Tetrachloroethane			Not detected	10	Not detected	130
1,1,2-Trichloroethane			Not detected	10	Not detected	130
1,1-Dichloroethane			Not detected	10	Not detected	130
1,1-Dichloroethylene			Not detected	10	Not detected	130
1,1-Dichloropropylene			Not detected	10	Not detected	130
1,2,3-Trichlorobenzene			Not detected	10	Not detected	130
1,2,3-Trichloropropane			Not detected	10	Not detected	130
1,2,3-Trimethylbenzene			Not detected	10	Not detected	130
1,2,4-Trichlorobenzene			Not detected	10	Not detected	130
1,2,4-Trimethylbenzene			Not detected	10	Not detected	130
1,2-Dibromo-3-chloropropane			Not detected	10	Not detected	130
1,2-Dibromoethane			Not detected	10	Not detected	130
1,2-Dichlorobenzene			Not detected	10	Not detected	130
1,2-Dichloroethane			Not detected	10	Not detected	130
1,2-Dichloroethylene (Total)			Not detected	10	Not detected	130
1,2-Dichloropropane			Not detected	10	Not detected	130
1,3,5-Trimethylbenzene			Not detected	10	Not detected	130
1,3-Dichlorobenzene			Not detected	10	Not detected	130
1,3-Dichloropropane			Not detected	10	Not detected	130
1,4-Dichlorobenzene			Not detected	10	Not detected	130
1-Chlorohexane			Not detected	10	Not detected	130
2,2-Dichloropropane			Not detected	10	Not detected	130
2-Chlorotoluene			Not detected	10	Not detected	130
4-Chlorotoluene			Not detected	10	Not detected	130
Benzene			Not detected	10	Not detected	130
Bromobenzene			Not detected	10	Not detected	130
Bromochloromethane			Not detected	10	Not detected	130
Bromodichloromethane			Not detected	10	Not detected	130
Bromoform			Not detected	10	Not detected	130

**YORK**

Client Sample ID			SB-3/5-10'		SB-4/13-15'	
York Sample ID			06050130-03		06050130-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Bromomethane			Not detected	10	Not detected	130
Carbon tetrachloride			Not detected	10	Not detected	130
Chlorobenzene			Not detected	10	Not detected	130
Chloroethane			Not detected	10	Not detected	130
Chloroform			Not detected	10	Not detected	130
Chloromethane			Not detected	10	Not detected	130
cis-1,3-Dichloropropylene			Not detected	10	Not detected	130
Dibromochloromethane			Not detected	10	Not detected	130
Dibromomethane			Not detected	10	Not detected	130
Dichlorodifluoromethane			Not detected	10	Not detected	130
Ethylbenzene			Not detected	10	Not detected	130
Hexachlorobutadiene			Not detected	10	Not detected	130
Isopropylbenzene			Not detected	10	Not detected	130
Methylene chloride			Not detected	10	Not detected	130
MTBE			Not detected	10	Not detected	130
Naphthalene			Not detected	10	Not detected	130
n-Butylbenzene			Not detected	10	Not detected	130
n-Propylbenzene			Not detected	10	Not detected	130
o-Xylene			Not detected	10	Not detected	130
p- & m-Xylenes			Not detected	10	Not detected	130
p-Isopropyltoluene			Not detected	10	Not detected	130
sec-Butylbenzene			Not detected	10	Not detected	130
Styrene			Not detected	10	Not detected	130
tert-Butylbenzene			Not detected	10	Not detected	130
Tetrachloroethylene			Not detected	10	Not detected	130
Toluene			Not detected	10	Not detected	130
trans-1,3-Dichloropropylene			Not detected	10	Not detected	130
Trichloroethylene			Not detected	10	Not detected	130
Trichlorofluoromethane			Not detected	10	Not detected	130
Vinyl chloride			Not detected	10	Not detected	130
BNA-8270 List	SW846-8270C	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	17000
1,2-Dichlorobenzene			Not detected	165	Not detected	17000
1,3-Dichlorobenzene			Not detected	165	Not detected	17000
1,4-Dichlorobenzene			Not detected	165	Not detected	17000
2,4,5-Trichlorophenol			Not detected	165	Not detected	17000
2,4,6-Trichlorophenol			Not detected	165	Not detected	17000
2,4-Dichlorophenol			Not detected	165	Not detected	17000
2,4-Dimethylphenol			Not detected	165	Not detected	17000
2,4-Dinitrophenol			Not detected	165	Not detected	17000
2,4-Dinitrotoluene			Not detected	165	Not detected	17000
2,6-Dinitrotoluene			Not detected	165	Not detected	17000
2-Chloronaphthalene			Not detected	165	Not detected	17000
2-Chlorophenol			Not detected	165	Not detected	17000
2-Methylnaphthalene			Not detected	165	Not detected	17000
2-Methylphenol			Not detected	165	Not detected	17000
2-Nitroaniline			Not detected	165	Not detected	17000
2-Nitrophenol			Not detected	165	Not detected	17000
3,3'-Dichlorobenzidine			Not detected	165	Not detected	17000
3-Methylphenol			Not detected	165	Not detected	17000
3-Nitroaniline			Not detected	165	Not detected	17000

**YORK**

Client Sample ID			SB-3/5-10'		SB-4/13-15'	
York Sample ID			06050130-03		06050130-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
4,6-Dinitro-2-methylphenol			Not detected	165	Not detected	17000
4-Bromophenyl phenyl ether			Not detected	165	Not detected	17000
4-Chloro-3-methyl phenol			Not detected	165	Not detected	17000
4-Chloroaniline			Not detected	165	Not detected	17000
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	17000
4-Methylphenol			Not detected	165	Not detected	17000
4-Nitroaniline			Not detected	165	Not detected	17000
4-Nitrophenol			Not detected	165	Not detected	17000
Acenaphthene			Not detected	165	Not detected	17000
Acenaphthylene			Not detected	165	Not detected	17000
Aniline			Not detected	165	Not detected	17000
Anthracene			Not detected	165	Not detected	17000
Benzidine			Not detected	165	Not detected	17000
Benzo(a)anthracene			Not detected	165	Not detected	17000
Benzo(a)pyrene			Not detected	165	Not detected	17000
Benzo(b)fluoranthene			Not detected	165	Not detected	17000
Benzo(g,h,i)perylene			Not detected	165	Not detected	17000
Benzo(k)fluoranthene			Not detected	165	Not detected	17000
Benzyl alcohol			Not detected	165	Not detected	17000
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	17000
Bis(2-chloroethyl)ether			Not detected	165	Not detected	17000
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	17000
Bis(2-ethylhexyl)phthalate			190	165	140000	17000
Butyl benzyl phthalate			Not detected	165	Not detected	17000
Chrysene			Not detected	165	Not detected	17000
Dibenz(a,h)anthracene			Not detected	165	Not detected	17000
Dibenzofuran			Not detected	165	Not detected	17000
Diethylphthalate			Not detected	165	Not detected	17000
Dimethylphthalate			Not detected	165	Not detected	17000
Di-n-butylphthalate			Not detected	165	Not detected	17000
Di-n-octylphthalate			Not detected	165	200000	17000
Fluoranthene			Not detected	165	Not detected	17000
Fluorene			Not detected	165	Not detected	17000
Hexachlorobenzene			Not detected	165	Not detected	17000
Hexachlorobutadiene			Not detected	165	Not detected	17000
Hexachlorocyclopentadiene			Not detected	165	Not detected	17000
Hexachloroethane			Not detected	165	Not detected	17000
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	17000
Isophorone			Not detected	165	Not detected	17000
Naphthalene			Not detected	165	Not detected	17000
Nitrobenzene			Not detected	165	Not detected	17000
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	17000
N-Nitrosodiphenylamine			Not detected	165	Not detected	17000
Pentachlorophenol			Not detected	165	Not detected	17000
Phenanthrene			Not detected	165	Not detected	17000
Phenol			Not detected	165	Not detected	17000
Pyrene			Not detected	165	Not detected	17000
Pyridine			Not detected	165	Not detected	17000

**YORK**

Client Sample ID			SB-5/10-12'		SB-6/14-16'	
York Sample ID			06050130-05		06050130-06	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles-8260 list	SW846-8260	ug/Kg	---	---	---	---
1,1,1,2-Tetrachloroethane			Not detected	25	Not detected	130
1,1,1-Trichloroethane			Not detected	25	Not detected	130
1,1,2,2-Tetrachloroethane			Not detected	25	Not detected	130
1,1,2-Trichloroethane			Not detected	25	Not detected	130
1,1-Dichloroethane			Not detected	25	Not detected	130
1,1-Dichloroethylene			Not detected	25	Not detected	130
1,1-Dichloropropylene			Not detected	25	Not detected	130
1,2,3-Trichlorobenzene			Not detected	25	Not detected	130
1,2,3-Trichloropropane			Not detected	25	Not detected	130
1,2,3-Trimethylbenzene			Not detected	25	Not detected	130
1,2,4-Trichlorobenzene			Not detected	25	Not detected	130
1,2,4-Trimethylbenzene			260	25	Not detected	130
1,2-Dibromo-3-chloropropane			Not detected	25	Not detected	130
1,2-Dibromoethane			Not detected	25	Not detected	130
1,2-Dichlorobenzene			Not detected	25	Not detected	130
1,2-Dichloroethane			Not detected	25	Not detected	130
1,2-Dichloroethylene (Total)			Not detected	25	Not detected	130
1,2-Dichloropropane			Not detected	25	Not detected	130
1,3,5-Trimethylbenzene			100	25	Not detected	130
1,3-Dichlorobenzene			Not detected	25	Not detected	130
1,3-Dichloropropane			Not detected	25	Not detected	130
1,4-Dichlorobenzene			Not detected	25	Not detected	130
1-Chlorohexane			Not detected	25	Not detected	130
2,2-Dichloropropane			Not detected	25	Not detected	130
2-Chlorotoluene			Not detected	25	Not detected	130
4-Chlorotoluene			Not detected	25	Not detected	130
Benzene			Not detected	25	Not detected	130
Bromobenzene			Not detected	25	Not detected	130
Bromochloromethane			Not detected	25	Not detected	130
Bromodichloromethane			Not detected	25	Not detected	130
Bromoform			Not detected	25	Not detected	130
Bromomethane			Not detected	25	Not detected	130
Carbon tetrachloride			Not detected	25	Not detected	130
Chlorobenzene			Not detected	25	Not detected	130
Chloroethane			Not detected	25	Not detected	130
Chloroform			Not detected	25	Not detected	130
Chloromethane			Not detected	25	Not detected	130
cis-1,3-Dichloropropylene			Not detected	25	Not detected	130
Dibromochloromethane			Not detected	25	Not detected	130
Dibromomethane			Not detected	25	Not detected	130
Dichlorodifluoromethane			Not detected	25	Not detected	130
Ethylbenzene			Not detected	25	Not detected	130
Hexachlorobutadiene			Not detected	25	Not detected	130
Isopropylbenzene			Not detected	25	Not detected	130
Methylene chloride			Not detected	25	Not detected	130
MTBE			Not detected	25	Not detected	130
Naphthalene			70	25	Not detected	130
n-Butylbenzene			56	25	Not detected	130
n-Propylbenzene			35	25	Not detected	130
o-Xylene			Not detected	25	Not detected	130

**YORK**



Client Sample ID			SB-5/10-12'		SB-6/14-16'	
York Sample ID			06050130-05		06050130-06	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
p- & m-Xylenes			45	25	Not detected	130
p-Isopropyltoluene			37	25	Not detected	130
sec-Butylbenzene			Not detected	25	Not detected	130
Styrene			Not detected	25	Not detected	130
tert-Butylbenzene			Not detected	25	Not detected	130
Tetrachloroethylene			Not detected	25	Not detected	130
Toluene			54	25	Not detected	130
trans-1,3-Dichloropropylene			Not detected	25	Not detected	130
Trichloroethylene			Not detected	25	Not detected	130
Trichlorofluoromethane			Not detected	25	Not detected	130
Vinyl chloride			Not detected	25	Not detected	130
BNA-8270 List	SW846-8270C	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	83000	Not detected	830000
1,2-Dichlorobenzene			Not detected	83000	Not detected	830000
1,3-Dichlorobenzene			Not detected	83000	Not detected	830000
1,4-Dichlorobenzene			Not detected	83000	Not detected	830000
2,4,5-Trichlorophenol			Not detected	83000	Not detected	830000
2,4,6-Trichlorophenol			Not detected	83000	Not detected	830000
2,4-Dichlorophenol			Not detected	83000	Not detected	830000
2,4-Dimethylphenol			Not detected	83000	Not detected	830000
2,4-Dinitrophenol			Not detected	83000	Not detected	830000
2,4-Dinitrotoluene			Not detected	83000	Not detected	830000
2,6-Dinitrotoluene			Not detected	83000	Not detected	830000
2-Chloronaphthalene			Not detected	83000	Not detected	830000
2-Chlorophenol			Not detected	83000	Not detected	830000
2-Methylnaphthalene			Not detected	83000	Not detected	830000
2-Methylphenol			Not detected	83000	Not detected	830000
2-Nitroaniline			Not detected	83000	Not detected	830000
2-Nitrophenol			Not detected	83000	Not detected	830000
3,3'-Dichlorobenzidine			Not detected	83000	Not detected	830000
3-Methylphenol			Not detected	83000	Not detected	830000
3-Nitroaniline			Not detected	83000	Not detected	830000
4,6-Dinitro-2-methylphenol			Not detected	83000	Not detected	830000
4-Bromophenyl phenyl ether			Not detected	83000	Not detected	830000
4-Chloro-3-methyl phenol			Not detected	83000	Not detected	830000
4-Chloroaniline			Not detected	83000	Not detected	830000
4-Chlorophenyl phenyl ether			Not detected	83000	Not detected	830000
4-Methylphenol			Not detected	83000	Not detected	830000
4-Nitroaniline			Not detected	83000	Not detected	830000
4-Nitrophenol			Not detected	83000	Not detected	830000
Acenaphthene			Not detected	83000	Not detected	830000
Acenaphthylene			Not detected	83000	Not detected	830000
Aniline			Not detected	83000	Not detected	830000
Anthracene			Not detected	83000	Not detected	830000
Benzidine			Not detected	83000	Not detected	830000
Benzo(a)anthracene			Not detected	83000	Not detected	830000
Benzo(a)pyrene			Not detected	83000	Not detected	830000
Benzo(b)fluoranthene			Not detected	83000	Not detected	830000
Benzo(g,h,i)perylene			Not detected	83000	Not detected	830000
Benzo(k)fluoranthene			Not detected	83000	Not detected	830000
Benzyl alcohol			Not detected	83000	Not detected	830000

**YORK**

Client Sample ID			SB-5/10-12'		SB-6/14-16'	
York Sample ID			06050130-05		06050130-06	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Bis(2-chloroethoxy)methane			Not detected	83000	Not detected	830000
Bis(2-chloroethyl)ether			Not detected	83000	Not detected	830000
Bis(2-chloroisopropyl)ether			Not detected	83000	Not detected	830000
Bis(2-ethylhexyl)phthalate			510000	83000	12000000	830000
Butyl benzyl phthalate			Not detected	83000	Not detected	830000
Chrysene			Not detected	83000	Not detected	830000
Dibenz(a,h)anthracene			Not detected	83000	Not detected	830000
Dibenzofuran			Not detected	83000	Not detected	830000
Diethylphthalate			Not detected	83000	Not detected	830000
Dimethylphthalate			Not detected	83000	Not detected	830000
Di-n-butylphthalate			Not detected	83000	Not detected	830000
Di-n-octylphthalate			Not detected	83000	Not detected	830000
Fluoranthene			Not detected	83000	Not detected	830000
Fluorene			Not detected	83000	Not detected	830000
Hexachlorobenzene			Not detected	83000	Not detected	830000
Hexachlorobutadiene			Not detected	83000	Not detected	830000
Hexachlorocyclopentadiene			Not detected	83000	Not detected	830000
Hexachloroethane			Not detected	83000	Not detected	830000
Indeno(1,2,3-cd)pyrene			Not detected	83000	Not detected	830000
Isophorone			Not detected	83000	Not detected	830000
Naphthalene			Not detected	83000	Not detected	830000
Nitrobenzene			Not detected	83000	Not detected	830000
N-Nitrosodi-n-propylamine			Not detected	83000	Not detected	830000
N-Nitrosodiphenylamine			Not detected	83000	Not detected	830000
Pentachlorophenol			Not detected	83000	Not detected	830000
Phenanthrene			Not detected	83000	Not detected	830000
Phenol			Not detected	83000	Not detected	830000
Pyrene			Not detected	83000	Not detected	830000
Pyridine			Not detected	83000	Not detected	830000

Client Sample ID			SB-7/11-13'	
York Sample ID			06050130-07	
Matrix			SOIL	
Parameter	Method	Units	Results	MDL
Volatiles-8260 list	SW846-8260	ug/Kg	---	---
1,1,1,2-Tetrachloroethane			Not detected	10
1,1,1-Trichloroethane			Not detected	10
1,1,2,2-Tetrachloroethane			Not detected	10
1,1,2-Trichloroethane			Not detected	10
1,1-Dichloroethane			Not detected	10
1,1-Dichloroethylene			Not detected	10
1,1-Dichloropropylene			Not detected	10
1,2,3-Trichlorobenzene			Not detected	10
1,2,3-Trichloropropane			Not detected	10
1,2,3-Trimethylbenzene			Not detected	10
1,2,4-Trichlorobenzene			Not detected	10
1,2,4-Trimethylbenzene			Not detected	10
1,2-Dibromo-3-chloropropane			Not detected	10
1,2-Dibromoethane			Not detected	10

**YORK**

Client Sample ID			SB-7/11-13'	
York Sample ID			06050130-07	
Matrix			SOIL	
Parameter	Method	Units	Results	MDL
1,2-Dichlorobenzene			Not detected	10
1,2-Dichloroethane			Not detected	10
1,2-Dichloroethylene (Total)			Not detected	10
1,2-Dichloropropane			Not detected	10
1,3,5-Trimethylbenzene			Not detected	10
1,3-Dichlorobenzene			Not detected	10
1,3-Dichloropropane			Not detected	10
1,4-Dichlorobenzene			Not detected	10
1-Chlorohexane			Not detected	10
2,2-Dichloropropane			Not detected	10
2-Chlorotoluene			Not detected	10
4-Chlorotoluene			Not detected	10
Benzene			Not detected	10
Bromobenzene			Not detected	10
Bromochloromethane			Not detected	10
Bromodichloromethane			Not detected	10
Bromoform			Not detected	10
Bromomethane			Not detected	10
Carbon tetrachloride			Not detected	10
Chlorobenzene			Not detected	10
Chloroethane			Not detected	10
Chloroform			Not detected	10
Chloromethane			Not detected	10
cis-1,3-Dichloropropylene			Not detected	10
Dibromochloromethane			Not detected	10
Dibromomethane			Not detected	10
Dichlorodifluoromethane			Not detected	10
Ethylbenzene			Not detected	10
Hexachlorobutadiene			Not detected	10
Isopropylbenzene			Not detected	10
Methylene chloride			Not detected	10
MTBE			Not detected	10
Naphthalene			Not detected	10
n-Butylbenzene			Not detected	10
n-Propylbenzene			Not detected	10
o-Xylene			Not detected	10
p- & m-Xylenes			Not detected	10
p-Isopropyltoluene			Not detected	10
sec-Butylbenzene			Not detected	10
Styrene			Not detected	10
tert-Butylbenzene			Not detected	10
Tetrachloroethylene			Not detected	10
Toluene			Not detected	10
trans-1,3-Dichloropropylene			Not detected	10
Trichloroethylene			Not detected	10
Trichlorofluoromethane			Not detected	10
Vinyl chloride			Not detected	10
BNA-8270 List	SW846-8270C	ug/Kg	---	---
1,2,4-Trichlorobenzene			Not detected	330
1,2-Dichlorobenzene			Not detected	330
1,3-Dichlorobenzene			Not detected	330

**YORK**

Client Sample ID			SB-7/11-13'	
York Sample ID			06050130-07	
Matrix			SOIL	
Parameter	Method	Units	Results	MDL
1,4-Dichlorobenzene			Not detected	330
2,4,5-Trichlorophenol			Not detected	330
2,4,6-Trichlorophenol			Not detected	330
2,4-Dichlorophenol			Not detected	330
2,4-Dimethylphenol			Not detected	330
2,4-Dinitrophenol			Not detected	330
2,4-Dinitrotoluene			Not detected	330
2,6-Dinitrotoluene			Not detected	330
2-Chloronaphthalene			Not detected	330
2-Chlorophenol			Not detected	330
2-Methylnaphthalene			Not detected	330
2-Methylphenol			Not detected	330
2-Nitroaniline			Not detected	330
2-Nitrophenol			Not detected	330
3,3'-Dichlorobenzidine			Not detected	330
3-Methylphenol			Not detected	330
3-Nitroaniline			Not detected	330
4,6-Dinitro-2-methylphenol			Not detected	330
4-Bromophenyl phenyl ether			Not detected	330
4-Chloro-3-methyl phenol			Not detected	330
4-Chloroaniline			Not detected	330
4-Chlorophenyl phenyl ether			Not detected	330
4-Methylphenol			Not detected	330
4-Nitroaniline			Not detected	330
4-Nitrophenol			Not detected	330
Acenaphthene			Not detected	330
Acenaphthylene			Not detected	330
Aniline			Not detected	330
Anthracene			Not detected	330
Benzidine			Not detected	330
Benzo(a)anthracene			Not detected	330
Benzo(a)pyrene			Not detected	330
Benzo(b)fluoranthene			Not detected	330
Benzo(g,h,i)perylene			Not detected	330
Benzo(k)fluoranthene			Not detected	330
Benzyl alcohol			Not detected	330
Bis(2-chloroethoxy)methane			Not detected	330
Bis(2-chloroethyl)ether			Not detected	330
Bis(2-chloroisopropyl)ether			Not detected	330
Bis(2-ethylhexyl)phthalate			6800	330
Butyl benzyl phthalate			Not detected	330
Chrysene			Not detected	330
Dibenz(a,h)anthracene			Not detected	330
Dibenzofuran			Not detected	330
Diethylphthalate			Not detected	330
Dimethylphthalate			Not detected	330
Di-n-butylphthalate			Not detected	330
Di-n-octylphthalate			Not detected	330
Fluoranthene			Not detected	330
Fluorene			Not detected	330
Hexachlorobenzene			Not detected	330

**YORK**

Client Sample ID			SB-7/11-13'	
York Sample ID			06050130-07	
Matrix			SOIL	
Parameter	Method	Units	Results	MDL
Hexachlorobutadiene			Not detected	330
Hexachlorocyclopentadiene			Not detected	330
Hexachloroethane			Not detected	330
Indeno(1,2,3-cd)pyrene			Not detected	330
Isophorone			Not detected	330
Naphthalene			Not detected	330
Nitrobenzene			Not detected	330
N-Nitrosodi-n-propylamine			Not detected	330
N-Nitrosodiphenylamine			Not detected	330
Pentachlorophenol			Not detected	330
Phenanthrene			Not detected	330
Phenol			Not detected	330
Pyrene			Not detected	330
Pyridine			Not detected	330

Units Key:

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

### Notes for York Project No. 06050130

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By: \_\_\_\_\_

Robert Q. Bradley  
Managing Director

Date: 5/10/2006

**YORK**

# YORK

ANALYTICAL LABORATORIES, INC.

120 RESEARCH DRIVE STRATFORD, CT 06615  
(203) 325-1371 FAX (203) 357-0166

## Field Chain-of-Custody Record

Page 2 of 2

Company Name

Advanced Site Restoration  
62 William St  
NY NY 10005

Report To:

Steve M.

Invoice To:

ASR

Project ID/No.

49 Dupont

Samples Collected By (Signature)

Anthony Accurso  
Name (Printed)

Sample No.

Location/ID

Date Sampled

Water

Soil

Sample Matrix

Air

OTHER

ANALYSES REQUESTED

Container Description(s)

SB-1

5-10'

5/2/05

X

X

X

8260/8270 full

1802 / 402

SB-2

10-12'

X

X

X

X

X

SB-3

5-10'

X

X

X

X

X

SB-4

13-15'

X

X

X

X

X

SB-5

10-12'

X

X

X

X

X

SB-6

14-16'

X

X

X

X

X

SB-7

11-13'

X

X

X

X

X

### Chain-of-Custody Record

Bottles Relinquished from Lab by

Date/Time

Bottles Received in Field by

Date/Time

Sample Relinquished by

Date/Time

Sample Relinquished by

Date/Time

Sample Received by

Date/Time

Sample Received in LAB by

Date/Time

Comments/Special Instructions

Turn-Around Time

Standard RUSH(define)



# Technical Report

prepared for

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

Report Date: 6/19/2006  
***Re: Client Project ID: 49 Dupont St., Bklyn***  
York Project No.: 06060385

CT License No. PH-0723

New York License No. 10854



Report Date: 6/19/2006  
Client Project ID: 49 Dupont St., Bklyn  
York Project No.: 06060385

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

## 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 06/12/06. The project was identified as your project "49 Dupont St., Bklyn."

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			SB-8		SB-9	
York Sample ID			06060385-01		06060385-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	Not detected	10
1,3,5-Trimethylbenzene			Not detected	10	Not detected	10
Benzene			Not detected	10	Not detected	10
Ethylbenzene			Not detected	10	Not detected	10
Isopropylbenzene			Not detected	10	Not detected	10
Methyl-tert-butyl ether (MTBE)			Not detected	10	Not detected	10
Naphthalene			Not detected	10	Not detected	10
n-Butylbenzene			Not detected	10	Not detected	10
n-Propylbenzene			Not detected	10	Not detected	10
o-Xylene			Not detected	10	Not detected	10
p- & m-Xylenes			Not detected	10	Not detected	10
p-Isopropyltoluene			Not detected	10	Not detected	10
sec-Butylbenzene			Not detected	10	Not detected	10
tert-Butylbenzene			Not detected	10	Not detected	10
Toluene			Not detected	10	Not detected	10
Total Xylenes			Not detected	10	Not detected	10

**YORK**

Client Sample ID			SB-8		SB-9	
York Sample ID			06060385-01		06060385-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			280	165	170	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	Not detected	165

**YORK**

Client Sample ID			SB-10		SB-11	
York Sample ID			06060385-03		06060385-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Volatiles- STARS List</b>	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	Not detected	10
1,3,5-Trimethylbenzene			Not detected	10	Not detected	10
Benzene			Not detected	10	Not detected	10
Ethylbenzene			Not detected	10	Not detected	10
Isopropylbenzene			Not detected	10	Not detected	10
Methyl-tert-butyl ether (MTBE)			Not detected	10	Not detected	10
Naphthalene			Not detected	10	Not detected	10
n-Butylbenzene			Not detected	10	Not detected	10
n-Propylbenzene			Not detected	10	Not detected	10
o-Xylene			Not detected	10	Not detected	10
p- & m-Xylenes			Not detected	10	Not detected	10
p-Isopropyltoluene			Not detected	10	Not detected	10
sec-Butylbenzene			Not detected	10	Not detected	10
tert-Butylbenzene			Not detected	10	Not detected	10
Toluene			Not detected	10	Not detected	10
Total Xylenes			Not detected	10	Not detected	10
<b>Base/Neutral Extractables soil</b>	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			Not detected	165	260	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165

**YORK**

Client Sample ID			SB-10		SB-11	
York Sample ID			06060385-03		06060385-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	Not detected	165

Client Sample ID			SB-12		SB-13	
York Sample ID			06060385-05		06060385-06	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Volatiles- STARS List</b>	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	Not detected	10
1,3,5-Trimethylbenzene			Not detected	10	Not detected	10
Benzene			Not detected	10	Not detected	10
Ethylbenzene			Not detected	10	Not detected	10
Isopropylbenzene			Not detected	10	Not detected	10
Methyl-tert-butyl ether (MTBE)			Not detected	10	Not detected	10
Naphthalene			Not detected	10	Not detected	10
n-Butylbenzene			Not detected	10	Not detected	10
n-Propylbenzene			Not detected	10	Not detected	10
o-Xylene			Not detected	10	Not detected	10
p- & m-Xylenes			Not detected	10	Not detected	10
p-Isopropyltoluene			Not detected	10	Not detected	10
sec-Butylbenzene			Not detected	10	Not detected	10
tert-Butylbenzene			Not detected	10	Not detected	10
Toluene			Not detected	10	Not detected	10
Total Xylenes			Not detected	10	Not detected	10
<b>Base/Neutral Extractables soil</b>	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165

**YORK**

Client Sample ID			SB-12		SB-13	
York Sample ID			06060385-05		06060385-06	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			Not detected	165	370	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	Not detected	165

**Units Key:**

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

**YORK**



**Notes for York Project No. 06060385**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By: \_\_\_\_\_

Robert Q. Bradley  
Managing Director

Date: 6/19/2006

**YORK**

# YORK

ANALYTICAL LABORATORIES, INC.

120 RESEARCH DRIVE STRATFORD, CT 06615  
(203) 325-1371 FAX (203) 357-0166

## Field Chain-of-Custody Record

Page 1 of 1

Company Name <u>ASR</u> <u>62 William St</u> <u>Ny Ny. 10005</u>	Report To: <u>Steve</u>	Invoice To: <u>ASR</u>	Project ID/No. <u>49 Dupont St</u> <u>Bklyn</u>	Samples Collected By (Signature) <u>[Signature]</u>	Name (Printed) <u>Anthony Arneso</u>
---------------------------------------------------------------------------	----------------------------	---------------------------	-------------------------------------------------------	--------------------------------------------------------	-----------------------------------------

Sample No.	Location/ID	Date Sampled	Sample Matrix			ANALYSES REQUESTED	Container Description(s)
			Water	Soil	Air OTHER		
SB-8	8-9'	6-9-06		X		8260 stars 8270 BN	1802 / 402
SB-9	8-9'			X			
SB-10	8'			X			
SB-11	8'			X			
SB-12	9-10'			X			
SB-13	9-10'			X			

Chain-of-Custody Record		Sample Relinquished by <u>[Signature]</u>		Date/Time <u>6-12-06</u>	Sample Received by <u>[Signature]</u>	Date/Time <u>6/12/06</u>
Bottles Relinquished from Lab by	Date/Time	Sample Relinquished by	Date/Time	Sample Received in LAB by	Date/Time	
Bottles Received in Field by	Date/Time	Sample Relinquished by	Date/Time	Sample Received in LAB by	Date/Time	

Comments/Special Instructions

Turn-Around Time 45°C Standard    RUSH(define)

**YORK**  
ANALYTICAL LABORATORIES, INC.

# Technical Report

prepared for

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

Report Date: 6/29/2006  
*Re: Client Project ID: 49 Dupont St., Bklyn*  
York Project No.: 06060758

CT License No. PH-0723

New York License No. 10854



Report Date: 6/29/2006  
 Client Project ID: 49 Dupont St., Bklyn  
 York Project No.: 06060758

**Advanced Site Restoration**  
 62 William St.  
 New York, NY 10005  
 Attention: Steve Muller

## 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 06/22/06. The project was identified as your project "49 Dupont St., Bklyn."

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			11-12' SB-14		12' SB-44	
York Sample ID			06060758-01		06060758-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Volatiles- STARS List</b>	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			11000	500	73	50
1,3,5-Trimethylbenzene			2300	500	Not detected	50
Benzene			Not detected	500	Not detected	50
Ethylbenzene			860	500	Not detected	50
Isopropylbenzene			660	500	Not detected	50
Methyl-tert-butyl ether (MTBE)			Not detected	500	Not detected	50
Naphthalene			14000	500	170	50
n-Butylbenzene			2600	500	130	50
n-Propylbenzene			1400	500	58	50
o-Xylene			650	500	Not detected	50
p- & m-Xylenes			2300	500	62	50
p-Isopropyltoluene			990	500	Not detected	50
sec-Butylbenzene			870	500	Not detected	50
tert-Butylbenzene			Not detected	500	Not detected	50
Toluene			Not detected	500	Not detected	50
Total Xylenes			2950	500	62	50
<b>Base/Neutral Extractables soil</b>	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	4100	Not detected	830000

**YORK**

Client Sample ID			11-12' SB-14		12' SB-44	
York Sample ID			06060758-01		06060758-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
1,2-Dichlorobenzene			Not detected	4100	Not detected	830000
1,3-Dichlorobenzene			Not detected	4100	Not detected	830000
1,4-Dichlorobenzene			Not detected	4100	Not detected	830000
2,4-Dinitrotoluene			Not detected	4100	Not detected	830000
2,6-Dinitrotoluene			Not detected	4100	Not detected	830000
2-Chloronaphthalene			Not detected	4100	Not detected	830000
2-Methylnaphthalene			21000	4100	Not detected	830000
2-Nitroaniline			Not detected	4100	Not detected	830000
3,3'-Dichlorobenzidine			Not detected	4100	Not detected	830000
3-Nitroaniline			Not detected	4100	Not detected	830000
4-Bromophenyl phenyl ether			Not detected	4100	Not detected	830000
4-Chloroaniline			Not detected	4100	Not detected	830000
4-Chlorophenyl phenyl ether			Not detected	4100	Not detected	830000
4-Nitroaniline			Not detected	4100	Not detected	830000
Acenaphthene			Not detected	4100	Not detected	830000
Acenaphthylene			Not detected	4100	Not detected	830000
Anthracene			Not detected	4100	Not detected	830000
Benzo(a)anthracene			Not detected	4100	Not detected	830000
Benzo(a)pyrene			Not detected	4100	Not detected	830000
Benzo(b)fluoranthene			Not detected	4100	Not detected	830000
Benzo(g,h,i)perylene			Not detected	4100	Not detected	830000
Benzo(k)fluoranthene			Not detected	4100	Not detected	830000
Bis(2-chloroethoxy)methane			Not detected	4100	Not detected	830000
Bis(2-chloroethyl)ether			Not detected	4100	Not detected	830000
Bis(2-chloroisopropyl)ether			Not detected	4100	Not detected	830000
Bis(2-ethylhexyl)phthalate			Not detected	4100	20000000	830000
Butyl benzyl phthalate			Not detected	4100	Not detected	830000
Carbazole			Not detected	4100	Not detected	830000
Chrysene			Not detected	4100	Not detected	830000
Dibenzo(a,h)anthracene			Not detected	4100	Not detected	830000
Dibenzofuran			Not detected	4100	Not detected	830000
Diethylphthalate			Not detected	4100	Not detected	830000
Dimethylphthalate			Not detected	4100	Not detected	830000
Di-n-butylphthalate			Not detected	4100	Not detected	830000
Di-n-octylphthalate			Not detected	4100	Not detected	830000
Fluoranthene			Not detected	4100	Not detected	830000
Fluorene			Not detected	4100	Not detected	830000
Hexachlorobenzene			Not detected	4100	Not detected	830000
Hexachlorobutadiene			Not detected	4100	Not detected	830000
Hexachlorocyclopentadiene			Not detected	4100	Not detected	830000
Hexachloroethane			Not detected	4100	Not detected	830000
Indeno(1,2,3-cd)pyrene			Not detected	4100	Not detected	830000
Isophorone			Not detected	4100	Not detected	830000
Naphthalene			4400	4100	Not detected	830000
Nitrobenzene			Not detected	4100	Not detected	830000
N-Nitrosodi-n-propylamine			Not detected	4100	Not detected	830000
N-Nitrosodiphenylamine			Not detected	4100	Not detected	830000
Phenanthrene			7500	4100	Not detected	830000
Pyrene			Not detected	4100	Not detected	830000

Units Key:

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

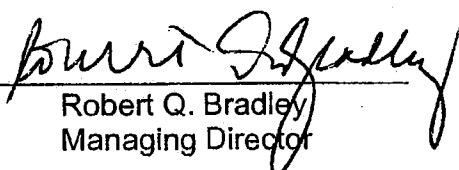
**YORK**

Report Date: 6/29/2006  
Client Project ID: 49 Dupont St., Bklyn  
York Project No.: 06060758

**Notes for York Project No. 06060758**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
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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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By: \_\_\_\_\_

  
Robert Q. Bradley  
Managing Director

Date: 6/29/2006

**YORK**



[illegible]

# YORK

ANALYTICAL LABORATORIES, INC.

## Technical Report

prepared for

**Advanced Site Restoration  
62 William St.  
New York, NY 10005  
Attention: Steve Muller**

Report Date: 6/21/2006  
***Re: Client Project ID: 49 Dupont St.***  
York Project No.: 06060481 Revised

CT License No. PH-0723

New York License No. 10854



**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

## 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 06/14/06. The project was identified as your project "49 Dupont St. ".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			SB-15		SB-16	
York Sample ID			06060481-01		06060481-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165

**YORK**

Client Sample ID			SB-15		SB-16	
York Sample ID			06060481-01		06060481-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			Not detected	165	300	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	Not detected	165

Client Sample ID			SB-17		SB-18	
York Sample ID			06060481-03		06060481-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			290	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165

**YORK**

Client Sample ID			SB-17		SB-18	
York Sample ID			06060481-03		06060481-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			580	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			390	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			Not detected	165	Not detected	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			340	165	Not detected	165
Fluorene			270	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			1500	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			710	165	Not detected	165
Pyrene			500	165	Not detected	165

Client Sample ID			SB-19		SB-20	
York Sample ID			06060481-05		06060481-06	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165

**YORK**

Client Sample ID			SB-19		SB-20	
York Sample ID			06060481-05		06060481-06	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			Not detected	165	Not detected	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	Not detected	165

**YORK**



Client Sample ID			SB-21		SB-24	
York Sample ID			06060481-07		06060481-08	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	1700
1,2-Dichlorobenzene			Not detected	165	Not detected	1700
1,3-Dichlorobenzene			Not detected	165	Not detected	1700
1,4-Dichlorobenzene			Not detected	165	Not detected	1700
2,4-Dinitrotoluene			Not detected	165	Not detected	1700
2,6-Dinitrotoluene			Not detected	165	Not detected	1700
2-Chloronaphthalene			Not detected	165	Not detected	1700
2-Methylnaphthalene			Not detected	165	Not detected	1700
2-Nitroaniline			Not detected	165	Not detected	1700
3,3'-Dichlorobenzidine			Not detected	165	Not detected	1700
3-Nitroaniline			Not detected	165	Not detected	1700
4-Bromophenyl phenyl ether			Not detected	165	Not detected	1700
4-Chloroaniline			Not detected	165	Not detected	1700
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	1700
4-Nitroaniline			Not detected	165	Not detected	1700
Acenaphthene			Not detected	165	Not detected	1700
Acenaphthylene			Not detected	165	Not detected	1700
Anthracene			Not detected	165	Not detected	1700
Benzo(a)anthracene			Not detected	165	Not detected	1700
Benzo(a)pyrene			Not detected	165	Not detected	1700
Benzo(b)fluoranthene			Not detected	165	Not detected	1700
Benzo(g,h,i)perylene			Not detected	165	Not detected	1700
Benzo(k)fluoranthene			Not detected	165	Not detected	1700
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	1700
Bis(2-chloroethyl)ether			Not detected	165	Not detected	1700
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	1700
Bis(2-ethylhexyl)phthalate			Not detected	165	14000	1700
Butyl benzyl phthalate			Not detected	165	Not detected	1700
Carbazole			Not detected	165	Not detected	1700
Chrysene			Not detected	165	Not detected	1700
Dibenzo(a,h)anthracene			Not detected	165	Not detected	1700
Dibenzofuran			Not detected	165	Not detected	1700
Diethylphthalate			Not detected	165	Not detected	1700
Dimethylphthalate			Not detected	165	Not detected	1700
Di-n-butylphthalate			Not detected	165	Not detected	1700
Di-n-octylphthalate			Not detected	165	16000	1700
Fluoranthene			Not detected	165	Not detected	1700
Fluorene			Not detected	165	Not detected	1700
Hexachlorobenzene			Not detected	165	Not detected	1700
Hexachlorobutadiene			Not detected	165	Not detected	1700
Hexachlorocyclopentadiene			Not detected	165	Not detected	1700
Hexachloroethane			Not detected	165	Not detected	1700
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	1700
Isophorone			Not detected	165	Not detected	1700
Naphthalene			Not detected	165	Not detected	1700
Nitrobenzene			Not detected	165	Not detected	1700
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	1700
N-Nitrosodiphenylamine			Not detected	165	Not detected	1700
Phenanthrene			Not detected	165	Not detected	1700
Pyrene			Not detected	165	Not detected	1700

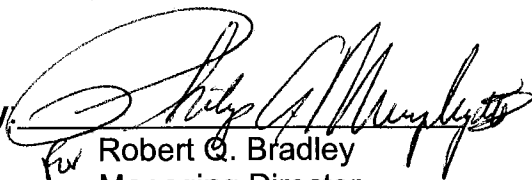
**YORK**

**Units Key:** For Waters/Liquids: mg/L = ppm ; ug/L = ppb For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

**Notes for York Project No. 06060481 R**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By:

  
for Robert Q. Bradley  
Managing Director

Date: 6/21/2006

**YORK**

# YORK

ANALYTICAL LABORATORIES, INC.

120 RESEARCH DRIVE STRATFORD, CT 06615  
(203) 325-1371 FAX (203) 357-0166

## Field Chain-of-Custody Record

Page 1 of 1

0000004181

Company Name ADVANCED SITE RESTORATION 62 WILLIAM ST N.Y. N.Y. 10005	Report To: STEVE MULLER	Invoice To: ASR	Project ID/No. 49 DULONT ST BROOKLYN NY	Samples Collected By (Signature) <i>Ethan Vazquez</i>
Name (Printed)				

Sample No.	Location/ID	Date Sampled	Sample Matrix			ANALYSES REQUESTED	Container Description(s)
			Water	Soil	Air		
	SB-15	6/13/06	X			EPA 8260 & 8270 STARS	1 (807) 1 (402)
	SB-16						
	SB-17						
	SB-18						
	SB-19						
	SB-20						
	SB-21						
	SB-24						

### Chain-of-Custody Record

Bottles Relinquished from Lab by	Date/Time	Sample Relinquished by	Date/Time	Sample Received by	Date/Time
		<i>[Signature]</i>	6/15/06	<i>[Signature]</i>	6/15/06
Bottles Received in Field by	Date/Time	Sample Relinquished by	Date/Time	Sample Received in LAB by	Date/Time
				<i>[Signature]</i>	6/15/06

Comments/Special Instructions

Turn-Around Time

Standard ☒ RUSH(define) \_\_\_\_\_

**YORK**  
ANALYTICAL LABORATORIES, INC.

# Technical Report

prepared for

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

Report Date: 6/23/2006  
*Re: Client Project ID: 49 Dupont St., Bklyn, NY*  
York Project No.: 06060587

CT License No. PH-0723

New York License No. 10854



**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

## 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 06/16/06. The project was identified as your project "49 Dupont St., Bklyn, NY."

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			SB-23		SB-46	
York Sample ID			06060587-01		06060587-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	Not detected	10
1,3,5-Trimethylbenzene			Not detected	10	Not detected	10
Benzene			Not detected	10	Not detected	10
Ethylbenzene			Not detected	10	Not detected	10
Isopropylbenzene			Not detected	10	Not detected	10
Methyl-tert-butyl ether (MTBE)			Not detected	10	Not detected	10
Naphthalene			Not detected	10	Not detected	10
n-Butylbenzene			Not detected	10	Not detected	10
n-Propylbenzene			Not detected	10	Not detected	10
o-Xylene			Not detected	10	Not detected	10
p- & m-Xylenes			Not detected	10	Not detected	10
p-Isopropyltoluene			Not detected	10	Not detected	10
sec-Butylbenzene			Not detected	10	Not detected	10
tert-Butylbenzene			Not detected	10	Not detected	10
Toluene			Not detected	10	Not detected	10
Total Xylenes			Not detected	10	Not detected	10

**YORK**

Client Sample ID			SB-23		SB-46	
York Sample ID			06060587-01		06060587-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			380	165	340	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			220	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			1600	165	330	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	Not detected	165

**YORK**



Client Sample ID			SB-56		SB-57	
York Sample ID			06060587-03		06060587-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Volatiles- STARS List</b>	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	Not detected	130
1,3,5-Trimethylbenzene			Not detected	10	Not detected	130
Benzene			Not detected	10	Not detected	130
Ethylbenzene			Not detected	10	Not detected	130
Isopropylbenzene			Not detected	10	Not detected	130
Methyl-tert-butyl ether (MTBE)			Not detected	10	Not detected	130
Naphthalene			Not detected	10	Not detected	130
n-Butylbenzene			Not detected	10	Not detected	130
n-Propylbenzene			Not detected	10	Not detected	130
o-Xylene			Not detected	10	Not detected	130
p- & m-Xylenes			Not detected	10	Not detected	130
p-Isopropyltoluene			Not detected	10	Not detected	130
sec-Butylbenzene			Not detected	10	Not detected	130
tert-Butylbenzene			Not detected	10	Not detected	130
Toluene			Not detected	10	Not detected	130
Total Xylenes			Not detected	10	Not detected	130
<b>Base/Neutral Extractables soil</b>	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	4100
1,2-Dichlorobenzene			Not detected	165	Not detected	4100
1,3-Dichlorobenzene			Not detected	165	Not detected	4100
1,4-Dichlorobenzene			Not detected	165	Not detected	4100
2,4-Dinitrotoluene			Not detected	165	Not detected	4100
2,6-Dinitrotoluene			Not detected	165	Not detected	4100
2-Chloronaphthalene			Not detected	165	Not detected	4100
2-Methylnaphthalene			Not detected	165	Not detected	4100
2-Nitroaniline			Not detected	165	Not detected	4100
3,3'-Dichlorobenzidine			Not detected	165	Not detected	4100
3-Nitroaniline			Not detected	165	Not detected	4100
4-Bromophenyl phenyl ether			Not detected	165	Not detected	4100
4-Chloroaniline			Not detected	165	Not detected	4100
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	4100
4-Nitroaniline			Not detected	165	Not detected	4100
Acenaphthene			Not detected	165	Not detected	4100
Acenaphthylene			Not detected	165	Not detected	4100
Anthracene			Not detected	165	Not detected	4100
Benzo(a)anthracene			Not detected	165	Not detected	4100
Benzo(a)pyrene			Not detected	165	Not detected	4100
Benzo(b)fluoranthene			Not detected	165	Not detected	4100
Benzo(g,h,i)perylene			Not detected	165	Not detected	4100
Benzo(k)fluoranthene			Not detected	165	Not detected	4100
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	4100
Bis(2-chloroethyl)ether			Not detected	165	Not detected	4100
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	4100
Bis(2-ethylhexyl)phthalate			Not detected	165	52000	4100
Butyl benzyl phthalate			Not detected	165	Not detected	4100
Carbazole			Not detected	165	Not detected	4100
Chrysene			Not detected	165	Not detected	4100
Dibenzo(a,h)anthracene			Not detected	165	Not detected	4100
Dibenzofuran			Not detected	165	Not detected	4100

**YORK**

Client Sample ID			SB-56		SB-57	
York Sample ID			06060587-03		06060587-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Diethylphthalate			Not detected	165	Not detected	4100
Dimethylphthalate			Not detected	165	Not detected	4100
Di-n-butylphthalate			Not detected	165	Not detected	4100
Di-n-octylphthalate			Not detected	165	6800	4100
Fluoranthene			Not detected	165	Not detected	4100
Fluorene			Not detected	165	Not detected	4100
Hexachlorobenzene			Not detected	165	Not detected	4100
Hexachlorobutadiene			Not detected	165	Not detected	4100
Hexachlorocyclopentadiene			Not detected	165	Not detected	4100
Hexachloroethane			Not detected	165	Not detected	4100
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	4100
Isophorone			Not detected	165	Not detected	4100
Naphthalene			Not detected	165	Not detected	4100
Nitrobenzene			Not detected	165	Not detected	4100
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	4100
N-Nitrosodiphenylamine			Not detected	165	Not detected	4100
Phenanthrene			Not detected	165	Not detected	4100
Pyrene			Not detected	165	Not detected	4100

Client Sample ID			SB-58		SB-59	
York Sample ID			06060587-05		06060587-06	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Volatiles- STARS List</b>	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	Not detected	10
1,3,5-Trimethylbenzene			Not detected	10	Not detected	10
Benzene			Not detected	10	Not detected	10
Ethylbenzene			Not detected	10	Not detected	10
Isopropylbenzene			Not detected	10	Not detected	10
Methyl-tert-butyl ether (MTBE)			Not detected	10	Not detected	10
Naphthalene			Not detected	10	Not detected	10
n-Butylbenzene			Not detected	10	Not detected	10
n-Propylbenzene			Not detected	10	Not detected	10
o-Xylene			Not detected	10	Not detected	10
p- & m-Xylenes			Not detected	10	Not detected	10
p-Isopropyltoluene			Not detected	10	Not detected	10
sec-Butylbenzene			Not detected	10	Not detected	10
tert-Butylbenzene			Not detected	10	Not detected	10
Toluene			Not detected	10	Not detected	10
Total Xylenes			Not detected	10	Not detected	10
<b>Base/Neutral Extractables soil</b>	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			Not detected	165	Not detected	165

**YORK**

Client Sample ID			SB-58		SB-59	
York Sample ID			06060587-05		06060587-06	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			320	165	Not detected	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	Not detected	165

**Units Key:**

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

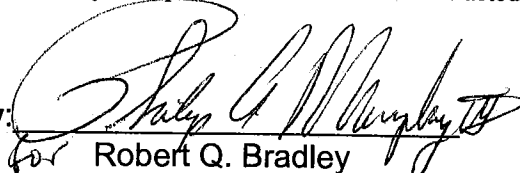
For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

**YORK**

**Notes for York Project No. 06060587**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By:

  
Robert Q. Bradley  
Managing Director

Date: 6/23/2006

**YORK**

# YORK

ANALYTICAL LABORATORIES, INC.

120 RESEARCH DRIVE STRATFORD, CT 06615  
(203) 325-1371 FAX (203) 357-0166

## Field Chain-of-Custody Record

Page 1 of 1

Company Name

A S R

Report To:

STEVE MULLER

Invoice To:

A S R

Project ID/No.

49 DUPONT ST  
BKLYN N.Y.

E. Vazquez

Samples Collected By (Signature)

E. VAZQUEZ

Name (Printed)

Sample No.

Location/ID

Date Sampled

Sample Matrix  
Water Soil Air OTHER

ANALYSES REQUESTED

Container  
Description(s)

SB-23

6/14/06

X

826C  
EPA standards & 8270 STARS

(1402) 1 (902)

SB-46

7

7

7

SB-56

7

7

7

SB-57

7

7

7

SB-58

7

7

7

SB-59

7

7

7

### Chain-of-Custody Record

Bottles Relinquished from Lab by

Date/Time

Bottles Received in Field by

Date/Time

Comments/Special Instructions

E. Vazquez  
Sample Relinquished by6/16/06  
Date/Time

Sample Relinquished by

Date/Time

Sample Received by

Date/Time

Sample Received in LAB by

Date/Time

Turn-Around Time

X Standard

RUSH(define)

**YORK**  
**ANALYTICAL LABORATORIES, INC.**

# Technical Report

prepared for

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

Report Date: 6/26/2006  
**Re: Client Project ID: 49 Dupont St.**  
York Project No.: 06060636

CT License No. PH-0723

New York License No. 10854





Report Date: 6/26/2006  
 Client Project ID: 49 Dupont St.  
 York Project No.: 06060636

**Advanced Site Restoration**  
 62 William St.  
 New York, NY 10005  
 Attention: Steve Muller

## 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 06/19/06. The project was identified as your project "49 Dupont St. ".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			SB-32		SB-34	
York Sample ID			06060636-01		06060636-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Volatiles- STARS List</b>	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	74	10
1,3,5-Trimethylbenzene			Not detected	10	30	10
Benzene			Not detected	10	Not detected	10
Ethylbenzene			Not detected	10	Not detected	10
Isopropylbenzene			Not detected	10	Not detected	10
Methyl-tert-butyl ether (MTBE)			Not detected	10	Not detected	10
Naphthalene			Not detected	10	28	10
n-Butylbenzene			Not detected	10	25	10
n-Propylbenzene			Not detected	10	10	10
o-Xylene			Not detected	10	Not detected	10
p- & m-Xylenes			Not detected	10	Not detected	10
p-Isopropyltoluene			Not detected	10	11	10
sec-Butylbenzene			Not detected	10	12	10
tert-Butylbenzene			Not detected	10	Not detected	10
Toluene			Not detected	10	27	10
Total Xylenes			Not detected	10	Not detected	10

**YORK**

Client Sample ID			SB-32		SB-34	
York Sample ID			06060636-01		06060636-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	17000
1,2-Dichlorobenzene			Not detected	165	Not detected	17000
1,3-Dichlorobenzene			Not detected	165	Not detected	17000
1,4-Dichlorobenzene			Not detected	165	Not detected	17000
2,4-Dinitrotoluene			Not detected	165	Not detected	17000
2,6-Dinitrotoluene			Not detected	165	Not detected	17000
2-Chloronaphthalene			Not detected	165	Not detected	17000
2-Methylnaphthalene			Not detected	165	Not detected	17000
2-Nitroaniline			Not detected	165	Not detected	17000
3,3'-Dichlorobenzidine			Not detected	165	Not detected	17000
3-Nitroaniline			Not detected	165	Not detected	17000
4-Bromophenyl phenyl ether			Not detected	165	Not detected	17000
4-Chloroaniline			Not detected	165	Not detected	17000
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	17000
4-Nitroaniline			Not detected	165	Not detected	17000
Acenaphthene			Not detected	165	Not detected	17000
Acenaphthylene			Not detected	165	Not detected	17000
Anthracene			Not detected	165	Not detected	17000
Benzo(a)anthracene			Not detected	165	Not detected	17000
Benzo(a)pyrene			Not detected	165	Not detected	17000
Benzo(b)fluoranthene			Not detected	165	Not detected	17000
Benzo(g,h,i)perylene			Not detected	165	Not detected	17000
Benzo(k)fluoranthene			Not detected	165	Not detected	17000
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	17000
Bis(2-chloroethyl)ether			Not detected	165	Not detected	17000
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	17000
Bis(2-ethylhexyl)phthalate			1500	165	610000	17000
Butyl benzyl phthalate			Not detected	165	Not detected	17000
Carbazole			Not detected	165	Not detected	17000
Chrysene			Not detected	165	Not detected	17000
Dibenzo(a,h)anthracene			Not detected	165	Not detected	17000
Dibenzofuran			Not detected	165	Not detected	17000
Diethylphthalate			Not detected	165	Not detected	17000
Dimethylphthalate			Not detected	165	Not detected	17000
Di-n-butylphthalate			Not detected	165	Not detected	17000
Di-n-octylphthalate			Not detected	165	41000	17000
Fluoranthene			Not detected	165	Not detected	17000
Fluorene			Not detected	165	Not detected	17000
Hexachlorobenzene			Not detected	165	Not detected	17000
Hexachlorobutadiene			Not detected	165	Not detected	17000
Hexachlorocyclopentadiene			Not detected	165	Not detected	17000
Hexachloroethane			Not detected	165	Not detected	17000
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	17000
Isophorone			Not detected	165	Not detected	17000
Naphthalene			Not detected	165	Not detected	17000
Nitrobenzene			Not detected	165	Not detected	17000
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	17000
N-Nitrosodiphenylamine			Not detected	165	Not detected	17000
Phenanthrene			Not detected	165	Not detected	17000
Pyrene			Not detected	165	Not detected	17000

**YORK**

Client Sample ID			SB-36		SB-37	
York Sample ID			06060636-03		06060636-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	Not detected	130
1,3,5-Trimethylbenzene			Not detected	10	Not detected	130
Benzene			Not detected	10	Not detected	130
Ethylbenzene			Not detected	10	Not detected	130
Isopropylbenzene			Not detected	10	Not detected	130
Methyl-tert-butyl ether (MTBE)			Not detected	10	Not detected	130
Naphthalene			Not detected	10	Not detected	130
n-Butylbenzene			Not detected	10	Not detected	130
n-Propylbenzene			Not detected	10	Not detected	130
o-Xylene			Not detected	10	Not detected	130
p- & m-Xylenes			Not detected	10	Not detected	130
p-Isopropyltoluene			Not detected	10	Not detected	130
sec-Butylbenzene			Not detected	10	Not detected	130
tert-Butylbenzene			Not detected	10	Not detected	130
Toluene			Not detected	10	Not detected	130
Total Xylenes			Not detected	10	Not detected	130
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	4100
1,2-Dichlorobenzene			Not detected	165	Not detected	4100
1,3-Dichlorobenzene			Not detected	165	Not detected	4100
1,4-Dichlorobenzene			Not detected	165	Not detected	4100
2,4-Dinitrotoluene			Not detected	165	Not detected	4100
2,6-Dinitrotoluene			Not detected	165	Not detected	4100
2-Chloronaphthalene			Not detected	165	Not detected	4100
2-Methylnaphthalene			Not detected	165	Not detected	4100
2-Nitroaniline			Not detected	165	Not detected	4100
3,3'-Dichlorobenzidine			Not detected	165	Not detected	4100
3-Nitroaniline			Not detected	165	Not detected	4100
4-Bromophenyl phenyl ether			Not detected	165	Not detected	4100
4-Chloroaniline			Not detected	165	Not detected	4100
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	4100
4-Nitroaniline			Not detected	165	Not detected	4100
Acenaphthene			Not detected	165	Not detected	4100
Acenaphthylene			Not detected	165	Not detected	4100
Anthracene			Not detected	165	Not detected	4100
Benzo(a)anthracene			Not detected	165	Not detected	4100
Benzo(a)pyrene			Not detected	165	Not detected	4100
Benzo(b)fluoranthene			Not detected	165	Not detected	4100
Benzo(g,h,i)perylene			Not detected	165	Not detected	4100
Benzo(k)fluoranthene			Not detected	165	Not detected	4100
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	4100
Bis(2-chloroethyl)ether			Not detected	165	Not detected	4100
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	4100
Bis(2-ethylhexyl)phthalate			Not detected	165	100000	4100
Butyl benzyl phthalate			Not detected	165	Not detected	4100
Carbazole			Not detected	165	Not detected	4100
Chrysene			Not detected	165	Not detected	4100
Dibenzo(a,h)anthracene			Not detected	165	Not detected	4100

**YORK**

Client Sample ID			SB-36		SB-37	
York Sample ID			06060636-03		06060636-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Dibenzofuran			Not detected	165	Not detected	4100
Diethylphthalate			Not detected	165	Not detected	4100
Dimethylphthalate			Not detected	165	Not detected	4100
Di-n-butylphthalate			Not detected	165	Not detected	4100
Di-n-octylphthalate			1200	165	8300	4100
Fluoranthene			Not detected	165	Not detected	4100
Fluorene			Not detected	165	Not detected	4100
Hexachlorobenzene			Not detected	165	Not detected	4100
Hexachlorobutadiene			Not detected	165	Not detected	4100
Hexachlorocyclopentadiene			Not detected	165	Not detected	4100
Hexachloroethane			Not detected	165	Not detected	4100
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	4100
Isophorone			Not detected	165	Not detected	4100
Naphthalene			Not detected	165	Not detected	4100
Nitrobenzene			Not detected	165	Not detected	4100
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	4100
N-Nitrosodiphenylamine			Not detected	165	Not detected	4100
Phenanthrene			Not detected	165	Not detected	4100
Pyrene			Not detected	165	Not detected	4100

Client Sample ID			SB-38A		SB-38B	
York Sample ID			06060636-05		06060636-06	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Volatiles- STARS List</b>	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	130	Not detected	25
1,3,5-Trimethylbenzene			Not detected	130	Not detected	25
Benzene			Not detected	130	Not detected	25
Ethylbenzene			Not detected	130	Not detected	25
Isopropylbenzene			Not detected	130	Not detected	25
Methyl-tert-butyl ether (MTBE)			Not detected	130	Not detected	25
Naphthalene			Not detected	130	Not detected	25
n-Butylbenzene			Not detected	130	Not detected	25
n-Propylbenzene			Not detected	130	Not detected	25
o-Xylene			Not detected	130	Not detected	25
p- & m-Xylenes			Not detected	130	Not detected	25
p-Isopropyltoluene			Not detected	130	Not detected	25
sec-Butylbenzene			Not detected	130	Not detected	25
tert-Butylbenzene			Not detected	130	Not detected	25
Toluene			Not detected	130	Not detected	25
Total Xylenes			Not detected	130	Not detected	25
<b>Base/Neutral Extractables soil</b>	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165

**YORK**

Client Sample ID			SB-38A		SB-38B	
York Sample ID			06060636-05		06060636-06	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			3500	165	Not detected	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	1000	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	Not detected	165

**YORK**

Client Sample ID			SB-39	
York Sample ID			06060636-07	
Matrix			SOIL	
Parameter	Method	Units	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---
1,2,4-Trimethylbenzene			Not detected	130
1,3,5-Trimethylbenzene			Not detected	130
Benzene			Not detected	130
Ethylbenzene			Not detected	130
Isopropylbenzene			190	130
Methyl-tert-butyl ether (MTBE)			Not detected	130
Naphthalene			Not detected	130
n-Butylbenzene			930	130
n-Propylbenzene			740	130
o-Xylene			Not detected	130
p- & m-Xylenes			Not detected	130
p-Isopropyltoluene			210	130
sec-Butylbenzene			400	130
tert-Butylbenzene			Not detected	130
Toluene			Not detected	130
Total Xylenes			Not detected	130
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---
1,2,4-Trichlorobenzene			Not detected	8300
1,2-Dichlorobenzene			Not detected	8300
1,3-Dichlorobenzene			Not detected	8300
1,4-Dichlorobenzene			Not detected	8300
2,4-Dinitrotoluene			Not detected	8300
2,6-Dinitrotoluene			Not detected	8300
2-Chloronaphthalene			Not detected	8300
2-Methylnaphthalene			8600	8300
2-Nitroaniline			Not detected	8300
3,3'-Dichlorobenzidine			Not detected	8300
3-Nitroaniline			Not detected	8300
4-Bromophenyl phenyl ether			Not detected	8300
4-Chloroaniline			Not detected	8300
4-Chlorophenyl phenyl ether			Not detected	8300
4-Nitroaniline			Not detected	8300
Acenaphthene			13000	8300
Acenaphthylene			Not detected	8300
Anthracene			25000	8300
Benzo(a)anthracene			44000	8300
Benzo(a)pyrene			33000	8300
Benzo(b)fluoranthene			26000	8300
Benzo(g,h,i)perylene			8600	8300
Benzo(k)fluoranthene			32000	8300
Bis(2-chloroethoxy)methane			Not detected	8300
Bis(2-chloroethyl)ether			Not detected	8300
Bis(2-chloroisopropyl)ether			Not detected	8300
Bis(2-ethylhexyl)phthalate			Not detected	8300
Butyl benzyl phthalate			Not detected	8300
Carbazole			Not detected	8300
Chrysene			48000	8300
Dibenzo(a,h)anthracene			Not detected	8300

**YORK**



Client Sample ID			SB-39	
York Sample ID			06060636-07	
Matrix			SOIL	
Parameter	Method	Units	Results	MDL
Dibenzofuran			10000	8300
Diethylphthalate			Not detected	8300
Dimethylphthalate			Not detected	8300
Di-n-butylphthalate			Not detected	8300
Di-n-octylphthalate			Not detected	8300
Fluoranthene			88000	8300
Fluorene			17000	8300
Hexachlorobenzene			Not detected	8300
Hexachlorobutadiene			Not detected	8300
Hexachlorocyclopentadiene			Not detected	8300
Hexachloroethane			Not detected	8300
Indeno(1,2,3-cd)pyrene			10000	8300
Isophorone			Not detected	8300
Naphthalene			12000	8300
Nitrobenzene			Not detected	8300
N-Nitrosodi-n-propylamine			Not detected	8300
N-Nitrosodiphenylamine			Not detected	8300
Phenanthrene			86000	8300
Pyrene			80000	8300

**Units Key:**

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

**Notes for York Project No. 06060636**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By: \_\_\_\_\_

Robert Q. Bradley  
Managing Director

Date: 6/26/2006

**YORK**

# YORK

ANALYTICAL LABORATORIES, INC.

120 RESEARCH DRIVE  
(203) 325-1371 FAX (203) 357-0166  
STRATFORD, CT 06615

Company Name

A SR  
62 WILLIAMS ST  
N.Y N.Y 10005

Report To:

STEVE MULLER

Invoice To:

ASR

Project ID/No.

49 DUPONT ST  
BKLYN N.Y

E. V. [Signature]  
Samples Collected By (Signature)

E. V. [Signature]  
Name (Printed)

Container

Description(s)

ANALYSES REQUESTED

Sample Matrix

Water Soil Air OTHER

Date Sampled

Location/ID

Sample No.

E1A 8260 + 8270 STARS  
1(402) 1(812)

6-16-06

SR-32

SR-34

SR-36

SR-37

SR-38A

SR-38B

SR-39

Chain-of-Custody Record

Bottles Relinquished from Lab by

Date/Time

Bottles Received in Field by

Date/Time

Sample Relinquished by

Date/Time

Sample Received in LAB by

Date/Time

Date/Time

Date/Time

Turn-Around Time

Standard

RUSH(define)

Comments/Special Instructions



# Technical Report

prepared for

**Advanced Site Restoration  
62 William St.  
New York, NY 10005  
Attention: Steve Muller**

Report Date: 8/1/2006  
**Re: Client Project ID: 49 Dupont St., Brooklyn, NY**  
York Project No.: 06070643

CT License No. PH-0723

New York License No. 10854



Report Date: 8/1/2006  
Client Project ID: 49 Dupont St., Brooklyn, NY  
York Project No.: 06070643

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

## 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 07/24/06. The project was identified as your project "49 Dupont St., Brooklyn, NY".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			MW-5 4-9'		MW-6 5-10'	
York Sample ID			06070643-01		06070643-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	Not detected	25
1,3,5-Trimethylbenzene			Not detected	10	Not detected	25
Benzene			Not detected	2.0	Not detected	5.0
Ethylbenzene			Not detected	10	Not detected	25
Isopropylbenzene			Not detected	10	Not detected	25
Methyl-tert-butyl ether			Not detected	10	Not detected	25
Naphthalene			Not detected	10	Not detected	25
n-Butylbenzene			Not detected	10	Not detected	25
n-Propylbenzene			Not detected	10	Not detected	25
o-Xylene			Not detected	10	Not detected	25
p- & m- Xylenes			Not detected	10	Not detected	25
p-Isopropyltoluene			Not detected	10	Not detected	25
sec-Butylbenzene			Not detected	10	31	25
tert-Butylbenzene			Not detected	10	Not detected	25
Toluene			Not detected	10	Not detected	25

**YORK**

Client Sample ID			MW-5 4-9'		MW-6 5-10'	
York Sample ID			06070643-01		06070643-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	830000
1,2-Dichlorobenzene			Not detected	165	Not detected	830000
1,3-Dichlorobenzene			Not detected	165	Not detected	830000
1,4-Dichlorobenzene			Not detected	165	Not detected	830000
2,4-Dinitrotoluene			Not detected	165	Not detected	830000
2,6-Dinitrotoluene			Not detected	165	Not detected	830000
2-Chloronaphthalene			Not detected	165	Not detected	830000
2-Methylnaphthalene			Not detected	165	Not detected	830000
2-Nitroaniline			Not detected	165	Not detected	830000
3,3'-Dichlorobenzidine			Not detected	165	Not detected	830000
3-Nitroaniline			Not detected	165	Not detected	830000
4-Bromophenyl phenyl ether			Not detected	165	Not detected	830000
4-Chloroaniline			Not detected	165	Not detected	830000
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	830000
4-Nitroaniline			Not detected	165	Not detected	830000
Acenaphthene			Not detected	165	Not detected	830000
Acenaphthylene			Not detected	165	Not detected	830000
Anthracene			Not detected	165	Not detected	830000
Benzo(a)anthracene			Not detected	165	Not detected	830000
Benzo(a)pyrene			Not detected	165	Not detected	830000
Benzo(b)fluoranthene			Not detected	165	Not detected	830000
Benzo(g,h,i)perylene			Not detected	165	Not detected	830000
Benzo(k)fluoranthene			Not detected	165	Not detected	830000
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	830000
Bis(2-chloroethyl)ether			Not detected	165	Not detected	830000
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	830000
Bis(2-ethylhexyl)phthalate			Not detected	165	9500000	830000
Butyl benzyl phthalate			Not detected	165	Not detected	830000
Carbazole			Not detected	165	Not detected	830000
Chrysene			Not detected	165	Not detected	830000
Dibenzo(a,h)anthracene			Not detected	165	Not detected	830000
Dibenzofuran			Not detected	165	Not detected	830000
Diethylphthalate			Not detected	165	Not detected	830000
Dimethylphthalate			Not detected	165	Not detected	830000
Di-n-butylphthalate			Not detected	165	Not detected	830000
Di-n-octylphthalate			Not detected	165	Not detected	830000
Fluoranthene			Not detected	165	Not detected	830000
Fluorene			Not detected	165	Not detected	830000
Hexachlorobenzene			Not detected	165	Not detected	830000
Hexachlorobutadiene			Not detected	165	Not detected	830000
Hexachlorocyclopentadiene			Not detected	165	Not detected	830000
Hexachloroethane			Not detected	165	Not detected	830000
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	830000

**YORK**

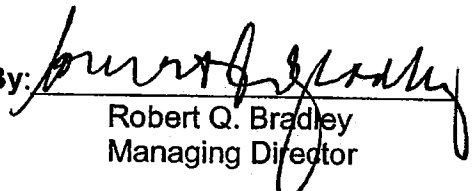
Client Sample ID			MW-5 4-9'		MW-6 5-10'	
York Sample ID			06070643-01		06070643-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Isophorone			Not detected	165	Not detected	830000
Naphthalene			Not detected	165	Not detected	830000
Nitrobenzene			Not detected	165	Not detected	830000
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	830000
N-Nitrosodiphenylamine			Not detected	165	Not detected	830000
Phenanthrene			Not detected	165	Not detected	830000
Pyrene			Not detected	165	Not detected	830000

Units Key: For Waters/Liquids: mg/L = ppm ; ug/L = ppb For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

### Notes for York Project No. 06070643

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By:

  
Robert Q. Bradley  
Managing Director

Date: 8/1/2006

**YORK**



[illegible]



# Technical Report

prepared for

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

Report Date: 8/1/2006  
*Re: Client Project ID: 49 Dupont St., Brooklyn, NY*  
York Project No.: 06070644

CT License No. PH-0723

New York License No. 10854



Report Date: 8/1/2006  
Client Project ID: 49 Dupont St., Brooklyn, NY  
York Project No.: 06070644

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

## 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 07/24/06. The project was identified as your project "49 Dupont St., Brooklyn, NY".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			MW-5 10-15'		MW-6 10-15'	
York Sample ID			06070644-01		06070644-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			420	130	540	130
1,3,5-Trimethylbenzene			Not detected	130	220	130
Benzene			Not detected	25	Not detected	25
Ethylbenzene			Not detected	130	Not detected	130
Isopropylbenzene			Not detected	130	Not detected	130
Methyl-tert-butyl ether			Not detected	130	Not detected	130
Naphthalene			220	130	Not detected	130
n-Butylbenzene			Not detected	130	Not detected	130
n-Propylbenzene			Not detected	130	Not detected	130
o-Xylene			Not detected	130	Not detected	130
p- & m- Xylenes			Not detected	130	Not detected	130
p-Isopropyltoluene			Not detected	130	Not detected	130
sec-Butylbenzene			Not detected	130	Not detected	130
tert-Butylbenzene			Not detected	130	Not detected	130
Toluene			Not detected	130	Not detected	130

**YORK**

Client Sample ID			MW-5 10-15'		MW-6 10-15'	
York Sample ID			06070644-01		06070644-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	410000	Not detected	83000
1,2-Dichlorobenzene			Not detected	410000	Not detected	83000
1,3-Dichlorobenzene			Not detected	410000	Not detected	83000
1,4-Dichlorobenzene			Not detected	410000	Not detected	83000
2,4-Dinitrotoluene			Not detected	410000	Not detected	83000
2,6-Dinitrotoluene			Not detected	410000	Not detected	83000
2-Chloronaphthalene			Not detected	410000	Not detected	83000
2-Methylnaphthalene			Not detected	410000	Not detected	83000
2-Nitroaniline			Not detected	410000	Not detected	83000
3,3'-Dichlorobenzidine			Not detected	410000	Not detected	83000
3-Nitroaniline			Not detected	410000	Not detected	83000
4-Bromophenyl phenyl ether			Not detected	410000	Not detected	83000
4-Chloroaniline			Not detected	410000	Not detected	83000
4-Chlorophenyl phenyl ether			Not detected	410000	Not detected	83000
4-Nitroaniline			Not detected	410000	Not detected	83000
Acenaphthene			Not detected	410000	Not detected	83000
Acenaphthylene			Not detected	410000	Not detected	83000
Anthracene			Not detected	410000	Not detected	83000
Benzo(a)anthracene			Not detected	410000	Not detected	83000
Benzo(a)pyrene			Not detected	410000	Not detected	83000
Benzo(b)fluoranthene			Not detected	410000	Not detected	83000
Benzo(g,h,i)perylene			Not detected	410000	Not detected	83000
Benzo(k)fluoranthene			Not detected	410000	Not detected	83000
Bis(2-chloroethoxy)methane			Not detected	410000	Not detected	83000
Bis(2-chloroethyl)ether			Not detected	410000	Not detected	83000
Bis(2-chloroisopropyl)ether			Not detected	410000	Not detected	83000
Bis(2-ethylhexyl)phthalate			6700000	410000	1900000	83000
Butyl benzyl phthalate			Not detected	410000	Not detected	83000
Carbazole			Not detected	410000	Not detected	83000
Chrysene			Not detected	410000	Not detected	83000
Dibenzo(a,h)anthracene			Not detected	410000	Not detected	83000
Dibenzofuran			Not detected	410000	Not detected	83000
Diethylphthalate			Not detected	410000	Not detected	83000
Dimethylphthalate			Not detected	410000	Not detected	83000
Di-n-butylphthalate			Not detected	410000	Not detected	83000
Di-n-octylphthalate			1300000	410000	180000	83000
Fluoranthene			Not detected	410000	Not detected	83000
Fluorene			Not detected	410000	Not detected	83000
Hexachlorobenzene			Not detected	410000	Not detected	83000
Hexachlorobutadiene			Not detected	410000	Not detected	83000
Hexachlorocyclopentadiene			Not detected	410000	Not detected	83000

**YORK**

<b>Client Sample ID</b>			<b>MW-5 10-15'</b>		<b>MW-6 10-15'</b>	
<b>York Sample ID</b>			<b>06070644-01</b>		<b>06070644-02</b>	
<b>Matrix</b>			<b>SOIL</b>		<b>SOIL</b>	
<b>Parameter</b>	<b>Method</b>	<b>Units</b>	<b>Results</b>	<b>MDL</b>	<b>Results</b>	<b>MDL</b>
Hexachloroethane			Not detected	410000	Not detected	83000
Indeno(1,2,3-cd)pyrene			Not detected	410000	Not detected	83000
Isophorone			Not detected	410000	Not detected	83000
Naphthalene			Not detected	410000	Not detected	83000
Nitrobenzene			Not detected	410000	Not detected	83000
N-Nitrosodi-n-propylamine			Not detected	410000	Not detected	83000
N-Nitrosodiphenylamine			Not detected	410000	Not detected	83000
Phenanthrene			Not detected	410000	Not detected	83000
Pyrene			Not detected	410000	Not detected	83000

**Units Key:** For Waters/Liquids: mg/L = ppm ; ug/L = ppb For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

### Notes for York Project No. 06070644

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By: 

Robert Q. Bradley  
Managing Director

Date: 8/1/2006

**YORK**





**YORK**  
**ANALYTICAL LABORATORIES, INC.**

# Technical Report

prepared for

**Advanced Site Restoration  
62 William St.  
New York, NY 10005  
Attention: Steve Muller**

Report Date: 7/31/2006  
***Re: Client Project ID: 49 Dupont St., Brooklyn, NY***  
York Project No.: 06070642

CT License No. PH-0723

New York License No. 10854



Report Date: 7/31/2006  
Client Project ID: 49 Dupont St., Brooklyn, NY  
York Project No.: 06070642

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

## 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 07/24/06. The project was identified as your project "49 Dupont St., Brooklyn, NY".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			MW-7@5-10'		MW-8@5-10'	
York Sample ID			06070642-01		06070642-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	Not detected	10
1,3,5-Trimethylbenzene			Not detected	10	Not detected	10
Benzene			Not detected	2.0	Not detected	2.0
Ethylbenzene			Not detected	10	Not detected	10
Isopropylbenzene			Not detected	10	Not detected	10
Methyl-tert-butyl ether			Not detected	10	Not detected	10
Naphthalene			Not detected	10	Not detected	10
n-Butylbenzene			Not detected	10	Not detected	10
n-Propylbenzene			Not detected	10	Not detected	10
o-Xylene			Not detected	10	Not detected	10
p- & m- Xylenes			Not detected	10	Not detected	10
p-Isopropyltoluene			Not detected	10	Not detected	10
sec-Butylbenzene			Not detected	10	Not detected	10
tert-Butylbenzene			Not detected	10	Not detected	10
Toluene			Not detected	10	Not detected	10

**YORK**

Client Sample ID			MW-7@5-10'		MW-8@5-10'	
York Sample ID			06070642-01		06070642-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			3600	165	Not detected	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	Not detected	165

**YORK**

Client Sample ID			MW-9@5-10'		MW-10@5-10'	
York Sample ID			06070642-03		06070642-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	500	Not detected	10
1,3,5-Trimethylbenzene			Not detected	500	Not detected	10
Benzene			Not detected	100	Not detected	2.0
Ethylbenzene			Not detected	500	Not detected	10
Isopropylbenzene			Not detected	500	Not detected	10
Methyl-tert-butyl ether			Not detected	500	Not detected	10
Naphthalene			4400	500	Not detected	10
n-Butylbenzene			1100	500	Not detected	10
n-Propylbenzene			850	500	Not detected	10
o-Xylene			Not detected	500	Not detected	10
p- & m- Xylenes			Not detected	500	Not detected	10
p-Isopropyltoluene			Not detected	500	Not detected	10
sec-Butylbenzene			720	500	Not detected	10
tert-Butylbenzene			Not detected	500	Not detected	10
Toluene			Not detected	500	Not detected	10
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	4100	Not detected	165
1,2-Dichlorobenzene			Not detected	4100	Not detected	165
1,3-Dichlorobenzene			Not detected	4100	Not detected	165
1,4-Dichlorobenzene			Not detected	4100	Not detected	165
2,4-Dinitrotoluene			Not detected	4100	Not detected	165
2,6-Dinitrotoluene			Not detected	4100	Not detected	165
2-Chloronaphthalene			Not detected	4100	Not detected	165
2-Methylnaphthalene			Not detected	4100	Not detected	165
2-Nitroaniline			Not detected	4100	Not detected	165
3,3'-Dichlorobenzidine			Not detected	4100	Not detected	165
3-Nitroaniline			Not detected	4100	Not detected	165
4-Bromophenyl phenyl ether			Not detected	4100	Not detected	165
4-Chloroaniline			Not detected	4100	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	4100	Not detected	165
4-Nitroaniline			Not detected	4100	Not detected	165
Acenaphthene			Not detected	4100	Not detected	165
Acenaphthylene			Not detected	4100	Not detected	165
Anthracene			Not detected	4100	Not detected	165
Benzo(a)anthracene			Not detected	4100	Not detected	165
Benzo(a)pyrene			Not detected	4100	Not detected	165
Benzo(b)fluoranthene			Not detected	4100	Not detected	165
Benzo(g,h,i)perylene			Not detected	4100	Not detected	165
Benzo(k)fluoranthene			Not detected	4100	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	4100	Not detected	165
Bis(2-chloroethyl)ether			Not detected	4100	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	4100	Not detected	165
Bis(2-ethylhexyl)phthalate			Not detected	4100	Not detected	165
Butyl benzyl phthalate			Not detected	4100	Not detected	165
Carbazole			Not detected	4100	Not detected	165
Chrysene			Not detected	4100	Not detected	165
Dibenzo(a,h)anthracene			Not detected	4100	Not detected	165
Dibenzofuran			Not detected	4100	Not detected	165

**YORK**

Client Sample ID			MW-9@5-10'		MW-10@5-10'	
York Sample ID			06070642-03		06070642-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Diethylphthalate			Not detected	4100	Not detected	165
Dimethylphthalate			Not detected	4100	Not detected	165
Di-n-butylphthalate			Not detected	4100	Not detected	165
Di-n-octylphthalate			Not detected	4100	Not detected	165
Fluoranthene			Not detected	4100	Not detected	165
Fluorene			Not detected	4100	Not detected	165
Hexachlorobenzene			Not detected	4100	Not detected	165
Hexachlorobutadiene			Not detected	4100	Not detected	165
Hexachlorocyclopentadiene			Not detected	4100	Not detected	165
Hexachloroethane			Not detected	4100	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	4100	Not detected	165
Isophorone			Not detected	4100	Not detected	165
Naphthalene			Not detected	4100	Not detected	165
Nitrobenzene			Not detected	4100	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	4100	Not detected	165
N-Nitrosodiphenylamine			Not detected	4100	Not detected	165
Phenanthrene			5600	4100	Not detected	165
Pyrene			Not detected	4100	Not detected	165

**Units Key:**

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

**Notes for York Project No. 06070642**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for calibration where applicable.
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Approved By: \_\_\_\_\_

Robert Q. Bradley  
Managing Director

Date: 7/31/2006

**YORK**

## ANALYTICAL LABORATORIES, INC.

120 RESEARCH DRIVE  
STRATFORD, CT 06615  
(203) 325-1371  
FAX (203) 357-0166

Company Name

25A

Report To:

STEVE MULLER

**Invoice To:**

ASL

**Project ID/No.**

49 DuPont St  
Bklyn NY

E. Varz  Samples Collected By (Signature)

**Name (Printed)**  
E. VAZQUEZ

# Field Chain-of-Custody Record

Page 7 of 7

Sample No.	Location/ID	Date Sampled	Sample Matrix				ANALYSES REQUESTED	Container Description(s)
			Water	Soil	Air	OTHER		
	MW-705'-10'	7/21/06		X			EPA 8260 STARS	402
	MW-705'-10'	7/21/06		X			EPA 8270 BN	802
	MW-805'-10'	7/21/06		X			EPA 8260 STARS	402
	MW-805'-10'	7/21/06		X			EPA 8270 BN	802
	MW-905'-10'	7/21/06		X			EPA 8260 STARS	402
	MW-905'-10'	7/21/06		X			EPA 8270 BN	802
	MW-10@5'-10'	7/21/06		X			EPA 8260 STARS	402
	MW-10@5'-10'	7/21/06		X			EPA 8270 BN	802

## Chain-of-Custody Record

E. Vazquez

7/24/06  
Date/Time

Sample Received in  
LAB by

Bottles Relinquished from Lab by	Date/Time
----------------------------------	-----------

Date/Time

[illegible]

Date/Time

Comments/Special Instructions

### Turn-Around Time

RUSH(define)





# Technical Report

prepared for

**Advanced Site Restoration  
62 William St.  
New York, NY 10005  
Attention: Steve Muller**

Report Date: 7/31/2006  
***Re: Client Project ID: 49 Dupont St., Brooklyn, NY***  
York Project No.: 06070645

CT License No. PH-0723

New York License No. 10854



Report Date: 7/31/2006  
Client Project ID: 49 Dupont St., Brooklyn, NY  
York Project No.: 06070645

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

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## Analysis Results

Client Sample ID			MW-7@10-15'		MW-8@10-15'	
York Sample ID			06070645-01		06070645-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			35	25	Not detected	10
1,3,5-Trimethylbenzene			Not detected	25	Not detected	10
Benzene			Not detected	5.0	Not detected	2.0
Ethylbenzene			Not detected	25	Not detected	10
Isopropylbenzene			Not detected	25	Not detected	10
Methyl-tert-butyl ether			Not detected	25	Not detected	10
Naphthalene			Not detected	25	Not detected	10
n-Butylbenzene			Not detected	25	Not detected	10
n-Propylbenzene			Not detected	25	Not detected	10
o-Xylene			Not detected	25	Not detected	10
p- & m- Xylenes			36	25	Not detected	10
p-Isopropyltoluene			Not detected	25	Not detected	10
sec-Butylbenzene			Not detected	25	Not detected	10
tert-Butylbenzene			Not detected	25	Not detected	10

**YORK**

Client Sample ID			MW-7@10-15'		MW-8@10-15'	
York Sample ID			06070645-01		06070645-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Toluene			33	.25	Not detected	10
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	170000	Not detected	830
1,2-Dichlorobenzene			Not detected	170000	Not detected	830
1,3-Dichlorobenzene			Not detected	170000	Not detected	830
1,4-Dichlorobenzene			Not detected	170000	Not detected	830
2,4-Dinitrotoluene			Not detected	170000	Not detected	830
2,6-Dinitrotoluene			Not detected	170000	Not detected	830
2-Chloronaphthalene			Not detected	170000	Not detected	830
2-Methylnaphthalene			Not detected	170000	Not detected	830
2-Nitroaniline			Not detected	170000	Not detected	830
3,3'-Dichlorobenzidine			Not detected	170000	Not detected	830
3-Nitroaniline			Not detected	170000	Not detected	830
4-Bromophenyl phenyl ether			Not detected	170000	Not detected	830
4-Chloroaniline			Not detected	170000	Not detected	830
4-Chlorophenyl phenyl ether			Not detected	170000	Not detected	830
4-Nitroaniline			Not detected	170000	Not detected	830
Acenaphthene			Not detected	170000	Not detected	830
Acenaphthylene			Not detected	170000	Not detected	830
Anthracene			Not detected	170000	Not detected	830
Benzo(a)anthracene			Not detected	170000	Not detected	830
Benzo(a)pyrene			Not detected	170000	Not detected	830
Benzo(b)fluoranthene			Not detected	170000	Not detected	830
Benzo(g,h,i)perylene			Not detected	170000	Not detected	830
Benzo(k)fluoranthene			Not detected	170000	Not detected	830
Bis(2-chloroethoxy)methane			Not detected	170000	Not detected	830
Bis(2-chloroethyl)ether			Not detected	170000	Not detected	830
Bis(2-chloroisopropyl)ether			Not detected	170000	Not detected	830
Bis(2-ethylhexyl)phthalate			1700000	170000	12000	830
Butyl benzyl phthalate			Not detected	170000	Not detected	830
Carbazole			Not detected	170000	Not detected	830
Chrysene			Not detected	170000	Not detected	830
Dibenzo(a,h)anthracene			Not detected	170000	Not detected	830
Dibenzofuran			Not detected	170000	Not detected	830
Diethylphthalate			Not detected	170000	Not detected	830
Dimethylphthalate			Not detected	170000	Not detected	830
Di-n-butylphthalate			Not detected	170000	Not detected	830
Di-n-octylphthalate			Not detected	170000	Not detected	830
Fluoranthene			Not detected	170000	Not detected	830
Fluorene			Not detected	170000	Not detected	830
Hexachlorobenzene			Not detected	170000	Not detected	830
Hexachlorobutadiene			Not detected	170000	Not detected	830
Hexachlorocyclopentadiene			Not detected	170000	Not detected	830
Hexachloroethane			Not detected	170000	Not detected	830

**YORK**

<b>Client Sample ID</b>			<b>MW-7@10-15'</b>		<b>MW-8@10-15'</b>	
<b>York Sample ID</b>			<b>06070645-01</b>		<b>06070645-02</b>	
<b>Matrix</b>			<b>SOIL</b>		<b>SOIL</b>	
<b>Parameter</b>	<b>Method</b>	<b>Units</b>	<b>Results</b>	<b>MDL</b>	<b>Results</b>	<b>MDL</b>
Indeno(1,2,3-cd)pyrene			Not detected	170000	Not detected	830
Isophorone			Not detected	170000	Not detected	830
Naphthalene			Not detected	170000	Not detected	830
Nitrobenzene			Not detected	170000	Not detected	830
N-Nitrosodi-n-propylamine			Not detected	170000	Not detected	830
N-Nitrosodiphenylamine			Not detected	170000	Not detected	830
Phenanthrene			Not detected	170000	Not detected	830
Pyrene			Not detected	170000	Not detected	830

<b>Client Sample ID</b>			<b>MW-9@10-15'</b>		<b>MW-10@10-15'</b>	
<b>York Sample ID</b>			<b>06070645-03</b>		<b>06070645-04</b>	
<b>Matrix</b>			<b>SOIL</b>		<b>SOIL</b>	
<b>Parameter</b>	<b>Method</b>	<b>Units</b>	<b>Results</b>	<b>MDL</b>	<b>Results</b>	<b>MDL</b>
<b>Volatiles- STARS List</b>	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	130	Not detected	10
1,3,5-Trimethylbenzene			Not detected	130	Not detected	10
Benzene			Not detected	25	Not detected	2.0
Ethylbenzene			480	130	Not detected	10
Isopropylbenzene			620	130	Not detected	10
Methyl-tert-butyl ether			Not detected	130	Not detected	10
Naphthalene			3600	130	Not detected	10
n-Butylbenzene			1100	130	Not detected	10
n-Propylbenzene			1100	130	Not detected	10
o-Xylene			Not detected	130	Not detected	10
p- & m- Xylenes			Not detected	130	Not detected	10
p-Isopropyltoluene			Not detected	130	Not detected	10
sec-Butylbenzene			690	130	Not detected	10
tert-Butylbenzene			Not detected	130	Not detected	10
Toluene			Not detected	130	Not detected	10
<b>Base/Neutral Extractables soil</b>	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	8300	Not detected	830
1,2-Dichlorobenzene			Not detected	8300	Not detected	830
1,3-Dichlorobenzene			Not detected	8300	Not detected	830
1,4-Dichlorobenzene			Not detected	8300	Not detected	830
2,4-Dinitrotoluene			Not detected	8300	Not detected	830
2,6-Dinitrotoluene			Not detected	8300	Not detected	830
2-Chloronaphthalene			Not detected	8300	Not detected	830
2-Methylnaphthalene			21000	8300	Not detected	830
2-Nitroaniline			Not detected	8300	Not detected	830
3,3'-Dichlorobenzidine			Not detected	8300	Not detected	830
3-Nitroaniline			Not detected	8300	Not detected	830
4-Bromophenyl phenyl ether			Not detected	8300	Not detected	830
4-Chloroaniline			Not detected	8300	Not detected	830
4-Chlorophenyl phenyl ether			Not detected	8300	Not detected	830
4-Nitroaniline			Not detected	8300	Not detected	830
Acenaphthene			Not detected	8300	Not detected	830
Acenaphthylene			Not detected	8300	Not detected	830
Anthracene			Not detected	8300	Not detected	830
Benzo(a)anthracene			Not detected	8300	Not detected	830

**YORK**

Client Sample ID			MW-9@10-15'		MW-10@10-15'	
York Sample ID			06070645-03		06070645-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Benzo(a)pyrene			Not detected	8300	Not detected	830
Benzo(b)fluoranthene			Not detected	8300	Not detected	830
Benzo(g,h,i)perylene			Not detected	8300	Not detected	830
Benzo(k)fluoranthene			Not detected	8300	Not detected	830
Bis(2-chloroethoxy)methane			Not detected	8300	Not detected	830
Bis(2-chloroethyl)ether			Not detected	8300	Not detected	830
Bis(2-chloroisopropyl)ether			Not detected	8300	Not detected	830
Bis(2-ethylhexyl)phthalate			59000	8300	6300	830
Butyl benzyl phthalate			Not detected	8300	Not detected	830
Carbazole			Not detected	8300	Not detected	830
Chrysene			Not detected	8300	Not detected	830
Dibenzo(a,h)anthracene			Not detected	8300	Not detected	830
Dibenzofuran			Not detected	8300	Not detected	830
Diethylphthalate			Not detected	8300	Not detected	830
Dimethylphthalate			Not detected	8300	Not detected	830
Di-n-butylphthalate			Not detected	8300	Not detected	830
Di-n-octylphthalate			Not detected	8300	Not detected	830
Fluoranthene			Not detected	8300	Not detected	830
Fluorene			Not detected	8300	Not detected	830
Hexachlorobenzene			Not detected	8300	Not detected	830
Hexachlorobutadiene			Not detected	8300	Not detected	830
Hexachlorocyclopentadiene			Not detected	8300	Not detected	830
Hexachloroethane			Not detected	8300	Not detected	830
Indeno(1,2,3-cd)pyrene			Not detected	8300	Not detected	830
Isophorone			Not detected	8300	Not detected	830
Naphthalene			Not detected	8300	Not detected	830
Nitrobenzene			Not detected	8300	Not detected	830
N-Nitrosodi-n-propylamine			Not detected	8300	Not detected	830
N-Nitrosodiphenylamine			Not detected	8300	Not detected	830
Phenanthrene			17000	8300	Not detected	830
Pyrene			Not detected	8300	Not detected	830

Units Key:

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

### Notes for York Project No. 06070645

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By:

Robert Q. Bradley  
Managing Director

Date: 7/31/2006

**YORK**

# YORK

ANALYTICAL LABORATORIES, INC.

120 RESEARCH DRIVE STRATFORD, CT 06615  
(203) 325-1371 FAX (203) 357-0166

## Field Chain-of-Custody Record

Page 1 of 1

Company Name

A S R

Report To:

STEVE MULLER

Invoice To:

A S R

Project ID/No.

49 DUPONT ST  
BKLYN N.Y.E. Vazquez  
Samples Collected By (Signature)E. VAZQUEZ  
Name (Printed)

Sample No.	Location/ID	Date Sampled	Sample Matrix			ANALYSES REQUESTED	Container Description(s)
			Water	Soil	Air OTHER		
	MW-7@10'-15'	7/21/06		X		EPA 8260 STARS	402
	MW-7@10'-15'					EPA 8270 BN	802
	MW-8@10'-15'					EPA 8260 STARS	402
	MW-8@10'-15'					EPA 8270 <del>BN</del>	802
	MW-9@10'-15'					EPA 8260 STARS	402
	MW-9@10'-15'					EPA 8270 BN	802
	MW-10@10'-15'					EPA 8260 STARS	402
	MW-10@10'-15'					EPA 8270 BN	802

### Chain-of-Custody Record

Bottles Relinquished from Lab by

Date/Time

Bottles Received in Field by

Date/Time

Sample Relinquished by

Sample Relinquished by

Date/Time

Sample Received in LAB by

Date/Time

Comments/Special Instructions

Turn-Around Time

42°C

X Standard

RUSH(define)



**YORK**  
ANALYTICAL LABORATORIES, INC.

# Technical Report

prepared for

**Advanced Site Restoration  
62 William St.  
New York, NY 10005  
Attention: Steve Muller**

Report Date: 9/21/2006  
**Re: Client Project ID: Dupont, Brooklyn**  
York Project No.: 06090528

CT License No. PH-0723

New York License No. 10854



Report Date: 9/21/2006  
Client Project ID: Dupont, Brooklyn  
York Project No.: 06090528

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

## 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 09/14/06. The project was identified as your project "Dupont, Brooklyn".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			MW-11@8-10'		MW-12@8-10'	
York Sample ID			06090528-01		06090528-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10.0	Not detected	10.0
1,3,5-Trimethylbenzene			Not detected	10.0	Not detected	10.0
Benzene			Not detected	2.00	Not detected	2.00
Ethylbenzene			Not detected	10.0	Not detected	10.0
Isopropylbenzene			Not detected	10.0	Not detected	10.0
Methyl-tert-butyl ether			Not detected	10.0	Not detected	10.0
Naphthalene			Not detected	10.0	Not detected	10.0
n-Butylbenzene			Not detected	10.0	Not detected	10.0
n-Propylbenzene			Not detected	10.0	Not detected	10.0
o-Xylene			Not detected	10.0	Not detected	10.0
p- & m- Xylenes			Not detected	10.0	Not detected	10.0
p-Isopropyltoluene			Not detected	10.0	Not detected	10.0
sec-Butylbenzene			Not detected	10.0	Not detected	10.0
tert-Butylbenzene			Not detected	10.0	Not detected	10.0
Toluene			Not detected	10.0	Not detected	10.0

**YORK**

Client Sample ID			MW-11@8-10'		MW-12@8-10'	
York Sample ID			06090528-01		06090528-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			170	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			320	165	Not detected	165
Benzo(a)anthracene			350	165	Not detected	165
Benzo(a)pyrene			180	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			210	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			Not detected	165	Not detected	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			320	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			740	165	Not detected	165
Fluorene			170	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			890	165	Not detected	165
Pyrene			600	165	Not detected	165

**YORK**

Client Sample ID			MW-13@8-10'		MW-14@8-10'	
York Sample ID			06090528-03		06090528-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Volatiles- STARS List</b>	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10.0	Not detected	10.0
1,3,5-Trimethylbenzene			Not detected	10.0	Not detected	10.0
Benzene			Not detected	2.00	Not detected	2.00
Ethylbenzene			Not detected	10.0	Not detected	10.0
Isopropylbenzene			Not detected	10.0	Not detected	10.0
Methyl-tert-butyl ether			Not detected	10.0	Not detected	10.0
Naphthalene			Not detected	10.0	Not detected	10.0
n-Butylbenzene			Not detected	10.0	Not detected	10.0
n-Propylbenzene			Not detected	10.0	Not detected	10.0
o-Xylene			Not detected	10.0	Not detected	10.0
p- & m- Xylenes			Not detected	10.0	Not detected	10.0
p-Isopropyltoluene			Not detected	10.0	Not detected	10.0
sec-Butylbenzene			Not detected	10.0	Not detected	10.0
tert-Butylbenzene			Not detected	10.0	Not detected	10.0
Toluene			Not detected	10.0	Not detected	10.0
<b>Base/Neutral Extractables soil</b>	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			Not detected	165	Not detected	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165

**YORK**

<b>Client Sample ID</b>			<b>MW-13@8-10'</b>		<b>MW-14@8-10'</b>	
<b>York Sample ID</b>			<b>06090528-03</b>		<b>06090528-04</b>	
<b>Matrix</b>			<b>SOIL</b>		<b>SOIL</b>	
<b>Parameter</b>	<b>Method</b>	<b>Units</b>	<b>Results</b>	<b>MDL</b>	<b>Results</b>	<b>MDL</b>
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	Not detected	165

**Units Key:**

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

**Notes for York Project No. 06090528**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By: \_\_\_\_\_

Robert Q. Bradley  
Managing Director

Date: 9/21/2006

**YORK**





**YORK**  
ANALYTICAL LABORATORIES, INC.

# Technical Report

prepared for

**Advanced Site Restoration  
62 William St.  
New York, NY 10005  
Attention: Steve Muller**

Report Date: 12/20/2006  
**Re: Client Project ID: 49 Dupont St., Brooklyn**  
York Project No.: 06120412

CT License No. PH-0723

New York License No. 10854



Report Date: 12/20/2006  
Client Project ID: 49 Dupont St., Brooklyn  
York Project No.: 06120412

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

## 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 12/13/06. The project was identified as your project "49 Dupont St., Brooklyn".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			MW-15 8-10'		MW-16 8-10'	
York Sample ID			06120412-01		06120412-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles, STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10.0	Not detected	10.0
1,3,5-Trimethylbenzene			Not detected	10.0	Not detected	10.0
Benzene			Not detected	2.00	Not detected	2.00
Ethylbenzene			Not detected	10.0	Not detected	10.0
Isopropylbenzene			Not detected	10.0	Not detected	10.0
Methyl-tert-butyl ether			Not detected	10.0	Not detected	10.0
Naphthalene			Not detected	10.0	Not detected	10.0
n-Butylbenzene			Not detected	10.0	Not detected	10.0
n-Propylbenzene			Not detected	10.0	Not detected	10.0
o-Xylene			Not detected	10.0	Not detected	10.0
p- & m- Xylenes			Not detected	10.0	Not detected	10.0
p-Isopropyltoluene			Not detected	10.0	Not detected	10.0
sec-Butylbenzene			Not detected	10.0	Not detected	10.0
tert-Butylbenzene			Not detected	10.0	Not detected	10.0
Toluene			Not detected	10.0	Not detected	10.0

**YORK**

Client Sample ID			MW-15 8-10'		MW-16 8-10'	
York Sample ID			06120412-01		06120412-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	1700	Not detected	165
1,2-Dichlorobenzene			Not detected	1700	Not detected	165
1,3-Dichlorobenzene			Not detected	1700	Not detected	165
1,4-Dichlorobenzene			Not detected	1700	Not detected	165
2,4-Dinitrotoluene			Not detected	1700	Not detected	165
2,6-Dinitrotoluene			Not detected	1700	Not detected	165
2-Chloronaphthalene			Not detected	1700	Not detected	165
2-Methylnaphthalene			Not detected	1700	Not detected	165
2-Nitroaniline			Not detected	1700	Not detected	165
3,3'-Dichlorobenzidine			Not detected	1700	Not detected	165
3-Nitroaniline			Not detected	1700	Not detected	165
4-Bromophenyl phenyl ether			Not detected	1700	Not detected	165
4-Chloroaniline			Not detected	1700	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	1700	Not detected	165
4-Nitroaniline			Not detected	1700	Not detected	165
Acenaphthene			Not detected	1700	Not detected	165
Acenaphthylene			Not detected	1700	Not detected	165
Anthracene			Not detected	1700	Not detected	165
Benzo(a)anthracene			Not detected	1700	Not detected	165
Benzo(a)pyrene			Not detected	1700	Not detected	165
Benzo(b)fluoranthene			Not detected	1700	Not detected	165
Benzo(g,h,i)perylene			Not detected	1700	Not detected	165
Benzo(k)fluoranthene			Not detected	1700	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	1700	Not detected	165
Bis(2-chloroethyl)ether			Not detected	1700	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	1700	Not detected	165
Bis(2-ethylhexyl)phthalate			6400	1700	Not detected	165
Butyl benzyl phthalate			Not detected	1700	Not detected	165
Carbazole			Not detected	1700	Not detected	165
Chrysene			Not detected	1700	Not detected	165
Dibenzo(a,h)anthracene			Not detected	1700	Not detected	165
Dibenzofuran			Not detected	1700	Not detected	165
Diethylphthalate			Not detected	1700	Not detected	165
Dimethylphthalate			Not detected	1700	Not detected	165
Di-n-butylphthalate			Not detected	1700	Not detected	165
Di-n-octylphthalate			Not detected	1700	990	165
Fluoranthene			Not detected	1700	Not detected	165
Fluorene			Not detected	1700	Not detected	165
Hexachlorobenzene			Not detected	1700	Not detected	165
Hexachlorobutadiene			Not detected	1700	Not detected	165
Hexachlorocyclopentadiene			Not detected	1700	Not detected	165
Hexachloroethane			Not detected	1700	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	1700	Not detected	165
Isophorone			Not detected	1700	Not detected	165
Naphthalene			Not detected	1700	Not detected	165
Nitrobenzene			Not detected	1700	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	1700	Not detected	165
N-Nitrosodiphenylamine			Not detected	1700	Not detected	165
Phenanthrene			Not detected	1700	Not detected	165
Pyrene			Not detected	1700	Not detected	165

**YORK**

<b>Client Sample ID</b>			<b>SB-4A@10'</b>		<b>SB-4B@10'</b>	
<b>York Sample ID</b>			<b>06120412-03</b>		<b>06120412-04</b>	
<b>Matrix</b>			<b>SOIL</b>		<b>SOIL</b>	
<b>Parameter</b>	<b>Method</b>	<b>Units</b>	<b>Results</b>	<b>MDL</b>	<b>Results</b>	<b>MDL</b>
Mercury	SW846-7471	mg/kg	Not detected	0.10	Not detected	0.10

**Units Key:**

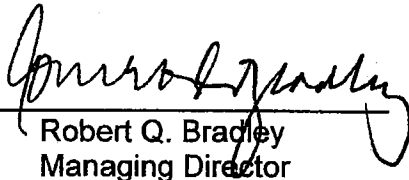
For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

**Notes for York Project No. 06120412**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

**Approved By:**

  
Robert Q. Bradley  
Managing Director

**Date:** 12/20/2006

**YORK**





# Technical Report

prepared for

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

Report Date: 8/1/2006  
***Re: Client Project ID: 49 Dupont St., Brooklyn, NY***  
York Project No.: 06070673

CT License No. PH-0723

New York License No. 10854



Report Date: 8/1/2006  
Client Project ID: 49 Dupont St., Brooklyn, NY  
York Project No.: 06070673

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

## 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 07/25/06. The project was identified as your project "49 Dupont St., Brooklyn, NY".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			5-10' ASR-11		10-15' ASR-11	
York Sample ID			06070673-01		06070673-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	Not detected	10
1,3,5-Trimethylbenzene			Not detected	10	Not detected	10
Benzene			Not detected	2.0	Not detected	2.0
Ethylbenzene			Not detected	10	Not detected	10
Isopropylbenzene			Not detected	10	Not detected	10
Methyl-tert-butyl ether			Not detected	10	Not detected	10
Naphthalene			Not detected	10	Not detected	10
n-Butylbenzene			Not detected	10	Not detected	10
n-Propylbenzene			Not detected	10	Not detected	10
o-Xylene			Not detected	10	Not detected	10
p- & m- Xylenes			Not detected	10	Not detected	10
p-Isopropyltoluene			Not detected	10	Not detected	10
sec-Butylbenzene			Not detected	10	Not detected	10
tert-Butylbenzene			Not detected	10	Not detected	10
Toluene			Not detected	10	Not detected	10

**YORK**



Client Sample ID			5-10' ASR-11		10-15' ASR-11	
York Sample ID			06070673-01		06070673-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			Not detected	165	Not detected	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	190	165

**YORK**

Client Sample ID			ASR-11	
York Sample ID			06070673-03	
Matrix			WATER	
Parameter	Method	Units	Results	MDL
Volatiles-STARs List	SW846-8260	ug/L	---	---
1,2,4-Trimethylbenzene			Not detected	5
1,3,5-Trimethylbenzene			Not detected	5
Benzene			2	1
Ethylbenzene			Not detected	5
Isopropylbenzene			Not detected	5
Methyl-tert-butyl ether			Not detected	5
Naphthalene			Not detected	5
n-Butylbenzene			Not detected	5
n-Propylbenzene			Not detected	5
o-Xylene			Not detected	5
p- & m- Xylenes			Not detected	5
p-Isopropyltoluene			Not detected	5
sec-Butylbenzene			Not detected	5
tert-Butylbenzene			Not detected	5
Toluene			Not detected	5
Base/Neutral Extractables water	SW846-8270	ug/L	---	---
1,2,4-Trichlorobenzene			Not detected	5.0
1,2-Dichlorobenzene			Not detected	5.0
1,3-Dichlorobenzene			Not detected	5.0
1,4-Dichlorobenzene			Not detected	5.0
2,4-Dinitrotoluene			Not detected	5.0
2,6-Dinitrotoluene			Not detected	5.0
2-Chloronaphthalene			Not detected	5.0
2-Methylnaphthalene			Not detected	5.0
2-Nitroaniline			Not detected	5.0
3,3'-Dichlorobenzidine			Not detected	5.0
3-Nitroaniline			Not detected	5.0
4-Bromophenyl phenyl ether			Not detected	5.0
4-Chloroaniline			Not detected	5.0
4-Chlorophenyl phenyl ether			Not detected	5.0
4-Nitroaniline			Not detected	5.0
Acenaphthene			Not detected	5.0
Acenaphthylene			Not detected	5.0
Anthracene			Not detected	5.0
Benzo(a)anthracene			Not detected	5.0
Benzo(a)pyrene			Not detected	5.0
Benzo(b)fluoranthene			Not detected	5.0
Benzo(g,h,i)perylene			Not detected	5.0
Benzo(k)fluoranthene			Not detected	5.0
Bis(2-chloroethoxy)methane			Not detected	5.0
Bis(2-chloroethyl)ether			Not detected	5.0
Bis(2-chloroisopropyl)ether			Not detected	5.0
Bis(2-ethylhexyl)phthalate			18	5.0
Butyl benzyl phthalate			Not detected	5.0
Carbazole			Not detected	5.0
Chrysene			Not detected	5.0
Dibenzo(a,h)anthracene			Not detected	5.0
Dibenzofuran			Not detected	5.0

**YORK**

Client Sample ID			ASR-11	
York Sample ID			06070673-03	
Matrix			WATER	
Parameter	Method	Units	Results	MDL
Diethylphthalate			Not detected	5.0
Dimethylphthalate			Not detected	5.0
Di-n-butylphthalate			Not detected	5.0
Di-n-octylphthalate			Not detected	5.0
Fluoranthene			Not detected	5.0
Fluorene			Not detected	5.0
Hexachlorobenzene			Not detected	5.0
Hexachlorobutadiene			Not detected	5.0
Hexachlorocyclopentadiene			Not detected	5.0
Hexachloroethane			Not detected	5.0
Indeno(1,2,3-cd)pyrene			Not detected	5.0
Isophorone			Not detected	5.0
Naphthalene			Not detected	5.0
Nitrobenzene			Not detected	5.0
N-Nitrosodi-n-propylamine			Not detected	5.0
N-Nitrosodiphenylamine			Not detected	5.0
Phenanthrene			Not detected	5.0
Pyrene			Not detected	5.0

Units Key:

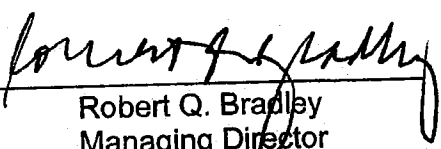
For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

### Notes for York Project No. 06070673

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By:

  
Robert Q. Bradley  
Managing Director

Date: 8/1/2006

**YORK**

# YORK

ANALYTICAL LABORATORIES, INC.

120 RESEARCH DRIVE  
STRATFORD, CT 06615  
(203) 325-1371  
FAX (203) 357-0166

FAX (203) 357-0166

# Field Chain-of-Custody Record

[illegible]

**YORK**  
**ANALYTICAL LABORATORIES, INC.**

# Technical Report

prepared for

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

Report Date: 8/2/2006  
**Re: Client Project ID: 49 Dupont St., Brooklyn**  
York Project No.: 06070672

CT License No. PH-0723

New York License No. 10854



Report Date: 8/2/2006  
Client Project ID: 49 Dupont St., Brooklyn  
York Project No.: 06070672

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

## 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 07/25/06. The project was identified as your project "49 Dupont St., Brooklyn".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			5-10' ASR-12		10-15' ASR-12	
York Sample ID			06070672-01		06070672-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	Not detected	130
1,3,5-Trimethylbenzene			Not detected	10	Not detected	130
Benzene			Not detected	2.0	Not detected	25
Ethylbenzene			Not detected	10	Not detected	130
Isopropylbenzene			Not detected	10	Not detected	130
Methyl-tert-butyl ether			Not detected	10	Not detected	130
Naphthalene			Not detected	10	Not detected	130
n-Butylbenzene			Not detected	10	Not detected	130
n-Propylbenzene			Not detected	10	Not detected	130
o-Xylene			Not detected	10	Not detected	130
p- & m- Xylenes			Not detected	10	Not detected	130
p-Isopropyltoluene			Not detected	10	Not detected	130
sec-Butylbenzene			Not detected	10	Not detected	130
tert-Butylbenzene			Not detected	10	Not detected	130
Toluene			Not detected	10	Not detected	130

**YORK**

Client Sample ID			5-10' ASR-12		10-15' ASR-12	
York Sample ID			06070672-01		06070672-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			Not detected	165	Not detected	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	Not detected	165

**YORK**



Client Sample ID			ASR-12	
York Sample ID			06070672-03	
Matrix			WATER	
Parameter	Method	Units	Results	MDL
Volatiles-STARs List	SW846-8260	ug/L	---	---
1,2,4-Trimethylbenzene			Not detected	500
1,3,5-Trimethylbenzene			Not detected	500
Benzene			Not detected	100
Ethylbenzene			Not detected	500
Isopropylbenzene			Not detected	500
Methyl-tert-butyl ether			Not detected	500
Naphthalene			2300	500
n-Butylbenzene			Not detected	500
n-Propylbenzene			Not detected	500
o-Xylene			Not detected	500
p- & m- Xylenes			Not detected	500
p-Isopropyltoluene			Not detected	500
sec-Butylbenzene			Not detected	500
tert-Butylbenzene			Not detected	500
Toluene			Not detected	500
Base/Neutral Extractables water	SW846-8270	ug/L	---	---
1,2,4-Trichlorobenzene			Not detected	25.0
1,2-Dichlorobenzene			Not detected	25.0
1,3-Dichlorobenzene			Not detected	25.0
1,4-Dichlorobenzene			Not detected	25.0
2,4-Dinitrotoluene			Not detected	25.0
2,6-Dinitrotoluene			Not detected	25.0
2-Chloronaphthalene			Not detected	25.0
2-Methylnaphthalene			210	25.0
2-Nitroaniline			Not detected	25.0
3,3'-Dichlorobenzidine			Not detected	25.0
3-Nitroaniline			Not detected	25.0
4-Bromophenyl phenyl ether			Not detected	25.0
4-Chloroaniline			Not detected	25.0
4-Chlorophenyl phenyl ether			Not detected	25.0
4-Nitroaniline			Not detected	25.0
Acenaphthene			Not detected	25.0
Acenaphthylene			Not detected	25.0
Anthracene			Not detected	25.0
Benzo(a)anthracene			Not detected	25.0
Benzo(a)pyrene			Not detected	25.0
Benzo(b)fluoranthene			Not detected	25.0
Benzo(g,h,i)perylene			Not detected	25.0
Benzo(k)fluoranthene			Not detected	25.0
Bis(2-chloroethoxy)methane			Not detected	25.0
Bis(2-chloroethyl)ether			Not detected	25.0
Bis(2-chloroisopropyl)ether			Not detected	25.0
Bis(2-ethylhexyl)phthalate			Not detected	25.0
Butyl benzyl phthalate			Not detected	25.0
Carbazole			Not detected	25.0
Chrysene			Not detected	25.0
Dibenzo(a,h)anthracene			Not detected	25.0
Dibenzofuran			Not detected	25.0

**YORK**

<b>Client Sample ID</b>			<b>ASR-12</b>	
<b>York Sample ID</b>			<b>06070672-03</b>	
<b>Matrix</b>			<b>WATER</b>	
<b>Parameter</b>	<b>Method</b>	<b>Units</b>	<b>Results</b>	<b>MDL</b>
Diethylphthalate			Not detected	25.0
Dimethylphthalate			Not detected	25.0
Di-n-butylphthalate			Not detected	25.0
Di-n-octylphthalate			Not detected	25.0
Fluoranthene			Not detected	25.0
Fluorene			Not detected	25.0
Hexachlorobenzene			Not detected	25.0
Hexachlorobutadiene			Not detected	25.0
Hexachlorocyclopentadiene			Not detected	25.0
Hexachloroethane			Not detected	25.0
Indeno(1,2,3-cd)pyrene			Not detected	25.0
Isophorone			Not detected	25.0
Naphthalene			210	25.0
Nitrobenzene			Not detected	25.0
N-Nitrosodi-n-propylamine			Not detected	25.0
N-Nitrosodiphenylamine			Not detected	25.0
Phenanthrene			Not detected	25.0
Pyrene			Not detected	25.0

**Units Key:**

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

**Notes for York Project No. 06070672**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By: \_\_\_\_\_

Robert Q. Bradley  
Managing Director

Date: 8/2/2006

**YORK**

## Field Chain-of-Custody Record

[illegible]

**YORK**  
**ANALYTICAL LABORATORIES, INC.**

# Technical Report

prepared for

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

Report Date: 8/3/2006  
**Re: Client Project ID: 49 Dupont St.**  
York Project No.: 06070674

CT License No. PH-0723

New York License No. 10854



Report Date: 8/3/2006  
 Client Project ID: 49 Dupont St.  
 York Project No.: 06070674

**Advanced Site Restoration**  
 62 William St.  
 New York, NY 10005  
 Attention: Steve Muller

## 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 07/25/06. The project was identified as your project "49 Dupont St. ".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			MW-1		MW-2	
York Sample ID			06070674-01		06070674-02	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles-STARS List	SW846-8260	ug/L	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	5	Not detected	5
1,3,5-Trimethylbenzene			Not detected	5	Not detected	5
Benzene			Not detected	1	Not detected	1
Ethylbenzene			Not detected	5	Not detected	5
Isopropylbenzene			5	5	Not detected	5
Methyl-tert-butyl ether			Not detected	5	Not detected	5
Naphthalene			75	5	Not detected	5
n-Butylbenzene			6	5	Not detected	5
n-Propylbenzene			7	5	Not detected	5
o-Xylene			Not detected	5	Not detected	5
p- & m- Xylenes			Not detected	5	Not detected	5
p-Isopropyltoluene			Not detected	5	Not detected	5
sec-Butylbenzene			9	5	Not detected	5
tert-Butylbenzene			Not detected	5	Not detected	5
Toluene			Not detected	5	Not detected	5

**YORK**

Client Sample ID			MW-1		MW-2	
York Sample ID			06070674-01		06070674-02	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables water	SW846-8270	ug/L	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	50.0	Not detected	5.0
1,2-Dichlorobenzene			Not detected	50.0	Not detected	5.0
1,3-Dichlorobenzene			Not detected	50.0	Not detected	5.0
1,4-Dichlorobenzene			Not detected	50.0	Not detected	5.0
2,4-Dinitrotoluene			Not detected	50.0	Not detected	5.0
2,6-Dinitrotoluene			Not detected	50.0	Not detected	5.0
2-Chloronaphthalene			Not detected	50.0	Not detected	5.0
2-Methylnaphthalene			Not detected	50.0	Not detected	5.0
2-Nitroaniline			Not detected	50.0	Not detected	5.0
3,3'-Dichlorobenzidine			Not detected	50.0	Not detected	5.0
3-Nitroaniline			Not detected	50.0	Not detected	5.0
4-Bromophenyl phenyl ether			Not detected	50.0	Not detected	5.0
4-Chloroaniline			Not detected	50.0	Not detected	5.0
4-Chlorophenyl phenyl ether			Not detected	50.0	Not detected	5.0
4-Nitroaniline			Not detected	50.0	Not detected	5.0
Acenaphthene			Not detected	50.0	Not detected	5.0
Acenaphthylene			Not detected	50.0	Not detected	5.0
Anthracene			Not detected	50.0	Not detected	5.0
Benzo(a)anthracene			Not detected	50.0	Not detected	5.0
Benzo(a)pyrene			Not detected	50.0	Not detected	5.0
Benzo(b)fluoranthene			Not detected	50.0	Not detected	5.0
Benzo(g,h,i)perylene			Not detected	50.0	Not detected	5.0
Benzo(k)fluoranthene			Not detected	50.0	Not detected	5.0
Bis(2-chloroethoxy)methane			Not detected	50.0	Not detected	5.0
Bis(2-chloroethyl)ether			Not detected	50.0	Not detected	5.0
Bis(2-chloroisopropyl)ether			Not detected	50.0	Not detected	5.0
Bis(2-ethylhexyl)phthalate			Not detected	50.0	Not detected	5.0
Butyl benzyl phthalate			Not detected	50.0	60	5.0
Carbazole			Not detected	50.0	Not detected	5.0
Chrysene			Not detected	50.0	Not detected	5.0
Dibenzo(a,h)anthracene			Not detected	50.0	Not detected	5.0
Dibenzofuran			Not detected	50.0	Not detected	5.0
Diethylphthalate			Not detected	50.0	Not detected	5.0
Dimethylphthalate			Not detected	50.0	Not detected	5.0
Di-n-butylphthalate			Not detected	50.0	Not detected	5.0
Di-n-octylphthalate			Not detected	50.0	Not detected	5.0
Fluoranthene			Not detected	50.0	Not detected	5.0
Fluorene			75	50.0	Not detected	5.0
Hexachlorobenzene			Not detected	50.0	Not detected	5.0
Hexachlorobutadiene			Not detected	50.0	Not detected	5.0
Hexachlorocyclopentadiene			Not detected	50.0	Not detected	5.0
Hexachloroethane			Not detected	50.0	Not detected	5.0
Indeno(1,2,3-cd)pyrene			Not detected	50.0	Not detected	5.0
Isophorone			Not detected	50.0	Not detected	5.0
Naphthalene			99	50.0	Not detected	5.0
Nitrobenzene			Not detected	50.0	Not detected	5.0
N-Nitrosodi-n-propylamine			Not detected	50.0	Not detected	5.0
N-Nitrosodiphenylamine			Not detected	50.0	Not detected	5.0
Phenanthrene			110	50.0	Not detected	5.0
Pyrene			Not detected	50.0	Not detected	5.0

**YORK**

Client Sample ID			MW-3		MW-4	
York Sample ID			06070674-03		06070674-04	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles-STARs List	SW846-8260	ug/L	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	5	PENDING	5
1,3,5-Trimethylbenzene			Not detected	5	PENDING	5
Benzene			Not detected	1	PENDING	1
Ethylbenzene			Not detected	5	PENDING	5
Isopropylbenzene			Not detected	5	PENDING	5
Methyl-tert-butyl ether			Not detected	5	PENDING	5
Naphthalene			Not detected	5	PENDING	5
n-Butylbenzene			Not detected	5	PENDING	5
n-Propylbenzene			Not detected	5	PENDING	5
o-Xylene			Not detected	5	PENDING	5
p- & m- Xylenes			Not detected	5	PENDING	5
p-Isopropyltoluene			Not detected	5	PENDING	5
sec-Butylbenzene			Not detected	5	PENDING	5
tert-Butylbenzene			Not detected	5	PENDING	5
Toluene			Not detected	5	PENDING	5
Base/Neutral Extractables water	SW846-8270	ug/L	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	5.0	Not detected	12500
1,2-Dichlorobenzene			Not detected	5.0	Not detected	12500
1,3-Dichlorobenzene			Not detected	5.0	Not detected	12500
1,4-Dichlorobenzene			Not detected	5.0	Not detected	12500
2,4-Dinitrotoluene			Not detected	5.0	Not detected	12500
2,6-Dinitrotoluene			Not detected	5.0	Not detected	12500
2-Chloronaphthalene			Not detected	5.0	Not detected	12500
2-Methylnaphthalene			Not detected	5.0	Not detected	12500
2-Nitroaniline			Not detected	5.0	Not detected	12500
3,3'-Dichlorobenzidine			Not detected	5.0	Not detected	12500
3-Nitroaniline			Not detected	5.0	Not detected	12500
4-Bromophenyl phenyl ether			Not detected	5.0	Not detected	12500
4-Chloroaniline			Not detected	5.0	Not detected	12500
4-Chlorophenyl phenyl ether			Not detected	5.0	Not detected	12500
4-Nitroaniline			Not detected	5.0	Not detected	12500
Acenaphthene			Not detected	5.0	Not detected	12500
Acenaphthylene			Not detected	5.0	Not detected	12500
Anthracene			Not detected	5.0	Not detected	12500
Benzo(a)anthracene			Not detected	5.0	Not detected	12500
Benzo(a)pyrene			Not detected	5.0	Not detected	12500
Benzo(b)fluoranthene			Not detected	5.0	Not detected	12500
Benzo(g,h,i)perylene			Not detected	5.0	Not detected	12500
Benzo(k)fluoranthene			Not detected	5.0	Not detected	12500
Bis(2-chloroethoxy)methane			Not detected	5.0	Not detected	12500
Bis(2-chloroethyl)ether			Not detected	5.0	Not detected	12500
Bis(2-chloroisopropyl)ether			Not detected	5.0	Not detected	12500
Bis(2-ethylhexyl)phthalate			31	5.0	120000	12500
Butyl benzyl phthalate			Not detected	5.0	Not detected	12500
Carbazole			Not detected	5.0	Not detected	12500
Chrysene			Not detected	5.0	Not detected	12500
Dibenzo(a,h)anthracene			Not detected	5.0	Not detected	12500
Dibenzofuran			Not detected	5.0	Not detected	12500
Diethylphthalate			Not detected	5.0	Not detected	12500

**YORK**



Client Sample ID			MW-3		MW-4	
York Sample ID			06070674-03		06070674-04	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Dimethylphthalate			Not detected	5.0	Not detected	12500
Di-n-butylphthalate			Not detected	5.0	Not detected	12500
Di-n-octylphthalate			Not detected	5.0	160000	12500
Fluoranthene			Not detected	5.0	Not detected	12500
Fluorene			Not detected	5.0	Not detected	12500
Hexachlorobenzene			Not detected	5.0	Not detected	12500
Hexachlorobutadiene			Not detected	5.0	Not detected	12500
Hexachlorocyclopentadiene			Not detected	5.0	Not detected	12500
Hexachloroethane			Not detected	5.0	Not detected	12500
Indeno(1,2,3-cd)pyrene			Not detected	5.0	Not detected	12500
Isophorone			Not detected	5.0	Not detected	12500
Naphthalene			Not detected	5.0	Not detected	12500
Nitrobenzene			Not detected	5.0	Not detected	12500
N-Nitrosodi-n-propylamine			Not detected	5.0	Not detected	12500
N-Nitrosodiphenylamine			Not detected	5.0	Not detected	12500
Phenanthrene			Not detected	5.0	Not detected	12500
Pyrene			Not detected	5.0	Not detected	12500

Client Sample ID			MW-5		MW-6	
York Sample ID			06070674-05		06070674-06	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles-STARs List	SW846-8260	ug/L	---	---	---	---
1,2,4-Trimethylbenzene			6	5	11	5
1,3,5-Trimethylbenzene			Not detected	5	Not detected	5
Benzene			Not detected	1	Not detected	1
Ethylbenzene			Not detected	5	Not detected	5
Isopropylbenzene			Not detected	5	Not detected	5
Methyl-tert-butyl ether			Not detected	5	Not detected	5
Naphthalene			8	5	Not detected	5
n-Butylbenzene			Not detected	5	Not detected	5
n-Propylbenzene			Not detected	5	Not detected	5
o-Xylene			Not detected	5	Not detected	5
p- & m- Xylenes			Not detected	5	Not detected	5
p-Isopropyltoluene			Not detected	5	Not detected	5
sec-Butylbenzene			Not detected	5	Not detected	5
tert-Butylbenzene			Not detected	5	Not detected	5
Toluene			Not detected	5	Not detected	5
Base/Neutral Extractables water	SW846-8270	ug/L	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	50000	Not detected	250000
1,2-Dichlorobenzene			Not detected	50000	Not detected	250000
1,3-Dichlorobenzene			Not detected	50000	Not detected	250000
1,4-Dichlorobenzene			Not detected	50000	Not detected	250000
2,4-Dinitrotoluene			Not detected	50000	Not detected	250000
2,6-Dinitrotoluene			Not detected	50000	Not detected	250000
2-Chloronaphthalene			Not detected	50000	Not detected	250000
2-Methylnaphthalene			Not detected	50000	Not detected	250000
2-Nitroaniline			Not detected	50000	Not detected	250000
3,3'-Dichlorobenzidine			Not detected	50000	Not detected	250000

**YORK**

Client Sample ID			MW-5		MW-6	
York Sample ID			06070674-05		06070674-06	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
3-Nitroaniline			Not detected	50000	Not detected	250000
4-Bromophenyl phenyl ether			Not detected	50000	Not detected	250000
4-Chloroaniline			Not detected	50000	Not detected	250000
4-Chlorophenyl phenyl ether			Not detected	50000	Not detected	250000
4-Nitroaniline			Not detected	50000	Not detected	250000
Acenaphthene			Not detected	50000	Not detected	250000
Acenaphthylene			Not detected	50000	Not detected	250000
Anthracene			Not detected	50000	Not detected	250000
Benzo(a)anthracene			Not detected	50000	Not detected	250000
Benzo(a)pyrene			Not detected	50000	Not detected	250000
Benzo(b)fluoranthene			Not detected	50000	Not detected	250000
Benzo(g,h,i)perylene			Not detected	50000	Not detected	250000
Benzo(k)fluoranthene			Not detected	50000	Not detected	250000
Bis(2-chloroethoxy)methane			Not detected	50000	Not detected	250000
Bis(2-chloroethyl)ether			Not detected	50000	Not detected	250000
Bis(2-chloroisopropyl)ether			Not detected	50000	Not detected	250000
Bis(2-ethylhexyl)phthalate			780000	50000	1300000	250000
Butyl benzyl phthalate			Not detected	50000	Not detected	250000
Carbazole			Not detected	50000	Not detected	250000
Chrysene			Not detected	50000	Not detected	250000
Dibenzo(a,h)anthracene			Not detected	50000	Not detected	250000
Dibenzofuran			Not detected	50000	Not detected	250000
Diethylphthalate			Not detected	50000	Not detected	250000
Dimethylphthalate			Not detected	50000	Not detected	250000
Di-n-butylphthalate			Not detected	50000	Not detected	250000
Di-n-octylphthalate			90000	50000	Not detected	250000
Fluoranthene			Not detected	50000	Not detected	250000
Fluorene			Not detected	50000	Not detected	250000
Hexachlorobenzene			Not detected	50000	Not detected	250000
Hexachlorobutadiene			Not detected	50000	Not detected	250000
Hexachlorocyclopentadiene			Not detected	50000	Not detected	250000
Hexachloroethane			Not detected	50000	Not detected	250000
Indeno(1,2,3-cd)pyrene			Not detected	50000	Not detected	250000
Isophorone			Not detected	50000	Not detected	250000
Naphthalene			Not detected	50000	Not detected	250000
Nitrobenzene			Not detected	50000	Not detected	250000
N-Nitrosodi-n-propylamine			Not detected	50000	Not detected	250000
N-Nitrosodiphenylamine			Not detected	50000	Not detected	250000
Phenanthrene			Not detected	50000	Not detected	250000
Pyrene			Not detected	50000	Not detected	250000

Client Sample ID			MW-7		MW-8	
York Sample ID			06070674-07		06070674-08	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles-STARs List	SW846-8260	ug/L	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	5	Not detected	5
1,3,5-Trimethylbenzene			Not detected	5	Not detected	5
Benzene			Not detected	1	Not detected	1

**YORK**

Client Sample ID			MW-7		MW-8	
York Sample ID			06070674-07		06070674-08	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Ethylbenzene			Not detected	5	Not detected	5
Isopropylbenzene			Not detected	5	Not detected	5
Methyl-tert-butyl ether			Not detected	5	Not detected	5
Naphthalene			Not detected	5	Not detected	5
n-Butylbenzene			Not detected	5	Not detected	5
n-Propylbenzene			Not detected	5	Not detected	5
o-Xylene			Not detected	5	Not detected	5
p- & m- Xylenes			Not detected	5	Not detected	5
p-Isopropyltoluene			Not detected	5	Not detected	5
sec-Butylbenzene			Not detected	5	Not detected	5
tert-Butylbenzene			Not detected	5	Not detected	5
Toluene			Not detected	5	Not detected	5
Base/Neutral Extractables water	SW846-8270	ug/L	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	31300	Not detected	5.0
1,2-Dichlorobenzene			Not detected	31300	Not detected	5.0
1,3-Dichlorobenzene			Not detected	31300	Not detected	5.0
1,4-Dichlorobenzene			Not detected	31300	Not detected	5.0
2,4-Dinitrotoluene			Not detected	31300	Not detected	5.0
2,6-Dinitrotoluene			Not detected	31300	Not detected	5.0
2-Chloronaphthalene			Not detected	31300	Not detected	5.0
2-Methylnaphthalene			Not detected	31300	Not detected	5.0
2-Nitroaniline			Not detected	31300	Not detected	5.0
3,3'-Dichlorobenzidine			Not detected	31300	Not detected	5.0
3-Nitroaniline			Not detected	31300	Not detected	5.0
4-Bromophenyl phenyl ether			Not detected	31300	Not detected	5.0
4-Chloroaniline			Not detected	31300	Not detected	5.0
4-Chlorophenyl phenyl ether			Not detected	31300	Not detected	5.0
4-Nitroaniline			Not detected	31300	Not detected	5.0
Acenaphthene			Not detected	31300	Not detected	5.0
Acenaphthylene			Not detected	31300	Not detected	5.0
Anthracene			Not detected	31300	Not detected	5.0
Benzo(a)anthracene			Not detected	31300	Not detected	5.0
Benzo(a)pyrene			Not detected	31300	Not detected	5.0
Benzo(b)fluoranthene			Not detected	31300	Not detected	5.0
Benzo(g,h,i)perylene			Not detected	31300	Not detected	5.0
Benzo(k)fluoranthene			Not detected	31300	Not detected	5.0
Bis(2-chloroethoxy)methane			Not detected	31300	Not detected	5.0
Bis(2-chloroethyl)ether			Not detected	31300	Not detected	5.0
Bis(2-chloroisopropyl)ether			Not detected	31300	Not detected	5.0
Bis(2-ethylhexyl)phthalate			Not detected	31300	Not detected	5.0
Butyl benzyl phthalate			370000	31300	89	5.0
Carbazole			Not detected	31300	Not detected	5.0
Chrysene			Not detected	31300	Not detected	5.0
Dibenzo(a,h)anthracene			Not detected	31300	Not detected	5.0
Dibenzofuran			Not detected	31300	Not detected	5.0
Diethylphthalate			Not detected	31300	Not detected	5.0
Dimethylphthalate			Not detected	31300	Not detected	5.0
Di-n-butylphthalate			Not detected	31300	Not detected	5.0
Di-n-octylphthalate			Not detected	31300	Not detected	5.0
Fluoranthene			Not detected	31300	Not detected	5.0
Fluorene			Not detected	31300	Not detected	5.0

**YORK**

Client Sample ID			MW-7		MW-8	
York Sample ID			06070674-07		06070674-08	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Hexachlorobenzene			Not detected	31300	Not detected	5.0
Hexachlorobutadiene			Not detected	31300	Not detected	5.0
Hexachlorocyclopentadiene			Not detected	31300	Not detected	5.0
Hexachloroethane			Not detected	31300	Not detected	5.0
Indeno(1,2,3-cd)pyrene			Not detected	31300	Not detected	5.0
Isophorone			Not detected	31300	Not detected	5.0
Naphthalene			Not detected	31300	Not detected	5.0
Nitrobenzene			Not detected	31300	Not detected	5.0
N-Nitrosodi-n-propylamine			Not detected	31300	Not detected	5.0
N-Nitrosodiphenylamine			Not detected	31300	Not detected	5.0
Phenanthrene			Not detected	31300	Not detected	5.0
Pyrene			Not detected	31300	Not detected	5.0

Client Sample ID			MW-9		MW-10	
York Sample ID			06070674-09		06070674-10	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Volatiles-STARs List</b>	SW846-8260	ug/L	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	5	Not detected	5
1,3,5-Trimethylbenzene			Not detected	5	Not detected	5
Benzene			Not detected	1	Not detected	1
Ethylbenzene			11	5	Not detected	5
Isopropylbenzene			8	5	Not detected	5
Methyl-tert-butyl ether			Not detected	5	Not detected	5
Naphthalene			71	5	Not detected	5
n-Butylbenzene			6	5	Not detected	5
n-Propylbenzene			10	5	Not detected	5
o-Xylene			Not detected	5	Not detected	5
p- & m- Xylenes			11	5	Not detected	5
p-Isopropyltoluene			Not detected	5	Not detected	5
sec-Butylbenzene			Not detected	5	Not detected	5
tert-Butylbenzene			Not detected	5	Not detected	5
Toluene			Not detected	5	Not detected	5
<b>Base/Neutral Extractables water</b>	SW846-8270	ug/L	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	50.0	Not detected	5.0
1,2-Dichlorobenzene			Not detected	50.0	Not detected	5.0
1,3-Dichlorobenzene			Not detected	50.0	Not detected	5.0
1,4-Dichlorobenzene			Not detected	50.0	Not detected	5.0
2,4-Dinitrotoluene			Not detected	50.0	Not detected	5.0
2,6-Dinitrotoluene			Not detected	50.0	Not detected	5.0
2-Chloronaphthalene			Not detected	50.0	Not detected	5.0
2-Methylnaphthalene			Not detected	50.0	Not detected	5.0
2-Nitroaniline			Not detected	50.0	Not detected	5.0
3,3'-Dichlorobenzidine			Not detected	50.0	Not detected	5.0
3-Nitroaniline			Not detected	50.0	Not detected	5.0
4-Bromophenyl phenyl ether			Not detected	50.0	Not detected	5.0
4-Chloroaniline			Not detected	50.0	Not detected	5.0
4-Chlorophenyl phenyl ether			Not detected	50.0	Not detected	5.0
4-Nitroaniline			Not detected	50.0	Not detected	5.0

**YORK**

Client Sample ID			MW-9		MW-10	
York Sample ID			06070674-09		06070674-10	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Acenaphthene			Not detected	50.0	Not detected	5.0
Acenaphthylene			Not detected	50.0	Not detected	5.0
Anthracene			Not detected	50.0	Not detected	5.0
Benzo(a)anthracene			Not detected	50.0	Not detected	5.0
Benzo(a)pyrene			Not detected	50.0	Not detected	5.0
Benzo(b)fluoranthene			Not detected	50.0	Not detected	5.0
Benzo(g,h,i)perylene			Not detected	50.0	Not detected	5.0
Benzo(k)fluoranthene			Not detected	50.0	Not detected	5.0
Bis(2-chloroethoxy)methane			Not detected	50.0	Not detected	5.0
Bis(2-chloroethyl)ether			Not detected	50.0	Not detected	5.0
Bis(2-chloroisopropyl)ether			Not detected	50.0	Not detected	5.0
Bis(2-ethylhexyl)phthalate			Not detected	50.0	6	5.0
Butyl benzyl phthalate			Not detected	50.0	Not detected	5.0
Carbazole			Not detected	50.0	Not detected	5.0
Chrysene			Not detected	50.0	Not detected	5.0
Dibenzo(a,h)anthracene			Not detected	50.0	Not detected	5.0
Dibenzofuran			Not detected	50.0	Not detected	5.0
Diethylphthalate			Not detected	50.0	Not detected	5.0
Dimethylphthalate			Not detected	50.0	Not detected	5.0
Di-n-butylphthalate			Not detected	50.0	Not detected	5.0
Di-n-octylphthalate			Not detected	50.0	Not detected	5.0
Fluoranthene			Not detected	50.0	Not detected	5.0
Fluorene			Not detected	50.0	Not detected	5.0
Hexachlorobenzene			Not detected	50.0	Not detected	5.0
Hexachlorobutadiene			Not detected	50.0	Not detected	5.0
Hexachlorocyclopentadiene			Not detected	50.0	Not detected	5.0
Hexachloroethane			Not detected	50.0	Not detected	5.0
Indeno(1,2,3-cd)pyrene			Not detected	50.0	Not detected	5.0
Isophorone			Not detected	50.0	Not detected	5.0
Naphthalene			Not detected	50.0	Not detected	5.0
Nitrobenzene			Not detected	50.0	Not detected	5.0
N-Nitrosodi-n-propylamine			Not detected	50.0	Not detected	5.0
N-Nitrosodiphenylamine			Not detected	50.0	Not detected	5.0
Phenanthrene			Not detected	50.0	Not detected	5.0
Pyrene			Not detected	50.0	Not detected	5.0

**Units Key:**

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

**YORK**

Report Date: 8/3/2006  
Client Project ID: 49 Dupont St.  
York Project No.: 06070674

**Notes for York Project No. 06070674**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By: \_\_\_\_\_

Robert Q. Bradley  
Managing Director

Date: 8/3/2006

**YORK**

# Field Chain-of-Custody Record

Company Name	Report To:	Invoice To:	Project ID/No.	Samples Collected By (Signature)				
PSK 62 williams st ny ny 10018	Stevens M-	ASR	49 Depot ST BLKW	[Signature] Anthony Russo				
Sample No.	Location/ID	Date Sampled	Water	Soil	Air	OTHER	ANALYSES REQUESTED	Container Description(s)
MW-1		7/24	X				8270 BN 8260 STATS	Large 2 mL
MW-2								
MW-3								
MW-4								
MW-5								
MW-6								
MW-7								
MW-8								
Chain-of-Custody Record								
Bottles Relinquished from Lab by	Date/Time	Sample Relinquished by	Date/Time	Sample Received in LAB by	Date/Time			
		[Signature]	7/25	[Signature]	7/25 4:30			
Bottles Received in Field by	Date/Time	Sample Relinquished by	Date/Time	Sample Received in LAB by	Date/Time			
Comments/Special Instructions								
Turn-Around Time 42°C Standard RUSH(define) _____								



## Field Chain-of-Custody Record

[illegible]



# Technical Report

prepared for

**Advanced Site Restoration  
62 William St.  
New York, NY 10005  
Attention: Steve Muller**

Report Date: 9/27/2006  
***Re: Client Project ID: 49 Dupont St, Bklyn***  
York Project No.: 06090661

CT License No. PH-0723

New York License No. 10854



Report Date: 9/27/2006  
 Client Project ID: 49 Dupont St., Bklyn  
 York Project No.: 06090661

**Advanced Site Restoration**  
 62 William St.  
 New York, NY 10005  
 Attention: Steve Muller

## 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 09/19/06. The project was identified as your project "49 Dupont St., Bklyn".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			MW-11		MW-12	
York Sample ID			06090661-01		06090661-02	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles-STARS List	SW846-8260	ug/L	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	5	Not detected	5
1,3,5-Trimethylbenzene			Not detected	5	Not detected	5
Benzene			Not detected	1	Not detected	1
Ethylbenzene			Not detected	5	Not detected	5
Isopropylbenzene			Not detected	5	Not detected	5
Methyl-tert-butyl ether			Not detected	5	Not detected	5
Naphthalene			Not detected	5	8	5
n-Butylbenzene			Not detected	5	Not detected	5
n-Propylbenzene			Not detected	5	Not detected	5
o-Xylene			Not detected	5	Not detected	5
p- & m- Xylenes			Not detected	5	Not detected	5
p-Isopropyltoluene			Not detected	5	Not detected	5
sec-Butylbenzene			Not detected	5	Not detected	5
tert-Butylbenzene			Not detected	5	Not detected	5
Toluene			Not detected	5	Not detected	5

**YORK**

Client Sample ID			MW-11		MW-12	
York Sample ID			06090661-01		06090661-02	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables water	SW846-8270	ug/L	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	5.0	Not detected	5.0
1,2-Dichlorobenzene			Not detected	5.0	Not detected	5.0
1,3-Dichlorobenzene			Not detected	5.0	Not detected	5.0
1,4-Dichlorobenzene			Not detected	5.0	Not detected	5.0
2,4-Dinitrotoluene			Not detected	5.0	Not detected	5.0
2,6-Dinitrotoluene			Not detected	5.0	Not detected	5.0
2-Chloronaphthalene			Not detected	5.0	Not detected	5.0
2-Methylnaphthalene			Not detected	5.0	Not detected	5.0
2-Nitroaniline			Not detected	5.0	Not detected	5.0
3,3'-Dichlorobenzidine			Not detected	5.0	Not detected	5.0
3-Nitroaniline			Not detected	5.0	Not detected	5.0
4-Bromophenyl phenyl ether			Not detected	5.0	Not detected	5.0
4-Chloroaniline			Not detected	5.0	Not detected	5.0
4-Chlorophenyl phenyl ether			Not detected	5.0	Not detected	5.0
4-Nitroaniline			Not detected	5.0	Not detected	5.0
Acenaphthene			Not detected	5.0	Not detected	5.0
Acenaphthylene			Not detected	5.0	Not detected	5.0
Anthracene			Not detected	5.0	Not detected	5.0
Benzo(a)anthracene			Not detected	5.0	Not detected	5.0
Benzo(a)pyrene			Not detected	5.0	Not detected	5.0
Benzo(b)fluoranthene			Not detected	5.0	Not detected	5.0
Benzo(g,h,i)perylene			Not detected	5.0	Not detected	5.0
Benzo(k)fluoranthene			Not detected	5.0	Not detected	5.0
Bis(2-chloroethoxy)methane			Not detected	5.0	Not detected	5.0
Bis(2-chloroethyl)ether			Not detected	5.0	Not detected	5.0
Bis(2-chloroisopropyl)ether			Not detected	5.0	Not detected	5.0
Bis(2-ethylhexyl)phthalate			Not detected	5.0	17	5.0
Butyl benzyl phthalate			Not detected	5.0	Not detected	5.0
Carbazole			Not detected	5.0	Not detected	5.0
Chrysene			Not detected	5.0	Not detected	5.0
Dibenzo(a,h)anthracene			Not detected	5.0	Not detected	5.0
Dibenzofuran			Not detected	5.0	Not detected	5.0
Diethylphthalate			Not detected	5.0	Not detected	5.0
Dimethylphthalate			Not detected	5.0	Not detected	5.0
Di-n-butylphthalate			Not detected	5.0	Not detected	5.0
Di-n-octylphthalate			Not detected	5.0	Not detected	5.0
Fluoranthene			Not detected	5.0	Not detected	5.0
Fluorene			Not detected	5.0	Not detected	5.0
Hexachlorobenzene			Not detected	5.0	Not detected	5.0
Hexachlorobutadiene			Not detected	5.0	Not detected	5.0
Hexachlorocyclopentadiene			Not detected	5.0	Not detected	5.0
Hexachloroethane			Not detected	5.0	Not detected	5.0
Indeno(1,2,3-cd)pyrene			Not detected	5.0	Not detected	5.0
Isophorone			Not detected	5.0	Not detected	5.0
Naphthalene			Not detected	5.0	Not detected	5.0
Nitrobenzene			Not detected	5.0	Not detected	5.0
N-Nitrosodi-n-propylamine			Not detected	5.0	Not detected	5.0
N-Nitrosodiphenylamine			Not detected	5.0	Not detected	5.0
Phenanthrene			Not detected	5.0	Not detected	5.0
Pyrene			Not detected	5.0	Not detected	5.0

**YORK**

Client Sample ID			MW-13		MW-14	
York Sample ID			06090661-03		06090661-04	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles-STARs List	SW846-8260	ug/L	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	5	Not detected	5
1,3,5-Trimethylbenzene			Not detected	5	Not detected	5
Benzene			Not detected	1	Not detected	1
Ethylbenzene			Not detected	5	Not detected	5
Isopropylbenzene			Not detected	5	Not detected	5
Methyl-tert-butyl ether			Not detected	5	Not detected	5
Naphthalene			Not detected	5	Not detected	5
n-Butylbenzene			Not detected	5	Not detected	5
n-Propylbenzene			Not detected	5	Not detected	5
o-Xylene			Not detected	5	Not detected	5
p- & m- Xylenes			Not detected	5	Not detected	5
p-Isopropyltoluene			Not detected	5	Not detected	5
sec-Butylbenzene			Not detected	5	Not detected	5
tert-Butylbenzene			Not detected	5	Not detected	5
Toluene			Not detected	5	Not detected	5
Base/Neutral Extractables water	SW846-8270	ug/L	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	5.0	Not detected	5.25
1,2-Dichlorobenzene			Not detected	5.0	Not detected	5.25
1,3-Dichlorobenzene			Not detected	5.0	Not detected	5.25
1,4-Dichlorobenzene			Not detected	5.0	Not detected	5.25
2,4-Dinitrotoluene			Not detected	5.0	Not detected	5.25
2,6-Dinitrotoluene			Not detected	5.0	Not detected	5.25
2-Chloronaphthalene			Not detected	5.0	Not detected	5.25
2-Methylnaphthalene			Not detected	5.0	Not detected	5.25
2-Nitroaniline			Not detected	5.0	Not detected	5.25
3,3'-Dichlorobenzidine			Not detected	5.0	Not detected	5.25
3-Nitroaniline			Not detected	5.0	Not detected	5.25
4-Bromophenyl phenyl ether			Not detected	5.0	Not detected	5.25
4-Chloroaniline			Not detected	5.0	Not detected	5.25
4-Chlorophenyl phenyl ether			Not detected	5.0	Not detected	5.25
4-Nitroaniline			Not detected	5.0	Not detected	5.25
Acenaphthene			Not detected	5.0	Not detected	5.25
Acenaphthylene			Not detected	5.0	Not detected	5.25
Anthracene			Not detected	5.0	Not detected	5.25
Benzo(a)anthracene			Not detected	5.0	Not detected	5.25
Benzo(a)pyrene			Not detected	5.0	Not detected	5.25
Benzo(b)fluoranthene			Not detected	5.0	Not detected	5.25
Benzo(g,h,i)perylene			Not detected	5.0	Not detected	5.25
Benzo(k)fluoranthene			Not detected	5.0	Not detected	5.25
Bis(2-chloroethoxy)methane			Not detected	5.0	Not detected	5.25
Bis(2-chloroethyl)ether			Not detected	5.0	Not detected	5.25
Bis(2-chloroisopropyl)ether			Not detected	5.0	Not detected	5.25
Bis(2-ethylhexyl)phthalate			Not detected	5.0	Not detected	5.25
Butyl benzyl phthalate			Not detected	5.0	Not detected	5.25
Carbazole			Not detected	5.0	Not detected	5.25
Chrysene			Not detected	5.0	Not detected	5.25
Dibenzo(a,h)anthracene			Not detected	5.0	Not detected	5.25
Dibenzofuran			Not detected	5.0	Not detected	5.25

**YORK**

Client Sample ID			MW-13		MW-14	
York Sample ID			06090661-03		06090661-04	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Diethylphthalate			Not detected	5.0	Not detected	5.25
Dimethylphthalate			Not detected	5.0	Not detected	5.25
Di-n-butylphthalate			Not detected	5.0	Not detected	5.25
Di-n-octylphthalate			Not detected	5.0	Not detected	5.25
Fluoranthene			Not detected	5.0	Not detected	5.25
Fluorene			Not detected	5.0	Not detected	5.25
Hexachlorobenzene			Not detected	5.0	Not detected	5.25
Hexachlorobutadiene			Not detected	5.0	Not detected	5.25
Hexachlorocyclopentadiene			Not detected	5.0	Not detected	5.25
Hexachloroethane			Not detected	5.0	Not detected	5.25
Indeno(1,2,3-cd)pyrene			Not detected	5.0	Not detected	5.25
Isophorone			Not detected	5.0	Not detected	5.25
Naphthalene			Not detected	5.0	Not detected	5.25
Nitrobenzene			Not detected	5.0	Not detected	5.25
N-Nitrosodi-n-propylamine			Not detected	5.0	Not detected	5.25
N-Nitrosodiphenylamine			Not detected	5.0	Not detected	5.25
Phenanthrene			Not detected	5.0	Not detected	5.25
Pyrene			Not detected	5.0	Not detected	5.25

**Units Key:**

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

**Notes for York Project No. 06090661**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By: \_\_\_\_\_

Robert Q. Bradley  
Managing Director

Date: 9/27/2006

**YORK**





**YORK**  
ANALYTICAL LABORATORIES, INC.

# Technical Report

prepared for

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

Report Date: 8/1/2006  
*Re: Client Project ID: 49 Dupont St., Brooklyn, NY*  
York Project No.: 06070673

CT License No. PH-0723

New York License No. 10854



Report Date: 8/1/2006  
Client Project ID: 49 Dupont St., Brooklyn, NY  
York Project No.: 06070673

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

## 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 07/25/06. The project was identified as your project "49 Dupont St., Brooklyn, NY".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			5-10' ASR-11		10-15' ASR-11	
York Sample ID			06070673-01		06070673-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	Not detected	10
1,3,5-Trimethylbenzene			Not detected	10	Not detected	10
Benzene			Not detected	2.0	Not detected	2.0
Ethylbenzene			Not detected	10	Not detected	10
Isopropylbenzene			Not detected	10	Not detected	10
Methyl-tert-butyl ether			Not detected	10	Not detected	10
Naphthalene			Not detected	10	Not detected	10
n-Butylbenzene			Not detected	10	Not detected	10
n-Propylbenzene			Not detected	10	Not detected	10
o-Xylene			Not detected	10	Not detected	10
p- & m- Xylenes			Not detected	10	Not detected	10
p-Isopropyltoluene			Not detected	10	Not detected	10
sec-Butylbenzene			Not detected	10	Not detected	10
tert-Butylbenzene			Not detected	10	Not detected	10
Toluene			Not detected	10	Not detected	10

**YORK**

Client Sample ID			5-10' ASR-11		10-15' ASR-11	
York Sample ID			06070673-01		06070673-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			Not detected	165	Not detected	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	190	165

**YORK**

Client Sample ID			ASR-11	
York Sample ID			06070673-03	
Matrix			WATER	
Parameter	Method	Units	Results	MDL
Volatiles-STARs List	SW846-8260	ug/L	---	---
1,2,4-Trimethylbenzene			Not detected	5
1,3,5-Trimethylbenzene			Not detected	5
Benzene			2	1
Ethylbenzene			Not detected	5
Isopropylbenzene			Not detected	5
Methyl-tert-butyl ether			Not detected	5
Naphthalene			Not detected	5
n-Butylbenzene			Not detected	5
n-Propylbenzene			Not detected	5
o-Xylene			Not detected	5
p- & m- Xylenes			Not detected	5
p-Isopropyltoluene			Not detected	5
sec-Butylbenzene			Not detected	5
tert-Butylbenzene			Not detected	5
Toluene			Not detected	5
Base/Neutral Extractables water	SW846-8270	ug/L	---	---
1,2,4-Trichlorobenzene			Not detected	5.0
1,2-Dichlorobenzene			Not detected	5.0
1,3-Dichlorobenzene			Not detected	5.0
1,4-Dichlorobenzene			Not detected	5.0
2,4-Dinitrotoluene			Not detected	5.0
2,6-Dinitrotoluene			Not detected	5.0
2-Chloronaphthalene			Not detected	5.0
2-Methylnaphthalene			Not detected	5.0
2-Nitroaniline			Not detected	5.0
3,3'-Dichlorobenzidine			Not detected	5.0
3-Nitroaniline			Not detected	5.0
4-Bromophenyl phenyl ether			Not detected	5.0
4-Chloroaniline			Not detected	5.0
4-Chlorophenyl phenyl ether			Not detected	5.0
4-Nitroaniline			Not detected	5.0
Acenaphthene			Not detected	5.0
Acenaphthylene			Not detected	5.0
Anthracene			Not detected	5.0
Benzo(a)anthracene			Not detected	5.0
Benzo(a)pyrene			Not detected	5.0
Benzo(b)fluoranthene			Not detected	5.0
Benzo(g,h,i)perylene			Not detected	5.0
Benzo(k)fluoranthene			Not detected	5.0
Bis(2-chloroethoxy)methane			Not detected	5.0
Bis(2-chloroethyl)ether			Not detected	5.0
Bis(2-chloroisopropyl)ether			Not detected	5.0
Bis(2-ethylhexyl)phthalate			18	5.0
Butyl benzyl phthalate			Not detected	5.0
Carbazole			Not detected	5.0
Chrysene			Not detected	5.0
Dibenzo(a,h)anthracene			Not detected	5.0
Dibenzofuran			Not detected	5.0

**YORK**

Client Sample ID			ASR-11	
York Sample ID			06070673-03	
Matrix			WATER	
Parameter	Method	Units	Results	MDL
Diethylphthalate			Not detected	5.0
Dimethylphthalate			Not detected	5.0
Di-n-butylphthalate			Not detected	5.0
Di-n-octylphthalate			Not detected	5.0
Fluoranthene			Not detected	5.0
Fluorene			Not detected	5.0
Hexachlorobenzene			Not detected	5.0
Hexachlorobutadiene			Not detected	5.0
Hexachlorocyclopentadiene			Not detected	5.0
Hexachloroethane			Not detected	5.0
Indeno(1,2,3-cd)pyrene			Not detected	5.0
Isophorone			Not detected	5.0
Naphthalene			Not detected	5.0
Nitrobenzene			Not detected	5.0
N-Nitrosodi-n-propylamine			Not detected	5.0
N-Nitrosodiphenylamine			Not detected	5.0
Phenanthrene			Not detected	5.0
Pyrene			Not detected	5.0

Units Key:

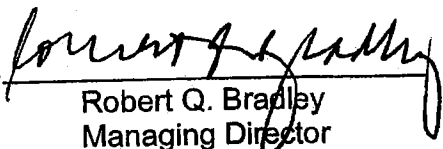
For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

### Notes for York Project No. 06070673

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By:

  
Robert Q. Bradley  
Managing Director

Date: 8/1/2006

**YORK**

# YORK

ANALYTICAL LABORATORIES, INC.

1120 RESEARCH DRIVE  
STRATFORD, CT 06615  
(203) 325-1371 FAX (203) 357-0166

(203) 325-1371  
FAX (203) 357-0166

# Field Chain-of-Custody Record

[illegible]

**YORK**  
**ANALYTICAL LABORATORIES, INC.**

# Technical Report

prepared for

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

Report Date: 8/2/2006  
*Re: Client Project ID: 49 Dupont St., Brooklyn*  
York Project No.: 06070672

CT License No. PH-0723

New York License No. 10854





Report Date: 8/2/2006  
 Client Project ID: 49 Dupont St., Brooklyn  
 York Project No.: 06070672

**Advanced Site Restoration**  
 62 William St.  
 New York, NY 10005  
 Attention: Steve Muller

## 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 07/25/06. The project was identified as your project "49 Dupont St., Brooklyn".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			5-10' ASR-12		10-15' ASR-12	
York Sample ID			06070672-01		06070672-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	Not detected	130
1,3,5-Trimethylbenzene			Not detected	10	Not detected	130
Benzene			Not detected	2.0	Not detected	25
Ethylbenzene			Not detected	10	Not detected	130
Isopropylbenzene			Not detected	10	Not detected	130
Methyl-tert-butyl ether			Not detected	10	Not detected	130
Naphthalene			Not detected	10	Not detected	130
n-Butylbenzene			Not detected	10	Not detected	130
n-Propylbenzene			Not detected	10	Not detected	130
o-Xylene			Not detected	10	Not detected	130
p- & m- Xylenes			Not detected	10	Not detected	130
p-Isopropyltoluene			Not detected	10	Not detected	130
sec-Butylbenzene			Not detected	10	Not detected	130
tert-Butylbenzene			Not detected	10	Not detected	130
Toluene			Not detected	10	Not detected	130

**YORK**

Client Sample ID			5-10' ASR-12		10-15' ASR-12	
York Sample ID			06070672-01		06070672-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			Not detected	165	Not detected	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	Not detected	165

**YORK**

Client Sample ID			ASR-12	
York Sample ID			06070672-03	
Matrix			WATER	
Parameter	Method	Units	Results	MDL
Volatiles-STARs List	SW846-8260	ug/L	---	---
1,2,4-Trimethylbenzene			Not detected	500
1,3,5-Trimethylbenzene			Not detected	500
Benzene			Not detected	100
Ethylbenzene			Not detected	500
Isopropylbenzene			Not detected	500
Methyl-tert-butyl ether			Not detected	500
Naphthalene			2300	500
n-Butylbenzene			Not detected	500
n-Propylbenzene			Not detected	500
o-Xylene			Not detected	500
p- & m- Xylenes			Not detected	500
p-Isopropyltoluene			Not detected	500
sec-Butylbenzene			Not detected	500
tert-Butylbenzene			Not detected	500
Toluene			Not detected	500
Base/Neutral Extractables water	SW846-8270	ug/L	---	---
1,2,4-Trichlorobenzene			Not detected	25.0
1,2-Dichlorobenzene			Not detected	25.0
1,3-Dichlorobenzene			Not detected	25.0
1,4-Dichlorobenzene			Not detected	25.0
2,4-Dinitrotoluene			Not detected	25.0
2,6-Dinitrotoluene			Not detected	25.0
2-Chloronaphthalene			Not detected	25.0
2-Methylnaphthalene			210	25.0
2-Nitroaniline			Not detected	25.0
3,3'-Dichlorobenzidine			Not detected	25.0
3-Nitroaniline			Not detected	25.0
4-Bromophenyl phenyl ether			Not detected	25.0
4-Chloroaniline			Not detected	25.0
4-Chlorophenyl phenyl ether			Not detected	25.0
4-Nitroaniline			Not detected	25.0
Acenaphthene			Not detected	25.0
Acenaphthylene			Not detected	25.0
Anthracene			Not detected	25.0
Benzo(a)anthracene			Not detected	25.0
Benzo(a)pyrene			Not detected	25.0
Benzo(b)fluoranthene			Not detected	25.0
Benzo(g,h,i)perylene			Not detected	25.0
Benzo(k)fluoranthene			Not detected	25.0
Bis(2-chloroethoxy)methane			Not detected	25.0
Bis(2-chloroethyl)ether			Not detected	25.0
Bis(2-chloroisopropyl)ether			Not detected	25.0
Bis(2-ethylhexyl)phthalate			Not detected	25.0
Butyl benzyl phthalate			Not detected	25.0
Carbazole			Not detected	25.0
Chrysene			Not detected	25.0
Dibenzo(a,h)anthracene			Not detected	25.0
Dibenzofuran			Not detected	25.0

**YORK**

Client Sample ID			ASR-12	
York Sample ID			06070672-03	
Matrix			WATER	
Parameter	Method	Units	Results	MDL
Diethylphthalate			Not detected	25.0
Dimethylphthalate			Not detected	25.0
Di-n-butylphthalate			Not detected	25.0
Di-n-octylphthalate			Not detected	25.0
Fluoranthene			Not detected	25.0
Fluorene			Not detected	25.0
Hexachlorobenzene			Not detected	25.0
Hexachlorobutadiene			Not detected	25.0
Hexachlorocyclopentadiene			Not detected	25.0
Hexachloroethane			Not detected	25.0
Indeno(1,2,3-cd)pyrene			Not detected	25.0
Isophorone			Not detected	25.0
Naphthalene			210	25.0
Nitrobenzene			Not detected	25.0
N-Nitrosodi-n-propylamine			Not detected	25.0
N-Nitrosodiphenylamine			Not detected	25.0
Phenanthrene			Not detected	25.0
Pyrene			Not detected	25.0

**Units Key:**

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

**Notes for York Project No. 06070672**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By: \_\_\_\_\_

Robert Q. Bradley  
Managing Director

Date: 8/2/2006

**YORK**

[illegible]

## Chain-of-Custody Record

**Bottles Relinquished from Lab by**

Date/Time

**Bottles Received in Field by**

Date/Time

Comments/Special Instructions

~~Sample Relinquished by~~

**Sample Relinquished by**

220

2/25/15

Date/Time

Date/Time

3

Male Resident: 151

Turn-Around Time

Standard RUSH(define)

## **APPENDIX - E**

### **Manifests**



## Land Disposal Restriction & Certification Form

*Please check the appropriate facility:*

<input type="checkbox"/> Michigan Disposal Waste Treatment Plant	49350 N. I-94 Service Drive, Belleville, MI 48111	EPA ID # MID 000 724 831
<input type="checkbox"/> Wayne Disposal, Inc. Site #2 Landfill	49350 N. I-94 Service Drive, Belleville, MI 48111	EPA ID # MID 048 090 633
<input checked="" type="checkbox"/> EQ Detroit, Inc.	1923 Frederick Street, Detroit, MI 48211	EPA ID # MID 980 991 566
<input type="checkbox"/> EQ Resource Recovery, Inc.	36345 Van Born Road, Romulus, MI 48174	EPA ID # MID 060 975 844
<input type="checkbox"/> EQ North Carolina	1005 Investment Blvd, Apex, NC 27502	EPA ID # NCD 982 170 292
<input type="checkbox"/> EQ Florida, Inc.	7202 East 8 <sup>th</sup> Ave, Tampa, FL 33619	EPA ID # FLD 981 932 494

Generator Name: Nu Hart & Company U.S. EPA ID No.: NYD 001468354  
Generator Address: 49-55 DuPont Avenue, Brooklyn, NY 11222  
State Manifest No.: 001293248 Manifest Doc. No.: 001293248

### Instructions

Column 1: Identify all U.S. EPA hazardous waste codes that apply to this waste shipment.  
Column 2: Choose the appropriate treatability group: Non-Wastewater (NWW) or Wastewater (WW).  
Column 3: Enter the appropriate Subcategory, if applicable, and also enter "Contaminated Soil" or "Debris" if the waste will be treated using one of the alternative treatment technologies provided by 268.49 (c) - soil, or 268.45 - debris.  
Column 4: Enter the letter of the appropriate paragraph from pages 1-2 of this form.  
Column 5: For F001 - F005, F039, D001 - D043, Debris and Contaminated Soil: please enter the Reference Number(s) for any constituents in your waste stream subject to treatment. The Reference Number(s) can be found in the EQ Resource Guide, LDR/UHC Constituent Table.

Manifest Line Item	U.S. EPA Hazardous Waste Code (s)	NWW or WW	Subcategory	How Must the Waste be Managed?	Reference Number(s) of Hazardous Constituents contained in the waste. Complete for F001-F005, F039, D001-D043, Soil and Debris wastes.
11A	U028	NWW	N/A	A	None
11B	U028	NWW	N/A	<del>A</del> S	None
11C					
11D					

I hereby certify that all information submitted on this and all associated documents is complete and accurate to the best of my knowledge and information.

Generator Signature: REP. FOR OWNER Title: REP. FOR OWNER  
Printed Name: E. VALANZ Date: 2/14/07

### How Must the Waste Be Managed?

S. THIS CONTAMINATED SOIL DOES / DOES NOT CONTAIN LISTED HAZARDOUS WASTE AND DOES / DOES NOT EXHIBIT A CHARACTERISTIC OF HAZARDOUS WASTE AND IS SUBJECT TO / COMPLIES WITH THE SOIL TREATMENT STANDARDS

AS PROVIDED BY 268.49(c) OR THE UNIVERSAL TREATMENT STANDARDS. I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and believe that it has been maintained and operated properly so as to comply with treatment standards specified in 40 CFR 268.49 without impermissible dilution of the prohibited wastes. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.





## Land Disposal Restriction & Certification Form

Please check the appropriate facility:

<input type="checkbox"/> Michigan Disposal Waste Treatment Plant	49350 N. I-94 Service Drive, Belleville, MI 48111	EPA ID # MID 000 724 831
<input type="checkbox"/> Wayne Disposal, Inc. Site #2 Landfill	49350 N. I-94 Service Drive, Belleville, MI 48111	EPA ID # MID 048 090 633
<input checked="" type="checkbox"/> EQ Detroit, Inc.	1923 Frederick Street, Detroit, MI 48211	EPA ID # MID 980 991 566
<input type="checkbox"/> EQ Resource Recovery, Inc.	36345 Van Born Road, Romulus, MI 48174	EPA ID # MID 060 975 844
<input type="checkbox"/> EQ North Carolina	1005 Investment Blvd, Apex, NC 27502	EPA ID # NCD 982 170 292
<input type="checkbox"/> EQ Florida, Inc.	7202 East 8 <sup>th</sup> Ave, Tampa, FL 33619	EPA ID # FLD 981 932 494

Generator Name: Nu Hart & Company U.S. EPA ID No.: NYD 001468354  
Generator Address: 49-55 DuPont Avenue, Brooklyn, NY 11222  
State Manifest No.: 001293248 Manifest Doc. No.: 001293248

### Instructions

Column 1: Identify all U.S. EPA hazardous waste codes that apply to this waste shipment.

Column 2: Choose the appropriate treatability group: Non-Wastewater (NWW) or Wastewater (WW).

Column 3: Enter the appropriate Subcategory, if applicable, and also enter "Contaminated Soil" or "Debris" if the waste will be treated using one of the alternative treatment technologies provided by 268.49 (c) -- soil, or 268.45 -- debris.

Column 4: Enter the letter of the appropriate paragraph from pages 1-2 of this form.

Column 5: For F001 - F005, F039, D001 - D043, Debris and Contaminated Soil: please enter the Reference Number(s) for any constituents in your waste stream subject to treatment. The Reference Number(s) can be found in the EQ Resource Guide, LDR/UHC Constituent Table.

Manifest Line Item	U.S. EPA Hazardous Waste Code (s)	NWW or WW	Subcategory	How Must the Waste be Managed?	Reference Number(s) of Hazardous Constituents contained in the waste. Complete for F001-F005, F039, D001-D043, Soil and Debris wastes.
11A	U028	NWW	N/A	A	None
11B	U028	NWW	N/A	<del>A</del> S	None
11C					
11D					

I hereby certify that all information submitted on this and all associated documents is complete and accurate to the best of my knowledge and information.

Generator Signature: REP. FOR OWNER Title: REP. FOR OWNER

Printed Name: E. Vazquez Date: 2/14/07

### How Must the Waste Be Managed?

S. THIS CONTAMINATED SOIL (DOES) DOES NOT CONTAIN LISTED HAZARDOUS WASTE AND DOES (DOES NOT) EXHIBIT A  
(CIRCLE ONE) CHARACTERISTIC OF HAZARDOUS WASTE AND (IS SUBJECT TO) COMPLIES WITH THE SOIL TREATMENT STANDARDS  
(CIRCLE ONE)

AS PROVIDED BY 268.49(c) OR THE UNIVERSAL TREATMENT STANDARDS. I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and believe that it has been maintained and operated properly so as to comply with treatment standards specified in 40 CFR 268.49 without impermissible dilution of the prohibited wastes. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

10803-1

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number NYD001468354	2. Page 1 of 1	3. Emergency Response Phone 609 519 5800	4. Manifest Tracking Number <b>001293018 JJK</b>		
5. Generator's Name and Mailing Address NU-HART & COMPANY 345 BAYSHORE RD DEER PARK, NY 11729 Generator's Phone: 631 586 9441			Generator's Site Address (if different than mailing address) 49-55 DUPONT AVE BROOKLYN, NY 11222				
6. Transporter 1 Company Name UR ENVIRONMENTAL, INC			U.S. EPA ID Number PRA 000524041				
7. Transporter 2 Company Name			U.S. EPA ID Number				
8. Designated Facility Name and Site Address E.I. DUPONT DE NEMOURS CHARLOTTES LANE - ROUTE 130 DEER PARK, NJ 08023 Facility's Phone: 856 540-2773			U.S. EPA ID Number NJ0001385730				
GENERATOR	9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) 1. HAZARDOUS WASTE, LIQUID, U.O.S., (ACETOIC), 9, UN3082, PA III, (1102), 226 171	10. Containers No. Type		11. Total Quantity	12. Unit Wt/Vol	13. Waste Codes
			1	TT	1310	h	U002
14. Special Handling Instructions and Additional Information 1) L: APPROVAL# 0110883 REL 1 B/L 37505							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true. Generator's/Offeror's Printed/Typed Name: _____ Signature: _____ Month: _____ Day: _____ Year: _____							
TRANSPORTER	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____						
	17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name: William Bowles Signature: _____ Month: 12 Day: 7 Year: 107 Transporter 2 Printed/Typed Name: _____ Signature: _____ Month: _____ Day: _____ Year: _____						
DESIGNATED FACILITY	18. Discrepancy						
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
	18b. Alternate Facility (or Generator) Manifest Reference Number: _____ U.S. EPA ID Number: _____ Facility's Phone: _____						
	18c. Signature of Alternate Facility (or Generator) _____ Month: _____ Day: _____ Year: _____						
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) 1. H109 2. 3. 4.							
20. Designated Facility Owner or Operator. Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a Printed/Typed Name: _____ Signature: _____ Month: _____ Day: _____ Year: _____							

365 Bayshore Road, P.O. Box 786  
Deer Park, NY 11729

12700 ALPHEUS AVENUE  
Brooklyn, NY 11222

Generator's Phone: 631 586-9444

6. Transporter 1 Company Name

U.S. EPA ID Number

Freehold Cartage, Inc.

NYD054126164

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

U.S. EPA ID Number

HQ, Detroit, Inc.  
1923 Frederick Street  
Detroit, MI 48211

Facility's Phone: 313-923-0080

MI0980491566

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
		No.	Type					
X	1. HQ, Hazardous waste, liquid, n.o.s., (Phthalate), 9, HA3082, PGIII, (U028); HRC#:171	12	DM	750	G	U028		
X	2. Hazardous waste, solid, n.o.s., (Phthalate), 9, HA3077, PGIII, (U028); HRC#:171	3	DM	150	G	U028		
	3. Non-DOT/Non-RCRA Regulated Waste Sludge, (HRCIA Oil Sludge)	53	DM		P	RCMI		
	4.							

14. Special Handling Instructions and Additional Information

1) Approval #: A076204DM/Phthalate Tank Bottom 2) Approval #: A076232DM/Phthalate Soil Cuttings 3) Approval #: B071007DM/HRCIA Oil Sludge

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Officer's Printed/Typed Name

Signature

Month Day Year

REP FOR OWNER E. YAZQUEZ

12 14 07

16. International Shipments

☐ Import to U.S.

☐ Export from U.S.

Port of entry/exit:

Transporter signature (for exports only):

Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

Signature

Month Day Year

Transporter 2 Printed/Typed Name

Signature

Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space

☐ Quantity

☐ Type

☐ Residue

☐ Partial Rejection

☐ Full Rejection

Manifest Reference Number:

U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)

Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
----	----	----	----

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name

Signature

Month Day Year

GENERATOR

INT'L

TRANSPORTER

DESIGNATED FACILITY



## Appendix C Health and Safety Plan



**ADVANCED SITE RESTORATION, LLC**  
*ENVIRONMENTAL SERVICES*

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**SITE-SPECIFIC HEALTH  
& SAFETY PLAN**

**49-55 DUPONT AVENUE  
GREENPOINT, NEW YORK**

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**Prepared By: ADVANCED Site Restoration, LLC  
62 William Street  
New York, NY 10005**

**Date: MARCH 11, 2006**

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"One Call Does it All" Ask ASR Toll-Free at 1.888.809.1110  
62 WILLIAM STREET, 3<sup>RD</sup> FLOOR NEW YORK, NEW YORK 10005  
TEL: 212.809.1110 FAX: 212.809.1779  
[info@askasr.com](mailto:info@askasr.com)



## ADVANCED SITE RESTORATION, LLC

Site Specific Health and Safety Plan

### SITE SPECIFIC HEALTH & SAFETY PLAN APPROVALS

#### ADVANCED SITE RESTORATION, LLC

By their signature, the undersigned certify that this Site-Specific Health & Safety Plan (HSP) is approved and will be utilized at 49-55 DuPont Avenue, Greenpoint, New York.

March 11, 2006

\_\_\_\_\_  
**Christopher Tomasello, IH**  
Project Manager  
Corporate Health and Safety Officer

March 11, 2006

\_\_\_\_\_  
**Anthony Adesso**  
Health and Safety Officer





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## **ADVANCED SITE RESTORATION, LLC**

Site Specific Health and Safety Plan

### **1.0 TITLE PAGE**

**PROJECT:** **49-55 Dupont Avenue  
Greenpoint, N.Y.**

**SITE:** 49-55 DuPont Avenue, Greenpoint, NY

**PREPARED BY:** ADVANCED SITE RESTORATION, LLC  
62 WILLIAM STREET  
NEW YORK, NY 10005

**DATE:** March 3, 2006

ADVANCED Site Restoration, LLC, and its Subcontractors do not guarantee the health or safety of any person entering this site. Due to the nature of this site and the activities occurring thereon, it is not possible to discover, evaluate and provide protection for all possible hazards that may be encountered. Strict adherence to the health and safety guidelines set forth herein will reduce, but not eliminate the potential for injury at this site. The health and safety guidelines in this plan were prepared specifically for this site and should not be used on any other site without prior research and evaluation by trained health and safety specialists.

### **2.0 SITE-SPECIFIC HEALTH AND SAFETY PLAN**

#### **2.1 General**

This plan has been prepared in conformance with applicable regulations, safe work practices, and the project's requirements. It addresses those activities associated with the installation and sampling of soil borings and temporary wells and the sampling of monitoring wells. The Project Manager (PM), Site Safety Officer (SSO) and ASR field staff will implement the plan during site work.



## ADVANCED SITE RESTORATION, LLC

### Site Specific Health and Safety Plan

Compliance with this Site-Specific Health and Safety Plan (HSP) is required of all persons and third parties that perform fieldwork for this project. Assistance in implementing this Plan can be obtained from the ASR Site Safety Officer (SSO). The content of this HSP may change or undergo revision based upon additional information made available to health and safety personnel, monitoring results, or changes in the technical scope of work. Any changes proposed must be reviewed by the SSO.

## 2.2 Scope of Work

The Scope of Work will include:

- The sampling of products found on site in tanks, pits, and monitoring wells
- Geo probe investigation of the site, throughout the facility
- Confined Space Entry to clean pits and trenches
- Confined Space Entry to clean tanks.
- Removal and disposal of the underground storage tanks

## 2.3 Emergency Numbers

### 2.3.1 Emergency Agencies

#### Phone Number:

Bellevue Hospital	212-562-4141
Police Department	911
Fire Department	911
National Response Center	800-424-8802
Poison Information Center	800-562-8816
Chemtrac	800-424-9555

### 2.3.2 Project Management/Health and Safety Personnel

Title	Contact	Phone Number
Project Manager	Christopher Tomasello	212-809-1110 516-233-7944
Site Safety Officer	Anthony Adesso	212-809-1110 646-403-1850



### **2.3.3 Directions to Hospitals**

Bellevue Hospital Center  
462 First Avenue  
New York, NY 10016-9198  
US  
212-562-4141

(see Appendix A)

.99 miles from site

## **3.0 HEALTH AND SAFETY STAFF**

This section briefly describes the personnel and their health and safety responsibilities.

### **3.1 Project Manager**

**Christopher P. Tomasello, IH**

- Has the overall responsibility for the health and safety of site personnel.
- Ensures that adequate resources are provided to the field health and safety staff to carry out their responsibilities as outlined below.
- Ensures that fieldwork is scheduled with adequate personnel and equipment resources to complete the job safely.
- Ensures that adequate telephone communication between field crews and emergency response personnel is maintained.
- Ensures that field site personnel are adequately trained and qualified to work at the site.

### **3.2 Site Safety Officer**

**Anthony Adesso**

- Directs and coordinates health and safety monitoring activities.
- Ensures that field teams utilize proper personal protective equipment.
- Conducts initial on-site, specific training prior to personnel and/or subcontractors proceeding to work.
- Conducts and documents periodic safety briefings ensure that field team members comply with this HASP.
- Completes and maintains Accident/Incident Report Forms.



## **ADVANCED SITE RESTORATION, LLC**

### **Site Specific Health and Safety Plan**

- Notifies Advanced Site Restoration, LLC, corporate administration of all accidents/incidents.
- Determines upgrade or downgrade of personal protective equipment (PPE) based on site conditions and/or downgrade of personal protective equipment (PPE) based upon on site conditions and/or real-time monitoring results.
- Ensures that monitoring instruments are calibrated daily or as manufactured suggested instructions determined.
- Maintains health and safety field log books.
- Develops and ensures implementation of the HSP.
- Approves revised or new safety protocols for field operations.
- Coordinates revisions of this HSP with field personnel and the SSO Division Contracting Officer.
- Responsible for the development of new company safety protocols and procedures and resolution of any outstanding safety issues that may arise during the conduction of site work.
- Reviews personnel and subcontractors current and up-to-date medical examination and acceptability of health and safety training.

### **3.3 Field Personnel and Subcontractors**

- Reports any unsafe or potentially hazardous conditions to the SSO
- Maintains knowledge of the information, instructions, and emergency response actions contained in this HSP.
- Comply with rules, regulations and procedures as set forth in this HSP and any revisions that are instituted.
- Prevents admittance to work sites by unauthorized personnel.

### **4.0 SITE LOCATION, DESCRIPTION AND HISTORY**

The site is located at 49-55 Dupont Avenue in Greenpoint NY. The subject property is approximately 14 feet above mean sea level and is located at 40°44'08.94 N Latitude and 73°54'26.67" W Longitude.

**The subject commercial property consists of a 2 story, cinder block construction.**

**Several buildings house a former plastic manufacturing company with industrial machinery. The property is located one block east of the East River at Dupont Avenue and Commercial Street in Brooklyn, NY.**





**The vicinity of the property consists of a city park, industrial, and commercial properties.**

## **5.0 CHEMICAL & WASTE DESCRIPTION/CHARACTERIZATION**

The following chemical is based on the materials once stored or thought to potentially present on-site:

1. No. 2 fuel oil
2. Diundecyl Phthalate (7-11)
3. Dioctyl Phthalate (DOP)
4. Acetone
5. Diisononyl Phthalate (DIN)
6. Methyl tert-butyl ketone (MtBK)

The following references have been consulted to identify the properties and hazards of the materials that will be encountered at the site.

- Dangerous Properties of Industrial Materials - Sax
- Chemical Hazards of the Workplace - Proctor/Hughes
- Condensed Chemical Dictionary - Hawley
- Rapid Guide to Hazardous Chemical in the Workplace - Lewis 1990.
- NIOSH Guide to Chemical Hazards - 1990
- ACGIH TLV Values and Biological Exposure Indices - 1991-1992

## **6.0 HAZARD ASSESSMENT**

The potential hazards associated with planned site activities include chemical, physical and biological hazards. This section discusses those hazards that are anticipated to be encountered during the activities listed in the scope of work in Section 2.2 of this HASP.

The potential to encounter chemical hazards is dependent upon the work activity performed (invasive or non-invasive), the duration, and location of the work activity. Such hazards could include inhalation or skin contact with chemicals



Site Specific Health and Safety Plan

that could cause dermatitis, skin burn, being overcome by vapors or asphyxiation. In addition, the handling of contaminated materials and chemicals could result in fire and/or explosion.

The potential to encounter physical hazards during site work includes: heat stress, exposure to excessive noise, loss of limbs, being crushed, head injuries, cuts and bruises, and other physical hazards due to motor vehicle operation, heavy equipment and power tools.

### **6.1 Chemical Hazards**

The potential for personnel and subcontractors to come in contact with chemical hazards may occur during the following tasks:

- Advancement of soil borings.
- Installation of monitoring wells.
- Sampling of monitoring wells.
- Cleaning of pits and trenches.
- Cleaning of USTs.

#### **6.1.1 Exposure Pathways**

Exposure to these compounds during ongoing activities may occur through inhalation of contaminated dust particles, inhalation of volatile and semi-volatile vapor fume compounds, by way of dermal absorption, and accidental ingestion of the contaminant by either direct or indirect cross contamination activities (eating, smoking, poor hygiene).

Indirectly, inhalation of contaminated dust particles (metals, silica, VOC's, semi-VOC's) can occur during adverse weather conditions (high or changing wind directions) or during operations that may generate airborne dust such as excavation, and sampling activities. Dust control measures such as applying water to roadways and work sites will be implemented, where visible dust is generated from non-contaminated and contaminated soils. Where dust control measures are not feasible or effective, respiratory protection will be used.

#### **6.1.2 Additional Precautions**

Dermal absorption or skin contact with chemical compounds is possible during invasive activities at the site, including removal of product, excavation of tanks, and handling of contaminated soils. The use of personal protective equipment in



## **ADVANCED SITE RESTORATION, LLC**

### **Site Specific Health and Safety Plan**

accordance with Section 9.2 and strict adherence to proper decontamination procedures should significantly reduce the risk of skin contact.

The potential for accidental ingestion of potentially hazardous chemicals is expected to be remote, when good hygiene practices are used.

### **6.2 Physical Hazards**

A variety of physical hazards may be present during site activities. These hazards are similar to those associated with any construction type project. These physical hazards are due to the following:

- Motor vehicles
- Heavy equipment operation
- Improper use of power and hand tools
- Misuse of pressurized cylinders
- Tripping hazards
- Working on surfaces which have the potential to promote falling
- Mishandling and improper storage of solid and hazardous materials
- Temporary loss of one's hearing and/or eyesight
- Poor visibility
- Crushing of appendages
- Hit on the head by falling objects
- Skin burns (Not Applicable)
- Walking on objects

These hazards are not unique and are generally familiar to most hazardous waste site workers at construction sites. Additional task-specific safety requirements will be covered during safety briefings.

#### **6.2.1 Noise**

Noise is a potential hazard associated with operation of heavy equipment, power tools, pumps, and generators. High noise operators will be evaluated at the discretion of the SSO. Employees with an 8-hour time weighted average exposure exceeding 85 dBA will be included in the hearing conservation program in accordance with 29 CFR 1910.85.

It is mandated that employees working around heavy equipment or using power tools that dispense noise levels exceeding 95 dBA are to wear hearing protection that shall consist of earplugs and earphones.



### **6.2.2 Heat/Cold Stress**

Extremes in temperature and the effects of hard work in impervious clothing can result in heat stress and/or hypothermia. The human body is designed to function at a certain internal temperature. When metabolism or external sources (fire, hot summer day, winter weather, etc) cause the body temperature to rise or fall excessively, the body seeks to protect itself by triggering cooling/warming mechanisms. Profuse sweating is an example of a cooling mechanism, while uncontrollable shivering is an example of a warming mechanism. The SSO monitors the temperature to determine potential adverse affects the weather can cause on site personnel.

Protective clothing worn to guard against chemical contact effectively stops the evaporation of perspiration. Thus the use of protective clothing increases heat stress problems. Cold stress can easily occur in winter with sub-freezing ambient temperatures. Workers in protective garments may heat-up and sweat, only to rapidly cool once out of the PPE.

The major disorders due to heat stress are heat cramps, heat exhaustion, and heat stroke.

**HEAT CRAMPS** are painful spasms that occur in the skeletal muscles of workers who sweat profusely in the heat, drink large quantities of water, but fail to replace the body's lost salts or electrolytes. Drinking water while continuing to lose salt tends to dilute the body's extracellular fluids. Soon water seeps by osmosis into active muscles and causes pain. Muscles fatigued from work are usually most susceptible to cramps.

**HEAT EXHAUSTION** is characterized by extreme weakness or fatigue, dizziness, nausea, and headache. In serious cases, a person may vomit or lose consciousness. The skin is clammy and moist, complexion pale or flushed, and body temperature normal or slightly higher than normal. Treatment is rest in a cool place and replacement of body water lost by perspiration. Mild cases may recover spontaneously with this treatment; severe cases may require care for several days. There are no permanent effects.

**HEAT STROKE** is a very serious condition caused by the breakdown of the body's heat regulating mechanisms. The skin is very dry and hot with red mottled or bluish appearance. Unconsciousness, mental confusion, or convulsions may occur. Without quick and adequate treatment, the result can be



## ADVANCED SITE RESTORATION, LLC

### Site Specific Health and Safety Plan

death or permanent brain damage. Get medical assistance quickly! As first aid treatment, the person should be moved to a cool place. Soaking the person's clothes with water and fanning them should reduce body heat artificially, but not too rapidly.

Steps that can be taken to reduce heat stress are:

- Acclimatize the body. Allow a period of adjustment to make further heat exposure endurable.
- Drink more liquids to replace body water lost during sweating.
- Rest is necessary and should be conducted under the direction of the SSO, and based on the physiological state of the effected personnel.
- Wear personal cooling devices. There are two basic designs; units with pockets for holding frozen packets and units that circulate a cooling fluid from a reservoir through tubes to different parts of the body. Both designs can be in the form of a vest, jacket, or coverall. Some circulating units also have a cap for cooling the head.

Cold temperatures can cause problems. The severe effects are frostbite and hypothermia.

**FROSTBITE** is the most common injury resulting from exposure to cold. The extremities of the body are often affected. The signs of frostbite are:

- The skin turns white or grayish-yellow.
- Pain is sometimes felt early but subsides later. Often there is no pain.
- The affected part feels intensely cold and numb.

**HYPOTHERMIA** is characterized by shivering, numbness, drowsiness, muscular weakness and a low internal body temperature when the body feels warm externally. This can lead to unconsciousness and death. With both frostbite and hypothermia, the affected areas need to be warmed quickly. Immersing in warm, not hot, water best does this. In such cases medical assistance will be sought.

To prevent these effects from occurring, persons working in the cold should wear adequate clothing and reduce the time spent in the cold area. The field SSO to determine appropriate time personnel may spend in adverse weather conditions will monitor this.



### **6.2.3 Lockout/Tagout**

**PURPOSE** -- This program establishes procedures for de-energizing, isolating, and ensuring the energy isolation of equipment and machinery. The program will be used to ensure that equipment and machinery is de-energizing and isolated from unexpected energy by physically locking (Lockout) energy isolation devices or, in the absence of locking capabilities, tagout (Tagout) the device to warn against energy. These procedures will provide the means of achieving the purpose of this program, (prevention of injury to ASR employees from the unexpected energy or start-up of equipment and machinery, or from the release of stored energy.)

This program covers normal operations only if a guard or other safety device is removed or bypassed, or any part of the body is placed into an area of the equipment or machinery where work is performed on the material, or a danger zone exists during the operating cycle. Minor tool changes, adjustments, and other minor servicing activities that take place during normal production operations do not require isolation or lockout/tagout if they are routine and integral to the use of the equipment.

**SCOPE** -- This program will include all employees whose duties require them to service, install, repair, adjust, lubricate, inspect, or perform work on powered equipment or machinery that may also have the potential for stored energy.

**PROGRAM RESPONSIBILITIES** -- The SSO will have the overall responsibility of the program to ensure that; authorized and affected employees receive adequate training and information, the program is evaluated annually, and the lockout/tagout equipment is properly used and the procedures of this program are followed.

The program evaluation will be conducted to ensure that the procedures and requirements of the program are being followed and will be utilized to correct any deviations or inadequacies that may be discovered. The evaluation will consist of one or more inspections or audits of actual lockout/tagout procedures being used to isolate equipment. A review of the authorized and affected employee's responsibilities will be conducted at the time of the inspection /audit. Any authorized employee, except the one(s) utilizing the energy isolation procedure being inspected may perform the inspection/audit. A record will be maintained of program evaluation inspections and will include:



## ADVANCED SITE RESTORATION, LLC

### Site Specific Health and Safety Plan

1. The identities of the equipment or machine on which energy control procedures were being utilized.
2. The date(s) of the inspection(s).
3. The employee(s) included in the inspection(s).
4. The person performing the inspection.

Authorized employees (persons who implement lockout/tagout procedures) will be responsible for following the procedures established by this program.

Affected employees are responsible for understanding the significance of a lockout/tagout device and the prohibition relating to attempts to restart or re-energize equipment or machinery that is locked out or tagged out.

TRAINING -- ASR employees will be provided instruction in the purpose and function of the energy control program to ensure that they understand the significance of locked or tagged out equipment and also have the knowledge and skill to correctly apply and remove energy controls. Training will include:

1. The recognition of applicable hazardous energy source(s), the type and magnitude of energy available, and the policies and procedures of the ASR energy control program.
2. Affected employees will be made aware of the purpose and use of energy control procedures and the prohibition relating to attempts to remove lockout or tagout devices.
3. Instruction in the limitations of tagout as a sole means of energy control.
  - a. Tags are warning devices and do not provide the physical restraint that a lock would.
  - b. Tags may provide a false sense of security.
  - c. Tags may become detached during use.

Initial training will be provided during to energy control program implementation, when new employees are hired or when job responsibilities change to include utilization of energy control procedures.

Retraining will be conducted whenever there is a change in job assignments that require the employee to utilize energy control procedures, a change in equipment that presents a new hazard, a change in the energy control procedures or when the program evaluation identifies inadequacies in the energy control program procedures.





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### Site Specific Health and Safety Plan

Records of employee training will be maintained and will include the employee's name and date(s) of training.

STANDARD OPERATING PROCEDURES -- General; ASR will provide the necessary devices to effectively lockout or tagout energy isolating devices. Lockout/tagout devices will be the only devices used for controlling energy and shall not be used for other purposes. Any device used for lockout/tagout will be capable of withstanding the environment to which they are exposed for the maximum period they are expected to be exposed. The devices will be substantial enough to prevent removal without excessive force. Excessive force for a locking device would be bolt cutters or other metal cutting tools. Tagout devices will be attached by hand using a non-reusable method. Nylon cable tie or equivalent will be used making it very difficult to remove the tagout device by hand.

Lockout/tagout devices will indicate the identity of the employee who applied the device, and the tagout device will warn against the hazards if the equipment is energized.

Lockout is the preferred method of energy isolation. When physical lockout is not possible, the energy isolation will be tagged out of service with a warning tag attached at the power source. In the case of plug-in power source, the tag will be attached at the male plug. To ensure full employee protection using tagout instead of lockout, additional steps should be taken to guard against accidental or inadvertent energization. These steps may include, where applicable: removal of fuses, blocking switches, removal of a valve handle.

### STANDARD OPERATING PROCEDURES

#### I. APPLICATION OF CONTROLS

##### A. Preparing to shut down equipment

1. Prior to equipment shutdown, the authorized employee(s) must have knowledge of:
  - a. The type(s) and magnitude of power.
  - b. The hazards of the energy to be controlled (e.g. burns due to thermal energy)
  - c. The method(s) to control the energy.
  - d. The location and identity of all isolating devices that control or feed the equipment to be locked/tagged out.



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2. Notify all affected employees that the lockout/tagout system will be in effect.
3. Assemble applicable lockout/tagout devices, i.e., padlocks, tags, multiple lock hasps, etc.

#### B. Equipment Shutdown and Isolation

1. If equipment is in operation shut it down by the normal stopping procedure (stop button, switch).
2. Operate disconnects, switches, valves, or other energy isolating devices so that the equipment is de-energizing and isolated from its energy source(s).
3. Verify that operating equipment from the normal equipment.

#### C. Installation of Lockout/Tagout Device, Release of Stored Energy, and Verification

1. Attach individually assigned lock(s) or tag(s) to energy isolating device(s). Where it is not possible to lock a switch, valve, or other isolating device, electrical fuses must be removed, blank flanges installed in piping, lines disconnected, or other suitable methods used to ensure that equipment is isolated from energy sources. A tag must be installed at the point of power interruption to warn against energizing.
  - a. Each lock or tag must positively identify the person who applied it and locks must be individually keyed.
  - b. If more than one person is involved in the task, each employee will place his or her own lock and tag. Multiple lock hasps are available for this.
2. Release, restrain, or dissipate stored energy such as spring tension, elevated machine members, rotating flywheels, hydraulic pressure, pistons and air, gas, steam, water pressure, etc. by repositioning, blocking, bleeding, or other suitable means.
3. Prior to starting work on equipment and after ensuring that no personnel are exposed, the authorized employee will verify that isolation and de-energization have been accomplished by:
  - a. Attempting, through normal effort, to operate energy isolating devices such as switches, valves, or circuit breakers with locks or tags installed.
  - b. Attempting to operate the equipment or machinery that is locked or tagged out. This includes all sources of energy, i.e. electrical, hydraulic, gravity, air, water, stream pressure, etc.



## ADVANCED SITE RESTORATION, LLC

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- c. Verifying the presence and effectiveness of restraint (blocking) and energy dissipation or release (bleeding).

4. If there is a possibility of the re-accumulation of stored energy to a hazardous level, verification of isolation will be contained until the servicing or maintenance is completed, or until the possibility of such accumulation no longer exists.

#### D. Group Lockout/Tagout

1. When more than one individual is involved in locking or tagging equipment out of operation, each individual will attach their individual lock or tag, or the equivalent, to the energy isolating device(s).
  - a. An equivalent lockout device may be in the form of a group lockout device such as a multiple lock hasp or lock box.
  - b. Primary responsibility for a group of authorized employees working under a group lockout device will be vested in a designated authorized employee.
  - c. Group lockout methods will provide a level of protection equal to that afforded by a personal lockout/tagout device.

## II. RETURNING EQUIPMENT TO SERVICE

#### A. Restore Equipment to Normal Operating Status

1. Re-install all parts or subassemblies removed for servicing or maintenance.
2. Re-install all tools, rests, or other operating devices
3. Re-install all guards and protective devices (i.e. limit switches).
4. Remove all blocks, wedges, or other restraints from the operating area of the equipment (ways, slides, etc.).
5. Remove all tools, equipment, shop towels from the operating area of the equipment.

#### B. Verify Equipment Ready for Operation

1. Inspect area for non-essential items
2. Ensure that all employees are safely positioned clear of the operating areas of the equipment. Post a watch if energy isolation devices are not in line of sight of the equipment.



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### Site Specific Health and Safety Plan

#### C. Notify Affected Employees of Impending Start-up

1. The sudden noise of start-up may startle nearby employees.
2. Equipment may need to be tested to determine operational safety by a qualified operator.

#### D. Removal of Energy Isolation Devices

Only by authorized employee(s) who installed it/them.

1. Remove line blanks, reconnect piping (if applicable), remove warning tag.
2. Close bleeder valves, remove warning tag.
3. Replace fuse(s), close circuit breaker(s), remove warning tag.
4. Remove lock and tag from control panel, valve, etc.

*Exception to removal of lockout/tagout devices by employee who installed it.* If it is necessary to operate a piece of equipment that is locked/tagged out, every effort must be made to locate the employee whose lock or tag is on the equipment. If he or she cannot be located and only after positive assurance is made that no one is working on the locked out equipment, the supervisor may personally remove the lock. The supervisor must assure that the equipment is once again locked out, or the employee notified that the equipment has been re-energized, before the employee resumes work.

Employees will recheck locked out equipment if they have left the equipment (breaks, lunch, end of shift) to make sure it is still de-energized and locked out.

### III. TEMPORARY REMOVAL OF LOCKOUT/TAGOUT PROTECTION

#### A. In situations when the equipment must be temporarily energized to test or position the equipment or it's components, the following steps will be followed:

1. Clear the equipment of tools and materials that are non-essential to the operation.
2. Ensure the equipment components are operationally intact.
3. Remove employees from the equipment area.
4. Remove the lockout/tagout devices by the employee who installed in/them.
5. Energize and proceed with testing or positioning.



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6. De-energize all systems and re-install all energy control measures.
7. Verify re-installed energy control measures are effective.

#### IV. SHIFT OR PERSONNEL CHANGES

- A. The following steps will be followed to ensure continuity of employee protection during personnel changes.
  1. All personnel involved in the maintenance or servicing activity will be notified that a transfer of personal locks/tags is about to occur.
  2. Clear all personnel from hazardous area(s) of equipment.
  3. Under the supervision of the shift supervisor or group designee, the off-going employee will immediately install their locks/tags.
    - a. If an entire group or more than one employee will be transferring work responsibility, locks/tags will be removed and replaced one at a time in order of installation.
  4. When the transfer of lockout/tagout devices is complete, the effectiveness of all energy isolation devices will be verified to the satisfaction of all personnel involved.
  5. Once the effectiveness of energy isolation protection is confirmed, the service/maintenance operation may continue.

#### V. CONTRACTOR NOTIFICATION

- A. Whenever outside personnel may be engaged in activities covered by this program, they will inform the contractor of applicable lockout/tagout procedures used to protect ASR employees from the hazards of working near energized equipment.
  1. The contractor will be expected to ensure that his/her employees understand and comply with the restrictions and prohibitions of this program.
  2. ASR requires, under these circumstances, the contractor to inform us of their lockout/tagout procedures so that ASR employees can comply with the restrictions and prohibitions of the contractor's program.
  3. ASR also requires the contractor to notify the program administrator, the area supervisor, and affected ASR employees prior to de-energizing, isolating, and locking out ASR equipment. Conversely, notification is also required when this equipment will be returned to service.



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#### **DEFINITIONS:**

Affected employee - An employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed.

Authorized employee - A person who locks or implements a tagout system procedure on machines or equipment to perform servicing or maintenance. An authorized employee and an affected employee may be the same person when the affected employee's duties also include performing maintenance or service on a machine or equipment that must be locked or tagged out.

"Capable of being locked out" - An energy-isolating device will be considered to be capable of being locked out. These lock out conditions are either if it is designed with a hasp or other attachment or integral part to which, or through which, a lock can be affixed, or if it has a locking mechanism built into it. Other energy isolating devices will also be considered to be capable of being locked out, if lockout can be achieved without the need to dismantle, rebuild, or replace the energy-isolating device or permanently alter its energy control capability.

Energized - Connected to an energy source or containing residual or stored energy.

Energy isolating device - A mechanical device that physically prevents the transmission or release of energy, including but not limited to the following: A manually operated electrical circuit breaker; a disconnect switch; a manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors and, in addition, no pole can be operated independently; a slide gate; a slip blind; a line valve; a block; and any similar device used to block or isolate energy. The term does not include a push button, selector switch, and other control circuit type devices.

Energy source - any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.

Lockout - The placement of lockout device on an energy-isolating device, in accordance with an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.



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Lockout device - A device that utilizes positive means such as a lock, either key or combination type, to hold an energy isolating device in the safety position and prevent the energizing of a machine or equipment.

Normal production operations - The utilization of a machine or equipment to perform its intended production function.

Servicing and/or maintenance - Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining and/or servicing machines or equipment. These activities include lubrication, cleaning or unjamming of machines or equipment and making adjustments or tool changes, where the employee may be exposed to the unexpected energization or startup of the equipment or release of hazardous energy.

Setting up - Any work performed to prepare a machine or equipment to perform its normal production operation.

Stored energy - Energy that is available and may cause movement even after energy sources have been isolated. Stored energy may be in the form of compressed springs, elevated equipment components, hydraulic oil pressure, pressurized water, air, steam, or gas, or rotating flywheels, shafts or cams.

Tagout - The placement of a tagout device on an energy isolating device, in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

Tagout device - A prominent warning device, such as a tag and a means of attachment, which can be securely fastened to an energy isolating device in accordance with an established procedure. The tagout device will indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.





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### MACHINERY AND EQUIPMENT LIST

<u>EQUIPMENT/LOCATION</u>	<u>ENERGY SOURCES/LOCATION</u>
Excavators	Mechanical
Back hoe	Mechanical
Skid steer	Mechanical
Support Vehicle	Mechanical
Drill rig/geoprobe	Mechanical
Industrial site equipment	Mechanical/ electrical

ASR has two (2) pieces of machinery and equipment that is affected by this Program. This item has energy isolation devices capable of accepting a lock.

## 7.0 TRAINING

### 7.1 General Health and Safety Training

In accordance with ASR company policy, and 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. As a minimum, the training shall have consisted of instruction in the topics outlined in the above reference. Personnel who have not met the requirements for initial training will not be allowed to work in any site activities in which they may be exposed to hazards (chemical or physical).

Completion of the ASR Health and Safety Training Course for Hazardous Waste Operations or an approved equivalent will fulfill the requirements of this section. In addition to the required initial training, each employee shall have received 3 days of directly supervised on-the-job training. This training will address the duties the employees are expected to perform.

The ASR Health and Safety Supervisor has the responsibility of ensuring that personnel assigned to this project comply with these requirements. Written certification of completion of the required training will be provided to the SSO.

### 7.2 Manager/Supervisor Training

In accordance with 29 CFR 1910.120, on-site management and supervisors who will be directly responsible for, or who supervise employees engaged in hazardous waste operation shall receive training as required by Section 6.1 of the



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HSP. In addition, at least 8 additional hours of specialized training on managing such operations at the time of job assignment.

### **7.3 Annual 8-Hour Refresher Training**

Annual 8-hour refresher training will be required of all hazardous waste site field personnel in order to maintain their qualification for fieldwork. The following topics will be reviewed: toxicology, respiratory protection, medical surveillance, decontamination procedures, and personnel protective clothing. In addition, topics deemed necessary by the SSO might be added to the above list.

### **7.4 Site Specific Training**

Prior to commencement of field activities, all personnel assigned to the project will be provided training that will specifically address the activities, procedures, monitoring, and equipment for the site operations. It will include site and facility layout, hazards, and emergency services at the site, and will highlight all provisions contained within this HSP. This training will also allow field workers to clarify anything they do not understand and to reinforce their responsibilities regarding safety and operations for their particular activity.

### **7.5 On Site Safety Briefings**

Project personnel and visitors will be given periodic on-site health and safety briefings by the SSO, or their designee, to assist site personnel in safely conducting their work activities. The briefings will include information on new operations to be conducted, changes in work practices, or changes in the site's environmental conditions. The 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 audits.

### **7.6 Additional Training**

Additional training may be required by the SSO for participation in certain field tasks during the course of the project. Such additional training could be in the safe operation of heavy or power tool equipment or hazard communication training.



## **7.7 Subcontractor Training**

Subcontractor personnel working on site only occasionally, for a specific limited task (such as land surveying) and who are unlikely to be exposed over permissible exposure limits, may be exempted from the initial 40-hour training requirement. The SSO will determine if this exemption is allowed. In any case, the subcontractor personnel who are exposed to hazards are not exempted from the 40-hours training requirement nor medical surveillance requirements found in Section 8.1.

## **8.0 SITE CONTROL, PERSONAL PROTECTIVE EQUIPMENT, AND COMMUNICATIONS**

### **8.1 Site Control**

A support zone (SZ) is an uncontaminated area that will be the field support area for most operations. The SZ provides for field team communications and staging for emergency response. Appropriate sanitary facilities and safety equipment will be located in this zone. Potentially contaminated personnel or materials are not allowed in this zone. The only exception will be appropriately packaged/decontaminated and labeled samples. A contamination reduction corridor will be established. This is the route of entry and egress to the site, and it provides an area for decontamination of personnel and portable equipment as well.

The area where contamination exists is considered to be the exclusion zone. All areas where excavation and handling of contaminated materials take place are considered the exclusion zone (EZ). This zone will be clearly delineated by cones, tape, or other means. The SSO may establish more than one EZ where different levels of protection may be employed or where different hazards exist. Personnel are not allowed in the EZ without:

- . A partner (buddy)
- . Appropriate personal protective equipment
- . Medical authorization
- . Training certification

### **8.2 Personal Protective Equipment**

#### **8.2.1 General**



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The level of protection worn by field personnel will be enforced by the SSO. Levels of protection for general operations are provided below and are defined in this section. Levels of protection may be upgraded or downgraded at the discretion of the SSO. The decision shall be based on real-time air monitoring, site history data, and prior site experience. Any changes in the level of protection shall be recorded into the health and safety field logbook.

#### 8.2.2 Personal Protective Equipment Specifications

For tasks requiring Level B PPE, the following equipment shall be used:

- Cotton or disposable coveralls
- Chemical protective suit (e.g. Saran-coated Tyvek)
- Gloves, inner (latex)
- Gloves, outer (nitrile)
- Boots (PVC), steel toe/shank
- Boot Covers (as needed)
- Hard Hat
- Hearing protection (as needed)

For tasks requiring Level C PPE, the following equipment shall be used:

- Cotton or disposable coveralls
- Disposable outer coveralls (Poly-coated Tyvek)
- Gloves, inner (latex)
- Gloves, outer (nitrile)
- Boots (PVC), steel toe/shank
- Boot covers (as needed)
- Hard hat
- Hearing protection (as needed)
- Splash suit and face shield for decontamination operations (as

needed)

For tasks requiring Level D PPE, the following equipment shall be used:

- Cotton or disposable coveralls
- Gloves, inner (latex)
- Gloves, outer (nitrile)
- Boots (PVC) steel toe/shank
- Boot covers (as needed)
- Hard hat
- Hearing protection (as needed)
- Safety glasses



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For tasks requiring respiratory protection, the following equipment shall be used:

Level D - No respiratory protective equipment necessary except for a dust mask.

Level C - A half or full-face air-purifying respirator equipped with organic vapor/acid gas-HEPA cartridges.

Level B - An air-line respirator or a self-contained breathing apparatus (SCBA)

ASR's Respiratory Protection Program shall be followed.

### 8.2.3 Initial Levels Of Protection

Levels of protection for the activities may be upgraded or downgraded depending on direct-reading instruments or personnel monitoring. The following are the initial levels of protection that shall be used for each planned field activity.

#### LEVEL OF PERSONAL PROTECTIVE EQUIPMENT REQUIRED

Activity	Respiratory/PPE
Confined Space Entry	B/C
Tank/Piping Testing	C/D
Tank Pumping/Cleaning	C/D

ASR company policy as of this date dictates that the highest level of respiratory protection sanctioned for use by ASR personnel is Level "C". Levels "A" and "B" are not sanctioned by management, and should not be performed by ASR personnel. This does not bar sub-contractors from using this protection.

### 8.3 Communication

Communication is the ability to transmit information to others, either through the written work or verbalized. While working in Level C/B Protection, personnel may find that communication become a more difficult task and process to accomplish. Distance and space further complicate this. In order to address this problem, electronic instruments, mechanical devices or hand signals will be used as follows:

- Walkie-Talkies - Hand held phone "one click" radios would be utilized as much as possible by field teams for communication between downrange



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operations and the Command Post base station. The Command Post base station will be considered the rear of the ASR vehicle at the site during the fieldwork.

- **Telephones** - A mobile telephone will be located in the Command Post vehicle in the Support Zone for communication with emergency support services/facilities. If a telephone is demobilized, the nearest public phones will be identified.

- **Hand Signals** - This communication method will be employed by members of the field team along with use of the buddy system. Signals become especially important when in the vicinity of heavy moving equipment and when using Level B respiratory equipment. The signals shall become familiar to the entire field team before site operations commence and they will be reinforced and reviewed during site-specific training.

### HAND SIGNALS FOR ON-SITE COMMUNICATION

<u>Signal</u>	<u>Meaning</u>
Hand gripping throat	Out of air, can't breathe
Grip partners' wrist	Leave area immediately; no debate
Hands on top of head	Need assistance
Thumbs up	OK, I'm all right; I understand
Thumbs down	No, negative, unable to understand you. I'm not all right

#### Confined Space Line Pulls

1 Pull	OK, I'm all right; I understand
2 Pulls	Give Slack
3 Pulls	Take Slack
4 Pulls (Rapid)	I'm not all right, need assistance/come out immediately

## 9.0 AIR MONITORING PLAN

### 9.1 General

Continuous air monitoring in the Exclusion Zone(s) during invasive tasks will accompany site operations, as indicated in this HASP or as required by the SSO. Monitoring will be performed to verify the adequacy of respiratory protection, to aid in site layout and to document work exposure. All monitoring instruments



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shall be operated by qualified personnel only and will be calibrated daily prior to use, or more often as necessary.

## **9.2 Real-Time Monitoring**

### **9.2.1 Instrumentation**

The following monitoring instruments will be available for use during field operations as necessary:

Photo ionization Detector (PID) with 10.2 EV probe, or equivalent.  
Combustible Gas Indicator (CGI)/Oxygen (O<sub>2</sub>) Meter, MSA or equivalent.

A FID or PID shall be used to monitor the organic vapor concentrations in active work areas. Organic vapor concentrations shall be measured upwind of the work areas to determine background concentrations. The SSO will interpret monitoring results using professional judgment. The PPE utilized shall always be the most protective; thus the action level criteria are flexible guidelines.

A CGI/O<sub>2</sub> meter shall be used to monitor for combustible gases and oxygen content in the boreholes during drilling activities.

Calibration records shall be documented, and included in the health and safety logbook or instrument calibration logbook. All instruments shall be calibrated before and after each daily use in accordance with the manufacturers' procedures.

### **9.2.2 Action Levels**

Action levels for upgrading of PPE in this HSP will apply to all site work during the duration of field activities at the site. Action levels are for unknown contaminants using direct reading in the Breathing Zone (BZ) for organic vapors and dusts, and at the source for combustible gases. The action levels to be utilized for the remediation system site are found in Table 10-1.

### **9.2.3 Monitoring During Field Activities**

#### **9.2.3.1 Real-Time Air Monitoring: Exclusion Zone**

F&N shall perform real time air monitoring prior to the commencement of work to establish baseline conditions. Baseline conditions will be established at the





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approximate center of the site and at the perimeter of the site both upwind and downwind.

During all work activities real time monitoring will occur. F&N shall have at each applicable workstation a Photoionization Detector, explosimeter or oxygen deficiency meter. The real time monitoring for remedial activities will be conducted approximating the Breathing Zone of the workers. The monitoring will be continuous during working operations.

The air-monitoring instrument may indicate that personnel working in the exclusion zone increase their level of protection. All personnel will be trained in the action levels. When conditions warrant an increase in protection, all personnel will stop working and immediately leave the exclusion zone. They will then don the appropriate safety equipment necessary and return to their current workstation. The Site Safety Officer (SSO) will monitor all of this activity. The SSO will keep the ASR Project Manager aware of any extraordinary situations and conditions that may occur. Working conditions and monitoring levels will be noted in the Field Notebook along with the time, date, and page number. Verbal reports will be given to the Project Manager when there is a change in the PPE level.

The previous days results shall be reviewed each morning to determine what actions are necessary and the general conditions resulting from and around the site.

The record keeping will include:

- . Date & Time of Monitoring
- . Air Monitoring Location
- . Instrument, Model #, Serial #
- . Calibration/Background Levels
- . Results of Monitoring
- . SSO Signature
- . Comments

*Appendix B provides a generic community air-monitoring plan*

Excavation Operations - Monitoring will be performed continuously during all excavation and demolition operations. A PID and/or FID shall be utilized to monitor the breathing zone, the excavated area and any material taken from the



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excavation. A CGI/O<sub>2</sub> meter shall be used to monitor the excavation for the presence of combustible gases.

**TABLE 9-1: ACTION LEVELS OF AIRBORNE CONTAMINANTS**

<u>Instrument</u>	<u>Action Level</u>	<u>Action to be Taken</u>
<b>FID/PID</b>	<b>10-100 ppm, for a 15 minute average</b>	<b>Stop work &amp; initiate vapor control</b>
	<b>&gt; 100 ppm, for a 15 minute average</b>	<b>Stop work &amp; initiate evacuation procedure</b>
<b>CGI</b>	<b>10% LEL 50% LEL</b>	<b>Stop work, initiate ventilating Stop work, initiate evacuation procedure and contact fire dept.</b>

### **9.3 Personnel Monitoring Procedure**

Assessment and evaluation of field personnel exposures to airborne contaminants may be performed by the site SSO concurrent with activities which may generate the contaminants in excess of OSHA PEL's.

Procedures to be followed include:

Selection of high-risk individuals, who may be subject to contaminant exposure, based on job assignment and observations of the SSO.

The Personal Sampling is being conducted to determine the proper levels of respiratory protection required, to document potential exposures to compounds, and to assure compliance with OSHA standards. Therefore it is important that the data collected be from "worst case" locations and personnel.

For example: when work is being conducted to excavate at an underground tank location, those persons closest to the excavation and most intimately involved with the work should be sampled. If a backhoe operator solely conducted the excavation, then that employee should be monitored. However, if there are additional workers who must enter the excavation and work with the freshly

excavated soil, these persons would be closer to the potential contaminants and they should be sampled.

To meet the intent of the sampling will require sampling at periods of the most disturbances. To be accurate in determining potential exposures, as many tasks/trades shall be sampled as possible during the course of this project. At completion of the project, a goal of 20% of all workers who must perform their duties in or around the contaminated soil, tanks, and excavations is sought.

ASR must provide all sampling data in writing to the employees within three (3) days of receipt of results.

Air sampling pumps used to collect employee exposure samples shall be calibrated before and after use each day. Calibration shall be accomplished using a primary standard calibration system, e.g. the bubble tube method. Results of the calibrations shall be included in the health and safety field logbook and with the exposure report.

Chemical analysis of samples collected for assessment of employee exposures shall be performed in accordance with NIOSH or OSHA analytical methods only by laboratories accredited by the American Industrial Hygiene Association.

Results of the personal exposure assessment shall be provided to the individual, in writing within 15 working days after receipt of laboratory reports. Reports to field personnel shall provide calculated time-weighted average exposures and shall provide comparative information relative to established permissible exposure limits. The air sampling data sheet and laboratory report is considered a part of the employee exposure report. A copy of the employee personal exposure assessment report shall also be included in the project file, and the employees' medical record for ASR employees. Reports for subcontractor employees will be sent directly to the subcontractors' employer.

#### **9.4 Air Monitoring Reports**

Air Monitoring Reports will be completed by the SSO and/or IH and submitted to the Project Manager in the daily safety logs and will include the following:

- a. Date of monitoring
- b. Equipment utilized for air monitoring
- c. Real-time air monitoring results from each work location
- d. Calibration method of equipment and results



## **10.0 SAFETY CONSIDERATIONS**

### **10.1 General**

In addition to the specific requirements of this HSP, common sense should be used at all times. The following general safety rules and practices will be in effect at the site.

The site will be suitably marked or barricaded as necessary to prevent unauthorized visitors but not hinder emergency services if needed.

All open holes, trenches, and obstacles will be properly barricaded in accordance with local site needs. The needs will be determined by proximity to traffic ways, both pedestrian and vehicular, and site of the hole, trench, or obstacle. If holes are required to be left open during non-working hours, they will be adequately decked over or barricaded and sufficiently lighted.

Before any digging or boring operations are conducted, underground utility locations will be identified. All boring, excavation, and other site work will be planned and performed with consideration for underground lines. Any excavation work will be performed in accordance with ASR's Standard Operating Procedures for Excavations.

Smoking and ignition sources in the vicinity of potentially flammable or contaminated material strictly prohibited.

Drilling, boring, and use of cranes and drilling rigs, erection of towers, movement of vehicles and equipment and other activities will be planned and performed with consideration for the location, height. In addition, the relative position of aboveground utilities and fixtures, including signs; canopies; building and other structures and construction; and natural features such as trees, boulders, bodies of water, and terrain will be taken into consideration.

When working in areas where flammable vapors may be present, particular care shall be exercised with tools and equipment that may be sources of ignition. All tools and equipment provided must be properly bonded and/or grounded. Metal buttons and zippers are prohibited on safety clothing for areas that may contain a flammable or explosive atmosphere.



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Approved and appropriate safety equipment (as specified in this HSP), such as eye protection, hard hats, foot protection, and respirators, must be worn in areas where required. In addition, eye protection must be worn when sampling soil or water that may be contaminated.

Beards interfere with respirator fit and are not allowed within the site boundaries because all site personnel may be called upon to use respirator protection in some situations.

No smoking, eating, chewing tobacco, gum chewing, or drinking will be allowed in the contaminated areas.

Contaminated tools and hands must be kept away from the face.

Personnel must use personal hygiene safe guards (washing up) at the end of the shift or as soon as possible after leaving the site.

Each sample must be treated and handled as though it were contaminated.

Persons with long hair and/or loose fitting clothing that could become entangled in power equipment must take adequate precautions.

Horseplay is prohibited in the work area.

Work while under the influence of intoxicants, narcotics, or controlled substances, is  
Prohibited.

## **10.2 Posted Signs**

Posted danger signs will be used where an immediate hazard exists. Caution signs will be posted to warn against potential hazards and to caution against unsafe practices. Traffic control methods and barricades will be used as needed. Wooden stakes and flagging tape or equally effective material will be used to demarcate all restricted areas.

Other postings will include an OSHA poster emergency hospital route and a telephone numbers of contact personnel posting.

## **10.3 Confined Space & Tank Cleaning Operations**



The SSO will be present on-site during all confined space entry work. The SSO will ensure that appropriate monitoring, levels of protection and safety procedures are followed. No unauthorized personnel will enter any confined Space for any reasons.

Emergency evacuation procedures and the location of safety equipment will be established prior to start up operations.

The use of supplied air, protective clothing, especially hard hats, boots, and gloves will be required during confined space and tank cleaning operations.

#### **10.4 Tank Testing**

Personnel must wear prescribed protective clothing and equipment including eye protection, chemical resistant gloves and splash aprons (where appropriate) when testing tanks and lines. Personnel must be aware of the location of emergency equipment, including spill containment materials prior to sampling. Personnel are to practice contamination avoidance at all times, as well as to utilize the buddy system and maintain communications with the Command Post. In some situations, such as sampling groundwater wells, additional monitoring may be needed to confirm or establish the proper level of protection before the testing can proceed.

#### **10.5 Additional Safety Considerations**

There are no additional safety considerations.

### **11.0 DECONTAMINATION AND DISPOSAL PROCEDURES**

All decontamination will be performed, at a minimum, in accordance with applicable industry standards.

#### **11.1 Contamination Prevention**

One of the most important aspects of decontamination is the prevention of contamination. Good contamination prevention should minimize worker exposure and help ensure valid sample results by precluding cross-contamination. Procedures for contamination avoidance include:



Personnel

Do not walk through areas of obvious or known contamination  
Do not directly handle or touch contaminated materials  
Make sure that there are no cuts or tears on PPE.  
Fasten all closures in suits; cover with tape if necessary  
Particular care should be taken to prevent any skin injuries  
Stay upwind of airborne contaminants  
Do not carry cigarettes, cosmetics, gum, etc. into contaminated areas.

Testing and Monitoring

When required by the SSO, cover instruments with clear plastic, leaving openings for testing equipment.

Heavy Equipment

Care should be taken to limit the amount of contamination that comes in contact with heavy equipment (tires, contaminated hoses).

**11.2 Personnel Decontamination**

All personnel shall pass through an outlined decontamination procedure when exiting the hot zone at each location. A field wash for equipment and PPE shall be set up at each drilling location. The system will include a gross wash and rinse for all disposable clothing and boots worn in the EZ. Upon exiting the EZ, all personnel will wash their hands, arms, neck, and face before entering the Support Zone.

**11.3 Equipment Decontamination**

Equipment used at the remediation system site that is potentially contaminated shall be decontaminated to prevent hazardous materials from leaving the site. All heavy equipment will be decontaminated at the decontamination pad and inspected by the SSO and Project Manager before it leaves the site. The decontamination area will provide for the containment of all wastewater from the decontamination process. Respirators and any other personnel equipment that comes in contact with contaminated soils shall pass through a field wash.

**11.4 Decontamination During Medical Emergencies**

If emergency life-saving first aid and/or medical treatment is required, normal decontamination procedures may need to be abbreviated or omitted. The site SSO or designee will accompany contaminated victims to the medical facility to





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advise on matters involving decontamination, when necessary. The outer garments can be removed if they do not cause delays, interfere with treatment, or aggravate the problem. Respiratory equipment must always be removed. Protective clothing can be cut away. If the outer contaminated garments cannot be safely removed a plastic barrier between the individual and clean surfaces should be used to help prevent contaminating the inside of ambulances and /or medical personnel. Outer garments are then removed at the medical facility. No attempt will be made to wash or rinse the victim, unless it is known that the individual has been contaminated with an extremely toxic or corrosive material that could also cause severe injury or loss of life to emergency response personnel. For minor medical problems or injuries, the normal decontamination procedures will be followed.

Note that heat stroke requires prompt treatment to prevent irreversible damage or death. Protective clothing must be promptly removed. Less serious forms of heat stress also require prompt attention and removal of protective clothing immediately. Unless the victim is obviously contaminated, decontamination should be omitted or minimized and treatment begun immediately.

### **11.5 Disposal Procedures**

The SSO and PM will develop a segregating system of non-hazardous waste and hazardous waste. All discarded material, waste materials, or other objects shall be handled in such a way as to preclude the potential for spreading contamination, creating sanitary hazards, or causing litter to be left on site. All potentially contaminated materials, e.g. clothing, gloves, etc., will be bagged or drummed as necessary, labeled and segregated for disposal. All non-contaminated materials shall be collected and bagged for appropriate disposal as normal domestic waste.

### **12.0 EMERGENCY PLAN**

The potential for the development of an emergency situation is low considering the low concentrations of hazardous substances at the work site. Nevertheless, an emergency situation could occur. All ASR members and subcontractor field team will know the emergency plan, outlined in this section, prior to the start of work. The emergency plan will be available for use at all times during site work.

Various individual site characteristics will determine preliminary actions taken to assure that this emergency plan is successfully implemented in the event of a site emergency. Careful consideration must be given to the proximity of



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neighborhood housing or places of employment and to the relative possibility of site fire, explosion or release of vapors or gases that could affect the surrounding community.

The Project Manager shall make contact with local fire, police, and other emergency units prior to beginning work on site. In these contacts, the Project Manager will inform the emergency units about the nature and duration of work expected to the site and the type of contaminants and the possible health or safety effects of emergencies involving these contaminants. At this time, the Project Manager and the emergency response units shall make the necessary arrangements to be prepared for any emergencies that could occur.

The Project Manager shall implement the contingency plan whenever conditions at the site warrant such action. The Project Manager will be responsible for coordination of the evacuation emergency treatment, and transportation of site personnel as necessary, and notification of emergency response units and the appropriate management staff.

The cases where the PM is not available, the SSO shall serve as the alternate emergency coordinator.

### **12.1 Evacuation**

In the event of an emergency situation, such as fire, explosion, or significant release of toxic gases, an air horn or other appropriate device will be sounded for approximately 10-second intervals indicating the initiation of evacuation procedures. All personnel will evacuate and assemble near the entrance to the site. The location shall be upwind of the site where possible.

For efficient and safe site evacuation and assessment of the emergency situation, the Project Manager will have authority to initiate action if outside services are required. Under no circumstances will incoming personnel or visitors be allowed to proceed into the area once the emergency signal has been given. The SSO or designated SSO must ensure that access for emergency equipment is provided and that all combustion apparatuses have been shut down once the alarm has been sounded. Once the safety of all personnel is established, the Fire Department and other emergency response groups as necessary will be notified by telephone of the emergency.

### **12.2 Potential or Actual Fire or Explosion**



Site Specific Health and Safety Plan

Immediately evacuate the site, notify the local fire and police departments, and other appropriate emergency response groups if an actual fire or explosion has taken place.

### **12.3 Personnel Injury**

Emergency first aid shall be applied on site as deemed necessary. If necessary, the individual shall be decontaminated and transported to the nearest medical facility.

The ambulance/rescue squad shall be contacted for transport as necessary in an emergency. However, since some situations may require transport of an injured party by other means, the hospital route is identified below.

#### **Directions to Hospitals:**

From the Subject Site: see attachment Mapquest directions

### **12.4 Accident/Incident Reporting**

As soon as first aid and/or emergency response needs have been met, the following parties are to be contacted by telephone:

1. Christopher Tomasello, Project Manager (516) 233 7944 (Cell Phone)
2. Anthony Adesso, Health and Safety Officer (646) 403-1850
3. The employer of any injured worker if not an ASR employee

Written confirmation of verbal reports are to be submitted within 24 hours. The report form entitled "Accident Data Report" is to be used for this purpose. All ASR representatives contacted by telephone are to receive a copy of this report. If the employee involved is not an ASR employee, his employer shall receive a copy of this report.

For reporting purposes, the term accident refers to fatalities, lost time injuries, spill, or exposure to hazardous materials (toxic materials, explosive or flammable materials).

Any information released from the health care provider, which is not deemed confidential patient information, is to be attached to the appropriate form. Any



Site Specific Health and Safety Plan

medical information that is released by patient consent is to be filed in the individuals' medical records and treated as confidential.

*See Appendix C for a copy of the Accident Report.*

## **12.5 Overt Personnel Exposure**

SKIN CONTACT:	Use copious amounts of soap and water. Wash/rinse affected area thoroughly, and then provide appropriate medical attention. Eyes should be rinsed for 15 minutes upon chemical contamination.
INHALATION:	Move to fresh air and/or decontaminate/transport to hospital.
INGESTION:	Decontamination and transport to emergency medical facility.
PUNCTURE WOUND OR LACERATION:	Decontaminate and transport to emergency medical facility.

## **12.6 Adverse Weather Conditions**

In the event of adverse weather conditions, the SSO or designee will determine if work can continue without sacrificing the health and safety of all field workers. Some of the items to be considered prior to determining if work should continue are:

- Potential for heat stress and heat-related injuries
- Potential for cold stress and cold-related injuries
- Treacherous weather-related conditions
- Limited visibility
- Potential for electrical storms

Site activities will be limited to daylight hours and acceptable weather conditions. Inclement working conditions include heavy rain, fog, high winds, and lightning. Observe daily weather reports and evacuate if necessary in case of inclement weather conditions.



## **12.7 Emergency Response Equipment List**

The following items will be on-site for use:

- 55 Gallon Drums
- Absorbent Pads
- Plastic Sheeting

The following items will be available for use if required and will be stored at the offices of ASR:

- Absorbent Booms
- Speedi-Dri
- Pressure Washer
- Air Compressor
- Submersible Pumps
- Miscellaneous Hand Tools
- Portable Lighting
- 85 Gallon Drums
- Electric Generator

## **13.28 Large Equipment**

ASR does not own large equipment, with the exception of vehicles.

## **13.0 LOGS, REPORTS AND RECORDKEEPING**

### **13.1 Medical and Training Records**

The employer keeps medical and training records. Verification of training and medical qualifications must be provided to the SSO by the subcontractor employer of ASR record coordinator. The SSO will keep a log of personnel meeting appropriate training and medical qualifications for site work. The log will be kept in the project file. Medical records will be maintained in accordance with 29 CFR 1910.20.



### **13.2 On-Site Log**

A log of personnel on-site each day will be kept by the SSO or designee. A copy of these logs will be sent to the F&N record coordinator for data entry. Originals will be kept in the project file.

### **13.3 Exposure Records**

Any personal monitoring results, laboratory reports, calculations and air sampling data sheets are part of an employee exposure record. These records will be kept in accordance with 29 CFR 1910.20. For ASR employees, the originals will be sent to the F&N record coordinator. For subcontractor employees, the original will be sent to the subcontractor employer and a copy kept in the project file.

### **13.4 Accident/Incident Reports**

An accident/incident report must be completed for all accidents and incidents. The originals will be sent to the appropriate ASR record coordinator for maintenance by ASR. Copies will be distributed as stated. A copy of the forms will be kept in the project file.

### **13.5 OSHA Form 200**

An OSHA Form 200 (Log of Occupational Injuries and Illnesses) will be kept at the project site. All recordable injuries or illnesses will be recorded on this form. At the end of the project, the original will be sent to the ASR corporate records administrator for maintenance. Subcontractor employers must also meet the requirements of maintaining an OSHA 200 form. The ASR accident/incident report meets the requirements of the OSHA Form 101 (Supplemental Record) and must be maintained with the OSHA Form 200 for all recordable injuries or illnesses.

### **13.6 Health and Safety Field Log Book**

The SSO or designee will maintain the logbook in accordance with standard F&N procedures. Daily site conditions, activities, personnel, calibration records, monitoring results and significant events will be recorded. The original logbooks will become part of the exposure records file.



#### **14.0 SANITATION AT TEMPORARY WORK STATIONS**

If sanitary sewers are not provided at the site, provisions shall be made for access to sanitary systems by using nearby public facilities or on-site facilities consistent with provisions of governing local ordinance codes. In the latter case, provisions are required for the removal of accumulated waste products within those units.

If a commercial/industrial laundry is used to clean or launder clothing that is potentially contaminated, they shall be informed of the potential harmful effects of exposure to hazardous substances related to the affected clothing.

Personnel and subcontractors assigned to the project shall follow decontamination procedures described in the HSP, or as directed by the SSO. This will generally include at a minimum site-specific training in shower usage and cleanup, personal hygiene requirements and the donning of protective equipment/clothing.





**ADVANCED SITE RESTORATION, LLC**

Site Specific Health and Safety Plan

## **APPENDIX A: DIRECTIONS TO HOSPITAL**

# MAPQUEST.

**START** **45 Dupont St**  
Brooklyn, NY 11222, US

**END** **Bellevue Hospital Center:**  
212-562-4141  
462 1st Ave, New York, NY  
10016, US

**Total Est. Time:**  
10 minutes

**Total Est. Distance:**  
3.57 miles

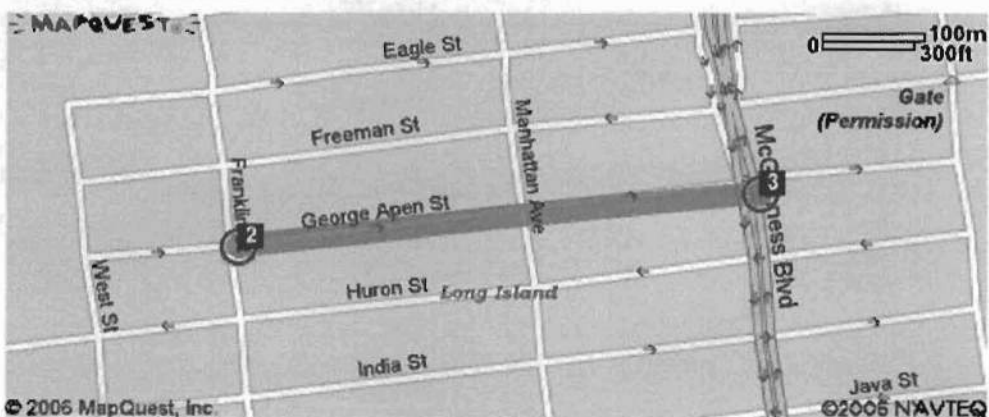
## Maneuvers

## Distance

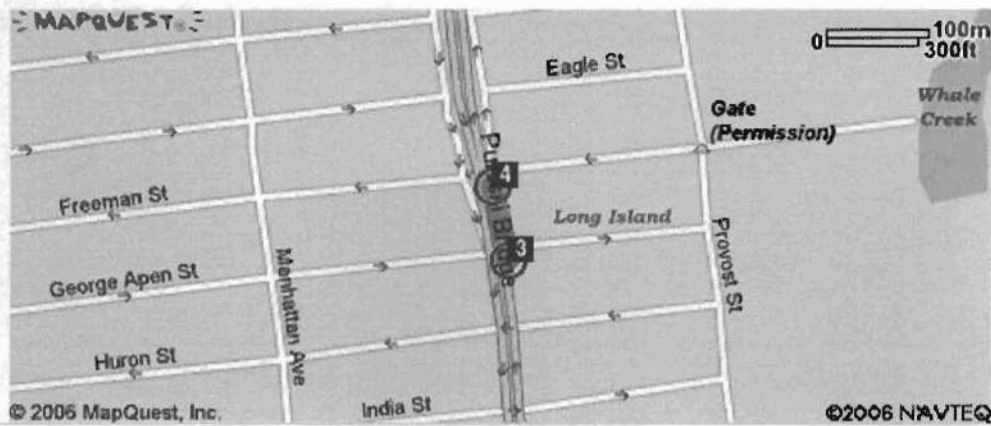
- START** **1:** Start out going **SOUTH** on **FRANKLIN ST** 0.1 miles toward **EAGLE ST.**



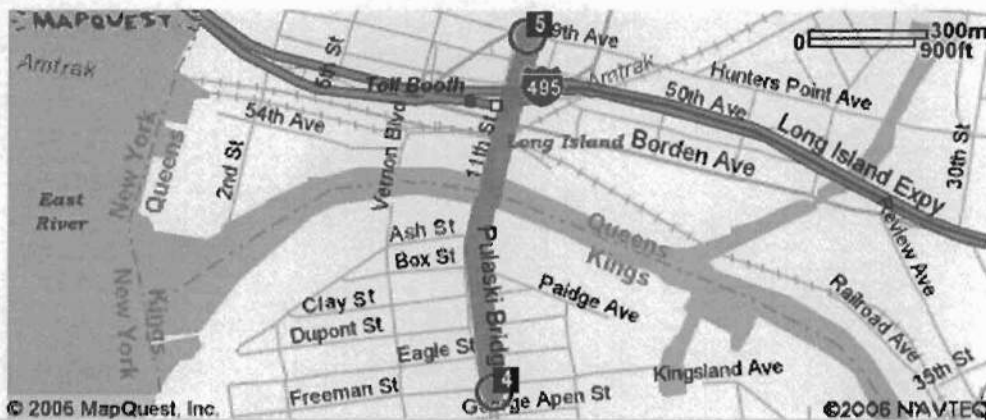
- 2:** Turn **LEFT** onto **GEORGE APEN ST / GREEN ST.** 0.3 miles



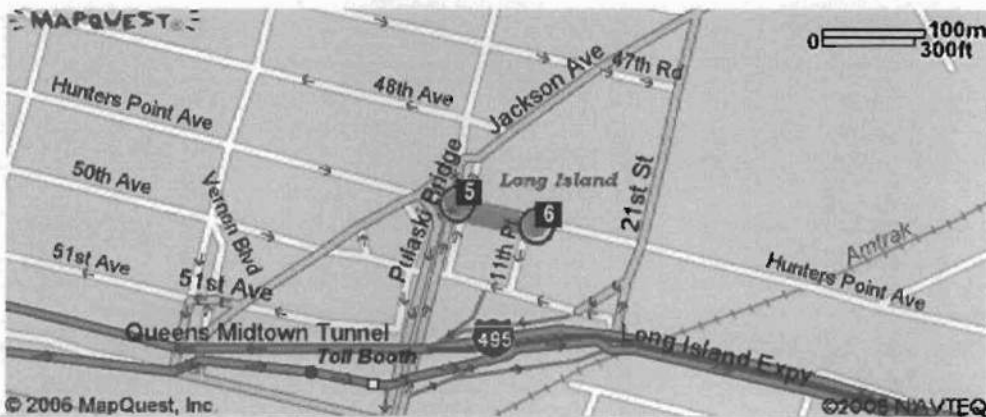
- 3:** Turn **LEFT** onto **MCGUINNESS BLVD.** <0.1 miles



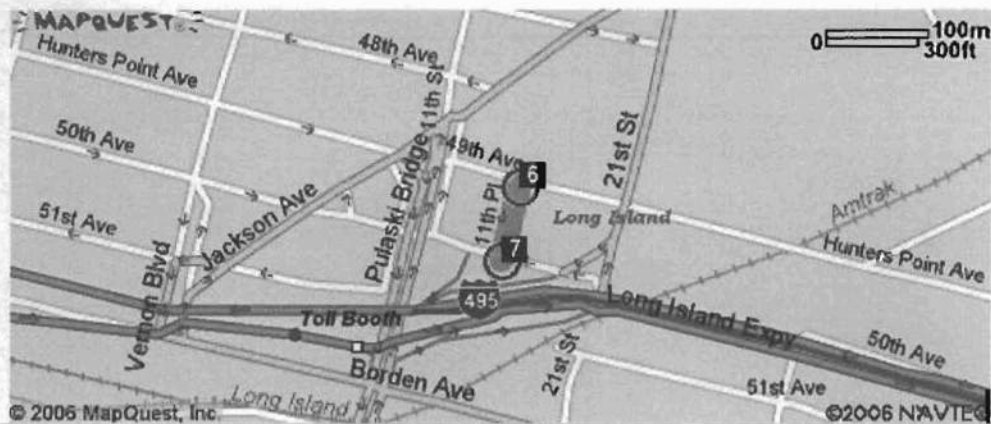
- 4:** Stay STRAIGHT to go onto PULASKI BRIDGE. 0.5 miles



- 5:** Turn RIGHT onto 49TH AVE. <0.1 miles

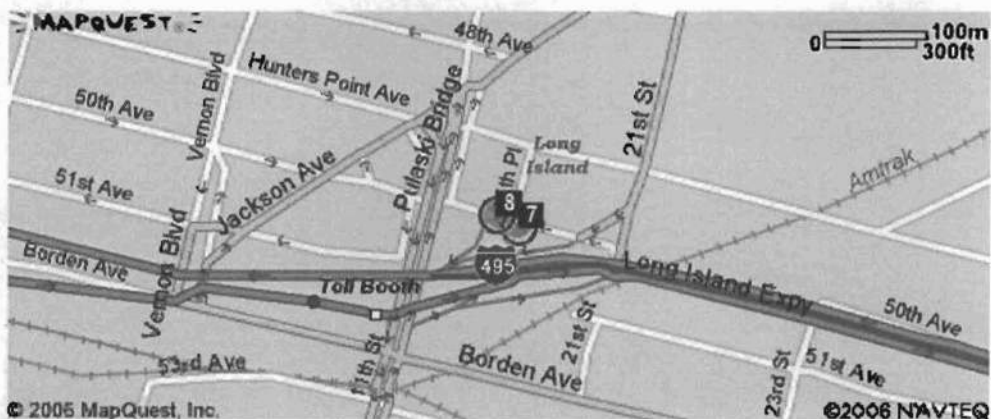


- 6:** Turn RIGHT onto 11TH PL. <0.1 miles



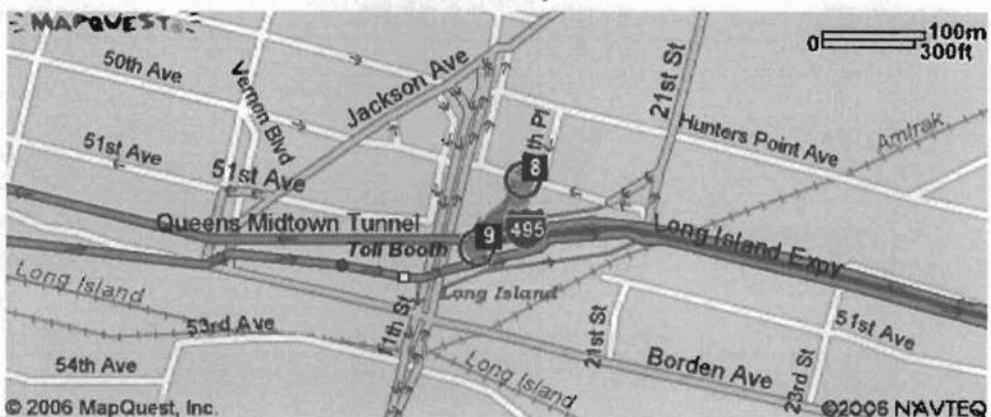
**7:** Turn RIGHT onto 50TH AVE.

<0.1 miles



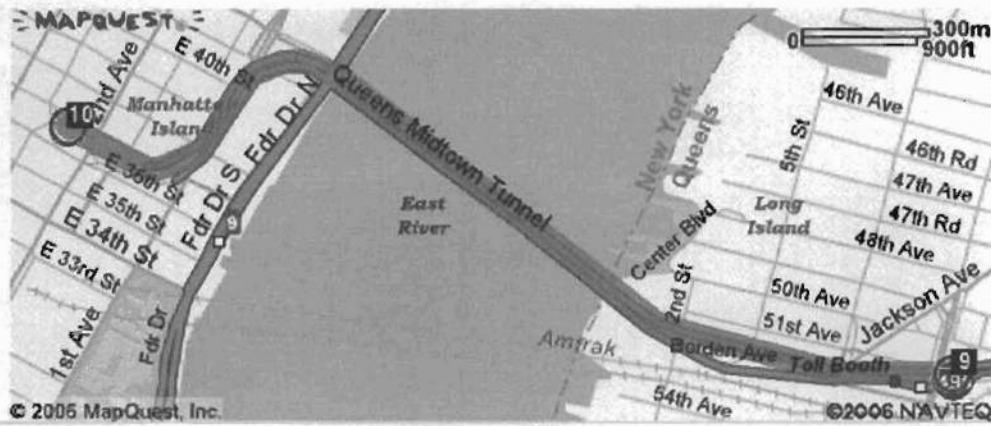
**8:** Turn LEFT to take the QUEENS MIDTOWN TUNNEL ramp.

<0.1 miles

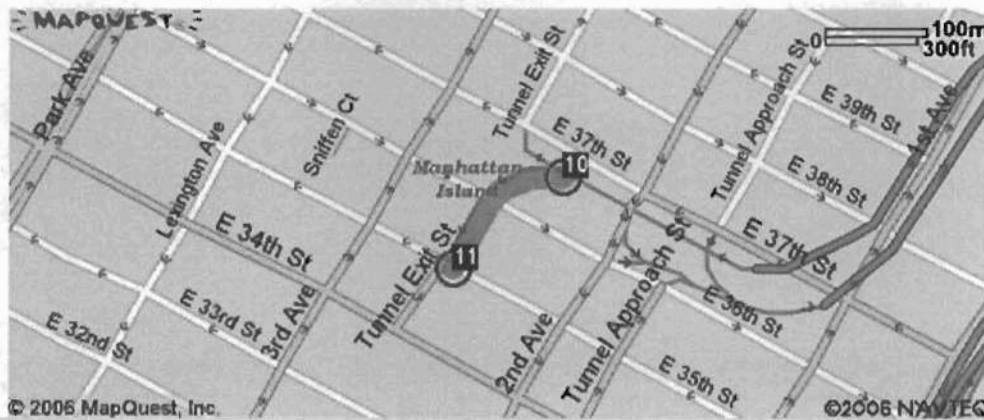


**9:** Merge onto I-495 W (Portions toll).

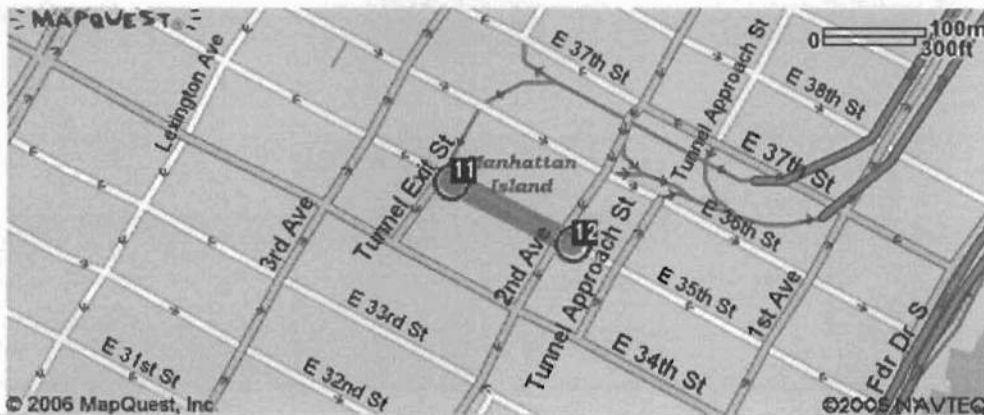
1.4 miles



**EXIT 10:** Take the 35 ST exit on the LEFT toward <0.1 miles  
34 ST / DOWNTOWN.




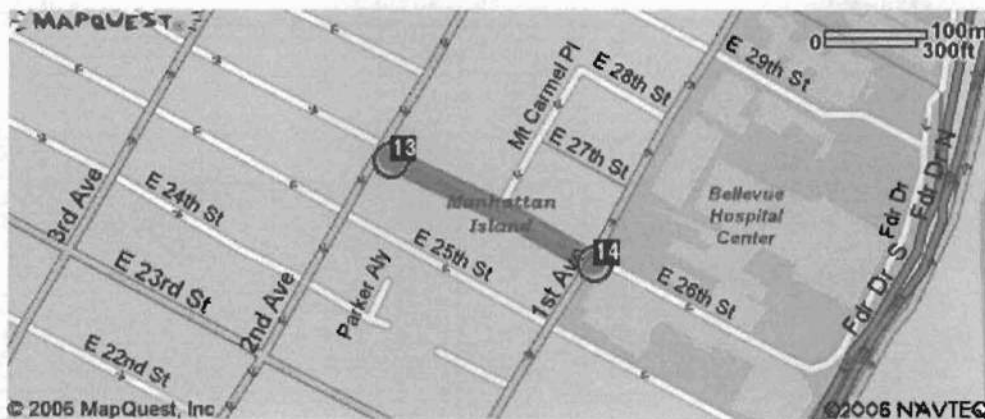
**11:** Turn LEFT onto E 35TH ST. <0.1 miles




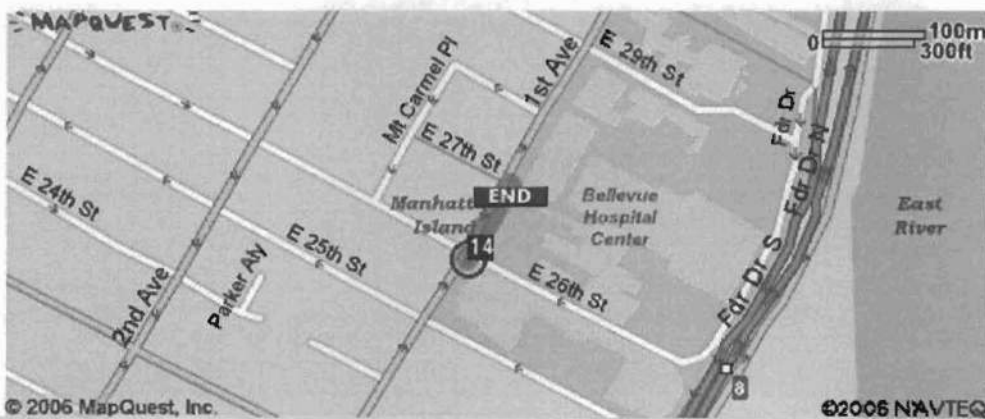
**12:** Turn RIGHT onto 2ND AVE. 0.4 miles




 **13:** Turn LEFT onto E 26TH ST. 0.1 miles

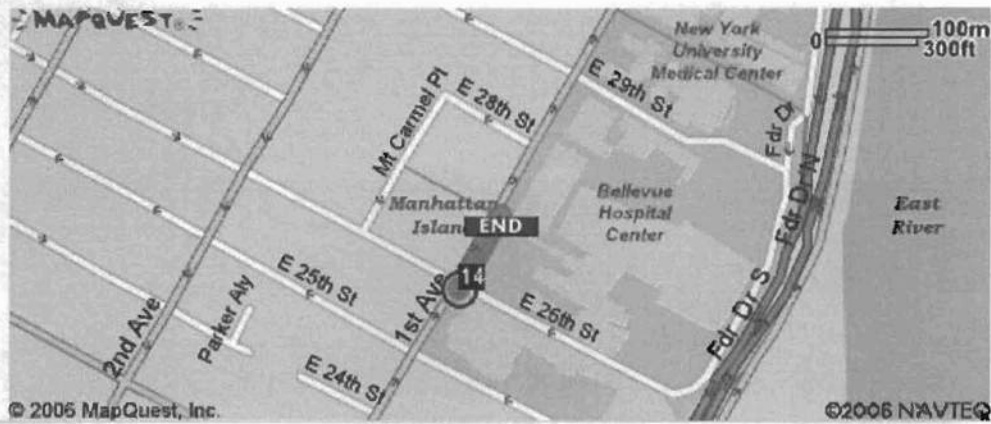


 **14:** Turn LEFT onto 1ST AVE. <0.1 miles



 **15:** End at **Bellevue Hospital Center**  
462 1st Ave, New York, NY 10016, US





**Total Est. Time:** 10 minutes  
**3.57 miles**

**Total Est. Distance:**





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These directions are informational only. No representation is made or warranty given as to their content, road conditions or route usability or expeditiousness. User assumes all risk of use. MapQuest and its suppliers assume no responsibility for any loss or delay resulting from such use.



**ADVANCED SITE RESTORATION, LLC**

Site Specific Health and Safety Plan

## **APPENDIX B: ACCIDENT REPORT FORM**



## **Accident Report Form**

Your Name: \_\_\_\_\_

Date: \_\_\_\_\_

Time: \_\_\_\_\_

Location: \_\_\_\_\_

Contact Information: \_\_\_\_\_

\_\_\_\_\_

### **Accident Victim**

Name \_\_\_\_\_

Title \_\_\_\_\_

Injury \_\_\_\_\_

Nature of Accident:

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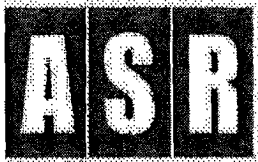
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**ADVANCED SITE RESTORATION, LLC**

Site Specific Health and Safety Plan

## **APPENDIX C: CONFINED SPACE ENTRY PROGRAM & PERMIT FORMS**



**ADVANCED SITE RESTORATION, LLC**  
ENVIRONMENTAL SERVICES

**CONFINED SPACE ENTRY PERMIT**

Job Site: \_\_\_\_\_ Permit Number: \_\_\_\_\_

Permit Validity Period: (day/time) \_\_\_\_\_ to \_\_\_\_\_

Notes: \_\_\_\_\_

**Authorized Personnel**

Workers Authorized Entry	Attendants	Fire watch (hot work)
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

**Known Hazards** (indicate specific hazards with initials)

_____	Oxygen deficiency (less than 19.5%)
_____	Oxygen enrichment (more than 23.5%)
_____	Flammable gases or vapors (more than 10% of LEL)
_____	Airborne combustible dust (meets or exceeds LFL)
_____	Toxic gases or vapors (more than PEL) Mechanical hazards
_____	Electrical hazards
_____	Engulfment hazards
_____	Materials harmful to skin
_____	Other: _____
_____	Other: _____
_____	Other: _____



**Employee Training and Pre-Entry Briefing**

1. Safe Entry and Rescue Training Conducted on? \_\_\_\_\_
2. Mandatory Pre-Entry Briefing Conducted on? \_\_\_\_\_
3. Does this job require any special training? Yes \_\_\_ No \_\_\_  
If yes, type of training required. \_\_\_\_\_

**Contractor Notification**

Contractor Notified of: Permit Conditions: Yes \_\_\_ No \_\_\_  
Potential Hazards: Yes \_\_\_ No \_\_\_

**Communication Requirements:** Intrinsically Safe? Yes \_\_\_ No \_\_\_  
Visually Inspected? Yes \_\_\_ No \_\_\_

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**Lighting Requirements:** Intrinsically Safe? Yes \_\_\_ No \_\_\_  
Visually Inspected? Yes \_\_\_ No \_\_\_

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**Special Tools/Equipment:** Intrinsically Safe? Yes \_\_\_ No \_\_\_  
Visually Inspected? Yes \_\_\_ No \_\_\_

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**Site Preparation:**

1. Work area isolated with signs and or barriers Yes \_\_\_ No \_\_\_
2. All energy sources locked/tagged out? Yes \_\_\_ No \_\_\_
3. All input lines capped/blinded? Yes \_\_\_ No \_\_\_
4. If vessel, drained, flushed, neutralized? Yes \_\_\_ No \_\_\_
5. If vessel, cleaned, purged? Yes \_\_\_ No \_\_\_
6. Ventilation initiated 30 min. before entry? Yes \_\_\_ No \_\_\_

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7. Fire extinguishers on hand? Yes \_\_\_\_\_ No \_\_\_\_\_  
8. \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_  
9. \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_  
10. \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

**Pre-Entry Atmospheric Testing**

Action Requirement	Reading	Time	Intervals	Levels
1. Test for oxygen content	%O <sub>2</sub>	_____	_____	_____
2. Test for flamm. concent.	_____ <10%LEL	_____	_____	_____
3. Test for H <sub>2</sub> S	_____ <10PPM	_____	_____	_____
4. Test for CL <sub>2</sub>	_____ <.5PPM	_____	_____	_____
5. Test for CO	_____ <35PPM	_____	_____	_____
6. Test for SO <sub>2</sub>	_____ <2PPM	_____	_____	_____
7. Test for toxic con cent.	_____ PPM	_____	_____	_____
		_____ of _____ (TLV=_____)		
8. Test for heat stress	_____ Temp	_____	_____	_____
9. Test for _____	_____	_____	_____	_____
10. Test for _____	_____	_____	_____	_____

Tester: Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

**Emergency/Rescue Procedures**

1. Location of written Emergency Rescue Plan: \_\_\_\_\_  
2. Type of Emergency/Rescue Team required:

On-site: Yes \_\_\_\_\_ No \_\_\_\_\_ Contact: \_\_\_\_\_ Phone: \_\_\_\_\_

Off-site: Yes \_\_\_\_\_ No \_\_\_\_\_ Contact: \_\_\_\_\_ Phone: \_\_\_\_\_

3. Additional Information:

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Safety Equipment

**Personal Protective Equipment Required**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. Air purifying respirator? Type: \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_
7. Self-contained Breathing Apparatus Required? Yes \_\_\_\_\_ No \_\_\_\_\_
8. Atmospheric Monitor Required? Type: \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

**Area Safety Equipment Required**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

**Permit Authorization**

I certify that I have inspected the work area for safety and reviewed all safety precautions recorded on this permit.

Name: \_\_\_\_\_ Signature: \_\_\_\_\_  
Title: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Name: \_\_\_\_\_ Signature: \_\_\_\_\_  
Title: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_



**ADVANCED SITE RESTORATION, LLC**

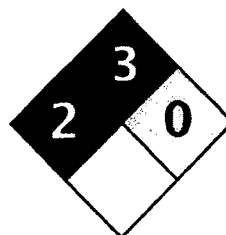
Site Specific Health and Safety Plan

**APPENDIX D: MATERIAL SAFETY DATA SHEET**



**Science Lab.com**  
Chemicals & Laboratory Equipment

MTBK



Health	2
Fire	3
Reactivity	0
Personal Protection	J

## Material Safety Data Sheet Pinacolone MSDS

### Section 1: Chemical Product and Company Identification

**Product Name:** Pinacolone

**Catalog Codes:** SLP4525

**CAS#:** 75-97-8

**RTECS:** EL7700000

**TSCA:** TSCA 8(b) inventory: Pinacolone

**Cl#:** Not available.

**Synonym:** 3,3-Dimethyl-2-butanone

**Chemical Formula:** C<sub>6</sub>H<sub>12</sub>O

#### Contact Information:

**Sciencelab.com, Inc.**  
14025 Smith Rd.  
Houston, Texas 77396

US Sales: 1-800-901-7247  
International Sales: 1-281-441-4400

Order Online: ScienceLab.com

**CHEMTREC (24HR Emergency Telephone), call:**  
1-800-424-9300

**International CHEMTREC, call:** 1-703-527-3887

**For non-emergency assistance, call:** 1-281-441-4400

### Section 2: Composition and Information on Ingredients

#### Composition:

Name	CAS #	% by Weight
Pinacolone	75-97-8	100

**Toxicological Data on Ingredients:** Pinacolone: ORAL (LD50): Acute: 610 mg/kg [Rat]. 1625 mg/kg [Mouse]. 900 mg/kg [Rabbit].

### Section 3: Hazards Identification

#### Potential Acute Health Effects:

Hazardous in case of eye contact (irritant), of ingestion. Slightly hazardous in case of skin contact (irritant), of inhalation.

#### Potential Chronic Health Effects:

Hazardous in case of eye contact (irritant), of ingestion.  
Slightly hazardous in case of skin contact (irritant), of inhalation.  
CARCINOGENIC EFFECTS: Not available.  
MUTAGENIC EFFECTS: Not available.  
TERATOGENIC EFFECTS: Not available.  
DEVELOPMENTAL TOXICITY: Not available.

### Section 4: First Aid Measures

**Eye Contact:**

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.

**Skin Contact:**

After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

**Serious Skin Contact:** Not available.

**Inhalation:** Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

**Serious Inhalation:**

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

**Ingestion:**

Do not induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

**Serious Ingestion:** Not available.

## Section 5: Fire and Explosion Data

**Flammability of the Product:** Flammable.

**Auto-Ignition Temperature:** Not available.

**Flash Points:** CLOSED CUP: 23°C (73.4°F).

**Flammable Limits:** Not available.

**Products of Combustion:** These products are carbon oxides (CO, CO<sub>2</sub>).

**Fire Hazards in Presence of Various Substances:** Flammable in presence of open flames and sparks.

**Explosion Hazards in Presence of Various Substances:**

Risks of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in presence of static discharge: Not available.

**Fire Fighting Media and Instructions:**

Flammable liquid, soluble or dispersed in water.

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.

**Special Remarks on Fire Hazards:** Not available.

**Special Remarks on Explosion Hazards:** Not available.

## Section 6: Accidental Release Measures

**Small Spill:**

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal

container.

**Large Spill:**

Flammable liquid.

Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources.

## Section 7: Handling and Storage

**Precautions:**

Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapour/spray. Avoid contact with eyes. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label.

**Storage:**

Flammable materials should be stored in a separate safety storage cabinet or room. Keep away from heat. Keep away from sources of ignition. Keep container tightly closed. Keep in a cool, well-ventilated place. Ground all equipment containing material. A refrigerated room would be preferable for materials with a flash point lower than 37.8°C (100°F).

## Section 8: Exposure Controls/Personal Protection

**Engineering Controls:**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

**Personal Protection:** Splash goggles. Lab coat.

**Personal Protection in Case of a Large Spill:**

Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits:** Not available.

## Section 9: Physical and Chemical Properties

**Physical state and appearance:** Liquid.

**Odor:** Not available.

**Taste:** Not available.

**Molecular Weight:** 100.16 g/mole

**Color:** Not available.

**pH (1% soln/water):** Not available.

**Boiling Point:** 106.2°C (223.2°F)

**Melting Point:** -49.8°C (-57.6°F)

**Critical Temperature:** Not available.

**Specific Gravity:** 0.725 (Water = 1)

**Vapor Pressure:** 17 mm of Hg (@ 20°C)

**Vapor Density:** Not available.

**Volatility:** Not available.

**Odor Threshold:** Not available.

**Water/Oil Dist. Coeff.:** Not available.

**Ionicity (in Water):** Not available.

**Dispersion Properties:** See solubility in water.

**Solubility:** Partially soluble in cold water.

#### Section 10: Stability and Reactivity Data

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Not available.

**Incompatibility with various substances:** Not available.

**Corrosivity:** Non-corrosive in presence of glass.

**Special Remarks on Reactivity:** Not available.

**Special Remarks on Corrosivity:** Not available.

**Polymerization:** No.

#### Section 11: Toxicological Information

**Routes of Entry:** Eye contact. Ingestion.

**Toxicity to Animals:** Acute oral toxicity (LD50): 610 mg/kg [Rat].

**Chronic Effects on Humans:** Not available.

**Other Toxic Effects on Humans:**

Hazardous in case of ingestion.

Slightly hazardous in case of skin contact (irritant), of inhalation.

**Special Remarks on Toxicity to Animals:** Not available.

**Special Remarks on Chronic Effects on Humans:** Not available.

**Special Remarks on other Toxic Effects on Humans:** Not available.

#### Section 12: Ecological Information

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Products of Biodegradation:**

Possibly hazardous short term degradation products are not likely. However, long term degradation products may

3  
arise.

**Toxicity of the Products of Biodegradation:** The products of degradation are more toxic.

**Special Remarks on the Products of Biodegradation:** Not available.

### Section 13: Disposal Considerations

**Waste Disposal:**

### Section 14: Transport Information

**DOT Classification:** Class 3: Flammable liquid.

**Identification:** : Ketone, liquid, n.o.s. (tert-Butyl methyl ketone) : UN1224 PG: II

**Special Provisions for Transport:** Not available.

### Section 15: Other Regulatory Information

**Federal and State Regulations:** TSCA 8(b) inventory: Pinacolone

**Other Regulations:** OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

**Other Classifications:**

**WHMIS (Canada):** CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).

**DSCL (EEC):**

R10- Flammable.

R22- Harmful if swallowed.

R36- Irritating to eyes.

**HMIS (U.S.A.):**

**Health Hazard:** 2

**Fire Hazard:** 3

**Reactivity:** 0

**Personal Protection:** j

**National Fire Protection Association (U.S.A.):**

**Health:** 2

**Flammability:** 3

**Reactivity:** 0

**Specific hazard:**

**Protective Equipment:**

Not applicable.

Lab coat.

Wear appropriate respirator when ventilation is inadequate.

Splash goggles.



**Section 16: Other Information**

**References:** Not available.

**Other Special Considerations:** Not available.

**Created:** 10/10/2005 11:28 AM

**Last Updated:** 10/10/2005 11:28 AM

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# LVYE CHEMICAL

## Product

Pro



### Pinacolone

Synonyms: 3,3-Dimethyl-2-butanone; tert-Butyl methyl ketone; Pinacolin (need import permit); Pinacolin

Molecular Formula:  $C_6H_{12}O$

Formula Weight: 100.16

Density: 0.8

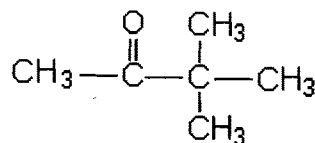
Melting point: -52.5-106℃

Boiling point: 106℃

Flash point: 17℃

[C A S Number]: 75-97-8

[Chemical Structure]:



[Quality standard]:

Item	Index	
	First grade	Premium grade
Content%(m/m) ≥	92	95
Moisture%(m/m) ≤	0.5	0.5
RD	0.8012	0.8012
Refraction Rate	1.3952-1.3960	1.3952-1.3960

**Pharm**  
**materal**

**Interm**

**Pestic**

**Chemi**

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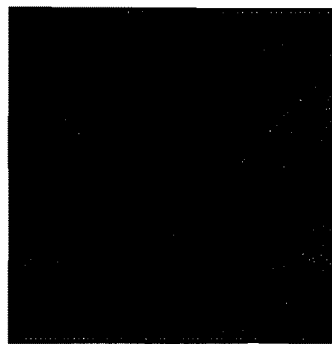
## Nerve Agent Precursors: Pinacolone and Pinacolyl Alcohol

CA Index Name	3,3-dimethyl butan-2-ol	3,3-dimethyl butan-2-one
CAS Registry Number	464-07-3	75-97-8
EINECS Number	207-347-9	200-920-4
RTECS Number	EL2276000	EL7700000
UN Transport Code	1987	1325
ICSC Number	none	none
CWC Schedule 2B		

### Warning symbols



**Flammable**



**Irritating**

### Synonyms

#### Pinacolone

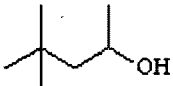
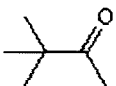
- 1,1,1-trimethylacetone
- 1,1-dimethylethyl methyl ketone
- 2,2-dimethyl-3-butanone
- 3,3-dimethyl-2-butanone
- Methyl tert-butyl ketone
- Methyl-t-butylketone
- Pinacolin
- Pinacolone
- tert-Butyl methyl ketone

#### Pinacolyl alcohol

- (±)-3,3-dimethyl-2-butanol
- (±)-Pinacolyl alcohol
- 2,2-dimethyl-3-butanol
- 3,3-dimethyl-2-butanol
- tert-Butyl-methylcarbinol

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**CHEMICAL AND PHYSICAL PROPERTIES**

	<b>Pinacolyl alcohol</b>	<b>Pinacolone</b>
<b>Structure</b>		
<b>Appearance</b>	Clear liquid with alcoholic odor	Clear liquid with camphor or mint odor
<b>Molecular Formula</b>	$C_6H_{14}O$	$C_6H_{12}O$
<b>Molecular Weight</b>	102.2	102.2
<b>Melting Point</b>	5.45°C	-52.5°C
<b>Boiling Point</b>	120°C	106°C
<b>Liquid Density</b>	0.835	0.723
<b>Vapor Density</b>	3.52	-
<b>Vapor pressure</b>	1.7 kPa at 25°C	4.2 kPa at 25°C
<b>Flammable</b>		

**NFPA Hazard Ratings**  
**FIRE HEALTH REACTIVITY SPECIAL**

<b>Pinacolyl alcohol</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>*</b>
<b>Pinacolone</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>*</b>

Also refer to 2000 Emergency Response Guidebook (ERG2000) Guide 127.

<b>Initial Isolation and Protective Action Distances</b>
----------------------------------------------------------

No specific recommendations
-----------------------------

**Health Hazards**

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Irritating by skin contact, inhalation, and ingestion although it may take some time for effects to become evident. Large quantities can have effects on the central nervous system, suffocation and cyanosis in the case of skin contact. Both are extremely flammable.

### Risk and Safety Phrases.

#### Pinacolyl alcohol

- R10 - Flammable
- S16 - Keep away from source of ignition - No smoking
- S23 - Do not breathe fumes
- S24/25 - Avoid contact with skin and eyes

#### Pinacolone

- R11 - Highly flammable
- R22 - Harmful if swallowed
- S16 - Keep away from source of ignition - No smoking
- S20/21 - When using, do not eat, drink or smoke

### INDUSTRIAL/COMMERCIAL USES

Pinacolone is the more important of the two in industrial chemistry. Its primary use is in the synthesis of triazolylpinacolone in the synthesis of the fungicide triadimefon and in synthesis of the herbicide metribuzin. It is also the immediate precursor for pinacolyl alcohol.

### COMMENTS

Pinacolyl alcohol is used in the preparation of the nerve agent soman. The immediate synthesis is by the reduction of pinacolone. Pinacolone can be made by several routes. The simplest, or at least the one using the most unobtrusive starting materials, is by a well-characterized reaction known as the pinacol rearrangement. This involves acetone as the only reactant in the presence of an acid catalyst. Acetone is a high production volume chemical with worldwide annual production of 1 million tons. Other routes use more exotic starting materials that would be more telling indicators of their intent. The other significant commercial route is by the reaction of tert-butanol and formaldehyde.

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# ACETONE

ACT

## CAUTIONARY RESPONSE INFORMATION

<b>Common Synonyms</b> Dimethyl ketone Propanone 2-Propanone	<b>Watery liquid</b> <b>Colorless</b> <b>Sweet odor</b>  Floats and mixes with water. Flammable, irritating vapor is produced.
Stay upwind and use water spray to "knock down" vapor. Shut off ignition sources and call fire department. Keep people away. Stop discharge if possible. Isolate and remove discharged material. Avoid contact with liquid and vapor. Notify local health and pollution control agencies.	
<b>Fire</b>	<b>FLAMMABLE.</b> Flashback along vapor trail may occur. Vapor may explode if ignited in an enclosed area. Extinguish with dry chemical, alcohol foam, or carbon dioxide. Water may be ineffective on fire. Cool exposed containers with water.
<b>Exposure</b>	<b>DO NOT INDUCE VOMITING</b> <b>CALL FOR MEDICAL AID.</b>  <b>VAPOR</b> Irritating to eyes, nose and throat. If inhaled, may cause difficult breathing or loss of consciousness. Move to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen.  <b>LIQUID</b> Irritating to eyes. Not irritating to skin. IF IN EYES, hold eyelids open and flush with plenty of water.
<b>Water Pollution</b>	Dangerous to aquatic life in high concentrations. May be dangerous if it enters water intakes. Notify local health and pollution control officials. Notify operators of nearby water intakes.

### 1. CORRECTIVE RESPONSE ACTIONS

Dilute and disperse  
 Stop discharge  
 Chemical and Physical Treatment: Burn

### 2. CHEMICAL DESIGNATIONS

2.1 CG Compatibility Group: 19; Ketone  
 2.2 Formula:  $\text{CH}_3\text{COCH}_3$   
 2.3 IMO/UN Designation: 3.1/1090  
 2.4 DOT ID No.: 1090  
 2.5 CAS Registry No.: 67-64-1  
 2.6 NAERG Guide No.: 127  
 2.7 Standard Industrial Trade Classification: 51623

### 3. HEALTH HAZARDS

- 3.1 **Personal Protective Equipment:** Organic vapor canister or air-supplied mask; synthetic rubber gloves; chemical safety goggles or face splash shield.
- 3.2 **Symptoms Following Exposure:** INHALATION: vapor irritating to eyes and mucous membranes; acts as an anesthetic in very high concentrations. INGESTION: low order of toxicity but very irritating to mucous membranes. SKIN: prolonged excessive contact causes defatting of the skin, possibly leading to dermatitis.
- 3.3 **Treatment of Exposure:** INHALATION: if victim is overcome, remove to fresh air and call a physician; administer artificial respiration if breathing is irregular or stopped. INGESTION: if victim has swallowed large amounts and is conscious and not having convulsions, induce vomiting and get medical help promptly; no specific antidote known. SKIN: wash well with water. EYES: flush with water immediately for at least 15 min. Consult a physician.
- 3.4 TLV-TWA: 500 ppm
- 3.5 TLV-STEL: Not listed.
- 3.9 TLV-Ceiling: 750 ppm.
- 3.7 Toxicity by Ingestion: Grade 1; LD<sub>50</sub> = 5 to 15 g/kg (dog)
- 3.8 Toxicity by Inhalation: Currently not available.
- 3.9 Chronic Toxicity: Not pertinent
- 3.10 Vapor (Gas) Irritant Characteristics: If present in high concentrations, vapors cause moderate irritation of the eyes or respiratory system. Effect is temporary.
- 3.11 Liquid or Solid Characteristics: No appreciable hazard. Practically harmless to the skin because it is very volatile and evaporates quickly from the skin.
- 3.12 Odor Threshold: 100 ppm
- 3.13 IDLH Value: 2,500 ppm
- 3.14 OSHA PEL-TWA: 1,000 ppm.
- 3.15 OSHA PEL-STEL: Not listed.
- 3.19 OSHA PEL-Ceiling: Not listed.
- 3.17 EPA AEGL: Not listed

### 4. FIRE HAZARDS

- 4.1 Flash Point: 1°F C.C.
- 4.2 Flammable Limits in Air: 2.6%-12.8%
- 4.3 Fire Extinguishing Agents: Alcohol foam, dry chemical, carbon dioxide
- 4.4 Fire Extinguishing Agents Not to Be Used: Water in straight hose stream will scatter and spread fire and should not be used.
- 4.5 Special Hazards of Combustion Products: Not pertinent
- 4.9 Behavior in Fire: Not pertinent
- 4.7 Auto Ignition Temperature: 969°F
- 4.8 Electrical Hazards: I, D
- 4.9 Burning Rate: 3.9 mm/min.
- 4.10 Adiabatic Flame Temperature: Currently not available
- 4.11 Stoichiometric Air to Fuel Ratio: Currently not available
- 4.12 Flame Temperature: Currently not available
- 4.13 Combustion Molar Ratio (Reactant to Product): Currently not available
- 4.14 Minimum Oxygen Concentration for Combustion (MOC): Not listed

### 5. CHEMICAL REACTIVITY

- 5.1 Reactivity with Water: No reaction
- 5.2 Reactivity with Common Materials: Avoid contact with strong oxidizing agents, acids
- 5.3 Stability During Transport: Stable
- 5.4 Neutralizing Agents for Acids and Caustics: Not pertinent
- 5.5 Polymerization: Not pertinent
- 5.9 Inhibitor of Polymerization: Not pertinent

### 6. WATER POLLUTION

- 9.1 Aquatic Toxicity: 14,250 ppm/24 hr/sunfish/killed/tap water  
13,000 ppm/48 hr/mosquito fish/TL<sub>50</sub>/turbid water
- 9.2 Waterfowl Toxicity: Not pertinent
- 9.3 Biological Oxygen Demand (BOD): (Theor) 122%, 5 days
- 9.4 Food Chain Concentration Potential: None noted
- 9.5 GESAMP Hazard Profile:  
Bioaccumulation: 0  
Damage to living resources: 0  
Human Oral hazard: 1  
Human Contact hazard: 1  
Reduction of amenities: X

### 7. SHIPPING INFORMATION

- 7.1 Grades of Purity: Technical: 99.5% plus 0.5% water Reagent: 99.5% plus 0.5% water
- 7.2 Storage Temperature: Ambient
- 7.3 Inert Atmosphere: No requirement
- 7.4 Venting: Open (flame arrester) or pressure-vacuum
- 7.5 IMO Pollution Category: Currently not available
- 7.9 Ship Type: Currently not available
- 7.7 Barge Hull Type: Currently not available

### 8. HAZARD CLASSIFICATIONS

- 9.1 49 CFR Category: Flammable liquid
- 9.2 49 CFR Class: 3
- 9.3 49 CFR Package Group: II
- 9.4 Marine Pollutant: No
- 9.5 NFPA Hazard Classification:  

Category	Classification
Health Hazard (Blue)	1
Flammability (Red)	3
Instability (Yellow)	0
- 9.9 EPA Reportable Quantity: 5000
- 9.7 EPA Pollution Category: D
- 9.8 RCRA Waste Number: U002
- 9.9 EPA FWPCA List: Not listed

### 9. PHYSICAL & CHEMICAL PROPERTIES

- 9.1 Physical State at 15° C and 1 atm: Liquid
- 9.2 Molecular Weight: 58.09
- 9.3 Boiling Point at 1 atm: 133°F = 56.1°C = 329.3°K
- 9.4 Freezing Point: -138°F = -94.7°C = 178.5°K
- 9.5 Critical Temperature: 455.0°F = 235°C = 508.2°K
- 9.8 Critical Pressure: 682 psia = 46.4 atm = 4.70 MN/m<sup>2</sup>
- 9.7 Specific Gravity: 0.791 at 20°C (liquid)
- 9.9 Liquid Surface Tension: Not pertinent
- 9.9 Liquid Water Interfacial Tension: Not pertinent
- 9.10 Vapor (Gas) Specific Gravity: 2.0
- 9.11 Ratio of Specific Heats of Vapor (Gas): 1.127
- 9.12 Latent Heat of Vaporization: 220 Btu/lb = 122 cal/g = 5.11 X 10<sup>5</sup> J/kg
- 9.13 Heat of Combustion: -12,250 Btu/lb = -6808 cal/g = -295.0 X 10<sup>5</sup> J/kg
- 9.14 Heat of Decomposition: Not pertinent
- 9.15 Heat of Solution: Not pertinent
- 9.19 Heat of Polymerization: Not pertinent
- 9.17 Heat of Fusion: 23.42 cal/g
- 9.18 Limiting Value: Currently not available
- 9.19 Reid Vapor Pressure: 7.25 psia

### NOTES

<h1>ACETONE</h1>	<b>ACT</b>
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9.20 SATURATED LIQUID DENSITY		9.21 LIQUID HEAT CAPACITY		9.22 LIQUID THERMAL CONDUCTIVITY		9.23 LIQUID VISCOSITY	
Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F	Temperature (degrees F)	British thermal unit Inch per hour-square foot-F	Temperature (degrees F)	Centipoise
-120	58.350	34	0.507	30	1.183		N O T  P E R T I N E N T
-110	55.980	36	0.508	35	1.184		
-100	55.620	38	0.508	40	1.174		
-90	55.250	40	0.509	45	1.164		
-80	54.880	42	0.510	50	1.155		
-70	54.520	44	0.511	55	1.145		
-60	54.150	46	0.512	60	1.135		
-50	53.780	48	0.513	65	1.126		
-40	53.400	50	0.514	70	1.116		
-30	53.030	52	0.514	75	1.106		
-20	52.650	54	0.515	80	1.097		
-10	52.280	56	0.516	85	1.087		
0	51.900	58	0.517	90	1.077		
10	51.520	60	0.518	95	1.068		
20	51.140	62	0.519	100	1.058		
30	50.760	64	0.519	105	1.048		
40	50.380	66	0.520				
50	50.000	68	0.521				
60	49.610	70	0.522				
70	49.230	72	0.523				
80	48.840	74	0.524				
90	48.450	76	0.525				
100	48.070	78	0.525				
110	47.680	80	0.526				
120	47.280	82	0.527				
		84	0.528				

9.24 SOLUBILITY IN WATER		9.25 SATURATED VAPOR PRESSURE		9.26 SATURATED VAPOR DENSITY		9.27 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	Pounds per 100 pounds of water	Temperature (degrees F)	Pounds per square inch	Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F
	M I S C I B L E	-20	0.245	-20	0.00302	0	0.275
		-10	0.354	-10	0.00426	25	0.286
		0	0.501	0	0.00590	50	0.296
		10	0.698	10	0.00804	75	0.307
		20	0.956	20	0.01079	100	0.317
		30	1.281	30	0.01427	125	0.327
		40	1.719	40	0.01862	150	0.337
		50	2.260	50	0.02399	175	0.347
		60	2.935	60	0.03056	200	0.357
		70	3.770	70	0.03851	225	0.367
		80	4.791	80	0.04803	250	0.377
		90	6.029	90	0.05934	275	0.386
		100	7.516	100	0.07266	300	0.395
		110	9.290	110	0.08823	325	0.405
		120	11.390	120	0.10630	350	0.414
		130	13.850	130	0.12710	375	0.423
		140	16.720	140	0.15090	400	0.431
		150	20.060	150	0.17800	425	0.440
		160	23.890	160	0.20860	450	0.449
		170	28.290	170	0.24310	475	0.457
		180	33.300	180	0.28170	500	0.466
		190	38.980	190	0.32460	525	0.474
						550	0.482
						575	0.490
						600	0.498



# DIISONONYL PHTHALATE

(DIN)

DIN

## CAUTIONARY RESPONSE INFORMATION

<b>Common Synonyms</b> 1,2-Benzenedicarboxylic acid, di-isononyl ester Di(7-methyloctyl) phthalate Phthalic acid, bis-(7- methyloctyl) ester	Liquid	Colorless	Odorless
Floats on water.			
Call fire department. Notify local health and pollution control agencies.			
<b>Fire</b>	Combustible Extinguish with dry chemical, foam, or carbon dioxide.		
<b>Exposure</b>	Not harmful.		
<b>Water Pollution</b>	Effect of low concentrations on aquatic life not known. Fouling to shoreline. May be harmful if it enters water intakes. Notify local health and wildlife officials. Notify operators of local water intakes.		

### 1. CORRECTIVE RESPONSE ACTIONS

Stop discharge  
Contain  
Collection Systems: Skim  
Chemical and Physical Treatment:  
Absorb  
Clean shore line

### 2. CHEMICAL DESIGNATIONS

2.1 CG Compatibility Group: 34; Esters  
2.2 Formula:  $\text{C}_{27}\text{H}_{50}\text{O}_4$   
2.3 IEC/UN Designation: Not listed  
2.4 DOT ID No.: Not listed  
2.5 CAS Registry No.: Currently not available  
2.6 NAERG Guide No.: Not listed  
2.7 Standard Industrial Trade Classification: 51385

### 3. HEALTH HAZARDS

3.1 Personal Protective Equipment: Not required  
3.2 Symptoms Following Exposure: Produces no ill effects at normal temperatures, but may give off irritating vapors at high temperatures.  
3.3 Treatment of Exposure: Leave contaminated area; wash exposed skin with soap and water; flush eyes with water.  
3.4 TLV-TWA: Not listed.  
3.5 TLV-STEL: Not listed.  
3.6 TLV-Ceiling: Not listed.  
3.7 Toxicity by Ingestion: Currently not available  
3.8 Toxicity by Inhalation: Currently not available.  
3.9 Chronic Toxicity: Currently not available  
3.10 Vapor (Gas) Irritant Characteristics: Nonirritating to the eyes and throat.  
3.11 Liquid or Solid Characteristics: No appreciable hazard. Practically harmless to the skin.  
3.12 Odor Threshold: Odorless  
3.13 IDLH Value: Not listed.  
3.14 OSHA PEL-TWA: Not listed.  
3.15 OSHA PEL-STEL: Not listed.  
3.16 OSHA PEL-Ceiling: Not listed.  
3.17 EPA AEGL: Not listed

### 4. FIRE HAZARDS

4.1 Flash Point: Currently not available  
4.2 Flammable Limits in Air: Currently not available  
4.3 Fire Extinguishing Agents: Currently not available  
4.4 Fire Extinguishing Agents Not to Be Used: Currently not available  
4.5 Special Hazards of Combustion Products: Currently not available  
4.6 Behavior in Fire: Currently not available  
4.7 Auto Ignition Temperature: Currently not available  
4.8 Electrical Hazards: Currently not available  
4.9 Burning Rate: Currently not available  
4.10 Adiabatic Flame Temperature: Currently not available  
4.11 Stoichiometric Air to Fuel Ratio: 164.2 (calc.)  
4.12 Flame Temperature: Currently not available  
4.13 Combustion Molar Ratio (Reactant to Product): 47.0 (calc.)  
4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed

### 5. CHEMICAL REACTIVITY

5.1 Reactivity with Water: No reaction  
5.2 Reactivity with Common Materials: No reaction  
5.3 Stability During Transport: Stable  
5.4 Neutralizing Agents for Acids and Caustics: Not pertinent  
5.5 Polymerization: Not pertinent  
5.6 Inhibitor of Polymerization: Not pertinent

### 6. WATER POLLUTION

6.1 Aquatic Toxicity: Currently not available  
6.2 Waterfowl Toxicity: Currently not available  
6.3 Biological Oxygen Demand (BOD): Currently not available  
6.4 Food Chain Concentration Potential: Currently not available  
6.5 GESAMP Hazard Profile:  
Bioaccumulation: 0  
Damage to living resources: 0  
Human Oral hazard: 0  
Human Contact hazard: 0  
Reduction of amenities: XX

### 7. SHIPPING INFORMATION

7.1 Grades of Purity: Currently not available  
7.2 Storage Temperature: Currently not available  
7.3 Inert Atmosphere: Currently not available  
7.4 Venting: Currently not available  
7.5 IMO Pollution Category: D  
7.6 Ship Type: Data not available  
7.7 Barge Hull Type: Currently not available

### 8. HAZARD CLASSIFICATIONS

8.1 49 CFR Category: Not listed  
8.2 49 CFR Class: Not pertinent  
8.3 49 CFR Package Group: Not listed.  
8.4 Marine Pollutant: No  
8.5 NFPA Hazard Classification:  
Category Classification  
Health Hazard (Blue)..... 0  
Flammability (Red)..... 1  
Instability (Yellow)..... 0  
8.6 EPA Reportable Quantity: Not listed.  
8.7 EPA Pollution Category: Not listed.  
8.8 RCRA Waste Number: Not listed  
8.9 EPA FWPCA List: Not listed

### 9. PHYSICAL & CHEMICAL PROPERTIES

9.1 Physical State at 15° C and 1 atm: Liquid  
9.2 Molecular Weight: 418.6  
9.3 Boiling Point at 1 atm: 172°F = 78°C = 351°K  
9.4 Freezing Point: Currently not available  
9.5 Critical Temperature: Currently not available  
9.6 Critical Pressure: Currently not available  
9.7 Specific Gravity: Currently not available  
9.8 Liquid Surface Tension: Currently not available  
9.9 Liquid Water Interfacial Tension: Currently not available  
9.10 Vapor (Gas) Specific Gravity: Currently not available  
9.11 Ratio of Specific Heats of Vapor (Gas): Currently not available  
9.12 Latent Heat of Vaporization: Currently not available  
9.13 Heat of Combustion: Currently not available  
9.14 Heat of Decomposition: Currently not available  
9.15 Heat of Solution: Currently not available  
9.16 Heat of Polymerization: Currently not available  
9.17 Heat of Fusion: Currently not available  
9.18 Limiting Value: Currently not available  
9.19 Reid Vapor Pressure: Currently not available

### NOTES

## DIISONONYL PHTHALATE

DIN

9.20 SATURATED LIQUID DENSITY		9.21 LIQUID HEAT CAPACITY		9.22 LIQUID THERMAL CONDUCTIVITY		9.23 LIQUID VISCOSITY	
Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F	Temperature (degrees F)	British thermal unit inch per hour-square foot-F	Temperature (degrees F)	Centipoise
	C U R R E N T L Y  N O T  A V A I L A B L E		C U R R E N T L Y  N O T  A V A I L A B L E		C U R R E N T L Y  N O T  A V A I L A B L E		C U R R E N T L Y  N O T  A V A I L A B L E

9.24 SOLUBILITY IN WATER		9.25 SATURATED VAPOR PRESSURE		9.26 SATURATED VAPOR DENSITY		9.27 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	Pounds per 100 pounds of water	Temperature (degrees F)	Pounds per square inch	Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F
	C U R R E N T L Y  N O T  A V A I L A B L E		C U R R E N T L Y  N O T  A V A I L A B L E		C U R R E N T L Y  N O T  A V A I L A B L E	0 25 50 75 100 125 150 175 200 225 250 275 300 325 350 375 400 425 450 475 500 525 550 575 600	0.287 0.298 0.309 0.320 0.331 0.341 0.352 0.363 0.374 0.385 0.395 0.406 0.417 0.428 0.439 0.449 0.460 0.471 0.482 0.493 0.503 0.514 0.525 0.536 0.547

# DIOCTYL PHTHALATE

~~DEP~~ (DOP)

DOP

## CAUTIONARY RESPONSE INFORMATION

<b>Common Synonyms</b> Di-(2-ethylhexyl) phthalate DOP Bis-(2-Ethylhexyl)phthalate Octoil Phthalic acid, bis (2-ethylhexyl ester)	Oily liquid Colorless Slight odor  Floats on water.
Call fire department. Notify local health and pollution control agencies. Protect water intakes.	
<b>Fire</b>	Combustible. Extinguish with dry chemical, foam, or carbon dioxide.
<b>Exposure</b>	Not harmful.
<b>Water Pollution</b>	Effect of low concentrations on aquatic life is unknown. Fouling to shoreline. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.

## 1. CORRECTIVE RESPONSE ACTIONS

Stop discharge  
Contain  
Collection Systems: Skim  
Clean shore line  
Salvage waterfowl

## 2. CHEMICAL DESIGNATIONS

2.1 CG Competibility Group: 34; Ester  
2.2 Formula:  $C_{24}H_{40}O_4$   
 $C_8H_{17}(COOCH_2CH_2C_6H_4)_2$   
2.3 IMO/IUN Designation: Not listed  
2.4 DOT ID No.: Not listed  
2.5 CAS Registry No.: 117-84-0  
2.6 HAERG Guide No.: Not listed  
2.7 Standard Industrial Trade Classification: 61385

## 3. HEALTH HAZARDS

3.1 Personal Protective Equipment: Not required  
3.2 Symptoms Following Exposure: Produces no ill effects at normal temperatures but may give off irritating vapor at high temperature.  
3.3 Treatment of Exposure: Leave contaminated area; wash skin with soap and water; flush eyes with water  
3.4 TLV-TWA: Not listed.  
3.5 TLV-STEL: Not listed.  
3.6 TLV-Ceiling: Not listed.  
3.7 Toxicity by Ingestion: Grade 0; LD<sub>50</sub> above 15 g/kg (rat)  
3.8 Toxicity by Inhalation: Currently not available.  
3.9 Chronic Toxicity: Not established  
3.10 Vapor (Gas) Irritant Characteristics: Nonirritating to the eyes and throat.  
3.11 Liquid or Solid Characteristics: No appreciable hazard. Practically harmless to the skin.  
3.12 Odor Threshold: Currently not available  
3.13 IDLM Value: Not listed.  
3.14 OSHA PEL-TWA: Not listed.  
3.15 OSHA PEL-STEL: Not listed.  
3.16 OSHA PEL-Ceiling: Not listed.  
3.17 EPA AEGL: Not listed

## 4. FIRE HAZARDS

4.1 Flash Point: 425°F O.C.  
4.2 Flammable Limits In Air: Not pertinent  
4.3 Fire Extinguishing Agents: Dry chemical, carbon dioxide, foam  
4.4 Fire Extinguishing Agents Not to Be Used: Water or foam may cause frothing  
4.5 Special Hazards of Combustion Products: None  
4.6 Behavior in Fire: Not pertinent  
4.7 Auto Ignition Temperature: Currently not available  
4.8 Electrical Hazards: Not pertinent  
4.9 Burning Rate: Currently not available  
4.10 Adiabatic Flame Temperature: Currently not available  
4.11 Stoichiometric Air to Fuel Ratio: 149.9 (calc.)  
4.12 Flame Temperature: Currently not available  
4.13 Combustion Molar Ratio (Reactant to Product): 43.0 (calc.)  
4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed

## 5. CHEMICAL REACTIVITY

5.1 Reactivity with Water: No reaction  
5.2 Reactivity with Common Materials: No reaction  
5.3 Stability During Transport: Stable  
5.4 Neutralizing Agents for Acids and Caustics: Not pertinent  
5.5 Polymerization: Not pertinent  
5.6 Inhibitor of Polymerization: Not pertinent

## 6. WATER POLLUTION

6.1 Aquatic Toxicity: Currently not available  
6.2 Waterfowl Toxicity: Currently not available  
6.3 Biological Oxygen Demand (BOD): Currently not available  
6.4 Food Chain Concentration Potential: None  
6.5 GESAMP Hazard Profile:  
Bioaccumulation: 0  
Damage to living resources: 2  
Human Oral hazard: 1  
Human Contact hazard: II  
Reduction of amenities: XX

## 7. SHIPPING INFORMATION

7.1 Grades of Purity: Currently not available  
7.2 Storage Temperature: Ambient  
7.3 Inert Atmosphere: No requirement  
7.4 Venting: Open (flame arrester)  
7.5 IMO Pollution Category: Currently not available  
7.6 Ship Type: Currently not available  
7.7 Barge Hull Type: Currently not available

## 8. HAZARD CLASSIFICATIONS

8.1 49 CFR Category: Not listed  
8.2 49 CFR Class: Not pertinent  
8.3 49 CFR Package Group: Not listed.  
8.4 Marine Pollutant: No  
8.5 NFPA Hazard Classification:  

Category	Classification
Health Hazard (Blue)	0
Flammability (Red)	1
Instability (Yellow)	0

8.6 EPA Reportable Quantity: 5000 pounds  
8.7 EPA Pollution Category: D  
8.8 RCRA Waste Number: U107  
8.9 EPA FWPCA List: Not listed

## 9. PHYSICAL & CHEMICAL PROPERTIES

9.1 Physical State at 15° C and 1 atm: Liquid  
9.2 Molecular Weight: 390.6  
9.3 Boiling Point at 1 atm: 727°F = 386°C = 659°K  
9.4 Freezing Point: Currently not available  
9.5 Critical Temperature: Not pertinent  
9.6 Critical Pressure: Not pertinent  
9.7 Specific Gravity: 0.980 at 25°C (liquid)  
9.8 Liquid Surface Tension: (est.) 15 dynes/cm = 0.015 N/m at 20°C  
9.9 Liquid Water Interfacial Tension: (est.) 30 dynes/cm = 0.03 N/m at 20°C  
9.10 Vapor (Gas) Specific Gravity: Not pertinent  
9.11 Ratio of Specific Heats of Vapor (Gas): Not pertinent  
9.12 Latent Heat of Vaporization: Not pertinent  
9.13 Heat of Combustion: -15,130 Btu/lb = -8410 cal/g = -352 X 10<sup>3</sup> J/kg  
9.14 Heat of Decomposition: Not pertinent  
9.15 Heat of Solution: Not pertinent  
9.16 Heat of Polymerization: Not pertinent  
9.17 Heat of Fusion: Currently not available  
9.18 Limiting Value: Currently not available  
9.19 Reid Vapor Pressure: Low

NOTES

## DIOCTYL PHTHALATE

DOP

9.20 SATURATED LIQUID DENSITY		9.21 LIQUID HEAT CAPACITY		9.22 LIQUID THERMAL CONDUCTIVITY		9.23 LIQUID VISCOSITY	
Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F	Temperature (degrees F)	British thermal unit inch per hour-square foot-F	Temperature (degrees F)	Centipoise
34	62.350	32	0.478	45	0.944	32	15.870
36	62.280	34	0.478	50	0.942	34	14.770
38	62.210	36	0.478	55	0.940	36	13.920
40	62.150	38	0.478	60	0.939	38	13.140
42	62.080	40	0.478	65	0.937	40	12.400
44	62.010	42	0.478	70	0.935	42	11.700
46	61.940	44	0.478	75	0.933	44	11.060
48	61.870	46	0.478	80	0.931	46	10.450
50	61.800	48	0.478	85	0.929	48	9.878
52	61.730	50	0.478	90	0.927	50	9.343
54	61.660	52	0.478	95	0.925	52	8.841
56	61.590	54	0.478	100	0.924	54	8.370
58	61.520	56	0.478	105	0.922	56	7.927
60	61.450	58	0.478	110	0.920	58	7.511
62	61.380	60	0.478	115	0.918	60	7.119
64	61.310	62	0.478	120	0.916	62	6.751
66	61.240	64	0.478	125	0.914	64	6.404
68	61.170	66	0.478	130	0.912	66	6.078
70	61.100	68	0.478	135	0.911	68	5.770
72	61.040	70	0.478	140	0.909	70	5.481
74	60.970	72	0.478	145	0.907	72	5.207
76	60.900	74	0.478	150	0.905	74	4.950
78	60.830	76	0.478	155	0.903	76	4.707
80	60.760			160	0.901		
82	60.690			165	0.899		
84	60.620			170	0.897		

9.24 SOLUBILITY IN WATER		9.25 SATURATED VAPOR PRESSURE		9.26 SATURATED VAPOR DENSITY		9.27 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	Pounds per 100 pounds of water	Temperature (degrees F)	Pounds per square inch	Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F
77	0.005	340	0.006	340	0.00026	N O T  P E R T I N E N T	
		345	0.007	345	0.00030		
		350	0.008	350	0.00038		
		355	0.009	355	0.00041		
		360	0.011	360	0.00048		
		365	0.013	365	0.00056		
		370	0.015	370	0.00064		
		375	0.017	375	0.00074		
		380	0.020	380	0.00086		
		385	0.023	385	0.00099		
		390	0.026	390	0.00113		
		395	0.031	395	0.00130		
		400	0.035	400	0.00148		
		405	0.040	405	0.00170		
		410	0.046	410	0.00194		
		415	0.053	415	0.00222		
		420	0.061	420	0.00252		
		425	0.070	425	0.00287		
		430	0.080	430	0.00325		
		435	0.091	435	0.00368		
		440	0.103	440	0.00417		
		445	0.117	445	0.00471		

## DIUNDECYL PHTHALATE - 7-11

DUP

## CAUTIONARY RESPONSE INFORMATION

<b>Common Synonyms</b> 1,2-Benzenedicarboxylic acid, d-undecyl ester Phthalic acid, diundecyl ester Santizler 711		Liquid	Colorless	Odorless
		Floats on water.		
Call fire department. Notify local health and pollution control agencies. Protect water intakes.				
<b>Fire</b>	Combustible. Extinguish with dry chemical, foam, or carbon dioxide.			
<b>Exposure</b>	Not harmful.			
<b>Water Pollution</b>	Effects of low concentrations on aquatic life are not known. Fouling to shoreline. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.			

## 1. CORRECTIVE RESPONSE ACTIONS

Stop discharge  
Contain  
Collection Systems: Skim  
Chemical and Physical Treatment:  
Absorb  
Clean shore line  
Salvage waterfowl

## 2. CHEMICAL DESIGNATIONS

2.1 CG Competibility Group: 34; Esters  
2.2 Formula:  $(C_{11}H_{21}COO)_2$   
2.3 IMO/UN Designation: Not listed  
2.4 DOT ID No.: Not listed  
2.5 CAS Registry No.: 3648-20-2  
2.6 NAERG Guide No.: Not listed  
2.7 Standard Industrial Trade Classification: 51385

## 3. HEALTH HAZARDS

3.1 Personal Protective Equipment: Not required  
3.2 Symptoms Following Exposure: Produces no ill effects at normal temperatures but may give off irritating vapor at high temperature.  
3.3 Treatment of Exposure: Leave contaminated area; wash skin with soap and water; flush eyes with water.  
3.4 TLV-TWA: Not listed.  
3.5 TLV-STEL: Not listed.  
3.6 TLV-Ceiling: Not listed.  
3.7 Toxicity by Ingestion: Currently not available  
3.8 Toxicity by Inhalation: Currently not available.  
3.9 Chronic Toxicity: Currently not available  
3.10 Vapor (Gas) Irritant Characteristics: Nonirritating to the eyes and throat.  
3.11 Liquid or Solid Characteristics: No appreciable hazard. Practically harmless to the skin.  
3.12 Odor Threshold: Odorless  
3.13 IDLH Value: Not listed.  
3.14 OSHA PEL-TWA: Not listed.  
3.15 OSHA PEL-STEL: Not listed.  
3.16 OSHA PEL-Ceiling: Not listed.  
3.17 EPA AEGL: Not listed

## 4. FIRE HAZARDS

4.1 Flash Point: Currently not available  
4.2 Flammable Limits in Air: Currently not available  
4.3 Fire Extinguishing Agents: Dry chemical, CO<sub>2</sub>, or foam  
4.4 Fire Extinguishing Agents Not to Be Used: Water or foam may cause frothing  
4.5 Special Hazards of Combustion Products: Currently not available  
4.6 Behavior in Fire: Currently not available  
4.7 Auto Ignition Temperature: Currently not available  
4.9 Electrical Hazards: Currently not available  
4.9 Burning Rate: Currently not available  
4.10 Adiabatic Flame Temperature: Currently not available  
4.11 Stoichiometric Air to Fuel Ratio: 192.9 (calc.)  
4.12 Flame Temperature: Currently not available  
4.13 Combustion Molar Ratio (Reactant to Product): 55.0 (calc.)  
4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed

## 5. CHEMICAL REACTIVITY

5.1 Reactivity with Water: No reaction  
5.2 Reactivity with Common Materials: No reaction  
5.3 Stability During Transport: Stable  
5.4 Neutralizing Agents for Acids and Caustics: Currently not available  
5.5 Polymerization: Currently not available  
5.6 Inhibitor of Polymerization: Currently not available

## 6. WATER POLLUTION

6.1 Aquatic Toxicity: Currently not available  
6.2 Waterfowl Toxicity: Currently not available  
6.3 Biological Oxygen Demand (BOD): Currently not available  
6.4 Food Chain Concentration Potential: Currently not available  
6.5 GESAMP Hazard Profile:  
Bioaccumulation: 0  
Damage to living resources: 0  
Human Oral hazard: 1  
Human Contact hazard: 0  
Reduction of amenities: XX

## 7. SHIPPING INFORMATION

7.1 Grades of Purity: Currently not available  
7.2 Storage Temperature: Currently not available  
7.3 Inert Atmosphere: Currently not available  
7.4 Venting: Currently not available  
7.5 IMO Pollution Category: D  
7.6 Ship Type: Data not available  
7.7 Barge Hull Type: Currently not available

## 8. HAZARD CLASSIFICATIONS

8.1 49 CFR Category: Not listed  
8.2 49 CFR Class: Not pertinent  
8.3 49 CFR Package Group: Not listed.  
8.4 Marine Pollutant: No  
8.5 NFPA Hazard Classification:  
Category Classification  
Health Hazard (Blue)..... 0  
Flammability (Red)..... 1  
Instability (Yellow)..... 0  
8.6 EPA Reportable Quantity: Not listed.  
8.7 EPA Pollution Category: Not listed.  
8.8 RCRA Waste Number: Not listed  
8.9 EPA FWPCA List: Not listed

## 9. PHYSICAL &amp; CHEMICAL PROPERTIES

9.1 Physical State at 15° C and 1 atm: Liquid  
9.2 Molecular Weight: 442.80  
9.3 Boiling Point at 1 atm: Currently not available  
9.4 Freezing Point: Currently not available  
9.5 Critical Temperature: Currently not available  
9.6 Critical Pressure: Currently not available  
9.7 Specific Gravity: Currently not available  
9.8 Liquid Surface Tension: Currently not available  
9.9 Liquid Water Interfacial Tension: Currently not available  
9.10 Vapor (Gas) Specific Gravity: 15.3  
9.11 Ratio of Specific Heats of Vapor (Gas): Currently not available  
9.12 Latent Heat of Vaporization: Currently not available  
9.13 Heat of Combustion: Currently not available  
9.14 Heat of Decomposition: Currently not available  
9.15 Heat of Solution: Currently not available  
9.16 Heat of Polymerization: Currently not available  
9.17 Heat of Fusion: Currently not available  
9.18 Limiting Value: Currently not available  
9.19 Reid Vapor Pressure: Currently not available

## NOTES

# DIUNDECYL PHTHALATE

DUP

9.20 SATURATED LIQUID DENSITY		9.21 LIQUID HEAT CAPACITY		9.22 LIQUID THERMAL CONDUCTIVITY		9.23 LIQUID VISCOSITY	
Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F	Temperature (degrees F)	British thermal unit inch per hour-square foot-F	Temperature (degrees F)	Centipoise
	C U R R E N T L Y  N O T  A V A I L A B L E		C U R R E N T L Y  N O T  A V A I L A B L E		C U R R E N T L Y  N O T  A V A I L A B L E		C U R R E N T L Y  N O T  A V A I L A B L E

9.24 SOLUBILITY IN WATER		9.25 SATURATED VAPOR PRESSURE		9.26 SATURATED VAPOR DENSITY		9.27 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	Pounds per 100 pounds of water	Temperature (degrees F)	Pounds per square inch	Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F
	C U R R E N T L Y  N O T  A V A I L A B L E		C U R R E N T L Y  N O T  A V A I L A B L E		C U R R E N T L Y  N O T  A V A I L A B L E	0 25 50 75 100 125 150 175 200 225 250 275 300 325 350 375 400 425 450 475 500 525 550 575 600	0.326 0.337 0.349 0.360 0.372 0.383 0.395 0.407 0.418 0.430 0.441 0.453 0.464 0.476 0.488 0.499 0.511 0.522 0.534 0.546 0.557 0.569 0.580 0.592 0.603

## Appendix D Soil Boring Geologic Logs



209 Shafter Street  
Islandia, NY 11749  
Telephone: (631) 232-2600  
Fax: (631) 232-9898

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# WELL CONSTRUCTION LOG

WELL NO. <b>SB-101/MW-101</b>		NORTHING <b>Not Measured</b>	EASTING <b>Not Measured</b>
PROJECT NO./NAME <b>2587.0001Y000 / Lot 57</b>		LOCATION <b>93 Dupont Street</b> <b>Brooklyn, New York</b>	
APPROVED BY <b>M. Roux</b>	LOGGED BY <b>R. Lombino</b>		
DRILLING CONTRACTOR/DRILLER <b>Roux Associates / J. Freijomil</b>		GEOGRAPHIC AREA	
DRILL BIT DIAMETER/TYPE <b>3-in. / Drive Sampler</b>	BOREHOLE DIAMETER <b>2-inches</b>	DRILLING EQUIPMENT/METHOD <b>/ Geoprobe</b>	SAMPLING METHOD <b>2" Macro-Core</b>
CASING MAT./DIA. <b>PVC / 1-inch</b>	SCREEN: TYPE <b>Slotted</b>	MAT. <b>PVC</b>	TOTAL LENGTH <b>10.0ft</b>
ELEVATION OF: (Feet)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN
			DIA. <b>1-inch</b>
			SLOT SIZE <b>10-Slot</b>
			GRAVEL PACK SIZES <b>Moire #1</b>

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, fine SAND and SILT, some medium to coarse Sand, trace gravel; moist.		2.6	4 ft Recovery.
	1" PVC Riser	Dark brown, fine SAND, some Silt, little fine to medium Sand, trace clay; moist.		2.5	Sample SB-101 (0-2) collected for VOCs, SVOCs, PCBs, Pesticides, TAL Metals.
5		Light brown to light gray, fine to medium SAND, some fine Sand and Silt, trace coarse sand; wet.		2.1	4 ft Recovery.
	#1 Sand	Dark brown, medium to coarse SAND, some fine Sand, little Silt; wet.		1.7	Sample SB-101 (5-7) collected for VOCs, SVOCs, PCBs, Pesticides, TAL Metals.
	1" PVC Slotted Pipe			1.3	4 ft Recovery.
10		Dark brown, CLAYEY SILT, trace fine sand; very moist.		1.8	Sample SB-101 (10-12) collected for VOCs, SVOCs, PCBs, Pesticides, TAL Metals.
	Bottom of Well				End of boring at 15 ft bls.
15					

BORING/FEET 2587.0001Y000.GPJ ROUX.GDT 3/21/16



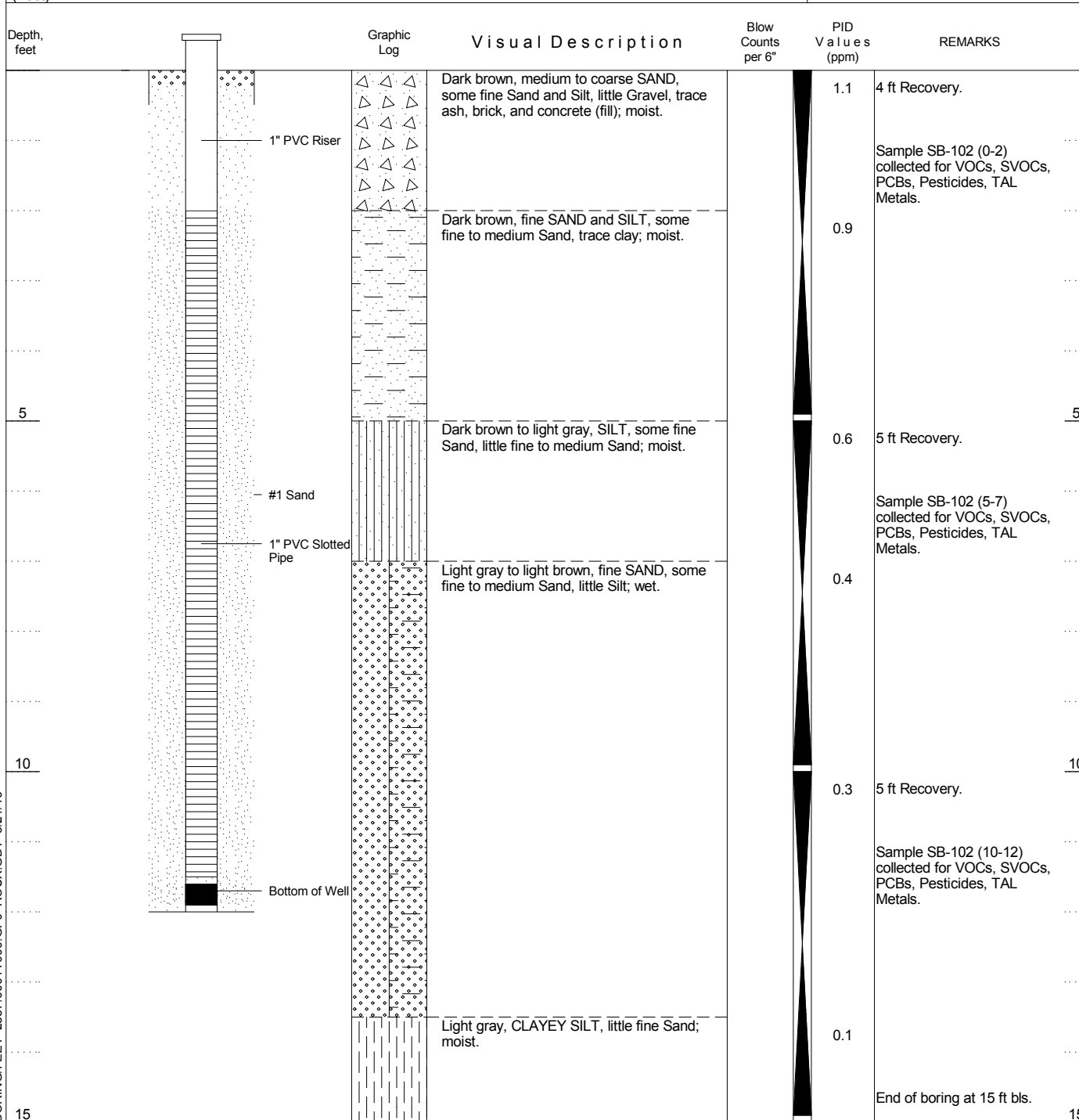


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Telephone: (631) 232-2600  
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# WELL CONSTRUCTION LOG

WELL NO. <b>SB-102/MW-102</b>		NORTHING <b>Not Measured</b>		EASTING <b>Not Measured</b>	
PROJECT NO./NAME <b>2587.0001Y000 / Lot 57</b>		LOCATION <b>93 Dupont Street</b>			
APPROVED BY <b>M. Roux</b>		LOGGED BY <b>R. Lombino</b>		<b>Brooklyn, New York</b>	
DRILLING CONTRACTOR/DRILLER <b>Roux Associates / J. Freijomil</b>		GEOGRAPHIC AREA			
DRILL BIT DIAMETER/TYPE <b>3-in. / Drive Sampler</b>	BOREHOLE DIAMETER <b>2-inches</b>	DRILLING EQUIPMENT/METHOD <b>/ Geoprobe</b>	SAMPLING METHOD <b>2" Macro-Core</b>	START-FINISH DATE <b>2/11/16-2/12/16</b>	
CASING MAT./DIA. <b>PVC / 1-inch</b>	SCREEN: TYPE <b>Slotted</b>	MAT. <b>PVC</b>	TOTAL LENGTH <b>10.0ft</b>	DIA. <b>1-inch</b>	SLOT SIZE <b>10-Slot</b>
ELEVATION OF: (Feet)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN /	GRAVEL PACK SIZES <b>Morie #1</b>	



BORING/FEET 2587.0001Y000.GPJ ROUX.GDT 3/21/16

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# WELL CONSTRUCTION LOG

WELL NO. <b>SB-103/MW-103</b>	NORTHING <b>Not Measured</b>	EASTING <b>Not Measured</b>		
PROJECT NO./NAME <b>2587.0001Y000 / Lot 57</b>		LOCATION <b>93 Dupont Street</b>		
APPROVED BY <b>M. Roux</b>	LOGGED BY <b>R. Lombino</b>	<b>Brooklyn, New York</b>		
DRILLING CONTRACTOR/DRILLER <b>Roux Associates / J. Freijomil</b>		GEOGRAPHIC AREA		
DRILL BIT DIAMETER/TYPE <b>3-in. / Drive Sampler</b>	BOREHOLE DIAMETER <b>2-inches</b>	DRILLING EQUIPMENT/METHOD <b>/ Geoprobe</b>	SAMPLING METHOD <b>2" Macro-Core</b>	START-FINISH DATE <b>2/11/16-2/12/16</b>
CASING MAT./DIA. <b>PVC / 1-inch</b>	SCREEN: TYPE <b>Slotted</b>	MAT. <b>PVC</b>	TOTAL LENGTH <b>10.0ft</b>	DIA. <b>1-inch</b> SLOT SIZE <b>10-Slot</b>
ELEVATION OF: (Feet)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN /	GRAVEL PACK SIZES <b>Morie #1</b>

[illegible]

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# WELL CONSTRUCTION LOG

WELL NO. <b>SB-104/MW-104</b>		NORTHING <b>Not Measured</b>		EASTING <b>Not Measured</b>	
PROJECT NO./NAME <b>2587.0001Y000 / Lot 57</b>			LOCATION <b>93 Dupont Street</b> <b>Brooklyn, New York</b>		
APPROVED BY <b>M. Roux</b>		LOGGED BY <b>R. Lombino</b>		GEOGRAPHIC AREA	
DRILLING CONTRACTOR/DRILLER <b>Roux Associates / J. Freijomil</b>					
DRILL BIT DIAMETER/TYPE <b>3-in. / Drive Sampler</b>		BOREHOLE DIAMETER <b>2-inches</b>		DRILLING EQUIPMENT/METHOD <b>2" Macro-Core</b>	
CASING MAT./DIA. <b>PVC / 1-inch</b>		SCREEN: <b>TYPE Slotted</b>		START-FINISH DATE <b>2/11/16-2/12/16</b>	
ELEVATION OF: (Feet)		GROUND SURFACE		TOTAL LENGTH <b>10.0ft</b>	
		TOP OF WELL CASING		DIA. <b>1-inch</b>	
				SLOT SIZE <b>10-Slot</b>	
				GRAVEL PACK SIZES <b>More #1</b>	

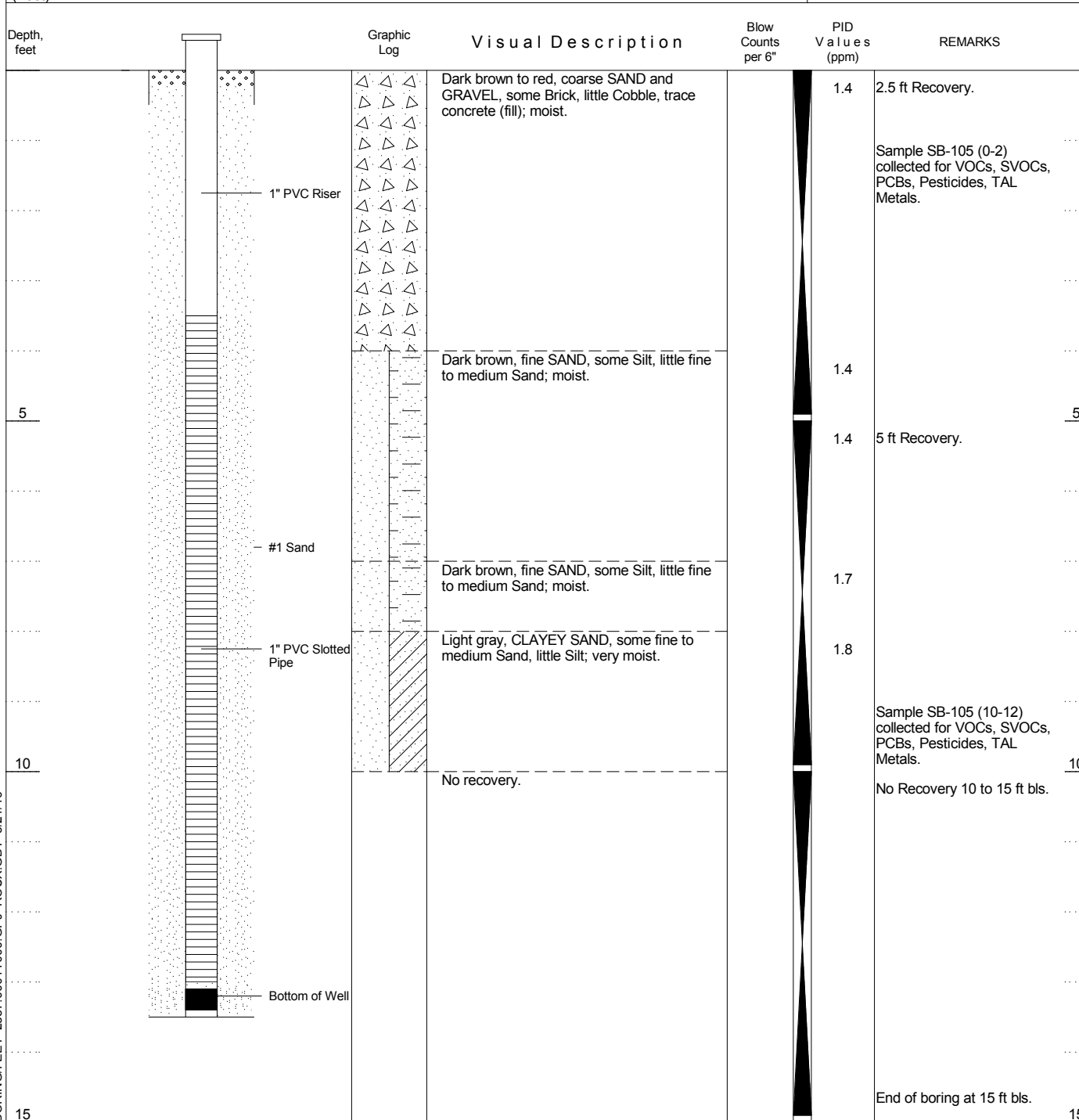
Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	1" PVC Riser	Dark brown, fine SAND and SILT, some fine to medium Sand, trace gravel; moist.		3.9	3 ft Recovery.
					Sample SB-104 (0-2) collected for VOCs, SVOCs, PCBs, Pesticides, TAL Metals.
		Light brown to dark brown, SANDY SILT, trace gravel; moist.		0.3	
	#2 Sand				
5					
	1" PVC Slotted Pipe	Dark brown to light gray, fine SAND, some Silt, trace gravel; moist.		2.5	4.5 ft Recovery.
					Sample SB-104 (5-7) collected for VOCs, SVOCs, PCBs, Pesticides, TAL Metals.
		Dark brown, fine to medium SAND, some Silt; wet.		3.1	
10					
	Bottom of Well	Dark brown, fine SAND and SILT, trace fine to medium sand; wet.			2 ft Recovery.
		No recovery.			Sample SB-104 (10-12) collected for VOCs, SVOCs, PCBs, Pesticides, TAL Metals.
15					End of boring at 15 ft bls.



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Telephone: (631) 232-2600  
Fax: (631) 232-9898

# WELL CONSTRUCTION LOG

WELL NO. <b>SB-105/MW-105</b>		NORTHING <b>Not Measured</b>	EASTING <b>Not Measured</b>
PROJECT NO./NAME <b>2587.0001Y000 / Lot 57</b>		LOCATION <b>93 Dupont Street</b> <b>Brooklyn, New York</b>	
APPROVED BY <b>M. Roux</b>	LOGGED BY <b>R. Lombino</b>		
DRILLING CONTRACTOR/DRILLER <b>Roux Associates / J. Freijomil</b>		GEOGRAPHIC AREA	
DRILL BIT DIAMETER/TYPE <b>3-in. / Drive Sampler</b>	BOREHOLE DIAMETER <b>2-inches</b>	DRILLING EQUIPMENT/METHOD <b>/ Geoprobe</b>	SAMPLING METHOD <b>2" Macro-Core</b>
CASING MAT./DIA. <b>PVC / 1-inch</b>	SCREEN: TYPE <b>Slotted</b>	MAT. <b>PVC</b>	TOTAL LENGTH <b>10.0ft</b>
ELEVATION OF: (Feet)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN
			DIA. <b>1-inch</b>
			SLOT SIZE <b>10-Slot</b>
			GRAVEL PACK SIZES <b>More #1</b>



BORING/FEET 2587.0001Y000.GPJ ROUX.GDT 3/21/16



ROUX ASSOCIATES, INC.  
Environmental Consulting  
& Management

209 Shafter Street  
Islandia, NY 11749  
Telephone: (631) 232-2600  
Fax: (631) 232-9898

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## SOIL BORING LOG

WELL NO. <b>SB-106</b>	NORTHING <b>Not Measured</b>	EASTING <b>Not Measured</b>
PROJECT NO./NAME <b>2587.0001Y000 / Lot 57</b>	LOCATION <b>93 Dupont Street Brooklyn, New York</b>	
APPROVED BY <b>M. Roux</b>	LOGGED BY <b>R. Lombino</b>	GEOGRAPHIC AREA
DRILLING CONTRACTOR/DRILLER <b>Roux Associates / J. Freijomil</b>		
DRILL BIT DIAMETER/TYPE <b>3-in. / Drive Sampler</b>	BOREHOLE DIAMETER <b>2-inches</b>	DRILLING EQUIPMENT/METHOD <b>/ Geoprobe</b>
LAND SURFACE ELEVATION <b>Not Measured</b>	DEPTH TO WATER <b>Not Measured</b>	SAMPLING METHOD <b>2" Macro-Core</b>
	BACKFILL <b>Cuttings</b>	START-FINISH DATE <b>2/11/16-2/12/16</b>

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, fine SAND and SILT, little fine to medium Sand, trace gravel; moist.		0.6	4.5 ft Recovery.
					Sample SB-106 (0-2) collected for VOCs, SVOCs, PCBs, Pesticides, TAL Metals.
		Light gray, SILT, some fine Sand, trace clay; moist.		0.6	
5		Dark brown to light gray, fine SAND and SILT, some fine to medium Sand, trace gravel; moist.		0.3	5 ft Recovery.
		Light brown to light gray, fine SAND, some fine to medium Sand, little Silt, trace gravel; moist.		0.3	
10		Dark brown, fine SAND, some Silt, little fine to medium Sand; wet.		1.8	2 ft Recovery.
		No recovery.			Sample SB-106 (10-12) collected for VOCs, SVOCs, PCBs, Pesticides, TAL Metals. No recovery 12 to 15 ft bls.
15					End of boring at 15 ft bls.

BORING/FEET 2587.0001Y000.GPJ ROUX.GDT 3/21/16



209 Shafter Street  
Islandia, NY 11749  
Telephone: (631) 232-2600  
Fax: (631) 232-9898

# SOIL BORING LOG

WELL NO. <b>SB-107</b>	NORTHING <b>Not Measured</b>	EASTING <b>Not Measured</b>		
PROJECT NO./NAME <b>2587.0001Y000 / Lot 57</b>		LOCATION <b>93 Dupont Street</b> <b>Brooklyn, New York</b>		
APPROVED BY <b>M. Roux</b>	LOGGED BY <b>R. Lombino</b>			
DRILLING CONTRACTOR/DRILLER <b>Roux Associates / J. Freijomil</b>		GEOGRAPHIC AREA		
DRILL BIT DIAMETER/TYPE <b>3-in. / Drive Sampler</b>	BOREHOLE DIAMETER <b>2-inches</b>	DRILLING EQUIPMENT/METHOD <b>/ Geoprobe</b>	SAMPLING METHOD <b>2" Macro-Core</b>	START-FINISH DATE <b>2/11/16-2/12/16</b>
LAND SURFACE ELEVATION <b>Not Measured</b>	DEPTH TO WATER <b>Not Measured</b>	BACKFILL <b>Cuttings</b>		

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, medium to coarse SAND, some fine Sand, little Gravel, trace concrete (fill); dry		1.2	3 ft Recovery.
		Dark brown, medium SAND, some fine Sand and Silt; moist.		1.6	Sample SB-107 (0-2) collected for VOCs, SVOCs, PCBs, Pesticides, TAL Metals.
5		Dark brown, medium SAND, some fine Sand and Silt, little Gravel, trace clay; moist.		1.7	5 ft Recovery.
		Light brown, CLAYEY SILT, some fine Sand, little medium Sand; moist.		1.8	
10		Dark brown, fine SAND and SILT, some medium Sand, little Clay, trace gravel; wet.		1.8	5 ft Recovery.
		Light brown to light gray, SILT, trace clay; moist.		1.7	Sample SB-107 (10-12) collected for VOCs, SVOCs, PCBs, Pesticides, TAL Metals.
15					End of boring at 15 ft bls.

BORING/FEET 2587.0001Y000.GPJ ROUX.GDT 3/21/16



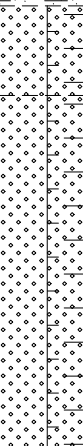
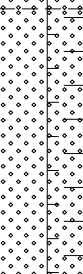
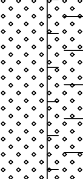



209 Shafter Street  
Islandia, NY 11749  
Telephone: (631) 232-2600  
Fax: (631) 232-9898

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# SOIL BORING LOG

WELL NO. <b>SB-108</b>	NORTHING <b>Not Measured</b>	EASTING <b>Not Measured</b>		
PROJECT NO./NAME <b>2587.0001Y000 / Lot 57</b>		LOCATION <b>93 Dupont Street</b> <b>Brooklyn, New York</b>		
APPROVED BY <b>M. Roux</b>	LOGGED BY <b>R. Lombino</b>			
DRILLING CONTRACTOR/DRILLER <b>Roux Associates / J. Freijomil</b>		GEOGRAPHIC AREA		
DRILL BIT DIAMETER/TYPE <b>3-in. / Drive Sampler</b>	BOREHOLE DIAMETER <b>2-inches</b>	DRILLING EQUIPMENT/METHOD <b>/ Geoprobe</b>	SAMPLING METHOD <b>2" Macro-Core</b>	START-FINISH DATE <b>2/11/16-2/12/16</b>
LAND SURFACE ELEVATION <b>Not Measured</b>	DEPTH TO WATER <b>Not Measured</b>	BACKFILL <b>Cuttings</b>		

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, medium to coarse SAND, some Silt, little Gravel, trace cobble and brick (fill); moist		2.1	4 ft Recovery.
		Light brown to dark brown, fine SAND and SILT, some fine to medium Sand, trace clay; dry.		2	Sample SB-108 (0-2) collected for VOCs, SVOCs, PCBs, Pesticides, TAL Metals.
5		Dark brown, fine SAND, some Silt, little fine to medium Sand; moist.		1.8	4.5 ft Recovery.
		Dark brown, fine to medium SAND, some medium to coarse Sand, little Silt; wet.		1.6	
		Dark brown, fine SAND, some Silt and fine to medium Sand, trace gravel; wet.		1.1	
10		Dark brown, fine SAND, some Silt and fine to medium Sand, trace gravel; wet.		1.6	5 ft Recovery.
				2.2	Sample SB-108 (10-12) collected for VOCs, SVOCs, PCBs, Pesticides, TAL Metals.
15					End of boring at 15 ft bls.

BORING/FEET 2587.0001Y000.GPJ ROUX.GDT 3/21/16

## Appendix E Laboratory Data Deliverables





## ANALYTICAL REPORT

Lab Number:	L1603689
Client:	Roux Associates, Inc. 209 Shafter Street Islandia, NY 11749-5074
ATTN:	Ronald Lombino
Phone:	(631) 630-2372
Project Name:	DUPONT STREET
Project Number:	2587.0001Y000
Report Date:	02/18/16

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1603689-01	SB-105 (0-2)	SOIL	BROOKLYN, NY	02/11/16 09:30	02/11/16
L1603689-02	SB-105 (10-12)	SOIL	BROOKLYN, NY	02/11/16 09:45	02/11/16
L1603689-03	SB-107 (0-2)	SOIL	BROOKLYN, NY	02/11/16 10:20	02/11/16
L1603689-04	SB-107 (10-12)	SOIL	BROOKLYN, NY	02/11/16 10:30	02/11/16
L1603689-05	SB-106 (0-2)	SOIL	BROOKLYN, NY	02/11/16 12:15	02/11/16
L1603689-06	SB-106 (10-12)	SOIL	BROOKLYN, NY	02/11/16 12:30	02/11/16
L1603689-07	SB-108 (0-2)	SOIL	BROOKLYN, NY	02/11/16 13:30	02/11/16
L1603689-08	SB-108 (4-6)	SOIL	BROOKLYN, NY	02/11/16 13:40	02/11/16
L1603689-09	SB-108 (10-12)	SOIL	BROOKLYN, NY	02/11/16 13:50	02/11/16
L1603689-10	DUP021116	SOIL	BROOKLYN, NY	02/11/16 14:00	02/11/16
L1603689-11	FB021116	WATER	BROOKLYN, NY	02/11/16 14:15	02/11/16
L1603689-12	SB-104 (0-2)	SOIL	BROOKLYN, NY	02/11/16 14:30	02/11/16
L1603689-13	SB-104 (5-7)	SOIL	BROOKLYN, NY	02/11/16 14:40	02/11/16
L1603689-14	SB-104 (10-12)	SOIL	BROOKLYN, NY	02/11/16 14:50	02/11/16
L1603689-15	TRIP BLANK	WATER	BROOKLYN, NY	02/11/16 00:00	02/11/16

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

### Case Narrative

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

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

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

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

#### HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

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**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**Case Narrative (continued)**

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Metals

L1603689-01 through -10 and -12 through -14: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Michelle M. Morris

Title: Technical Director/Representative

Date: 02/18/16

# ORGANICS

# **VOLATILES**

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-01  
**Client ID:** SB-105 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/16/16 14:05  
**Analyst:** BN  
**Percent Solids:** 84%

**Date Collected:** 02/11/16 09:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	12	1.3	1
1,1-Dichloroethane	ND		ug/kg	1.8	0.10	1
Chloroform	ND		ug/kg	1.8	0.44	1
Carbon tetrachloride	ND		ug/kg	1.2	0.25	1
1,2-Dichloropropane	ND		ug/kg	4.2	0.27	1
Dibromochloromethane	ND		ug/kg	1.2	0.18	1
1,1,2-Trichloroethane	ND		ug/kg	1.8	0.36	1
Tetrachloroethene	ND		ug/kg	1.2	0.17	1
Chlorobenzene	ND		ug/kg	1.2	0.42	1
Trichlorofluoromethane	ND		ug/kg	6.0	0.46	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.14	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.13	1
Bromodichloromethane	ND		ug/kg	1.2	0.21	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.14	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.14	1
1,3-Dichloropropene, Total	ND		ug/kg	1.2	0.14	1
1,1-Dichloropropene	ND		ug/kg	6.0	0.17	1
Bromoform	ND		ug/kg	4.8	0.28	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.12	1
Benzene	ND		ug/kg	1.2	0.14	1
Toluene	ND		ug/kg	1.8	0.23	1
Ethylbenzene	ND		ug/kg	1.2	0.15	1
Chloromethane	ND		ug/kg	6.0	0.35	1
Bromomethane	ND		ug/kg	2.4	0.40	1
Vinyl chloride	ND		ug/kg	2.4	0.14	1
Chloroethane	ND		ug/kg	2.4	0.38	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.31	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.25	1
Trichloroethene	ND		ug/kg	1.2	0.15	1
1,2-Dichlorobenzene	ND		ug/kg	6.0	0.18	1

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-01

Date Collected: 02/11/16 09:30

Client ID: SB-105 (0-2)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	6.0	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	6.0	0.16	1
Methyl tert butyl ether	ND		ug/kg	2.4	0.10	1
p/m-Xylene	ND		ug/kg	2.4	0.24	1
o-Xylene	ND		ug/kg	2.4	0.20	1
Xylenes, Total	ND		ug/kg	2.4	0.20	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.17	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.17	1
Dibromomethane	ND		ug/kg	12	0.20	1
Styrene	ND		ug/kg	2.4	0.48	1
Dichlorodifluoromethane	ND		ug/kg	12	0.23	1
Acetone	36		ug/kg	12	1.2	1
Carbon disulfide	ND		ug/kg	12	1.3	1
2-Butanone	3.5	J	ug/kg	12	0.32	1
Vinyl acetate	ND		ug/kg	12	0.16	1
4-Methyl-2-pentanone	ND		ug/kg	12	0.29	1
1,2,3-Trichloropropane	ND		ug/kg	12	0.19	1
2-Hexanone	ND		ug/kg	12	0.79	1
Bromochloromethane	ND		ug/kg	6.0	0.33	1
2,2-Dichloropropane	ND		ug/kg	6.0	0.27	1
1,2-Dibromoethane	ND		ug/kg	4.8	0.21	1
1,3-Dichloropropane	ND		ug/kg	6.0	0.17	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.2	0.38	1
Bromobenzene	ND		ug/kg	6.0	0.25	1
n-Butylbenzene	ND		ug/kg	1.2	0.14	1
sec-Butylbenzene	ND		ug/kg	1.2	0.14	1
tert-Butylbenzene	ND		ug/kg	6.0	0.16	1
o-Chlorotoluene	ND		ug/kg	6.0	0.19	1
p-Chlorotoluene	ND		ug/kg	6.0	0.16	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.0	0.47	1
Hexachlorobutadiene	ND		ug/kg	6.0	0.27	1
Isopropylbenzene	ND		ug/kg	1.2	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.15	1
Naphthalene	ND		ug/kg	6.0	0.16	1
Acrylonitrile	ND		ug/kg	12	0.61	1
n-Propylbenzene	ND		ug/kg	1.2	0.13	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.0	0.18	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.0	0.22	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.0	0.17	1



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-01  
**Client ID:** SB-105 (0-2)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 09:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	6.0	0.17	1
1,4-Dioxane	ND		ug/kg	120	17.	1
p-Diethylbenzene	ND		ug/kg	4.8	0.19	1
p-Ethyltoluene	ND		ug/kg	4.8	0.15	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.8	0.16	1
Ethyl ether	ND		ug/kg	6.0	0.31	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.0	0.47	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	85		70-130

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-02  
**Client ID:** SB-105 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/16/16 14:32  
**Analyst:** BN  
**Percent Solids:** 83%

**Date Collected:** 02/11/16 09:45  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	10	1.1	1
1,1-Dichloroethane	ND		ug/kg	1.6	0.09	1
Chloroform	ND		ug/kg	1.6	0.38	1
Carbon tetrachloride	ND		ug/kg	1.0	0.22	1
1,2-Dichloropropane	ND		ug/kg	3.6	0.24	1
Dibromochloromethane	ND		ug/kg	1.0	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	0.31	1
Tetrachloroethene	ND		ug/kg	1.0	0.14	1
Chlorobenzene	ND		ug/kg	1.0	0.36	1
Trichlorofluoromethane	ND		ug/kg	5.2	0.40	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.12	1
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.11	1
Bromodichloromethane	ND		ug/kg	1.0	0.18	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.12	1
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.12	1
1,3-Dichloropropene, Total	ND		ug/kg	1.0	0.12	1
1,1-Dichloropropene	ND		ug/kg	5.2	0.15	1
Bromoform	ND		ug/kg	4.1	0.24	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.10	1
Benzene	ND		ug/kg	1.0	0.12	1
Toluene	ND		ug/kg	1.6	0.20	1
Ethylbenzene	ND		ug/kg	1.0	0.13	1
Chloromethane	ND		ug/kg	5.2	0.30	1
Bromomethane	ND		ug/kg	2.1	0.35	1
Vinyl chloride	ND		ug/kg	2.1	0.12	1
Chloroethane	ND		ug/kg	2.1	0.33	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.27	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.22	1
Trichloroethene	ND		ug/kg	1.0	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	5.2	0.16	1

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-02

Date Collected: 02/11/16 09:45

Client ID: SB-105 (10-12)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	5.2	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	5.2	0.14	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.09	1
p/m-Xylene	ND		ug/kg	2.1	0.20	1
o-Xylene	ND		ug/kg	2.1	0.18	1
Xylenes, Total	ND		ug/kg	2.1	0.18	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.15	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.15	1
Dibromomethane	ND		ug/kg	10	0.17	1
Styrene	ND		ug/kg	2.1	0.42	1
Dichlorodifluoromethane	ND		ug/kg	10	0.20	1
Acetone	4.4	J	ug/kg	10	1.1	1
Carbon disulfide	ND		ug/kg	10	1.1	1
2-Butanone	ND		ug/kg	10	0.28	1
Vinyl acetate	ND		ug/kg	10	0.14	1
4-Methyl-2-pentanone	ND		ug/kg	10	0.25	1
1,2,3-Trichloropropane	ND		ug/kg	10	0.17	1
2-Hexanone	ND		ug/kg	10	0.69	1
Bromochloromethane	ND		ug/kg	5.2	0.28	1
2,2-Dichloropropane	ND		ug/kg	5.2	0.23	1
1,2-Dibromoethane	ND		ug/kg	4.1	0.18	1
1,3-Dichloropropane	ND		ug/kg	5.2	0.15	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	0.33	1
Bromobenzene	ND		ug/kg	5.2	0.22	1
n-Butylbenzene	ND		ug/kg	1.0	0.12	1
sec-Butylbenzene	ND		ug/kg	1.0	0.13	1
tert-Butylbenzene	ND		ug/kg	5.2	0.14	1
o-Chlorotoluene	ND		ug/kg	5.2	0.16	1
p-Chlorotoluene	ND		ug/kg	5.2	0.14	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.2	0.41	1
Hexachlorobutadiene	ND		ug/kg	5.2	0.24	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.13	1
Naphthalene	ND		ug/kg	5.2	0.14	1
Acrylonitrile	ND		ug/kg	10	0.53	1
n-Propylbenzene	ND		ug/kg	1.0	0.11	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.2	0.15	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.2	0.19	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.2	0.15	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-02  
**Client ID:** SB-105 (10-12)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 09:45  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	5.2	0.15	1
1,4-Dioxane	ND		ug/kg	100	15.	1
p-Diethylbenzene	ND		ug/kg	4.1	0.16	1
p-Ethyltoluene	ND		ug/kg	4.1	0.13	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.1	0.13	1
Ethyl ether	ND		ug/kg	5.2	0.27	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.2	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	105		70-130

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-03  
**Client ID:** SB-107 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/17/16 11:21  
**Analyst:** BN  
**Percent Solids:** 90%

**Date Collected:** 02/11/16 10:20  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	11	1.2	1
1,1-Dichloroethane	ND		ug/kg	1.6	0.09	1
Chloroform	ND		ug/kg	1.6	0.40	1
Carbon tetrachloride	ND		ug/kg	1.1	0.23	1
1,2-Dichloropropane	ND		ug/kg	3.8	0.25	1
Dibromochloromethane	ND		ug/kg	1.1	0.17	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	0.33	1
Tetrachloroethene	ND		ug/kg	1.1	0.15	1
Chlorobenzene	ND		ug/kg	1.1	0.38	1
Trichlorofluoromethane	ND		ug/kg	5.5	0.42	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.12	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.12	1
Bromodichloromethane	ND		ug/kg	1.1	0.19	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.13	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	0.13	1
1,3-Dichloropropene, Total	ND		ug/kg	1.1	0.13	1
1,1-Dichloropropene	ND		ug/kg	5.5	0.15	1
Bromoform	ND		ug/kg	4.4	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	0.11	1
Benzene	ND		ug/kg	1.1	0.13	1
Toluene	0.26	J	ug/kg	1.6	0.21	1
Ethylbenzene	ND		ug/kg	1.1	0.14	1
Chloromethane	ND		ug/kg	5.5	0.32	1
Bromomethane	ND		ug/kg	2.2	0.37	1
Vinyl chloride	ND		ug/kg	2.2	0.13	1
Chloroethane	ND		ug/kg	2.2	0.34	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.29	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.23	1
Trichloroethene	ND		ug/kg	1.1	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	5.5	0.17	1

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-03

Date Collected: 02/11/16 10:20

Client ID: SB-107 (0-2)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	5.5	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	5.5	0.15	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.09	1
p/m-Xylene	ND		ug/kg	2.2	0.22	1
o-Xylene	ND		ug/kg	2.2	0.19	1
Xylenes, Total	ND		ug/kg	2.2	0.19	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.16	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.16	1
Dibromomethane	ND		ug/kg	11	0.18	1
Styrene	ND		ug/kg	2.2	0.44	1
Dichlorodifluoromethane	ND		ug/kg	11	0.21	1
Acetone	ND		ug/kg	11	1.1	1
Carbon disulfide	ND		ug/kg	11	1.2	1
2-Butanone	ND		ug/kg	11	0.30	1
Vinyl acetate	ND		ug/kg	11	0.14	1
4-Methyl-2-pentanone	ND		ug/kg	11	0.27	1
1,2,3-Trichloropropane	ND		ug/kg	11	0.18	1
2-Hexanone	ND		ug/kg	11	0.73	1
Bromochloromethane	ND		ug/kg	5.5	0.30	1
2,2-Dichloropropane	ND		ug/kg	5.5	0.25	1
1,2-Dibromoethane	ND		ug/kg	4.4	0.19	1
1,3-Dichloropropane	ND		ug/kg	5.5	0.16	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	0.35	1
Bromobenzene	ND		ug/kg	5.5	0.23	1
n-Butylbenzene	ND		ug/kg	1.1	0.12	1
sec-Butylbenzene	ND		ug/kg	1.1	0.13	1
tert-Butylbenzene	ND		ug/kg	5.5	0.15	1
o-Chlorotoluene	ND		ug/kg	5.5	0.17	1
p-Chlorotoluene	ND		ug/kg	5.5	0.14	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.5	0.43	1
Hexachlorobutadiene	ND		ug/kg	5.5	0.25	1
Isopropylbenzene	ND		ug/kg	1.1	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.14	1
Naphthalene	ND		ug/kg	5.5	0.15	1
Acrylonitrile	ND		ug/kg	11	0.56	1
n-Propylbenzene	ND		ug/kg	1.1	0.12	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.5	0.16	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.5	0.20	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.5	0.16	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-03  
**Client ID:** SB-107 (0-2)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 10:20  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	5.5	0.15	1
1,4-Dioxane	ND		ug/kg	110	16.	1
p-Diethylbenzene	ND		ug/kg	4.4	0.17	1
p-Ethyltoluene	ND		ug/kg	4.4	0.14	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.4	0.14	1
Ethyl ether	ND		ug/kg	5.5	0.28	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.5	0.43	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	89		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	96		70-130

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-04  
**Client ID:** SB-107 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/16/16 15:26  
**Analyst:** BN  
**Percent Solids:** 83%

**Date Collected:** 02/11/16 10:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	11	1.2	1
1,1-Dichloroethane	ND		ug/kg	1.6	0.09	1
Chloroform	ND		ug/kg	1.6	0.40	1
Carbon tetrachloride	ND		ug/kg	1.1	0.23	1
1,2-Dichloropropane	ND		ug/kg	3.8	0.24	1
Dibromochloromethane	ND		ug/kg	1.1	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	0.33	1
Tetrachloroethene	ND		ug/kg	1.1	0.15	1
Chlorobenzene	ND		ug/kg	1.1	0.38	1
Trichlorofluoromethane	ND		ug/kg	5.4	0.42	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.12	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.12	1
Bromodichloromethane	ND		ug/kg	1.1	0.19	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.13	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	0.13	1
1,3-Dichloropropene, Total	ND		ug/kg	1.1	0.13	1
1,1-Dichloropropene	ND		ug/kg	5.4	0.15	1
Bromoform	ND		ug/kg	4.3	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	0.11	1
Benzene	ND		ug/kg	1.1	0.13	1
Toluene	ND		ug/kg	1.6	0.21	1
Ethylbenzene	ND		ug/kg	1.1	0.14	1
Chloromethane	ND		ug/kg	5.4	0.32	1
Bromomethane	ND		ug/kg	2.2	0.36	1
Vinyl chloride	ND		ug/kg	2.2	0.13	1
Chloroethane	ND		ug/kg	2.2	0.34	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.23	1
Trichloroethene	ND		ug/kg	1.1	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	5.4	0.16	1



Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-04

Date Collected: 02/11/16 10:30

Client ID: SB-107 (10-12)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	5.4	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	5.4	0.15	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.09	1
p/m-Xylene	ND		ug/kg	2.2	0.21	1
o-Xylene	ND		ug/kg	2.2	0.18	1
Xylenes, Total	ND		ug/kg	2.2	0.18	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.15	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1
Dibromomethane	ND		ug/kg	11	0.18	1
Styrene	ND		ug/kg	2.2	0.43	1
Dichlorodifluoromethane	ND		ug/kg	11	0.20	1
Acetone	18		ug/kg	11	1.1	1
Carbon disulfide	ND		ug/kg	11	1.2	1
2-Butanone	ND		ug/kg	11	0.29	1
Vinyl acetate	ND		ug/kg	11	0.14	1
4-Methyl-2-pentanone	ND		ug/kg	11	0.26	1
1,2,3-Trichloropropane	ND		ug/kg	11	0.18	1
2-Hexanone	ND		ug/kg	11	0.72	1
Bromochloromethane	ND		ug/kg	5.4	0.30	1
2,2-Dichloropropane	ND		ug/kg	5.4	0.24	1
1,2-Dibromoethane	ND		ug/kg	4.3	0.19	1
1,3-Dichloropropane	ND		ug/kg	5.4	0.16	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	0.34	1
Bromobenzene	ND		ug/kg	5.4	0.22	1
n-Butylbenzene	ND		ug/kg	1.1	0.12	1
sec-Butylbenzene	ND		ug/kg	1.1	0.13	1
tert-Butylbenzene	ND		ug/kg	5.4	0.15	1
o-Chlorotoluene	ND		ug/kg	5.4	0.17	1
p-Chlorotoluene	ND		ug/kg	5.4	0.14	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.4	0.43	1
Hexachlorobutadiene	ND		ug/kg	5.4	0.24	1
Isopropylbenzene	ND		ug/kg	1.1	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.13	1
Naphthalene	ND		ug/kg	5.4	0.15	1
Acrylonitrile	ND		ug/kg	11	0.55	1
n-Propylbenzene	ND		ug/kg	1.1	0.12	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.4	0.16	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.4	0.20	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.4	0.15	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-04  
**Client ID:** SB-107 (10-12)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 10:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	5.4	0.15	1
1,4-Dioxane	ND		ug/kg	110	16.	1
p-Diethylbenzene	ND		ug/kg	4.3	0.17	1
p-Ethyltoluene	ND		ug/kg	4.3	0.13	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.3	0.14	1
Ethyl ether	ND		ug/kg	5.4	0.28	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.4	0.42	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	78		70-130

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-05  
**Client ID:** SB-106 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/16/16 15:53  
**Analyst:** BN  
**Percent Solids:** 81%

**Date Collected:** 02/11/16 12:15  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	12	1.3	1
1,1-Dichloroethane	ND		ug/kg	1.7	0.10	1
Chloroform	ND		ug/kg	1.7	0.43	1
Carbon tetrachloride	ND		ug/kg	1.2	0.24	1
1,2-Dichloropropane	ND		ug/kg	4.1	0.26	1
Dibromochloromethane	ND		ug/kg	1.2	0.18	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	0.35	1
Tetrachloroethene	ND		ug/kg	1.2	0.16	1
Chlorobenzene	ND		ug/kg	1.2	0.40	1
Trichlorofluoromethane	ND		ug/kg	5.8	0.45	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.13	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.13	1
Bromodichloromethane	ND		ug/kg	1.2	0.20	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.14	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.14	1
1,3-Dichloropropene, Total	ND		ug/kg	1.2	0.14	1
1,1-Dichloropropene	ND		ug/kg	5.8	0.16	1
Bromoform	ND		ug/kg	4.7	0.28	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.12	1
Benzene	ND		ug/kg	1.2	0.14	1
Toluene	ND		ug/kg	1.7	0.23	1
Ethylbenzene	ND		ug/kg	1.2	0.15	1
Chloromethane	ND		ug/kg	5.8	0.34	1
Bromomethane	ND		ug/kg	2.3	0.39	1
Vinyl chloride	ND		ug/kg	2.3	0.14	1
Chloroethane	ND		ug/kg	2.3	0.37	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.30	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.25	1
Trichloroethene	ND		ug/kg	1.2	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	5.8	0.18	1

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-05

Date Collected: 02/11/16 12:15

Client ID: SB-106 (0-2)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	5.8	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	5.8	0.16	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.10	1
p/m-Xylene	ND		ug/kg	2.3	0.23	1
o-Xylene	ND		ug/kg	2.3	0.20	1
Xylenes, Total	ND		ug/kg	2.3	0.20	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.17	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.17	1
Dibromomethane	ND		ug/kg	12	0.19	1
Styrene	ND		ug/kg	2.3	0.47	1
Dichlorodifluoromethane	ND		ug/kg	12	0.22	1
Acetone	8.1	J	ug/kg	12	1.2	1
Carbon disulfide	ND		ug/kg	12	1.3	1
2-Butanone	ND		ug/kg	12	0.32	1
Vinyl acetate	ND		ug/kg	12	0.15	1
4-Methyl-2-pentanone	ND		ug/kg	12	0.28	1
1,2,3-Trichloropropane	ND		ug/kg	12	0.19	1
2-Hexanone	ND		ug/kg	12	0.78	1
Bromochloromethane	ND		ug/kg	5.8	0.32	1
2,2-Dichloropropane	ND		ug/kg	5.8	0.26	1
1,2-Dibromoethane	ND		ug/kg	4.7	0.20	1
1,3-Dichloropropane	ND		ug/kg	5.8	0.17	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.2	0.37	1
Bromobenzene	ND		ug/kg	5.8	0.24	1
n-Butylbenzene	ND		ug/kg	1.2	0.13	1
sec-Butylbenzene	ND		ug/kg	1.2	0.14	1
tert-Butylbenzene	ND		ug/kg	5.8	0.16	1
o-Chlorotoluene	ND		ug/kg	5.8	0.19	1
p-Chlorotoluene	ND		ug/kg	5.8	0.15	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.8	0.46	1
Hexachlorobutadiene	ND		ug/kg	5.8	0.26	1
Isopropylbenzene	ND		ug/kg	1.2	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.14	1
Naphthalene	ND		ug/kg	5.8	0.16	1
Acrylonitrile	ND		ug/kg	12	0.60	1
n-Propylbenzene	ND		ug/kg	1.2	0.13	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.8	0.17	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.8	0.21	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.8	0.17	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-05  
**Client ID:** SB-106 (0-2)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 12:15  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	5.8	0.16	1
1,4-Dioxane	ND		ug/kg	120	17.	1
p-Diethylbenzene	ND		ug/kg	4.7	0.19	1
p-Ethyltoluene	ND		ug/kg	4.7	0.14	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.7	0.15	1
Ethyl ether	ND		ug/kg	5.8	0.30	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.8	0.46	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	101		70-130

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-06  
**Client ID:** SB-106 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/17/16 11:47  
**Analyst:** BN  
**Percent Solids:** 77%

**Date Collected:** 02/11/16 12:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	12	1.4	1
1,1-Dichloroethane	ND		ug/kg	1.9	0.11	1
Chloroform	ND		ug/kg	1.9	0.46	1
Carbon tetrachloride	ND		ug/kg	1.2	0.26	1
1,2-Dichloropropane	ND		ug/kg	4.3	0.28	1
Dibromochloromethane	ND		ug/kg	1.2	0.19	1
1,1,2-Trichloroethane	ND		ug/kg	1.9	0.38	1
Tetrachloroethene	ND		ug/kg	1.2	0.17	1
Chlorobenzene	ND		ug/kg	1.2	0.43	1
Trichlorofluoromethane	ND		ug/kg	6.2	0.48	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.14	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.14	1
Bromodichloromethane	ND		ug/kg	1.2	0.22	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.15	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.15	1
1,3-Dichloropropene, Total	ND		ug/kg	1.2	0.15	1
1,1-Dichloropropene	ND		ug/kg	6.2	0.18	1
Bromoform	ND		ug/kg	5.0	0.29	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.12	1
Benzene	ND		ug/kg	1.2	0.15	1
Toluene	0.32	J	ug/kg	1.9	0.24	1
Ethylbenzene	ND		ug/kg	1.2	0.16	1
Chloromethane	ND		ug/kg	6.2	0.36	1
Bromomethane	ND		ug/kg	2.5	0.42	1
Vinyl chloride	ND		ug/kg	2.5	0.14	1
Chloroethane	ND		ug/kg	2.5	0.39	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.32	1
trans-1,2-Dichloroethene	ND		ug/kg	1.9	0.26	1
Trichloroethene	ND		ug/kg	1.2	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	6.2	0.19	1

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-06

Date Collected: 02/11/16 12:30

Client ID: SB-106 (10-12)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	6.2	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	6.2	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.5	0.10	1
p/m-Xylene	ND		ug/kg	2.5	0.24	1
o-Xylene	ND		ug/kg	2.5	0.21	1
Xylenes, Total	ND		ug/kg	2.5	0.21	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.18	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.18	1
Dibromomethane	ND		ug/kg	12	0.20	1
Styrene	ND		ug/kg	2.5	0.50	1
Dichlorodifluoromethane	ND		ug/kg	12	0.24	1
Acetone	2.7	J	ug/kg	12	1.3	1
Carbon disulfide	ND		ug/kg	12	1.4	1
2-Butanone	ND		ug/kg	12	0.34	1
Vinyl acetate	ND		ug/kg	12	0.16	1
4-Methyl-2-pentanone	ND		ug/kg	12	0.30	1
1,2,3-Trichloropropane	ND		ug/kg	12	0.20	1
2-Hexanone	ND		ug/kg	12	0.83	1
Bromochloromethane	ND		ug/kg	6.2	0.34	1
2,2-Dichloropropane	ND		ug/kg	6.2	0.28	1
1,2-Dibromoethane	ND		ug/kg	5.0	0.22	1
1,3-Dichloropropane	ND		ug/kg	6.2	0.18	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.2	0.40	1
Bromobenzene	ND		ug/kg	6.2	0.26	1
n-Butylbenzene	ND		ug/kg	1.2	0.14	1
sec-Butylbenzene	ND		ug/kg	1.2	0.15	1
tert-Butylbenzene	ND		ug/kg	6.2	0.17	1
o-Chlorotoluene	ND		ug/kg	6.2	0.20	1
p-Chlorotoluene	ND		ug/kg	6.2	0.16	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.2	0.49	1
Hexachlorobutadiene	ND		ug/kg	6.2	0.28	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.16	1
Naphthalene	1.3	J	ug/kg	6.2	0.17	1
Acrylonitrile	ND		ug/kg	12	0.64	1
n-Propylbenzene	ND		ug/kg	1.2	0.14	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.2	0.18	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.2	0.22	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.2	0.18	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-06  
**Client ID:** SB-106 (10-12)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 12:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	6.2	0.18	1
1,4-Dioxane	ND		ug/kg	120	18.	1
p-Diethylbenzene	ND		ug/kg	5.0	0.20	1
p-Ethyltoluene	ND		ug/kg	5.0	0.15	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	5.0	0.16	1
Ethyl ether	ND		ug/kg	6.2	0.32	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.2	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	101		70-130



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-07  
**Client ID:** SB-108 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/17/16 12:12  
**Analyst:** BN  
**Percent Solids:** 83%

**Date Collected:** 02/11/16 13:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	11	1.2	1
1,1-Dichloroethane	ND		ug/kg	1.7	0.10	1
Chloroform	ND		ug/kg	1.7	0.42	1
Carbon tetrachloride	ND		ug/kg	1.1	0.24	1
1,2-Dichloropropane	ND		ug/kg	4.0	0.26	1
Dibromochloromethane	ND		ug/kg	1.1	0.17	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	0.34	1
Tetrachloroethene	ND		ug/kg	1.1	0.16	1
Chlorobenzene	ND		ug/kg	1.1	0.39	1
Trichlorofluoromethane	ND		ug/kg	5.7	0.44	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.13	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.12	1
Bromodichloromethane	ND		ug/kg	1.1	0.20	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.14	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	0.13	1
1,3-Dichloropropene, Total	ND		ug/kg	1.1	0.13	1
1,1-Dichloropropene	ND		ug/kg	5.7	0.16	1
Bromoform	ND		ug/kg	4.5	0.27	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	0.11	1
Benzene	ND		ug/kg	1.1	0.13	1
Toluene	0.25	J	ug/kg	1.7	0.22	1
Ethylbenzene	ND		ug/kg	1.1	0.14	1
Chloromethane	ND		ug/kg	5.7	0.33	1
Bromomethane	ND		ug/kg	2.3	0.38	1
Vinyl chloride	ND		ug/kg	2.3	0.13	1
Chloroethane	ND		ug/kg	2.3	0.36	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.30	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.24	1
Trichloroethene	ND		ug/kg	1.1	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	5.7	0.17	1

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-07

Date Collected: 02/11/16 13:30

Client ID: SB-108 (0-2)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	5.7	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	5.7	0.16	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.10	1
p/m-Xylene	ND		ug/kg	2.3	0.22	1
o-Xylene	ND		ug/kg	2.3	0.19	1
Xylenes, Total	ND		ug/kg	2.3	0.19	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.16	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.16	1
Dibromomethane	ND		ug/kg	11	0.18	1
Styrene	ND		ug/kg	2.3	0.46	1
Dichlorodifluoromethane	ND		ug/kg	11	0.22	1
Acetone	3.8	J	ug/kg	11	1.2	1
Carbon disulfide	ND		ug/kg	11	1.2	1
2-Butanone	ND		ug/kg	11	0.31	1
Vinyl acetate	ND		ug/kg	11	0.15	1
4-Methyl-2-pentanone	ND		ug/kg	11	0.28	1
1,2,3-Trichloropropane	ND		ug/kg	11	0.18	1
2-Hexanone	ND		ug/kg	11	0.75	1
Bromochloromethane	ND		ug/kg	5.7	0.31	1
2,2-Dichloropropane	ND		ug/kg	5.7	0.26	1
1,2-Dibromoethane	ND		ug/kg	4.5	0.20	1
1,3-Dichloropropane	ND		ug/kg	5.7	0.16	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	0.36	1
Bromobenzene	ND		ug/kg	5.7	0.24	1
n-Butylbenzene	ND		ug/kg	1.1	0.13	1
sec-Butylbenzene	ND		ug/kg	1.1	0.14	1
tert-Butylbenzene	ND		ug/kg	5.7	0.15	1
o-Chlorotoluene	ND		ug/kg	5.7	0.18	1
p-Chlorotoluene	ND		ug/kg	5.7	0.15	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.7	0.45	1
Hexachlorobutadiene	ND		ug/kg	5.7	0.26	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.14	1
Naphthalene	ND		ug/kg	5.7	0.16	1
Acrylonitrile	ND		ug/kg	11	0.58	1
n-Propylbenzene	ND		ug/kg	1.1	0.12	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.7	0.17	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.7	0.20	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.7	0.16	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-07  
**Client ID:** SB-108 (0-2)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 13:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	5.7	0.16	1
1,4-Dioxane	ND		ug/kg	110	16.	1
p-Diethylbenzene	ND		ug/kg	4.5	0.18	1
p-Ethyltoluene	ND		ug/kg	4.5	0.14	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.5	0.15	1
Ethyl ether	ND		ug/kg	5.7	0.29	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.7	0.44	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	100		70-130

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-08  
**Client ID:** SB-108 (4-6)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/17/16 12:37  
**Analyst:** BN  
**Percent Solids:** 83%

**Date Collected:** 02/11/16 13:40  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	11	1.2	1
1,1-Dichloroethane	ND		ug/kg	1.6	0.09	1
Chloroform	ND		ug/kg	1.6	0.40	1
Carbon tetrachloride	ND		ug/kg	1.1	0.22	1
1,2-Dichloropropane	ND		ug/kg	3.8	0.24	1
Dibromochloromethane	ND		ug/kg	1.1	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	0.33	1
Tetrachloroethene	ND		ug/kg	1.1	0.15	1
Chlorobenzene	ND		ug/kg	1.1	0.37	1
Trichlorofluoromethane	ND		ug/kg	5.4	0.42	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.12	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.12	1
Bromodichloromethane	ND		ug/kg	1.1	0.18	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.13	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	0.13	1
1,3-Dichloropropene, Total	ND		ug/kg	1.1	0.13	1
1,1-Dichloropropene	ND		ug/kg	5.4	0.15	1
Bromoform	ND		ug/kg	4.3	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	0.11	1
Benzene	ND		ug/kg	1.1	0.13	1
Toluene	0.22	J	ug/kg	1.6	0.21	1
Ethylbenzene	ND		ug/kg	1.1	0.14	1
Chloromethane	ND		ug/kg	5.4	0.32	1
Bromomethane	ND		ug/kg	2.1	0.36	1
Vinyl chloride	ND		ug/kg	2.1	0.12	1
Chloroethane	ND		ug/kg	2.1	0.34	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.23	1
Trichloroethene	ND		ug/kg	1.1	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	5.4	0.16	1

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-08

Date Collected: 02/11/16 13:40

Client ID: SB-108 (4-6)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	5.4	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	5.4	0.15	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.09	1
p/m-Xylene	ND		ug/kg	2.1	0.21	1
o-Xylene	ND		ug/kg	2.1	0.18	1
Xylenes, Total	ND		ug/kg	2.1	0.18	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.15	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1
Dibromomethane	ND		ug/kg	11	0.18	1
Styrene	ND		ug/kg	2.1	0.43	1
Dichlorodifluoromethane	ND		ug/kg	11	0.20	1
Acetone	4.3	J	ug/kg	11	1.1	1
Carbon disulfide	ND		ug/kg	11	1.2	1
2-Butanone	ND		ug/kg	11	0.29	1
Vinyl acetate	ND		ug/kg	11	0.14	1
4-Methyl-2-pentanone	ND		ug/kg	11	0.26	1
1,2,3-Trichloropropane	ND		ug/kg	11	0.17	1
2-Hexanone	ND		ug/kg	11	0.71	1
Bromochloromethane	ND		ug/kg	5.4	0.30	1
2,2-Dichloropropane	ND		ug/kg	5.4	0.24	1
1,2-Dibromoethane	ND		ug/kg	4.3	0.19	1
1,3-Dichloropropane	ND		ug/kg	5.4	0.16	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	0.34	1
Bromobenzene	ND		ug/kg	5.4	0.22	1
n-Butylbenzene	ND		ug/kg	1.1	0.12	1
sec-Butylbenzene	ND		ug/kg	1.1	0.13	1
tert-Butylbenzene	ND		ug/kg	5.4	0.14	1
o-Chlorotoluene	ND		ug/kg	5.4	0.17	1
p-Chlorotoluene	ND		ug/kg	5.4	0.14	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.4	0.42	1
Hexachlorobutadiene	ND		ug/kg	5.4	0.24	1
Isopropylbenzene	ND		ug/kg	1.1	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.13	1
Naphthalene	ND		ug/kg	5.4	0.15	1
Acrylonitrile	ND		ug/kg	11	0.55	1
n-Propylbenzene	ND		ug/kg	1.1	0.12	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.4	0.16	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.4	0.20	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.4	0.15	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-08  
**Client ID:** SB-108 (4-6)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 13:40  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	5.4	0.15	1
1,4-Dioxane	ND		ug/kg	110	15.	1
p-Diethylbenzene	ND		ug/kg	4.3	0.17	1
p-Ethyltoluene	ND		ug/kg	4.3	0.13	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.3	0.14	1
Ethyl ether	ND		ug/kg	5.4	0.28	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.4	0.42	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	103		70-130

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-09  
**Client ID:** SB-108 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/17/16 13:03  
**Analyst:** BN  
**Percent Solids:** 83%

**Date Collected:** 02/11/16 13:50  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	11	1.2	1
1,1-Dichloroethane	ND		ug/kg	1.6	0.09	1
Chloroform	ND		ug/kg	1.6	0.40	1
Carbon tetrachloride	ND		ug/kg	1.1	0.23	1
1,2-Dichloropropane	ND		ug/kg	3.8	0.25	1
Dibromochloromethane	ND		ug/kg	1.1	0.17	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	0.33	1
Tetrachloroethene	ND		ug/kg	1.1	0.15	1
Chlorobenzene	ND		ug/kg	1.1	0.38	1
Trichlorofluoromethane	ND		ug/kg	5.5	0.42	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.12	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.12	1
Bromodichloromethane	ND		ug/kg	1.1	0.19	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.13	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	0.13	1
1,3-Dichloropropene, Total	ND		ug/kg	1.1	0.13	1
1,1-Dichloropropene	ND		ug/kg	5.5	0.15	1
Bromoform	ND		ug/kg	4.4	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	0.11	1
Benzene	ND		ug/kg	1.1	0.13	1
Toluene	0.26	J	ug/kg	1.6	0.21	1
Ethylbenzene	ND		ug/kg	1.1	0.14	1
Chloromethane	ND		ug/kg	5.5	0.32	1
Bromomethane	ND		ug/kg	2.2	0.37	1
Vinyl chloride	ND		ug/kg	2.2	0.13	1
Chloroethane	ND		ug/kg	2.2	0.34	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.29	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.23	1
Trichloroethene	ND		ug/kg	1.1	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	5.5	0.17	1

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-09

Date Collected: 02/11/16 13:50

Client ID: SB-108 (10-12)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	5.5	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	5.5	0.15	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.09	1
p/m-Xylene	ND		ug/kg	2.2	0.22	1
o-Xylene	ND		ug/kg	2.2	0.19	1
Xylenes, Total	ND		ug/kg	2.2	0.19	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.16	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.16	1
Dibromomethane	ND		ug/kg	11	0.18	1
Styrene	ND		ug/kg	2.2	0.44	1
Dichlorodifluoromethane	ND		ug/kg	11	0.21	1
Acetone	1.4	J	ug/kg	11	1.1	1
Carbon disulfide	ND		ug/kg	11	1.2	1
2-Butanone	ND		ug/kg	11	0.30	1
Vinyl acetate	ND		ug/kg	11	0.14	1
4-Methyl-2-pentanone	ND		ug/kg	11	0.27	1
1,2,3-Trichloropropane	ND		ug/kg	11	0.18	1
2-Hexanone	ND		ug/kg	11	0.73	1
Bromochloromethane	ND		ug/kg	5.5	0.30	1
2,2-Dichloropropane	ND		ug/kg	5.5	0.25	1
1,2-Dibromoethane	ND		ug/kg	4.4	0.19	1
1,3-Dichloropropane	ND		ug/kg	5.5	0.16	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	0.35	1
Bromobenzene	ND		ug/kg	5.5	0.23	1
n-Butylbenzene	ND		ug/kg	1.1	0.12	1
sec-Butylbenzene	ND		ug/kg	1.1	0.13	1
tert-Butylbenzene	ND		ug/kg	5.5	0.15	1
o-Chlorotoluene	ND		ug/kg	5.5	0.17	1
p-Chlorotoluene	ND		ug/kg	5.5	0.14	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.5	0.43	1
Hexachlorobutadiene	ND		ug/kg	5.5	0.25	1
Isopropylbenzene	ND		ug/kg	1.1	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.14	1
Naphthalene	ND		ug/kg	5.5	0.15	1
Acrylonitrile	ND		ug/kg	11	0.56	1
n-Propylbenzene	ND		ug/kg	1.1	0.12	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.5	0.16	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.5	0.20	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.5	0.16	1



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-09  
**Client ID:** SB-108 (10-12)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 13:50  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	5.5	0.15	1
1,4-Dioxane	ND		ug/kg	110	16.	1
p-Diethylbenzene	ND		ug/kg	4.4	0.17	1
p-Ethyltoluene	ND		ug/kg	4.4	0.14	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.4	0.14	1
Ethyl ether	ND		ug/kg	5.5	0.28	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.5	0.43	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	101		70-130

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-10  
**Client ID:** DUP021116  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/17/16 13:28  
**Analyst:** BN  
**Percent Solids:** 85%

**Date Collected:** 02/11/16 14:00  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	12	1.3	1
1,1-Dichloroethane	ND		ug/kg	1.8	0.10	1
Chloroform	ND		ug/kg	1.8	0.44	1
Carbon tetrachloride	ND		ug/kg	1.2	0.25	1
1,2-Dichloropropane	ND		ug/kg	4.1	0.27	1
Dibromochloromethane	ND		ug/kg	1.2	0.18	1
1,1,2-Trichloroethane	ND		ug/kg	1.8	0.36	1
Tetrachloroethene	ND		ug/kg	1.2	0.16	1
Chlorobenzene	ND		ug/kg	1.2	0.41	1
Trichlorofluoromethane	ND		ug/kg	5.9	0.46	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.13	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.13	1
Bromodichloromethane	ND		ug/kg	1.2	0.20	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.14	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.14	1
1,3-Dichloropropene, Total	ND		ug/kg	1.2	0.14	1
1,1-Dichloropropene	ND		ug/kg	5.9	0.17	1
Bromoform	ND		ug/kg	4.7	0.28	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.12	1
Benzene	ND		ug/kg	1.2	0.14	1
Toluene	0.26	J	ug/kg	1.8	0.23	1
Ethylbenzene	ND		ug/kg	1.2	0.15	1
Chloromethane	ND		ug/kg	5.9	0.34	1
Bromomethane	ND		ug/kg	2.4	0.40	1
Vinyl chloride	ND		ug/kg	2.4	0.14	1
Chloroethane	ND		ug/kg	2.4	0.37	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.31	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.25	1
Trichloroethene	ND		ug/kg	1.2	0.15	1
1,2-Dichlorobenzene	ND		ug/kg	5.9	0.18	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-10  
**Client ID:** DUP021116  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 14:00  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	5.9	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	5.9	0.16	1
Methyl tert butyl ether	ND		ug/kg	2.4	0.10	1
p/m-Xylene	0.86	J	ug/kg	2.4	0.23	1
o-Xylene	0.42	J	ug/kg	2.4	0.20	1
Xylenes, Total	1.3	J	ug/kg	2.4	0.20	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.17	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.17	1
Dibromomethane	ND		ug/kg	12	0.19	1
Styrene	ND		ug/kg	2.4	0.47	1
Dichlorodifluoromethane	ND		ug/kg	12	0.22	1
Acetone	15		ug/kg	12	1.2	1
Carbon disulfide	ND		ug/kg	12	1.3	1
2-Butanone	1.5	J	ug/kg	12	0.32	1
Vinyl acetate	ND		ug/kg	12	0.16	1
4-Methyl-2-pentanone	ND		ug/kg	12	0.29	1
1,2,3-Trichloropropane	ND		ug/kg	12	0.19	1
2-Hexanone	ND		ug/kg	12	0.78	1
Bromochloromethane	ND		ug/kg	5.9	0.32	1
2,2-Dichloropropane	ND		ug/kg	5.9	0.26	1
1,2-Dibromoethane	ND		ug/kg	4.7	0.20	1
1,3-Dichloropropane	ND		ug/kg	5.9	0.17	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.2	0.37	1
Bromobenzene	ND		ug/kg	5.9	0.24	1
n-Butylbenzene	ND		ug/kg	1.2	0.14	1
sec-Butylbenzene	ND		ug/kg	1.2	0.14	1
tert-Butylbenzene	ND		ug/kg	5.9	0.16	1
o-Chlorotoluene	ND		ug/kg	5.9	0.19	1
p-Chlorotoluene	ND		ug/kg	5.9	0.16	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.9	0.46	1
Hexachlorobutadiene	ND		ug/kg	5.9	0.27	1
Isopropylbenzene	ND		ug/kg	1.2	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.15	1
Naphthalene	ND		ug/kg	5.9	0.16	1
Acrylonitrile	ND		ug/kg	12	0.60	1
n-Propylbenzene	ND		ug/kg	1.2	0.13	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.9	0.17	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.9	0.21	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.9	0.17	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-10  
**Client ID:** DUP021116  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 14:00  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	5.9	0.17	1
1,4-Dioxane	ND		ug/kg	120	17.	1
p-Diethylbenzene	ND		ug/kg	4.7	0.19	1
p-Ethyltoluene	ND		ug/kg	4.7	0.14	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.7	0.15	1
Ethyl ether	ND		ug/kg	5.9	0.30	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.9	0.46	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	101		70-130

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-11  
**Client ID:** FB021116  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/14/16 23:50  
**Analyst:** PK

**Date Collected:** 02/11/16 14:15  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-11

Date Collected: 02/11/16 14:15

Client ID: FB021116

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-11  
**Client ID:** FB021116  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 14:15  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	41.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	123		70-130
Dibromofluoromethane	103		70-130

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-12  
**Client ID:** SB-104 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/17/16 13:54  
**Analyst:** BN  
**Percent Solids:** 82%

**Date Collected:** 02/11/16 14:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	11	1.2	1
1,1-Dichloroethane	ND		ug/kg	1.7	0.10	1
Chloroform	ND		ug/kg	1.7	0.42	1
Carbon tetrachloride	ND		ug/kg	1.1	0.24	1
1,2-Dichloropropane	ND		ug/kg	3.9	0.26	1
Dibromochloromethane	ND		ug/kg	1.1	0.17	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	0.34	1
Tetrachloroethene	ND		ug/kg	1.1	0.16	1
Chlorobenzene	ND		ug/kg	1.1	0.39	1
Trichlorofluoromethane	ND		ug/kg	5.6	0.44	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.13	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.12	1
Bromodichloromethane	ND		ug/kg	1.1	0.20	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.14	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	0.13	1
1,3-Dichloropropene, Total	ND		ug/kg	1.1	0.13	1
1,1-Dichloropropene	ND		ug/kg	5.6	0.16	1
Bromoform	ND		ug/kg	4.5	0.27	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	0.11	1
Benzene	ND		ug/kg	1.1	0.13	1
Toluene	0.24	J	ug/kg	1.7	0.22	1
Ethylbenzene	ND		ug/kg	1.1	0.14	1
Chloromethane	ND		ug/kg	5.6	0.33	1
Bromomethane	ND		ug/kg	2.2	0.38	1
Vinyl chloride	ND		ug/kg	2.2	0.13	1
Chloroethane	ND		ug/kg	2.2	0.36	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.30	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.24	1
Trichloroethene	ND		ug/kg	1.1	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	5.6	0.17	1



Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-12

Date Collected: 02/11/16 14:30

Client ID: SB-104 (0-2)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	5.6	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	5.6	0.16	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.10	1
p/m-Xylene	ND		ug/kg	2.2	0.22	1
o-Xylene	ND		ug/kg	2.2	0.19	1
Xylenes, Total	ND		ug/kg	2.2	0.19	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.16	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.16	1
Dibromomethane	ND		ug/kg	11	0.18	1
Styrene	ND		ug/kg	2.2	0.45	1
Dichlorodifluoromethane	ND		ug/kg	11	0.22	1
Acetone	2.8	J	ug/kg	11	1.2	1
Carbon disulfide	ND		ug/kg	11	1.2	1
2-Butanone	ND		ug/kg	11	0.31	1
Vinyl acetate	ND		ug/kg	11	0.15	1
4-Methyl-2-pentanone	ND		ug/kg	11	0.28	1
1,2,3-Trichloropropane	ND		ug/kg	11	0.18	1
2-Hexanone	ND		ug/kg	11	0.75	1
Bromochloromethane	ND		ug/kg	5.6	0.31	1
2,2-Dichloropropane	ND		ug/kg	5.6	0.25	1
1,2-Dibromoethane	ND		ug/kg	4.5	0.20	1
1,3-Dichloropropane	ND		ug/kg	5.6	0.16	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	0.36	1
Bromobenzene	ND		ug/kg	5.6	0.23	1
n-Butylbenzene	ND		ug/kg	1.1	0.13	1
sec-Butylbenzene	ND		ug/kg	1.1	0.14	1
tert-Butylbenzene	ND		ug/kg	5.6	0.15	1
o-Chlorotoluene	ND		ug/kg	5.6	0.18	1
p-Chlorotoluene	ND		ug/kg	5.6	0.15	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.6	0.45	1
Hexachlorobutadiene	ND		ug/kg	5.6	0.26	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.14	1
Naphthalene	ND		ug/kg	5.6	0.16	1
Acrylonitrile	ND		ug/kg	11	0.58	1
n-Propylbenzene	ND		ug/kg	1.1	0.12	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.6	0.17	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.6	0.20	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.6	0.16	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-12  
**Client ID:** SB-104 (0-2)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 14:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	5.6	0.16	1
1,4-Dioxane	ND		ug/kg	110	16.	1
p-Diethylbenzene	ND		ug/kg	4.5	0.18	1
p-Ethyltoluene	ND		ug/kg	4.5	0.14	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.5	0.15	1
Ethyl ether	ND		ug/kg	5.6	0.29	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.6	0.44	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	101		70-130

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-13  
**Client ID:** SB-104 (5-7)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/17/16 14:19  
**Analyst:** BN  
**Percent Solids:** 85%

**Date Collected:** 02/11/16 14:40  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	10	1.1	1
1,1-Dichloroethane	ND		ug/kg	1.5	0.09	1
Chloroform	ND		ug/kg	1.5	0.37	1
Carbon tetrachloride	ND		ug/kg	1.0	0.21	1
1,2-Dichloropropane	ND		ug/kg	3.5	0.23	1
Dibromochloromethane	ND		ug/kg	1.0	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.31	1
Tetrachloroethene	ND		ug/kg	1.0	0.14	1
Chlorobenzene	ND		ug/kg	1.0	0.35	1
Trichlorofluoromethane	ND		ug/kg	5.0	0.39	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.11	1
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.11	1
Bromodichloromethane	ND		ug/kg	1.0	0.17	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.12	1
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.12	1
1,3-Dichloropropene, Total	ND		ug/kg	1.0	0.12	1
1,1-Dichloropropene	ND		ug/kg	5.0	0.14	1
Bromoform	ND		ug/kg	4.0	0.24	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.10	1
Benzene	ND		ug/kg	1.0	0.12	1
Toluene	0.25	J	ug/kg	1.5	0.20	1
Ethylbenzene	ND		ug/kg	1.0	0.13	1
Chloromethane	ND		ug/kg	5.0	0.30	1
Bromomethane	ND		ug/kg	2.0	0.34	1
Vinyl chloride	ND		ug/kg	2.0	0.12	1
Chloroethane	ND		ug/kg	2.0	0.32	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.26	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.21	1
Trichloroethene	ND		ug/kg	1.0	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.15	1

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-13

Date Collected: 02/11/16 14:40

Client ID: SB-104 (5-7)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.14	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.09	1
p/m-Xylene	ND		ug/kg	2.0	0.20	1
o-Xylene	ND		ug/kg	2.0	0.17	1
Xylenes, Total	ND		ug/kg	2.0	0.17	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.14	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	1
Dibromomethane	ND		ug/kg	10	0.16	1
Styrene	ND		ug/kg	2.0	0.40	1
Dichlorodifluoromethane	ND		ug/kg	10	0.19	1
Acetone	3.1	J	ug/kg	10	1.0	1
Carbon disulfide	ND		ug/kg	10	1.1	1
2-Butanone	ND		ug/kg	10	0.27	1
Vinyl acetate	ND		ug/kg	10	0.13	1
4-Methyl-2-pentanone	ND		ug/kg	10	0.25	1
1,2,3-Trichloropropane	ND		ug/kg	10	0.16	1
2-Hexanone	ND		ug/kg	10	0.67	1
Bromochloromethane	ND		ug/kg	5.0	0.28	1
2,2-Dichloropropane	ND		ug/kg	5.0	0.23	1
1,2-Dibromoethane	ND		ug/kg	4.0	0.18	1
1,3-Dichloropropane	ND		ug/kg	5.0	0.15	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	0.32	1
Bromobenzene	ND		ug/kg	5.0	0.21	1
n-Butylbenzene	ND		ug/kg	1.0	0.12	1
sec-Butylbenzene	ND		ug/kg	1.0	0.12	1
tert-Butylbenzene	ND		ug/kg	5.0	0.14	1
o-Chlorotoluene	ND		ug/kg	5.0	0.16	1
p-Chlorotoluene	ND		ug/kg	5.0	0.13	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	0.40	1
Hexachlorobutadiene	ND		ug/kg	5.0	0.23	1
Isopropylbenzene	ND		ug/kg	1.0	0.10	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.13	1
Naphthalene	ND		ug/kg	5.0	0.14	1
Acrylonitrile	ND		ug/kg	10	0.52	1
n-Propylbenzene	ND		ug/kg	1.0	0.11	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.0	0.15	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.0	0.18	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	0.14	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-13  
**Client ID:** SB-104 (5-7)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 14:40  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	0.14	1
1,4-Dioxane	ND		ug/kg	100	14.	1
p-Diethylbenzene	ND		ug/kg	4.0	0.16	1
p-Ethyltoluene	ND		ug/kg	4.0	0.12	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.0	0.13	1
Ethyl ether	ND		ug/kg	5.0	0.26	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	102		70-130

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-14  
**Client ID:** SB-104 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/17/16 14:45  
**Analyst:** BN  
**Percent Solids:** 78%

**Date Collected:** 02/11/16 14:50  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	11	1.2	1
1,1-Dichloroethane	ND		ug/kg	1.7	0.10	1
Chloroform	ND		ug/kg	1.7	0.42	1
Carbon tetrachloride	ND		ug/kg	1.1	0.24	1
1,2-Dichloropropane	ND		ug/kg	4.0	0.26	1
Dibromochloromethane	ND		ug/kg	1.1	0.17	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	0.34	1
Tetrachloroethene	ND		ug/kg	1.1	0.16	1
Chlorobenzene	ND		ug/kg	1.1	0.39	1
Trichlorofluoromethane	ND		ug/kg	5.6	0.44	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.13	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.12	1
Bromodichloromethane	ND		ug/kg	1.1	0.20	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.14	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	0.13	1
1,3-Dichloropropene, Total	ND		ug/kg	1.1	0.13	1
1,1-Dichloropropene	ND		ug/kg	5.6	0.16	1
Bromoform	ND		ug/kg	4.5	0.27	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	0.11	1
Benzene	ND		ug/kg	1.1	0.13	1
Toluene	0.60	J	ug/kg	1.7	0.22	1
Ethylbenzene	ND		ug/kg	1.1	0.14	1
Chloromethane	ND		ug/kg	5.6	0.33	1
Bromomethane	ND		ug/kg	2.3	0.38	1
Vinyl chloride	ND		ug/kg	2.3	0.13	1
Chloroethane	ND		ug/kg	2.3	0.36	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.30	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.24	1
Trichloroethene	ND		ug/kg	1.1	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	5.6	0.17	1

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-14

Date Collected: 02/11/16 14:50

Client ID: SB-104 (10-12)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	5.6	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	5.6	0.16	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.10	1
p/m-Xylene	ND		ug/kg	2.3	0.22	1
o-Xylene	ND		ug/kg	2.3	0.19	1
Xylenes, Total	ND		ug/kg	2.3	0.19	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.16	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.16	1
Dibromomethane	ND		ug/kg	11	0.18	1
Styrene	ND		ug/kg	2.3	0.46	1
Dichlorodifluoromethane	ND		ug/kg	11	0.22	1
Acetone	ND		ug/kg	11	1.2	1
Carbon disulfide	ND		ug/kg	11	1.2	1
2-Butanone	ND		ug/kg	11	0.31	1
Vinyl acetate	ND		ug/kg	11	0.15	1
4-Methyl-2-pentanone	ND		ug/kg	11	0.28	1
1,2,3-Trichloropropane	ND		ug/kg	11	0.18	1
2-Hexanone	ND		ug/kg	11	0.75	1
Bromochloromethane	ND		ug/kg	5.6	0.31	1
2,2-Dichloropropane	ND		ug/kg	5.6	0.26	1
1,2-Dibromoethane	ND		ug/kg	4.5	0.20	1
1,3-Dichloropropane	ND		ug/kg	5.6	0.16	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	0.36	1
Bromobenzene	ND		ug/kg	5.6	0.24	1
n-Butylbenzene	ND		ug/kg	1.1	0.13	1
sec-Butylbenzene	ND		ug/kg	1.1	0.14	1
tert-Butylbenzene	ND		ug/kg	5.6	0.15	1
o-Chlorotoluene	ND		ug/kg	5.6	0.18	1
p-Chlorotoluene	ND		ug/kg	5.6	0.15	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.6	0.45	1
Hexachlorobutadiene	ND		ug/kg	5.6	0.26	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.14	1
Naphthalene	ND		ug/kg	5.6	0.16	1
Acrylonitrile	ND		ug/kg	11	0.58	1
n-Propylbenzene	ND		ug/kg	1.1	0.12	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.6	0.17	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.6	0.20	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.6	0.16	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-14  
**Client ID:** SB-104 (10-12)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 14:50  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	5.6	0.16	1
1,4-Dioxane	ND		ug/kg	110	16.	1
p-Diethylbenzene	ND		ug/kg	4.5	0.18	1
p-Ethyltoluene	ND		ug/kg	4.5	0.14	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.5	0.15	1
Ethyl ether	ND		ug/kg	5.6	0.29	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.6	0.44	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	103		70-130



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-15  
**Client ID:** TRIP BLANK  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/12/16 16:52  
**Analyst:** MS

**Date Collected:** 02/11/16 00:00  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-15

Date Collected: 02/11/16 00:00

Client ID: TRIP BLANK

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-15  
**Client ID:** TRIP BLANK  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 00:00  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	41.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	89		70-130

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/12/16 09:56  
 Analyst: MS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 15 Batch: WG864812-3					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.13
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.14
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/12/16 09:56  
 Analyst: MS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 15 Batch: WG864812-3					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/12/16 09:56  
 Analyst: MS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 15 Batch: WG864812-3					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	41.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	89		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	88		70-130

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/14/16 22:10  
 Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 11 Batch: WG865265-3					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.13
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.14
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/14/16 22:10  
 Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 11 Batch: WG865265-3					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70



Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/14/16 22:10  
 Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 11 Batch: WG865265-3					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	41.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	123		70-130
Dibromofluoromethane	101		70-130

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/16/16 09:12  
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01-02,04-05 Batch: WG865619-3					
Methylene chloride	ND		ug/kg	10	1.1
1,1-Dichloroethane	ND		ug/kg	1.5	0.09
Chloroform	ND		ug/kg	1.5	0.37
Carbon tetrachloride	ND		ug/kg	1.0	0.21
1,2-Dichloropropane	ND		ug/kg	3.5	0.23
Dibromochloromethane	ND		ug/kg	1.0	0.15
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.30
Tetrachloroethene	ND		ug/kg	1.0	0.14
Chlorobenzene	ND		ug/kg	1.0	0.35
Trichlorofluoromethane	ND		ug/kg	5.0	0.39
1,2-Dichloroethane	ND		ug/kg	1.0	0.11
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.11
Bromodichloromethane	ND		ug/kg	1.0	0.17
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.12
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.12
1,3-Dichloropropene, Total	ND		ug/kg	1.0	0.12
1,1-Dichloropropene	ND		ug/kg	5.0	0.14
Bromoform	ND		ug/kg	4.0	0.24
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.10
Benzene	ND		ug/kg	1.0	0.12
Toluene	ND		ug/kg	1.5	0.19
Ethylbenzene	ND		ug/kg	1.0	0.13
Chloromethane	ND		ug/kg	5.0	0.29
Bromomethane	ND		ug/kg	2.0	0.34
Vinyl chloride	ND		ug/kg	2.0	0.12
Chloroethane	ND		ug/kg	2.0	0.32
1,1-Dichloroethene	ND		ug/kg	1.0	0.26
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.21
Trichloroethene	ND		ug/kg	1.0	0.12

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/16/16 09:12  
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01-02,04-05 Batch: WG865619-3					
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.15
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.14
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.14
Methyl tert butyl ether	ND		ug/kg	2.0	0.08
p/m-Xylene	ND		ug/kg	2.0	0.20
o-Xylene	ND		ug/kg	2.0	0.17
Xylenes, Total	ND		ug/kg	2.0	0.17
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.14
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	10	0.16
Styrene	ND		ug/kg	2.0	0.40
Dichlorodifluoromethane	ND		ug/kg	10	0.19
Acetone	4.8	J	ug/kg	10	1.0
Carbon disulfide	ND		ug/kg	10	1.1
2-Butanone	ND		ug/kg	10	0.27
Vinyl acetate	ND		ug/kg	10	0.13
4-Methyl-2-pentanone	ND		ug/kg	10	0.24
1,2,3-Trichloropropane	ND		ug/kg	10	0.16
2-Hexanone	ND		ug/kg	10	0.67
Bromochloromethane	ND		ug/kg	5.0	0.28
2,2-Dichloropropane	ND		ug/kg	5.0	0.23
1,2-Dibromoethane	ND		ug/kg	4.0	0.17
1,3-Dichloropropane	ND		ug/kg	5.0	0.14
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	0.32
Bromobenzene	ND		ug/kg	5.0	0.21
n-Butylbenzene	ND		ug/kg	1.0	0.11
sec-Butylbenzene	ND		ug/kg	1.0	0.12
tert-Butylbenzene	ND		ug/kg	5.0	0.14
o-Chlorotoluene	ND		ug/kg	5.0	0.16

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/16/16 09:12  
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01-02,04-05 Batch: WG865619-3					
p-Chlorotoluene	ND		ug/kg	5.0	0.13
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	0.40
Hexachlorobutadiene	ND		ug/kg	5.0	0.23
Isopropylbenzene	ND		ug/kg	1.0	0.10
p-Isopropyltoluene	ND		ug/kg	1.0	0.12
Naphthalene	ND		ug/kg	5.0	0.14
Acrylonitrile	ND		ug/kg	10	0.51
n-Propylbenzene	ND		ug/kg	1.0	0.11
1,2,3-Trichlorobenzene	ND		ug/kg	5.0	0.15
1,2,4-Trichlorobenzene	ND		ug/kg	5.0	0.18
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	0.14
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	0.14
1,4-Dioxane	ND		ug/kg	100	14.
p-Diethylbenzene	ND		ug/kg	4.0	0.16
p-Ethyltoluene	ND		ug/kg	4.0	0.12
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.0	0.13
Ethyl ether	ND		ug/kg	5.0	0.26
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	0.39

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	98		70-130

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/17/16 08:48  
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 03,06-10,12-14 Batch: WG866281-3					
Methylene chloride	ND		ug/kg	10	1.1
1,1-Dichloroethane	ND		ug/kg	1.5	0.09
Chloroform	ND		ug/kg	1.5	0.37
Carbon tetrachloride	ND		ug/kg	1.0	0.21
1,2-Dichloropropane	ND		ug/kg	3.5	0.23
Dibromochloromethane	ND		ug/kg	1.0	0.15
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.30
Tetrachloroethene	ND		ug/kg	1.0	0.14
Chlorobenzene	ND		ug/kg	1.0	0.35
Trichlorofluoromethane	ND		ug/kg	5.0	0.39
1,2-Dichloroethane	ND		ug/kg	1.0	0.11
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.11
Bromodichloromethane	ND		ug/kg	1.0	0.17
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.12
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.12
1,3-Dichloropropene, Total	ND		ug/kg	1.0	0.12
1,1-Dichloropropene	ND		ug/kg	5.0	0.14
Bromoform	ND		ug/kg	4.0	0.24
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.10
Benzene	ND		ug/kg	1.0	0.12
Toluene	ND		ug/kg	1.5	0.19
Ethylbenzene	ND		ug/kg	1.0	0.13
Chloromethane	ND		ug/kg	5.0	0.29
Bromomethane	ND		ug/kg	2.0	0.34
Vinyl chloride	ND		ug/kg	2.0	0.12
Chloroethane	ND		ug/kg	2.0	0.32
1,1-Dichloroethene	ND		ug/kg	1.0	0.26
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.21
Trichloroethene	ND		ug/kg	1.0	0.12

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/17/16 08:48  
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 03,06-10,12-14 Batch: WG866281-3					
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.15
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.14
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.14
Methyl tert butyl ether	ND		ug/kg	2.0	0.08
p/m-Xylene	ND		ug/kg	2.0	0.20
o-Xylene	ND		ug/kg	2.0	0.17
Xylenes, Total	ND		ug/kg	2.0	0.17
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.14
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	10	0.16
Styrene	ND		ug/kg	2.0	0.40
Dichlorodifluoromethane	ND		ug/kg	10	0.19
Acetone	ND		ug/kg	10	1.0
Carbon disulfide	ND		ug/kg	10	1.1
2-Butanone	ND		ug/kg	10	0.27
Vinyl acetate	ND		ug/kg	10	0.13
4-Methyl-2-pentanone	ND		ug/kg	10	0.24
1,2,3-Trichloropropane	ND		ug/kg	10	0.16
2-Hexanone	ND		ug/kg	10	0.67
Bromochloromethane	ND		ug/kg	5.0	0.28
2,2-Dichloropropane	ND		ug/kg	5.0	0.23
1,2-Dibromoethane	ND		ug/kg	4.0	0.17
1,3-Dichloropropane	ND		ug/kg	5.0	0.14
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	0.32
Bromobenzene	ND		ug/kg	5.0	0.21
n-Butylbenzene	ND		ug/kg	1.0	0.11
sec-Butylbenzene	ND		ug/kg	1.0	0.12
tert-Butylbenzene	ND		ug/kg	5.0	0.14
o-Chlorotoluene	ND		ug/kg	5.0	0.16

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/17/16 08:48  
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 03,06-10,12-14 Batch: WG866281-3					
p-Chlorotoluene	ND		ug/kg	5.0	0.13
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	0.40
Hexachlorobutadiene	ND		ug/kg	5.0	0.23
Isopropylbenzene	ND		ug/kg	1.0	0.10
p-Isopropyltoluene	ND		ug/kg	1.0	0.12
Naphthalene	ND		ug/kg	5.0	0.14
Acrylonitrile	ND		ug/kg	10	0.51
n-Propylbenzene	ND		ug/kg	1.0	0.11
1,2,3-Trichlorobenzene	ND		ug/kg	5.0	0.15
1,2,4-Trichlorobenzene	ND		ug/kg	5.0	0.18
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	0.14
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	0.14
1,4-Dioxane	ND		ug/kg	100	14.
p-Diethylbenzene	ND		ug/kg	4.0	0.16
p-Ethyltoluene	ND		ug/kg	4.0	0.12
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.0	0.13
Ethyl ether	ND		ug/kg	5.0	0.26
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	0.39

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	97		70-130

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 15 Batch: WG864812-1 WG864812-2								
Methylene chloride	92		88		70-130	4		20
1,1-Dichloroethane	96		91		70-130	5		20
Chloroform	95		91		70-130	4		20
Carbon tetrachloride	90		84		63-132	7		20
1,2-Dichloropropane	97		93		70-130	4		20
Dibromochloromethane	81		76		63-130	6		20
1,1,2-Trichloroethane	87		83		70-130	5		20
Tetrachloroethene	90		85		70-130	6		20
Chlorobenzene	91		87		75-130	4		20
Trichlorofluoromethane	76		71		62-150	7		20
1,2-Dichloroethane	92		86		70-130	7		20
1,1,1-Trichloroethane	94		88		67-130	7		20
Bromodichloromethane	91		86		67-130	6		20
trans-1,3-Dichloropropene	81		76		70-130	6		20
cis-1,3-Dichloropropene	88		84		70-130	5		20
1,1-Dichloropropene	100		94		70-130	6		20
Bromoform	73		69		54-136	6		20
1,1,2,2-Tetrachloroethane	82		79		67-130	4		20
Benzene	99		94		70-130	5		20
Toluene	94		90		70-130	4		20
Ethylbenzene	97		93		70-130	4		20



# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 15 Batch: WG864812-1 WG864812-2								
Chloromethane	76		75		64-130	1		20
Bromomethane	83		75		39-139	10		20
Vinyl chloride	74		70		55-140	6		20
Chloroethane	75		72		55-138	4		20
1,1-Dichloroethene	86		81		61-145	6		20
trans-1,2-Dichloroethene	94		89		70-130	5		20
Trichloroethene	95		90		70-130	5		20
1,2-Dichlorobenzene	87		84		70-130	4		20
1,3-Dichlorobenzene	91		87		70-130	4		20
1,4-Dichlorobenzene	88		85		70-130	3		20
Methyl tert butyl ether	93		87		63-130	7		20
p/m-Xylene	100		96		70-130	4		20
o-Xylene	101		97		70-130	4		20
cis-1,2-Dichloroethene	97		92		70-130	5		20
Dibromomethane	87		83		70-130	5		20
1,2,3-Trichloropropane	88		84		64-130	5		20
Acrylonitrile	90		85		70-130	6		20
Styrene	100		95		70-130	5		20
Dichlorodifluoromethane	52		48		36-147	8		20
Acetone	110		97		58-148	13		20
Carbon disulfide	84		78		51-130	7		20

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 15 Batch: WG864812-1 WG864812-2								
2-Butanone	110		100		63-138	10		20
Vinyl acetate	94		88		70-130	7		20
4-Methyl-2-pentanone	86		79		59-130	8		20
2-Hexanone	72		66		57-130	9		20
Bromochloromethane	90		86		70-130	5		20
2,2-Dichloropropane	98		92		63-133	6		20
1,2-Dibromoethane	86		81		70-130	6		20
1,3-Dichloropropane	91		87		70-130	4		20
1,1,1,2-Tetrachloroethane	87		83		64-130	5		20
Bromobenzene	90		87		70-130	3		20
n-Butylbenzene	92		90		53-136	2		20
sec-Butylbenzene	88		86		70-130	2		20
tert-Butylbenzene	89		87		70-130	2		20
o-Chlorotoluene	98		96		70-130	2		20
p-Chlorotoluene	100		98		70-130	2		20
1,2-Dibromo-3-chloropropane	79		75		41-144	5		20
Hexachlorobutadiene	80		78		63-130	3		20
Isopropylbenzene	95		93		70-130	2		20
p-Isopropyltoluene	88		86		70-130	2		20
Naphthalene	46	Q	42	Q	70-130	9		20
n-Propylbenzene	97		95		69-130	2		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603689

Report Date: 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 15 Batch: WG864812-1 WG864812-2								
1,2,3-Trichlorobenzene	48	Q	42	Q	70-130	13		20
1,2,4-Trichlorobenzene	60	Q	55	Q	70-130	9		20
1,3,5-Trimethylbenzene	98		95		64-130	3		20
1,2,4-Trimethylbenzene	93		90		70-130	3		20
1,4-Dioxane	153		137		56-162	11		20
p-Diethylbenzene	88		85		70-130	3		20
p-Ethyltoluene	102		99		70-130	3		20
1,2,4,5-Tetramethylbenzene	81		78		70-130	4		20
Ethyl ether	82		78		59-134	5		20
trans-1,4-Dichloro-2-butene	77		72		70-130	7		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	91		89		70-130
Toluene-d8	94		94		70-130
4-Bromofluorobenzene	102		104		70-130
Dibromofluoromethane	91		90		70-130

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG865265-1 WG865265-2								
Methylene chloride	100		98		70-130	2		20
1,1-Dichloroethane	111		109		70-130	2		20
Chloroform	104		102		70-130	2		20
2-Chloroethylvinyl ether	89		90		70-130	1		20
Carbon tetrachloride	92		88		63-132	4		20
1,2-Dichloropropane	108		106		70-130	2		20
Dibromochloromethane	83		82		63-130	1		20
1,1,2-Trichloroethane	100		98		70-130	2		20
Tetrachloroethene	77		74		70-130	4		20
Chlorobenzene	92		90		75-130	2		20
Trichlorofluoromethane	102		98		62-150	4		20
1,2-Dichloroethane	103		102		70-130	1		20
1,1,1-Trichloroethane	98		95		67-130	3		20
Bromodichloromethane	98		97		67-130	1		20
trans-1,3-Dichloropropene	96		95		70-130	1		20
cis-1,3-Dichloropropene	108		94		70-130	14		20
1,1-Dichloropropene	102		99		70-130	3		20
Bromoform	79		78		54-136	1		20
1,1,2,2-Tetrachloroethane	108		109		67-130	1		20
Benzene	106		103		70-130	3		20
Toluene	94		91		70-130	3		20

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG865265-1 WG865265-2								
Ethylbenzene	102		98		70-130	4		20
Chloromethane	100		95		64-130	5		20
Bromomethane	82		87		39-139	6		20
Vinyl chloride	118		111		55-140	6		20
Chloroethane	118		113		55-138	4		20
1,1-Dichloroethene	102		98		61-145	4		20
trans-1,2-Dichloroethene	102		100		70-130	2		20
Trichloroethene	100		98		70-130	2		20
1,2-Dichlorobenzene	92		91		70-130	1		20
1,3-Dichlorobenzene	93		92		70-130	1		20
1,4-Dichlorobenzene	92		90		70-130	2		20
Methyl tert butyl ether	99		99		63-130	0		20
p/m-Xylene	97		94		70-130	3		20
o-Xylene	100		97		70-130	3		20
cis-1,2-Dichloroethene	104		102		70-130	2		20
Dibromomethane	94		92		70-130	2		20
1,2,3-Trichloropropane	106		106		64-130	0		20
Acrylonitrile	104		104		70-130	0		20
Isopropyl Ether	119		118		70-130	1		20
tert-Butyl Alcohol	100		108		70-130	8		20
Styrene	104		101		70-130	3		20

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG865265-1 WG865265-2								
Dichlorodifluoromethane	92		86		36-147	7		20
Acetone	119		123		58-148	3		20
Carbon disulfide	106		102		51-130	4		20
2-Butanone	114		118		63-138	3		20
Vinyl acetate	108		107		70-130	1		20
4-Methyl-2-pentanone	97		100		59-130	3		20
2-Hexanone	97		96		57-130	1		20
Acrolein	90		94		40-160	4		20
Bromochloromethane	96		99		70-130	3		20
2,2-Dichloropropane	111		106		63-133	5		20
1,2-Dibromoethane	91		90		70-130	1		20
1,3-Dichloropropane	98		98		70-130	0		20
1,1,1,2-Tetrachloroethane	88		86		64-130	2		20
Bromobenzene	88		88		70-130	0		20
n-Butylbenzene	117		112		53-136	4		20
sec-Butylbenzene	110		107		70-130	3		20
tert-Butylbenzene	101		98		70-130	3		20
o-Chlorotoluene	122		109		70-130	11		20
p-Chlorotoluene	112		110		70-130	2		20
1,2-Dibromo-3-chloropropane	77		77		41-144	0		20
Hexachlorobutadiene	64		60	Q	63-130	6		20

# Lab Control Sample Analysis

## Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603689

Report Date: 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG865265-1 WG865265-2								
Isopropylbenzene	109		105		70-130	4		20
p-Isopropyltoluene	104		100		70-130	4		20
Naphthalene	89		88		70-130	1		20
n-Propylbenzene	116		111		69-130	4		20
1,2,3-Trichlorobenzene	80		78		70-130	3		20
1,2,4-Trichlorobenzene	77		75		70-130	3		20
1,3,5-Trimethylbenzene	109		106		64-130	3		20
1,2,4-Trimethylbenzene	108		106		70-130	2		20
Methyl Acetate	109		111		70-130	2		20
Ethyl Acetate	102		105		70-130	3		20
Cyclohexane	118		112		70-130	5		20
Ethyl-Tert-Butyl-Ether	113		114		70-130	1		20
Tertiary-Amyl Methyl Ether	103		102		66-130	1		20
1,4-Dioxane	98		117		56-162	18		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	106		102		70-130	4		20
p-Diethylbenzene	107		101		70-130	6		20
p-Ethyltoluene	114		110		70-130	4		20
1,2,4,5-Tetramethylbenzene	100		97		70-130	3		20
Ethyl ether	98		99		59-134	1		20
trans-1,4-Dichloro-2-butene	106		99		70-130	7		20
Iodomethane	90		92		70-130	2		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG865265-1 WG865265-2								
Methyl cyclohexane	103		98		70-130	5		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	106		106		70-130
Toluene-d8	101		100		70-130
4-Bromofluorobenzene	125		123		70-130
Dibromofluoromethane	99		98		70-130



# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01-02,04-05 Batch: WG865619-1 WG865619-2								
Methylene chloride	108		99		70-130	9		30
1,1-Dichloroethane	117		104		70-130	12		30
Chloroform	112		102		70-130	9		30
Carbon tetrachloride	112		96		70-130	15		30
1,2-Dichloropropane	109		101		70-130	8		30
Dibromochloromethane	97		92		70-130	5		30
2-Chloroethylvinyl ether	99		97		70-130	2		30
1,1,2-Trichloroethane	96		93		70-130	3		30
Tetrachloroethene	100		86		70-130	15		30
Chlorobenzene	101		92		70-130	9		30
Trichlorofluoromethane	89		74		70-139	18		30
1,2-Dichloroethane	111		106		70-130	5		30
1,1,1-Trichloroethane	116		100		70-130	15		30
Bromodichloromethane	108		101		70-130	7		30
trans-1,3-Dichloropropene	103		97		70-130	6		30
cis-1,3-Dichloropropene	110		105		70-130	5		30
1,1-Dichloropropene	112		96		70-130	15		30
Bromoform	93		90		70-130	3		30
1,1,2,2-Tetrachloroethane	89		88		70-130	1		30
Benzene	113		101		70-130	11		30
Toluene	100		90		70-130	11		30

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01-02,04-05 Batch: WG865619-1 WG865619-2								
Ethylbenzene	101		89		70-130	13		30
Chloromethane	119		107		52-130	11		30
Bromomethane	114		101		57-147	12		30
Vinyl chloride	105		88		67-130	18		30
Chloroethane	105		91		50-151	14		30
1,1-Dichloroethene	117		97		65-135	19		30
trans-1,2-Dichloroethene	118		102		70-130	15		30
Trichloroethene	112		98		70-130	13		30
1,2-Dichlorobenzene	93		86		70-130	8		30
1,3-Dichlorobenzene	94		86		70-130	9		30
1,4-Dichlorobenzene	94		87		70-130	8		30
Methyl tert butyl ether	116		111		66-130	4		30
p/m-Xylene	100		90		70-130	11		30
o-Xylene	101		91		70-130	10		30
cis-1,2-Dichloroethene	112		102		70-130	9		30
Dibromomethane	105		103		70-130	2		30
Styrene	103		93		70-130	10		30
Dichlorodifluoromethane	121		97		30-146	22		30
Acetone	164	Q	161	Q	54-140	2		30
Carbon disulfide	116		96		59-130	19		30
2-Butanone	114		112		70-130	2		30

# Lab Control Sample Analysis

## Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603689

Report Date: 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01-02,04-05 Batch: WG865619-1 WG865619-2								
Vinyl acetate	122		115		70-130	6		30
4-Methyl-2-pentanone	97		96		70-130	1		30
1,2,3-Trichloropropane	97		94		68-130	3		30
2-Hexanone	95		94		70-130	1		30
Bromochloromethane	114		106		70-130	7		30
2,2-Dichloropropane	129		111		70-130	15		30
1,2-Dibromoethane	97		92		70-130	5		30
1,3-Dichloropropane	99		93		69-130	6		30
1,1,1,2-Tetrachloroethane	100		93		70-130	7		30
Bromobenzene	92		87		70-130	6		30
n-Butylbenzene	99		85		70-130	15		30
sec-Butylbenzene	97		83		70-130	16		30
tert-Butylbenzene	96		84		70-130	13		30
o-Chlorotoluene	98		89		70-130	10		30
p-Chlorotoluene	98		88		70-130	11		30
1,2-Dibromo-3-chloropropane	92		89		68-130	3		30
Hexachlorobutadiene	99		83		67-130	18		30
Isopropylbenzene	95		83		70-130	13		30
p-Isopropyltoluene	96		84		70-130	13		30
Naphthalene	85		82		70-130	4		30
Acrylonitrile	116		116		70-130	0		30

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01-02,04-05 Batch: WG865619-1 WG865619-2								
Isopropyl Ether	116		108		66-130	7		30
tert-Butyl Alcohol	125		128		70-130	2		30
n-Propylbenzene	97		85		70-130	13		30
1,2,3-Trichlorobenzene	90		85		70-130	6		30
1,2,4-Trichlorobenzene	93		86		70-130	8		30
1,3,5-Trimethylbenzene	98		87		70-130	12		30
1,2,4-Trimethylbenzene	97		87		70-130	11		30
Methyl Acetate	119		117		51-146	2		30
Ethyl Acetate	112		113		70-130	1		30
Acrolein	120		115		70-130	4		30
Cyclohexane	113		90		59-142	23		30
1,4-Dioxane	112		112		65-136	0		30
1,1,2-Trichloro-1,2,2-Trifluoroethane	115		92		50-139	22		30
p-Diethylbenzene	97		86		70-130	12		30
p-Ethyltoluene	97		85		70-130	13		30
1,2,4,5-Tetramethylbenzene	92		84		70-130	9		30
Tetrahydrofuran	115		110		66-130	4		30
Ethyl ether	108		101		67-130	7		30
trans-1,4-Dichloro-2-butene	97		94		70-130	3		30
Methyl cyclohexane	106		85		70-130	22		30
Ethyl-Tert-Butyl-Ether	116		109		70-130	6		30

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01-02,04-05 Batch: WG865619-1 WG865619-2								
Tertiary-Amyl Methyl Ether	113		110		70-130	3		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	102		103		70-130
Toluene-d8	95		95		70-130
4-Bromofluorobenzene	98		100		70-130
Dibromofluoromethane	100		99		70-130

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 03,06-10,12-14 Batch: WG866281-1 WG866281-2								
Methylene chloride	92		92		70-130	0		30
1,1-Dichloroethane	102		99		70-130	3		30
Chloroform	96		96		70-130	0		30
Carbon tetrachloride	103		97		70-130	6		30
1,2-Dichloropropane	98		98		70-130	0		30
Dibromochloromethane	90		90		70-130	0		30
2-Chloroethylvinyl ether	87		86		70-130	1		30
1,1,2-Trichloroethane	96		96		70-130	0		30
Tetrachloroethene	104		98		70-130	6		30
Chlorobenzene	98		95		70-130	3		30
Trichlorofluoromethane	107		100		70-139	7		30
1,2-Dichloroethane	95		95		70-130	0		30
1,1,1-Trichloroethane	102		99		70-130	3		30
Bromodichloromethane	92		92		70-130	0		30
trans-1,3-Dichloropropene	92		92		70-130	0		30
cis-1,3-Dichloropropene	91		91		70-130	0		30
1,1-Dichloropropene	107		102		70-130	5		30
Bromoform	88		87		70-130	1		30
1,1,2,2-Tetrachloroethane	97		94		70-130	3		30
Benzene	100		97		70-130	3		30
Toluene	100		98		70-130	2		30

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 03,06-10,12-14 Batch: WG866281-1 WG866281-2								
Ethylbenzene	102		98		70-130	4		30
Chloromethane	97		92		52-130	5		30
Bromomethane	90		90		57-147	0		30
Vinyl chloride	104		99		67-130	5		30
Chloroethane	113		107		50-151	5		30
1,1-Dichloroethene	102		98		65-135	4		30
trans-1,2-Dichloroethene	98		94		70-130	4		30
Trichloroethene	100		97		70-130	3		30
1,2-Dichlorobenzene	96		94		70-130	2		30
1,3-Dichlorobenzene	101		97		70-130	4		30
1,4-Dichlorobenzene	99		97		70-130	2		30
Methyl tert butyl ether	89		90		66-130	1		30
p/m-Xylene	103		98		70-130	5		30
o-Xylene	98		96		70-130	2		30
cis-1,2-Dichloroethene	97		95		70-130	2		30
Dibromomethane	89		91		70-130	2		30
Styrene	98		96		70-130	2		30
Dichlorodifluoromethane	95		87		30-146	9		30
Acetone	94		92		54-140	2		30
Carbon disulfide	99		94		59-130	5		30
2-Butanone	92		88		70-130	4		30

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 03,06-10,12-14 Batch: WG866281-1 WG866281-2								
Vinyl acetate	91		92		70-130	1		30
4-Methyl-2-pentanone	86		87		70-130	1		30
1,2,3-Trichloropropane	97		95		68-130	2		30
2-Hexanone	87		84		70-130	4		30
Bromochloromethane	94		93		70-130	1		30
2,2-Dichloropropane	101		96		70-130	5		30
1,2-Dibromoethane	91		90		70-130	1		30
1,3-Dichloropropane	97		96		69-130	1		30
1,1,1,2-Tetrachloroethane	93		92		70-130	1		30
Bromobenzene	94		92		70-130	2		30
n-Butylbenzene	111		107		70-130	4		30
sec-Butylbenzene	108		102		70-130	6		30
tert-Butylbenzene	102		97		70-130	5		30
o-Chlorotoluene	103		99		70-130	4		30
p-Chlorotoluene	101		98		70-130	3		30
1,2-Dibromo-3-chloropropane	77		75		68-130	3		30
Hexachlorobutadiene	102		96		67-130	6		30
Isopropylbenzene	102		99		70-130	3		30
p-Isopropyltoluene	105		100		70-130	5		30
Naphthalene	89		87		70-130	2		30
Acrylonitrile	95		96		70-130	1		30



# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 03,06-10,12-14 Batch: WG866281-1 WG866281-2								
Isopropyl Ether	97		97		66-130	0		30
tert-Butyl Alcohol	84		83		70-130	1		30
n-Propylbenzene	106		100		70-130	6		30
1,2,3-Trichlorobenzene	95		91		70-130	4		30
1,2,4-Trichlorobenzene	97		95		70-130	2		30
1,3,5-Trimethylbenzene	101		98		70-130	3		30
1,2,4-Trimethylbenzene	101		97		70-130	4		30
Methyl Acetate	90		90		51-146	0		30
Ethyl Acetate	94		95		70-130	1		30
Acrolein	90		90		70-130	0		30
Cyclohexane	121		113		59-142	7		30
1,4-Dioxane	98		96		65-136	2		30
1,1,2-Trichloro-1,2,2-Trifluoroethane	114		106		50-139	7		30
p-Diethylbenzene	99		95		70-130	4		30
p-Ethyltoluene	100		98		70-130	2		30
1,2,4,5-Tetramethylbenzene	92		92		70-130	0		30
Tetrahydrofuran	95		95		66-130	0		30
Ethyl ether	92		91		67-130	1		30
trans-1,4-Dichloro-2-butene	95		96		70-130	1		30
Methyl cyclohexane	113		105		70-130	7		30
Ethyl-Tert-Butyl-Ether	94		94		70-130	0		30

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 03,06-10,12-14 Batch: WG866281-1 WG866281-2								
Tertiary-Amyl Methyl Ether	90		91		70-130	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	103		105		70-130
Toluene-d8	105		105		70-130
4-Bromofluorobenzene	101		101		70-130
Dibromofluoromethane	101		103		70-130

# SEMIVOLATILES

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-01  
**Client ID:** SB-105 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/16/16 21:49  
**Analyst:** JB  
**Percent Solids:** 84%

**Date Collected:** 02/11/16 09:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/15/16 17:08

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	600		ug/kg	160	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	35.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	52.	1
2,4-Dinitrotoluene	ND		ug/kg	200	39.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	11000	E	ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	560	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	370		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	29.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	30.	1
Bis(2-Ethylhexyl)phthalate	190	J	ug/kg	200	68.	1
Butyl benzyl phthalate	ND		ug/kg	200	50.	1
Di-n-butylphthalate	ND		ug/kg	200	37.	1
Di-n-octylphthalate	ND		ug/kg	200	67.	1
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	41.	1

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-01

Date Collected: 02/11/16 09:30

Client ID: SB-105 (0-2)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	4500		ug/kg	120	22.	1
Benzo(a)pyrene	3900		ug/kg	160	48.	1
Benzo(b)fluoranthene	5000		ug/kg	120	33.	1
Benzo(k)fluoranthene	2000		ug/kg	120	31.	1
Chrysene	4600		ug/kg	120	20.	1
Acenaphthylene	650		ug/kg	160	30.	1
Anthracene	1900		ug/kg	120	38.	1
Benzo(ghi)perylene	2000		ug/kg	160	23.	1
Fluorene	670		ug/kg	200	19.	1
Phenanthrene	8500	E	ug/kg	120	24.	1
Dibenzo(a,h)anthracene	500		ug/kg	120	23.	1
Indeno(1,2,3-cd)Pyrene	2200		ug/kg	160	27.	1
Pyrene	10000	E	ug/kg	120	20.	1
Biphenyl	71	J	ug/kg	450	46.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	38.	1
3-Nitroaniline	ND		ug/kg	200	37.	1
4-Nitroaniline	ND		ug/kg	200	81.	1
Dibenzofuran	450		ug/kg	200	19.	1
2-Methylnaphthalene	210	J	ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	20.	1
Acetophenone	ND		ug/kg	200	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
P-Chloro-M-Cresol	ND		ug/kg	200	29.	1
2-Chlorophenol	ND		ug/kg	200	23.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	65.	1
2-Nitrophenol	ND		ug/kg	420	74.	1
4-Nitrophenol	ND		ug/kg	280	80.	1
2,4-Dinitrophenol	ND		ug/kg	940	92.	1
4,6-Dinitro-o-cresol	ND		ug/kg	510	94.	1
Pentachlorophenol	ND		ug/kg	160	43.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	30.	1
3-Methylphenol/4-Methylphenol	42	J	ug/kg	280	31.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	38.	1
Benzoic Acid	ND		ug/kg	640	200	1
Benzyl Alcohol	ND		ug/kg	200	60.	1
Carbazole	640		ug/kg	200	19.	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-01  
**Client ID:** SB-105 (0-2)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 09:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	31		25-120
Phenol-d6	73		10-120
Nitrobenzene-d5	85		23-120
2-Fluorobiphenyl	82		30-120
2,4,6-Tribromophenol	18		10-136
4-Terphenyl-d14	70		18-120

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

Lab ID: L1603689-01 D  
 Client ID: SB-105 (0-2)  
 Sample Location: BROOKLYN, NY  
 Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 02/18/16 10:37  
 Analyst: JB  
 Percent Solids: 84%

Date Collected: 02/11/16 09:30  
 Date Received: 02/11/16  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 02/15/16 17:08

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## Semivolatile Organics by GC/MS - Westborough Lab

Fluoranthene	10000		ug/kg	240	45.	2
Phenanthrene	8600		ug/kg	240	48.	2
Pyrene	9600		ug/kg	240	39.	2

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-02  
**Client ID:** SB-105 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/16/16 22:16  
**Analyst:** JB  
**Percent Solids:** 83%

**Date Collected:** 02/11/16 09:45  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/15/16 17:08

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	35.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	52.	1
2,4-Dinitrotoluene	ND		ug/kg	200	39.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	ND		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	560	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	ND		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	29.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	30.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	200	68.	1
Butyl benzyl phthalate	ND		ug/kg	200	50.	1
Di-n-butylphthalate	ND		ug/kg	200	37.	1
Di-n-octylphthalate	ND		ug/kg	200	67.	1
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	41.	1



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-02  
**Client ID:** SB-105 (10-12)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 09:45  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	48.	1
Benzo(b)fluoranthene	ND		ug/kg	120	33.	1
Benzo(k)fluoranthene	ND		ug/kg	120	32.	1
Chrysene	ND		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	160	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	ND		ug/kg	160	23.	1
Fluorene	ND		ug/kg	200	19.	1
Phenanthrene	ND		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	27.	1
Pyrene	ND		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	450	46.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	38.	1
3-Nitroaniline	ND		ug/kg	200	37.	1
4-Nitroaniline	ND		ug/kg	200	82.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	20.	1
Acetophenone	ND		ug/kg	200	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
P-Chloro-M-Cresol	ND		ug/kg	200	29.	1
2-Chlorophenol	ND		ug/kg	200	23.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	65.	1
2-Nitrophenol	ND		ug/kg	420	74.	1
4-Nitrophenol	ND		ug/kg	280	80.	1
2,4-Dinitrophenol	ND		ug/kg	940	92.	1
4,6-Dinitro-o-cresol	ND		ug/kg	510	94.	1
Pentachlorophenol	ND		ug/kg	160	43.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	31.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	38.	1
Benzoic Acid	ND		ug/kg	640	200	1
Benzyl Alcohol	ND		ug/kg	200	60.	1
Carbazole	ND		ug/kg	200	19.	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-02  
**Client ID:** SB-105 (10-12)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 09:45  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	78		25-120
Phenol-d6	81		10-120
Nitrobenzene-d5	79		23-120
2-Fluorobiphenyl	82		30-120
2,4,6-Tribromophenol	82		10-136
4-Terphenyl-d14	74		18-120

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-03  
**Client ID:** SB-107 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/16/16 22:43  
**Analyst:** JB  
**Percent Solids:** 90%

**Date Collected:** 02/11/16 10:20  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/15/16 17:08

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	21.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	25.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
1,2-Dichlorobenzene	ND		ug/kg	180	33.	1
1,3-Dichlorobenzene	ND		ug/kg	180	32.	1
1,4-Dichlorobenzene	ND		ug/kg	180	32.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	49.	1
2,4-Dinitrotoluene	ND		ug/kg	180	37.	1
2,6-Dinitrotoluene	ND		ug/kg	180	32.	1
Fluoranthene	ND		ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	28.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	32.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	18.	1
Hexachlorobutadiene	ND		ug/kg	180	27.	1
Hexachlorocyclopentadiene	ND		ug/kg	530	170	1
Hexachloroethane	ND		ug/kg	150	30.	1
Isophorone	ND		ug/kg	170	24.	1
Naphthalene	ND		ug/kg	180	22.	1
Nitrobenzene	ND		ug/kg	170	27.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	150	21.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	28.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	180	64.	1
Butyl benzyl phthalate	ND		ug/kg	180	46.	1
Di-n-butylphthalate	ND		ug/kg	180	35.	1
Di-n-octylphthalate	ND		ug/kg	180	63.	1
Diethyl phthalate	ND		ug/kg	180	17.	1
Dimethyl phthalate	ND		ug/kg	180	39.	1

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-03

Date Collected: 02/11/16 10:20

Client ID: SB-107 (0-2)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	ND		ug/kg	110	21.	1
Benzo(a)pyrene	ND		ug/kg	150	45.	1
Benzo(b)fluoranthene	ND		ug/kg	110	31.	1
Benzo(k)fluoranthene	ND		ug/kg	110	30.	1
Chrysene	ND		ug/kg	110	19.	1
Acenaphthylene	ND		ug/kg	150	28.	1
Anthracene	ND		ug/kg	110	36.	1
Benzo(ghi)perylene	ND		ug/kg	150	22.	1
Fluorene	ND		ug/kg	180	18.	1
Phenanthrene	ND		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	21.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	150	26.	1
Pyrene	ND		ug/kg	110	18.	1
Biphenyl	ND		ug/kg	420	43.	1
4-Chloroaniline	ND		ug/kg	180	34.	1
2-Nitroaniline	ND		ug/kg	180	36.	1
3-Nitroaniline	ND		ug/kg	180	35.	1
4-Nitroaniline	ND		ug/kg	180	76.	1
Dibenzofuran	ND		ug/kg	180	17.	1
2-Methylnaphthalene	ND		ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	19.	1
Acetophenone	ND		ug/kg	180	23.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	35.	1
P-Chloro-M-Cresol	ND		ug/kg	180	28.	1
2-Chlorophenol	ND		ug/kg	180	22.	1
2,4-Dichlorophenol	ND		ug/kg	170	30.	1
2,4-Dimethylphenol	ND		ug/kg	180	61.	1
2-Nitrophenol	ND		ug/kg	400	69.	1
4-Nitrophenol	ND		ug/kg	260	75.	1
2,4-Dinitrophenol	ND		ug/kg	890	86.	1
4,6-Dinitro-o-cresol	ND		ug/kg	480	89.	1
Pentachlorophenol	ND		ug/kg	150	41.	1
Phenol	ND		ug/kg	180	28.	1
2-Methylphenol	ND		ug/kg	180	29.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	260	29.	1
2,4,5-Trichlorophenol	ND		ug/kg	180	35.	1
Benzoic Acid	ND		ug/kg	600	190	1
Benzyl Alcohol	ND		ug/kg	180	56.	1
Carbazole	ND		ug/kg	180	18.	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-03  
**Client ID:** SB-107 (0-2)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 10:20  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	75		25-120
Phenol-d6	81		10-120
Nitrobenzene-d5	76		23-120
2-Fluorobiphenyl	77		30-120
2,4,6-Tribromophenol	79		10-136
4-Terphenyl-d14	71		18-120

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-04  
**Client ID:** SB-107 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/16/16 23:09  
**Analyst:** JB  
**Percent Solids:** 83%

**Date Collected:** 02/11/16 10:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/15/16 17:08

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	36.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	35.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	53.	1
2,4-Dinitrotoluene	ND		ug/kg	200	40.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	ND		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	31.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	570	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	ND		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	31.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	200	70.	1
Butyl benzyl phthalate	ND		ug/kg	200	51.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	68.	1
Diethyl phthalate	ND		ug/kg	200	19.	1
Dimethyl phthalate	ND		ug/kg	200	42.	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-04  
**Client ID:** SB-107 (10-12)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 10:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	ND		ug/kg	120	23.	1
Benzo(a)pyrene	ND		ug/kg	160	49.	1
Benzo(b)fluoranthene	ND		ug/kg	120	34.	1
Benzo(k)fluoranthene	ND		ug/kg	120	32.	1
Chrysene	ND		ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	31.	1
Anthracene	ND		ug/kg	120	39.	1
Benzo(ghi)perylene	ND		ug/kg	160	24.	1
Fluorene	ND		ug/kg	200	20.	1
Phenanthrene	ND		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	28.	1
Pyrene	ND		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	460	47.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	39.	1
3-Nitroaniline	ND		ug/kg	200	38.	1
4-Nitroaniline	ND		ug/kg	200	83.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	25.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
P-Chloro-M-Cresol	ND		ug/kg	200	30.	1
2-Chlorophenol	ND		ug/kg	200	24.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	66.	1
2-Nitrophenol	ND		ug/kg	430	76.	1
4-Nitrophenol	ND		ug/kg	280	82.	1
2,4-Dinitrophenol	ND		ug/kg	960	94.	1
4,6-Dinitro-o-cresol	ND		ug/kg	520	96.	1
Pentachlorophenol	ND		ug/kg	160	44.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	31.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	31.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	38.	1
Benzoic Acid	ND		ug/kg	650	200	1
Benzyl Alcohol	ND		ug/kg	200	61.	1
Carbazole	ND		ug/kg	200	20.	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-04  
**Client ID:** SB-107 (10-12)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 10:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	23	Q	25-120
Phenol-d6	65		10-120
Nitrobenzene-d5	76		23-120
2-Fluorobiphenyl	72		30-120
2,4,6-Tribromophenol	21		10-136
4-Terphenyl-d14	60		18-120



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-05  
**Client ID:** SB-106 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/16/16 23:35  
**Analyst:** JB  
**Percent Solids:** 81%

**Date Collected:** 02/11/16 12:15  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/15/16 17:08

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	36.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	35.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	53.	1
2,4-Dinitrotoluene	ND		ug/kg	200	40.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	ND		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	570	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	ND		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	31.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	200	69.	1
Butyl benzyl phthalate	ND		ug/kg	200	50.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	68.	1
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	42.	1

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-05

Date Collected: 02/11/16 12:15

Client ID: SB-106 (0-2)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	49.	1
Benzo(b)fluoranthene	ND		ug/kg	120	34.	1
Benzo(k)fluoranthene	ND		ug/kg	120	32.	1
Chrysene	ND		ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	31.	1
Anthracene	ND		ug/kg	120	39.	1
Benzo(ghi)perylene	ND		ug/kg	160	24.	1
Fluorene	ND		ug/kg	200	19.	1
Phenanthrene	ND		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	28.	1
Pyrene	ND		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	460	46.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	39.	1
3-Nitroaniline	ND		ug/kg	200	38.	1
4-Nitroaniline	ND		ug/kg	200	83.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	25.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
P-Chloro-M-Cresol	ND		ug/kg	200	30.	1
2-Chlorophenol	ND		ug/kg	200	24.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	66.	1
2-Nitrophenol	ND		ug/kg	430	75.	1
4-Nitrophenol	ND		ug/kg	280	82.	1
2,4-Dinitrophenol	ND		ug/kg	960	93.	1
4,6-Dinitro-o-cresol	ND		ug/kg	520	96.	1
Pentachlorophenol	ND		ug/kg	160	44.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	31.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	31.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	38.	1
Benzoic Acid	ND		ug/kg	650	200	1
Benzyl Alcohol	ND		ug/kg	200	61.	1
Carbazole	ND		ug/kg	200	19.	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-05  
**Client ID:** SB-106 (0-2)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 12:15  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	68		25-120
Phenol-d6	80		10-120
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	79		30-120
2,4,6-Tribromophenol	66		10-136
4-Terphenyl-d14	60		18-120

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-06  
**Client ID:** SB-106 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/17/16 00:02  
**Analyst:** JB  
**Percent Solids:** 77%

**Date Collected:** 02/11/16 12:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/15/16 17:08

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	170	22.	1
1,2,4-Trichlorobenzene	ND		ug/kg	210	24.	1
Hexachlorobenzene	ND		ug/kg	130	24.	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	29.	1
2-Chloronaphthalene	ND		ug/kg	210	21.	1
1,2-Dichlorobenzene	ND		ug/kg	210	38.	1
1,3-Dichlorobenzene	ND		ug/kg	210	37.	1
1,4-Dichlorobenzene	ND		ug/kg	210	37.	1
3,3'-Dichlorobenzidine	ND		ug/kg	210	57.	1
2,4-Dinitrotoluene	ND		ug/kg	210	43.	1
2,6-Dinitrotoluene	ND		ug/kg	210	37.	1
Fluoranthene	ND		ug/kg	130	24.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	210	23.	1
4-Bromophenyl phenyl ether	ND		ug/kg	210	32.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	260	36.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	230	21.	1
Hexachlorobutadiene	ND		ug/kg	210	31.	1
Hexachlorocyclopentadiene	ND		ug/kg	610	190	1
Hexachloroethane	ND		ug/kg	170	34.	1
Isophorone	ND		ug/kg	190	28.	1
Naphthalene	ND		ug/kg	210	26.	1
Nitrobenzene	ND		ug/kg	190	32.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	170	24.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	210	33.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	210	74.	1
Butyl benzyl phthalate	ND		ug/kg	210	54.	1
Di-n-butylphthalate	ND		ug/kg	210	40.	1
Di-n-octylphthalate	ND		ug/kg	210	72.	1
Diethyl phthalate	ND		ug/kg	210	20.	1
Dimethyl phthalate	ND		ug/kg	210	45.	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-06  
**Client ID:** SB-106 (10-12)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 12:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	ND		ug/kg	130	24.	1
Benzo(a)pyrene	ND		ug/kg	170	52.	1
Benzo(b)fluoranthene	ND		ug/kg	130	36.	1
Benzo(k)fluoranthene	ND		ug/kg	130	34.	1
Chrysene	ND		ug/kg	130	22.	1
Acenaphthylene	ND		ug/kg	170	33.	1
Anthracene	ND		ug/kg	130	42.	1
Benzo(ghi)perylene	ND		ug/kg	170	25.	1
Fluorene	ND		ug/kg	210	21.	1
Phenanthrene	ND		ug/kg	130	26.	1
Dibenzo(a,h)anthracene	ND		ug/kg	130	25.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	170	30.	1
Pyrene	ND		ug/kg	130	21.	1
Biphenyl	ND		ug/kg	490	50.	1
4-Chloroaniline	ND		ug/kg	210	39.	1
2-Nitroaniline	ND		ug/kg	210	41.	1
3-Nitroaniline	ND		ug/kg	210	40.	1
4-Nitroaniline	ND		ug/kg	210	88.	1
Dibenzofuran	ND		ug/kg	210	20.	1
2-Methylnaphthalene	ND		ug/kg	260	26.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	210	22.	1
Acetophenone	ND		ug/kg	210	26.	1
2,4,6-Trichlorophenol	ND		ug/kg	130	40.	1
P-Chloro-M-Cresol	ND		ug/kg	210	32.	1
2-Chlorophenol	ND		ug/kg	210	25.	1
2,4-Dichlorophenol	ND		ug/kg	190	34.	1
2,4-Dimethylphenol	ND		ug/kg	210	70.	1
2-Nitrophenol	ND		ug/kg	460	80.	1
4-Nitrophenol	ND		ug/kg	300	87.	1
2,4-Dinitrophenol	ND		ug/kg	1000	99.	1
4,6-Dinitro-o-cresol	ND		ug/kg	550	100	1
Pentachlorophenol	ND		ug/kg	170	47.	1
Phenol	ND		ug/kg	210	32.	1
2-Methylphenol	ND		ug/kg	210	33.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	310	33.	1
2,4,5-Trichlorophenol	ND		ug/kg	210	41.	1
Benzoic Acid	ND		ug/kg	690	220	1
Benzyl Alcohol	ND		ug/kg	210	65.	1
Carbazole	ND		ug/kg	210	21.	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-06  
**Client ID:** SB-106 (10-12)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 12:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	77		25-120
Phenol-d6	82		10-120
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	73		30-120
2,4,6-Tribromophenol	72		10-136
4-Terphenyl-d14	59		18-120

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-07  
**Client ID:** SB-108 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/17/16 00:28  
**Analyst:** JB  
**Percent Solids:** 83%

**Date Collected:** 02/11/16 13:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/15/16 17:08

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	120	J	ug/kg	160	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	35.	1
1,3-Dichlorobenzene	ND		ug/kg	190	33.	1
1,4-Dichlorobenzene	ND		ug/kg	190	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	52.	1
2,4-Dinitrotoluene	ND		ug/kg	190	39.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	3000		ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	33.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	550	180	1
Hexachloroethane	ND		ug/kg	160	31.	1
Isophorone	ND		ug/kg	170	25.	1
Naphthalene	130	J	ug/kg	190	24.	1
Nitrobenzene	ND		ug/kg	170	29.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	30.	1
Bis(2-Ethylhexyl)phthalate	900		ug/kg	190	67.	1
Butyl benzyl phthalate	ND		ug/kg	190	49.	1
Di-n-butylphthalate	ND		ug/kg	190	37.	1
Di-n-octylphthalate	ND		ug/kg	190	66.	1
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	41.	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-07  
**Client ID:** SB-108 (0-2)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 13:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	1100		ug/kg	120	22.	1
Benzo(a)pyrene	1000		ug/kg	160	47.	1
Benzo(b)fluoranthene	1500		ug/kg	120	33.	1
Benzo(k)fluoranthene	570		ug/kg	120	31.	1
Chrysene	1200		ug/kg	120	20.	1
Acenaphthylene	71	J	ug/kg	160	30.	1
Anthracene	220		ug/kg	120	38.	1
Benzo(ghi)perylene	630		ug/kg	160	23.	1
Fluorene	130	J	ug/kg	190	19.	1
Phenanthrene	2200		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	160		ug/kg	120	22.	1
Indeno(1,2,3-cd)Pyrene	690		ug/kg	160	27.	1
Pyrene	2600		ug/kg	120	19.	1
Biphenyl	ND		ug/kg	440	45.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	37.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	80.	1
Dibenzofuran	130	J	ug/kg	190	18.	1
2-Methylnaphthalene	140	J	ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
P-Chloro-M-Cresol	ND		ug/kg	190	29.	1
2-Chlorophenol	ND		ug/kg	190	23.	1
2,4-Dichlorophenol	ND		ug/kg	170	31.	1
2,4-Dimethylphenol	ND		ug/kg	190	64.	1
2-Nitrophenol	ND		ug/kg	420	73.	1
4-Nitrophenol	ND		ug/kg	270	79.	1
2,4-Dinitrophenol	ND		ug/kg	930	90.	1
4,6-Dinitro-o-cresol	ND		ug/kg	500	93.	1
Pentachlorophenol	ND		ug/kg	160	43.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	35	J	ug/kg	190	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	30.	1
2,4,5-Trichlorophenol	ND		ug/kg	190	37.	1
Benzoic Acid	ND		ug/kg	630	200	1
Benzyl Alcohol	ND		ug/kg	190	59.	1
Carbazole	240		ug/kg	190	19.	1



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-07  
**Client ID:** SB-108 (0-2)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 13:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	68		25-120
Phenol-d6	86		10-120
Nitrobenzene-d5	85		23-120
2-Fluorobiphenyl	82		30-120
2,4,6-Tribromophenol	45		10-136
4-Terphenyl-d14	71		18-120

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-08  
**Client ID:** SB-108 (4-6)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/17/16 00:55  
**Analyst:** JB  
**Percent Solids:** 83%

**Date Collected:** 02/11/16 13:40  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/15/16 17:08

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	35.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	52.	1
2,4-Dinitrotoluene	ND		ug/kg	200	39.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	ND		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	560	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	ND		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	29.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	30.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	200	68.	1
Butyl benzyl phthalate	ND		ug/kg	200	50.	1
Di-n-butylphthalate	ND		ug/kg	200	37.	1
Di-n-octylphthalate	ND		ug/kg	200	67.	1
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	41.	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-08  
**Client ID:** SB-108 (4-6)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 13:40  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	48.	1
Benzo(b)fluoranthene	ND		ug/kg	120	33.	1
Benzo(k)fluoranthene	ND		ug/kg	120	32.	1
Chrysene	ND		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	160	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	ND		ug/kg	160	23.	1
Fluorene	ND		ug/kg	200	19.	1
Phenanthrene	ND		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	27.	1
Pyrene	ND		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	450	46.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	38.	1
3-Nitroaniline	ND		ug/kg	200	37.	1
4-Nitroaniline	ND		ug/kg	200	82.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	20.	1
Acetophenone	ND		ug/kg	200	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
P-Chloro-M-Cresol	ND		ug/kg	200	29.	1
2-Chlorophenol	ND		ug/kg	200	23.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	65.	1
2-Nitrophenol	ND		ug/kg	420	74.	1
4-Nitrophenol	ND		ug/kg	280	80.	1
2,4-Dinitrophenol	ND		ug/kg	950	92.	1
4,6-Dinitro-o-cresol	ND		ug/kg	510	95.	1
Pentachlorophenol	ND		ug/kg	160	43.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	31.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	38.	1
Benzoic Acid	ND		ug/kg	640	200	1
Benzyl Alcohol	ND		ug/kg	200	60.	1
Carbazole	ND		ug/kg	200	19.	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-08  
**Client ID:** SB-108 (4-6)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 13:40  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	73		25-120
Phenol-d6	80		10-120
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	77		30-120
2,4,6-Tribromophenol	90		10-136
4-Terphenyl-d14	66		18-120

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-09  
**Client ID:** SB-108 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/17/16 01:21  
**Analyst:** JB  
**Percent Solids:** 83%

**Date Collected:** 02/11/16 13:50  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/15/16 17:08

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	26.	1
2-Chloronaphthalene	ND		ug/kg	200	19.	1
1,2-Dichlorobenzene	ND		ug/kg	200	35.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	52.	1
2,4-Dinitrotoluene	ND		ug/kg	200	39.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	65	J	ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	560	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	25.	1
Naphthalene	ND		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	29.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	30.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	200	68.	1
Butyl benzyl phthalate	ND		ug/kg	200	49.	1
Di-n-butylphthalate	ND		ug/kg	200	37.	1
Di-n-octylphthalate	ND		ug/kg	200	67.	1
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	41.	1

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-09

Date Collected: 02/11/16 13:50

Client ID: SB-108 (10-12)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	26	J	ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	48.	1
Benzo(b)fluoranthene	ND		ug/kg	120	33.	1
Benzo(k)fluoranthene	ND		ug/kg	120	31.	1
Chrysene	26	J	ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	160	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	ND		ug/kg	160	23.	1
Fluorene	ND		ug/kg	200	19.	1
Phenanthrene	49	J	ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	27.	1
Pyrene	54	J	ug/kg	120	19.	1
Biphenyl	ND		ug/kg	450	46.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	38.	1
3-Nitroaniline	ND		ug/kg	200	37.	1
4-Nitroaniline	ND		ug/kg	200	81.	1
Dibenzofuran	ND		ug/kg	200	18.	1
2-Methylnaphthalene	ND		ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	20.	1
Acetophenone	ND		ug/kg	200	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
P-Chloro-M-Cresol	ND		ug/kg	200	29.	1
2-Chlorophenol	ND		ug/kg	200	23.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	65.	1
2-Nitrophenol	ND		ug/kg	420	74.	1
4-Nitrophenol	ND		ug/kg	270	80.	1
2,4-Dinitrophenol	ND		ug/kg	940	91.	1
4,6-Dinitro-o-cresol	ND		ug/kg	510	94.	1
Pentachlorophenol	ND		ug/kg	160	43.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	31.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	38.	1
Benzoic Acid	ND		ug/kg	640	200	1
Benzyl Alcohol	ND		ug/kg	200	60.	1
Carbazole	ND		ug/kg	200	19.	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-09  
**Client ID:** SB-108 (10-12)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 13:50  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	66		25-120
Phenol-d6	82		10-120
Nitrobenzene-d5	81		23-120
2-Fluorobiphenyl	78		30-120
2,4,6-Tribromophenol	60		10-136
4-Terphenyl-d14	60		18-120

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-10  
**Client ID:** DUP021116  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/17/16 01:48  
**Analyst:** JB  
**Percent Solids:** 85%

**Date Collected:** 02/11/16 14:00  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/15/16 17:08

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	170		ug/kg	150	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	120	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	34.	1
1,3-Dichlorobenzene	ND		ug/kg	190	33.	1
1,4-Dichlorobenzene	ND		ug/kg	190	33.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	51.	1
2,4-Dinitrotoluene	ND		ug/kg	190	38.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	3400		ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	33.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	550	170	1
Hexachloroethane	ND		ug/kg	150	31.	1
Isophorone	ND		ug/kg	170	25.	1
Naphthalene	220		ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	30.	1
Bis(2-Ethylhexyl)phthalate	590		ug/kg	190	66.	1
Butyl benzyl phthalate	ND		ug/kg	190	48.	1
Di-n-butylphthalate	82	J	ug/kg	190	36.	1
Di-n-octylphthalate	ND		ug/kg	190	65.	1
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-10  
**Client ID:** DUP021116  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 14:00  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	1300		ug/kg	120	22.	1
Benzo(a)pyrene	1200		ug/kg	150	47.	1
Benzo(b)fluoranthene	1600		ug/kg	120	32.	1
Benzo(k)fluoranthene	680		ug/kg	120	31.	1
Chrysene	1400		ug/kg	120	20.	1
Acenaphthylene	130	J	ug/kg	150	30.	1
Anthracene	430		ug/kg	120	37.	1
Benzo(ghi)perylene	730		ug/kg	150	22.	1
Fluorene	190		ug/kg	190	19.	1
Phenanthrene	2300		ug/kg	120	23.	1
Dibenzo(a,h)anthracene	180		ug/kg	120	22.	1
Indeno(1,2,3-cd)Pyrene	800		ug/kg	150	27.	1
Pyrene	3100		ug/kg	120	19.	1
Biphenyl	ND		ug/kg	440	44.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	37.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	79.	1
Dibenzofuran	150	J	ug/kg	190	18.	1
2-Methylnaphthalene	120	J	ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	36.	1
P-Chloro-M-Cresol	ND		ug/kg	190	28.	1
2-Chlorophenol	ND		ug/kg	190	23.	1
2,4-Dichlorophenol	ND		ug/kg	170	31.	1
2,4-Dimethylphenol	ND		ug/kg	190	63.	1
2-Nitrophenol	ND		ug/kg	410	72.	1
4-Nitrophenol	ND		ug/kg	270	78.	1
2,4-Dinitrophenol	ND		ug/kg	920	89.	1
4,6-Dinitro-o-cresol	ND		ug/kg	500	92.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	30.	1
2,4,5-Trichlorophenol	ND		ug/kg	190	37.	1
Benzoic Acid	ND		ug/kg	620	190	1
Benzyl Alcohol	ND		ug/kg	190	59.	1
Carbazole	250		ug/kg	190	19.	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-10  
**Client ID:** DUP021116  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 14:00  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	46		25-120
Phenol-d6	80		10-120
Nitrobenzene-d5	81		23-120
2-Fluorobiphenyl	82		30-120
2,4,6-Tribromophenol	24		10-136
4-Terphenyl-d14	73		18-120

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-11  
**Client ID:** FB021116  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/17/16 13:34  
**Analyst:** AL

**Date Collected:** 02/11/16 14:15  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/16/16 15:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/l	2.0	0.59	1
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Hexachlorobenzene	ND		ug/l	2.0	0.58	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
2-Chloronaphthalene	ND		ug/l	2.0	0.64	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.73	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.73	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.71	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
Fluoranthene	ND		ug/l	2.0	0.57	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Hexachloroethane	ND		ug/l	2.0	0.68	1
Isophorone	ND		ug/l	5.0	0.60	1
Naphthalene	ND		ug/l	2.0	0.68	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-Ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-11

Date Collected: 02/11/16 14:15

Client ID: FB021116

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	ND		ug/l	2.0	0.61	1
Benzo(a)pyrene	ND		ug/l	2.0	0.54	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.64	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.60	1
Chrysene	ND		ug/l	2.0	0.54	1
Acenaphthylene	ND		ug/l	2.0	0.66	1
Anthracene	ND		ug/l	2.0	0.64	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.61	1
Fluorene	ND		ug/l	2.0	0.62	1
Phenanthrene	ND		ug/l	2.0	0.61	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.55	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	2.0	0.71	1
Pyrene	ND		ug/l	2.0	0.57	1
Biphenyl	ND		ug/l	2.0	0.76	1
4-Chloroaniline	ND		ug/l	5.0	0.63	1
2-Nitroaniline	ND		ug/l	5.0	1.1	1
3-Nitroaniline	ND		ug/l	5.0	1.1	1
4-Nitroaniline	ND		ug/l	5.0	1.3	1
Dibenzofuran	ND		ug/l	2.0	0.66	1
2-Methylnaphthalene	ND		ug/l	2.0	0.72	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.67	1
Acetophenone	ND		ug/l	5.0	0.85	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
P-Chloro-M-Cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Pentachlorophenol	ND		ug/l	10	3.4	1
Phenol	ND		ug/l	5.0	1.9	1
2-Methylphenol	ND		ug/l	5.0	1.0	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	1.1	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.72	1
Benzoic Acid	ND		ug/l	50	13.	1
Benzyl Alcohol	ND		ug/l	2.0	0.72	1
Carbazole	ND		ug/l	2.0	0.63	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-11  
**Client ID:** FB021116  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 14:15  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	46		21-120
Phenol-d6	32		10-120
Nitrobenzene-d5	70		23-120
2-Fluorobiphenyl	70		15-120
2,4,6-Tribromophenol	72		10-120
4-Terphenyl-d14	70		41-149

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-12  
**Client ID:** SB-104 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/17/16 02:14  
**Analyst:** JB  
**Percent Solids:** 82%

**Date Collected:** 02/11/16 14:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/15/16 17:08

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	36.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	35.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	53.	1
2,4-Dinitrotoluene	ND		ug/kg	200	40.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	ND		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	570	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	ND		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	31.	1
Bis(2-Ethylhexyl)phthalate	1300		ug/kg	200	69.	1
Butyl benzyl phthalate	ND		ug/kg	200	50.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	68.	1
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	42.	1

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-12

Date Collected: 02/11/16 14:30

Client ID: SB-104 (0-2)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	49.	1
Benzo(b)fluoranthene	ND		ug/kg	120	34.	1
Benzo(k)fluoranthene	ND		ug/kg	120	32.	1
Chrysene	ND		ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	31.	1
Anthracene	ND		ug/kg	120	39.	1
Benzo(ghi)perylene	ND		ug/kg	160	24.	1
Fluorene	ND		ug/kg	200	19.	1
Phenanthrene	ND		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	28.	1
Pyrene	ND		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	460	46.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	38.	1
3-Nitroaniline	ND		ug/kg	200	38.	1
4-Nitroaniline	ND		ug/kg	200	83.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	25.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
P-Chloro-M-Cresol	ND		ug/kg	200	30.	1
2-Chlorophenol	ND		ug/kg	200	24.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	66.	1
2-Nitrophenol	ND		ug/kg	430	75.	1
4-Nitrophenol	ND		ug/kg	280	82.	1
2,4-Dinitrophenol	ND		ug/kg	960	93.	1
4,6-Dinitro-o-cresol	ND		ug/kg	520	96.	1
Pentachlorophenol	ND		ug/kg	160	44.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	31.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	31.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	38.	1
Benzoic Acid	ND		ug/kg	650	200	1
Benzyl Alcohol	ND		ug/kg	200	61.	1
Carbazole	ND		ug/kg	200	19.	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-12  
**Client ID:** SB-104 (0-2)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 14:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	81		25-120
Phenol-d6	86		10-120
Nitrobenzene-d5	81		23-120
2-Fluorobiphenyl	75		30-120
2,4,6-Tribromophenol	84		10-136
4-Terphenyl-d14	61		18-120



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-13  
**Client ID:** SB-104 (5-7)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/17/16 02:41  
**Analyst:** JB  
**Percent Solids:** 85%

**Date Collected:** 02/11/16 14:40  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/15/16 17:08

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	35.	1
1,3-Dichlorobenzene	ND		ug/kg	190	33.	1
1,4-Dichlorobenzene	ND		ug/kg	190	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	51.	1
2,4-Dinitrotoluene	ND		ug/kg	190	38.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	ND		ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	33.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	550	170	1
Hexachloroethane	ND		ug/kg	150	31.	1
Isophorone	ND		ug/kg	170	25.	1
Naphthalene	ND		ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	30.	1
Bis(2-Ethylhexyl)phthalate	380		ug/kg	190	67.	1
Butyl benzyl phthalate	ND		ug/kg	190	48.	1
Di-n-butylphthalate	ND		ug/kg	190	36.	1
Di-n-octylphthalate	ND		ug/kg	190	66.	1
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-13  
**Client ID:** SB-104 (5-7)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 14:40  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	150	47.	1
Benzo(b)fluoranthene	ND		ug/kg	120	32.	1
Benzo(k)fluoranthene	ND		ug/kg	120	31.	1
Chrysene	ND		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	150	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	ND		ug/kg	150	23.	1
Fluorene	ND		ug/kg	190	19.	1
Phenanthrene	ND		ug/kg	120	23.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	22.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	150	27.	1
Pyrene	ND		ug/kg	120	19.	1
Biphenyl	ND		ug/kg	440	45.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	37.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	80.	1
Dibenzofuran	ND		ug/kg	190	18.	1
2-Methylnaphthalene	ND		ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	36.	1
P-Chloro-M-Cresol	ND		ug/kg	190	29.	1
2-Chlorophenol	ND		ug/kg	190	23.	1
2,4-Dichlorophenol	ND		ug/kg	170	31.	1
2,4-Dimethylphenol	ND		ug/kg	190	64.	1
2-Nitrophenol	ND		ug/kg	420	72.	1
4-Nitrophenol	ND		ug/kg	270	79.	1
2,4-Dinitrophenol	ND		ug/kg	920	90.	1
4,6-Dinitro-o-cresol	ND		ug/kg	500	92.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	30.	1
2,4,5-Trichlorophenol	ND		ug/kg	190	37.	1
Benzoic Acid	ND		ug/kg	620	200	1
Benzyl Alcohol	ND		ug/kg	190	59.	1
Carbazole	ND		ug/kg	190	19.	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-13  
**Client ID:** SB-104 (5-7)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 14:40  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	58		25-120
Phenol-d6	74		10-120
Nitrobenzene-d5	70		23-120
2-Fluorobiphenyl	65		30-120
2,4,6-Tribromophenol	53		10-136
4-Terphenyl-d14	56		18-120

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-14  
**Client ID:** SB-104 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/17/16 03:07  
**Analyst:** JB  
**Percent Solids:** 78%

**Date Collected:** 02/11/16 14:50  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/15/16 17:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	170	22.	1
1,2,4-Trichlorobenzene	ND		ug/kg	210	24.	1
Hexachlorobenzene	ND		ug/kg	130	24.	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	29.	1
2-Chloronaphthalene	ND		ug/kg	210	21.	1
1,2-Dichlorobenzene	ND		ug/kg	210	38.	1
1,3-Dichlorobenzene	ND		ug/kg	210	37.	1
1,4-Dichlorobenzene	ND		ug/kg	210	37.	1
3,3'-Dichlorobenzidine	ND		ug/kg	210	57.	1
2,4-Dinitrotoluene	ND		ug/kg	210	43.	1
2,6-Dinitrotoluene	ND		ug/kg	210	37.	1
Fluoranthene	ND		ug/kg	130	24.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	210	23.	1
4-Bromophenyl phenyl ether	ND		ug/kg	210	32.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	260	36.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	230	21.	1
Hexachlorobutadiene	ND		ug/kg	210	31.	1
Hexachlorocyclopentadiene	ND		ug/kg	610	190	1
Hexachloroethane	ND		ug/kg	170	34.	1
Isophorone	ND		ug/kg	190	28.	1
Naphthalene	ND		ug/kg	210	26.	1
Nitrobenzene	ND		ug/kg	190	32.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	170	24.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	210	33.	1
Bis(2-Ethylhexyl)phthalate	300		ug/kg	210	74.	1
Butyl benzyl phthalate	ND		ug/kg	210	54.	1
Di-n-butylphthalate	ND		ug/kg	210	40.	1
Di-n-octylphthalate	ND		ug/kg	210	73.	1
Diethyl phthalate	ND		ug/kg	210	20.	1
Dimethyl phthalate	ND		ug/kg	210	45.	1

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-14

Date Collected: 02/11/16 14:50

Client ID: SB-104 (10-12)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	ND		ug/kg	130	24.	1
Benzo(a)pyrene	ND		ug/kg	170	52.	1
Benzo(b)fluoranthene	ND		ug/kg	130	36.	1
Benzo(k)fluoranthene	ND		ug/kg	130	34.	1
Chrysene	ND		ug/kg	130	22.	1
Acenaphthylene	ND		ug/kg	170	33.	1
Anthracene	ND		ug/kg	130	42.	1
Benzo(ghi)perylene	ND		ug/kg	170	25.	1
Fluorene	ND		ug/kg	210	21.	1
Phenanthrene	ND		ug/kg	130	26.	1
Dibenzo(a,h)anthracene	ND		ug/kg	130	25.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	170	30.	1
Pyrene	ND		ug/kg	130	21.	1
Biphenyl	ND		ug/kg	490	50.	1
4-Chloroaniline	ND		ug/kg	210	39.	1
2-Nitroaniline	ND		ug/kg	210	41.	1
3-Nitroaniline	ND		ug/kg	210	40.	1
4-Nitroaniline	ND		ug/kg	210	88.	1
Dibenzofuran	ND		ug/kg	210	20.	1
2-Methylnaphthalene	ND		ug/kg	260	26.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	210	22.	1
Acetophenone	ND		ug/kg	210	26.	1
2,4,6-Trichlorophenol	ND		ug/kg	130	40.	1
P-Chloro-M-Cresol	ND		ug/kg	210	32.	1
2-Chlorophenol	ND		ug/kg	210	25.	1
2,4-Dichlorophenol	ND		ug/kg	190	34.	1
2,4-Dimethylphenol	ND		ug/kg	210	70.	1
2-Nitrophenol	ND		ug/kg	460	80.	1
4-Nitrophenol	ND		ug/kg	300	87.	1
2,4-Dinitrophenol	ND		ug/kg	1000	100	1
4,6-Dinitro-o-cresol	ND		ug/kg	560	100	1
Pentachlorophenol	ND		ug/kg	170	47.	1
Phenol	ND		ug/kg	210	32.	1
2-Methylphenol	ND		ug/kg	210	33.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	310	33.	1
2,4,5-Trichlorophenol	ND		ug/kg	210	41.	1
Benzoic Acid	ND		ug/kg	690	220	1
Benzyl Alcohol	ND		ug/kg	210	65.	1
Carbazole	ND		ug/kg	210	21.	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-14  
**Client ID:** SB-104 (10-12)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/11/16 14:50  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	82		25-120
Phenol-d6	86		10-120
Nitrobenzene-d5	79		23-120
2-Fluorobiphenyl	82		30-120
2,4,6-Tribromophenol	80		10-136
4-Terphenyl-d14	76		18-120

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/16/16 20:05  
 Analyst: JB

Extraction Method: EPA 3546  
 Extraction Date: 02/15/16 17:08

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-10,12-14 Batch: WG865384-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	170	19.
Hexachlorobenzene	ND		ug/kg	100	19.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	170	16.
1,2-Dichlorobenzene	ND		ug/kg	170	30.
1,3-Dichlorobenzene	ND		ug/kg	170	28.
1,4-Dichlorobenzene	ND		ug/kg	170	29.
3,3'-Dichlorobenzidine	ND		ug/kg	170	44.
2,4-Dinitrotoluene	ND		ug/kg	170	33.
2,6-Dinitrotoluene	ND		ug/kg	170	28.
Fluoranthene	ND		ug/kg	100	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	170	18.
4-Bromophenyl phenyl ether	ND		ug/kg	170	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	17.
Hexachlorobutadiene	ND		ug/kg	170	24.
Hexachlorocyclopentadiene	ND		ug/kg	480	150
Hexachloroethane	ND		ug/kg	130	27.
Isophorone	ND		ug/kg	150	22.
Naphthalene	ND		ug/kg	170	20.
Nitrobenzene	ND		ug/kg	150	25.
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	170	26.
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	170	58.
Butyl benzyl phthalate	ND		ug/kg	170	42.
Di-n-butylphthalate	ND		ug/kg	170	32.
Di-n-octylphthalate	ND		ug/kg	170	56.
Diethyl phthalate	ND		ug/kg	170	15.

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/16/16 20:05  
 Analyst: JB

Extraction Method: EPA 3546  
 Extraction Date: 02/15/16 17:08

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-10,12-14 Batch: WG865384-1					
Dimethyl phthalate	ND		ug/kg	170	35.
Benzo(a)anthracene	ND		ug/kg	100	19.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	100	28.
Benzo(k)fluoranthene	ND		ug/kg	100	26.
Chrysene	ND		ug/kg	100	17.
Acenaphthylene	ND		ug/kg	130	26.
Anthracene	ND		ug/kg	100	32.
Benzo(ghi)perylene	ND		ug/kg	130	20.
Fluorene	ND		ug/kg	170	16.
Phenanthrene	ND		ug/kg	100	20.
Dibenzo(a,h)anthracene	ND		ug/kg	100	19.
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	100	16.
Biphenyl	ND		ug/kg	380	38.
4-Chloroaniline	ND		ug/kg	170	30.
2-Nitroaniline	ND		ug/kg	170	32.
3-Nitroaniline	ND		ug/kg	170	31.
4-Nitroaniline	ND		ug/kg	170	69.
Dibenzofuran	ND		ug/kg	170	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	170	17.
Acetophenone	ND		ug/kg	170	20.
2,4,6-Trichlorophenol	ND		ug/kg	100	32.
P-Chloro-M-Cresol	ND		ug/kg	170	25.
2-Chlorophenol	ND		ug/kg	170	20.
2,4-Dichlorophenol	ND		ug/kg	150	27.
2,4-Dimethylphenol	ND		ug/kg	170	55.
2-Nitrophenol	ND		ug/kg	360	62.



Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/16/16 20:05  
 Analyst: JB

Extraction Method: EPA 3546  
 Extraction Date: 02/15/16 17:08

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-10,12-14 Batch: WG865384-1					
4-Nitrophenol	ND		ug/kg	230	68.
2,4-Dinitrophenol	ND		ug/kg	800	77.
4,6-Dinitro-o-cresol	ND		ug/kg	430	80.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	170	25.
2-Methylphenol	ND		ug/kg	170	26.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	170	32.
Benzoic Acid	ND		ug/kg	540	170
Benzyl Alcohol	ND		ug/kg	170	51.
Carbazole	ND		ug/kg	170	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	76		25-120
Phenol-d6	78		10-120
Nitrobenzene-d5	71		23-120
2-Fluorobiphenyl	75		30-120
2,4,6-Tribromophenol	76		10-136
4-Terphenyl-d14	83		18-120

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/16/16 15:21  
 Analyst: AL

Extraction Method: EPA 3510C  
 Extraction Date: 02/16/16 11:02

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 11 Batch: WG865591-1					
Acenaphthene	ND		ug/l	2.0	0.59
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66
Hexachlorobenzene	ND		ug/l	2.0	0.58
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67
2-Chloronaphthalene	ND		ug/l	2.0	0.64
1,2-Dichlorobenzene	ND		ug/l	2.0	0.73
1,3-Dichlorobenzene	ND		ug/l	2.0	0.73
1,4-Dichlorobenzene	ND		ug/l	2.0	0.71
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1
Fluoranthene	ND		ug/l	2.0	0.57
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Hexachlorocyclopentadiene	ND		ug/l	20	7.8
Hexachloroethane	ND		ug/l	2.0	0.68
Isophorone	ND		ug/l	5.0	0.60
Naphthalene	ND		ug/l	2.0	0.68
Nitrobenzene	ND		ug/l	2.0	0.75
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/l	2.0	0.64
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70
Bis(2-Ethylhexyl)phthalate	ND		ug/l	3.0	0.91
Butyl benzyl phthalate	ND		ug/l	5.0	1.3
Di-n-butylphthalate	ND		ug/l	5.0	0.69
Di-n-octylphthalate	ND		ug/l	5.0	1.1
Diethyl phthalate	ND		ug/l	5.0	0.63

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/16/16 15:21  
 Analyst: AL

Extraction Method: EPA 3510C  
 Extraction Date: 02/16/16 11:02

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 11 Batch: WG865591-1					
Dimethyl phthalate	ND		ug/l	5.0	0.65
Benzo(a)anthracene	ND		ug/l	2.0	0.61
Benzo(a)pyrene	ND		ug/l	2.0	0.54
Benzo(b)fluoranthene	ND		ug/l	2.0	0.64
Benzo(k)fluoranthene	ND		ug/l	2.0	0.60
Chrysene	ND		ug/l	2.0	0.54
Acenaphthylene	ND		ug/l	2.0	0.66
Anthracene	ND		ug/l	2.0	0.64
Benzo(ghi)perylene	ND		ug/l	2.0	0.61
Fluorene	ND		ug/l	2.0	0.62
Phenanthrene	ND		ug/l	2.0	0.61
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.55
Indeno(1,2,3-cd)Pyrene	ND		ug/l	2.0	0.71
Pyrene	ND		ug/l	2.0	0.57
Biphenyl	ND		ug/l	2.0	0.76
4-Chloroaniline	ND		ug/l	5.0	0.63
2-Nitroaniline	ND		ug/l	5.0	1.1
3-Nitroaniline	ND		ug/l	5.0	1.1
4-Nitroaniline	ND		ug/l	5.0	1.3
Dibenzofuran	ND		ug/l	2.0	0.66
2-Methylnaphthalene	ND		ug/l	2.0	0.72
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.67
Acetophenone	ND		ug/l	5.0	0.85
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68
P-Chloro-M-Cresol	ND		ug/l	2.0	0.62
2-Chlorophenol	ND		ug/l	2.0	0.63
2,4-Dichlorophenol	ND		ug/l	5.0	0.77
2,4-Dimethylphenol	ND		ug/l	5.0	1.6
2-Nitrophenol	ND		ug/l	10	1.5

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/16/16 15:21  
 Analyst: AL

Extraction Method: EPA 3510C  
 Extraction Date: 02/16/16 11:02

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 11 Batch: WG865591-1					
4-Nitrophenol	ND		ug/l	10	1.8
2,4-Dinitrophenol	ND		ug/l	20	5.5
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1
Pentachlorophenol	ND		ug/l	10	3.4
Phenol	ND		ug/l	5.0	1.9
2-Methylphenol	ND		ug/l	5.0	1.0
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	1.1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.72
Benzoic Acid	ND		ug/l	50	13.
Benzyl Alcohol	ND		ug/l	2.0	0.72
Carbazole	ND		ug/l	2.0	0.63

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	23		21-120
Phenol-d6	16		10-120
Nitrobenzene-d5	37		23-120
2-Fluorobiphenyl	45		15-120
2,4,6-Tribromophenol	44		10-120
4-Terphenyl-d14	54		41-149

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-10,12-14 Batch: WG865384-2 WG865384-3								
Acenaphthene	90		71		31-137	24		50
1,2,4-Trichlorobenzene	83		69		38-107	18		50
Hexachlorobenzene	97		75		40-140	26		50
Bis(2-chloroethyl)ether	82		65		40-140	23		50
2-Chloronaphthalene	91		73		40-140	22		50
1,2-Dichlorobenzene	82		66		40-140	22		50
1,3-Dichlorobenzene	80		65		40-140	21		50
1,4-Dichlorobenzene	80		65		28-104	21		50
3,3'-Dichlorobenzidine	58		49		40-140	17		50
2,4-Dinitrotoluene	97	Q	72		28-89	30		50
2,6-Dinitrotoluene	97		75		40-140	26		50
Fluoranthene	95		74		40-140	25		50
4-Chlorophenyl phenyl ether	89		70		40-140	24		50
4-Bromophenyl phenyl ether	94		73		40-140	25		50
Bis(2-chloroisopropyl)ether	80		66		40-140	19		50
Bis(2-chloroethoxy)methane	89		71		40-117	23		50
Hexachlorobutadiene	85		71		40-140	18		50
Hexachlorocyclopentadiene	81		66		40-140	20		50
Hexachloroethane	81		64		40-140	23		50
Isophorone	88		70		40-140	23		50
Naphthalene	85		71		40-140	18		50

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-10,12-14 Batch: WG865384-2 WG865384-3								
Nitrobenzene	85		69		40-140	21		50
NitrosoDiPhenylAmine(NDPA)/DPA	93		72		36-157	25		50
n-Nitrosodi-n-propylamine	87		68		32-121	25		50
Bis(2-Ethylhexyl)phthalate	98		79		40-140	21		50
Butyl benzyl phthalate	99		79		40-140	22		50
Di-n-butylphthalate	101		80		40-140	23		50
Di-n-octylphthalate	101		82		40-140	21		50
Diethyl phthalate	96		75		40-140	25		50
Dimethyl phthalate	95		74		40-140	25		50
Benzo(a)anthracene	92		72		40-140	24		50
Benzo(a)pyrene	96		76		40-140	23		50
Benzo(b)fluoranthene	94		73		40-140	25		50
Benzo(k)fluoranthene	90		70		40-140	25		50
Chrysene	89		69		40-140	25		50
Acenaphthylene	94		74		40-140	24		50
Anthracene	94		71		40-140	28		50
Benzo(ghi)perylene	88		70		40-140	23		50
Fluorene	91		71		40-140	25		50
Phenanthrene	92		69		40-140	29		50
Dibenzo(a,h)anthracene	79		64		40-140	21		50
Indeno(1,2,3-cd)Pyrene	90		71		40-140	24		50

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-10,12-14 Batch: WG865384-2 WG865384-3								
Pyrene	94		73		35-142	25		50
Biphenyl	94		74		54-104	24		50
4-Chloroaniline	93		79		40-140	16		50
2-Nitroaniline	95		75		47-134	24		50
3-Nitroaniline	64		54		26-129	17		50
4-Nitroaniline	91		70		41-125	26		50
Dibenzofuran	90		70		40-140	25		50
2-Methylnaphthalene	90		72		40-140	22		50
1,2,4,5-Tetrachlorobenzene	91		74		40-117	21		50
Acetophenone	94		74		14-144	24		50
2,4,6-Trichlorophenol	98		77		30-130	24		50
P-Chloro-M-Cresol	98		77		26-103	24		50
2-Chlorophenol	90		73		25-102	21		50
2,4-Dichlorophenol	94		76		30-130	21		50
2,4-Dimethylphenol	89		69		30-130	25		50
2-Nitrophenol	88		69		30-130	24		50
4-Nitrophenol	105		79		11-114	28		50
2,4-Dinitrophenol	90		70		4-130	25		50
4,6-Dinitro-o-cresol	88		69		10-130	24		50
Pentachlorophenol	90		70		17-109	25		50
Phenol	83		64		26-90	26		50

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-10,12-14 Batch: WG865384-2 WG865384-3								
2-Methylphenol	92		70		30-130.	27		50
3-Methylphenol/4-Methylphenol	93		71		30-130	27		50
2,4,5-Trichlorophenol	98		74		30-130	28		50
Benzoic Acid	<b>98</b>	Q	<b>77</b>	Q	10-66	24		50
Benzyl Alcohol	89		69		40-140	25		50
Carbazole	95		74		54-128	25		50

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
2-Fluorophenol	85		67		25-120
Phenol-d6	90		70		10-120
Nitrobenzene-d5	84		65		23-120
2-Fluorobiphenyl	86		69		30-120
2,4,6-Tribromophenol	88		66		10-136
4-Terphenyl-d14	91		69		18-120



# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG865591-2 WG865591-3								
Acenaphthene	74		70		37-111	6		30
1,2,4-Trichlorobenzene	62		56		39-98	10		30
Hexachlorobenzene	86		70		40-140	21		30
Bis(2-chloroethyl)ether	66		64		40-140	3		30
2-Chloronaphthalene	73		68		40-140	7		30
1,2-Dichlorobenzene	58		57		40-140	2		30
1,3-Dichlorobenzene	56		53		40-140	6		30
1,4-Dichlorobenzene	56		54		36-97	4		30
3,3'-Dichlorobenzidine	62		58		40-140	7		30
2,4-Dinitrotoluene	84		78		24-96	7		30
2,6-Dinitrotoluene	84		78		40-140	7		30
Fluoranthene	83		78		40-140	6		30
4-Chlorophenyl phenyl ether	82		69		40-140	17		30
4-Bromophenyl phenyl ether	86		70		40-140	21		30
Bis(2-chloroisopropyl)ether	58		70		40-140	19		30
Bis(2-chloroethoxy)methane	72		72		40-140	0		30
Hexachlorobutadiene	60		52		40-140	14		30
Hexachlorocyclopentadiene	69		42		40-140	49	Q	30
Hexachloroethane	53		54		40-140	2		30
Isophorone	72		77		40-140	7		30
Naphthalene	66		63		40-140	5		30

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG865591-2 WG865591-3								
Nitrobenzene	70		71		40-140	1		30
NitrosoDiPhenylAmine(NDPA)/DPA	81		74		40-140	9		30
n-Nitrosodi-n-propylamine	70		76		29-132	8		30
Bis(2-Ethylhexyl)phthalate	79		77		40-140	3		30
Butyl benzyl phthalate	82		79		40-140	4		30
Di-n-butylphthalate	83		80		40-140	4		30
Di-n-octylphthalate	72		79		40-140	9		30
Diethyl phthalate	82		76		40-140	8		30
Dimethyl phthalate	83		76		40-140	9		30
Benzo(a)anthracene	77		75		40-140	3		30
Benzo(a)pyrene	83		76		40-140	9		30
Benzo(b)fluoranthene	73		76		40-140	4		30
Benzo(k)fluoranthene	79		73		40-140	8		30
Chrysene	80		75		40-140	6		30
Acenaphthylene	78		73		45-123	7		30
Anthracene	81		75		40-140	8		30
Benzo(ghi)perylene	78		72		40-140	8		30
Fluorene	78		74		40-140	5		30
Phenanthrene	78		75		40-140	4		30
Dibenzo(a,h)anthracene	69		74		40-140	7		30
Indeno(1,2,3-cd)Pyrene	73		73		40-140	0		30

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG865591-2 WG865591-3								
Pyrene	82		76		26-127	8		30
Biphenyl	76		71		54-104	7		30
4-Chloroaniline	74		81		40-140	9		30
2-Nitroaniline	86		75		52-143	14		30
3-Nitroaniline	74		65		25-145	13		30
4-Nitroaniline	77		74		51-143	4		30
Dibenzofuran	77		72		40-140	7		30
2-Methylnaphthalene	70		65		40-140	7		30
1,2,4,5-Tetrachlorobenzene	73		63		2-134	15		30
Acetophenone	77		79		39-129	3		30
2,4,6-Trichlorophenol	86		74		30-130	15		30
P-Chloro-M-Cresol	81		82		23-97	1		30
2-Chlorophenol	68		66		27-123	3		30
2,4-Dichlorophenol	80		72		30-130	11		30
2,4-Dimethylphenol	73		68		30-130	7		30
2-Nitrophenol	79		69		30-130	14		30
4-Nitrophenol	47		58		10-80	21		30
2,4-Dinitrophenol	89		63		20-130	34	Q	30
4,6-Dinitro-o-cresol	85		70		20-164	19		30
Pentachlorophenol	77		58		9-103	28		30
Phenol	33		33		12-110	0		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603689

Report Date: 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG865591-2 WG865591-3								
2-Methylphenol	63		63		30-130	0		30
3-Methylphenol/4-Methylphenol	63		67		30-130	6		30
2,4,5-Trichlorophenol	83		74		30-130	11		30
Benzoic Acid	30		17		10-110	55	Q	30
Benzyl Alcohol	58		66		15-110	13		30
Carbazole	80		78		55-144	3		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	42		43		21-120
Phenol-d6	31		32		10-120
Nitrobenzene-d5	66		69		23-120
2-Fluorobiphenyl	74		65		15-120
2,4,6-Tribromophenol	72		65		10-120
4-Terphenyl-d14	78		69		41-149

# PCBS

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-01  
**Client ID:** SB-105 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/16/16 09:41  
**Analyst:** JW  
**Percent Solids:** 84%

**Date Collected:** 02/11/16 09:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/14/16 15:34  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/15/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/15/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	38.7	3.06	1	A
Aroclor 1221	ND		ug/kg	38.7	3.57	1	A
Aroclor 1232	ND		ug/kg	38.7	4.53	1	A
Aroclor 1242	ND		ug/kg	38.7	4.74	1	A
Aroclor 1248	ND		ug/kg	38.7	3.26	1	A
Aroclor 1254	ND		ug/kg	38.7	3.18	1	A
Aroclor 1260	13.0	J	ug/kg	38.7	2.95	1	B
Aroclor 1262	ND		ug/kg	38.7	1.92	1	A
Aroclor 1268	ND		ug/kg	38.7	5.61	1	A
PCBs, Total	13.0	J	ug/kg	38.7	1.92	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		30-150	A
Decachlorobiphenyl	92		30-150	A
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	93		30-150	B

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-02  
**Client ID:** SB-105 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/16/16 09:55  
**Analyst:** JW  
**Percent Solids:** 83%

**Date Collected:** 02/11/16 09:45  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/14/16 15:34  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/15/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/15/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	39.0	3.08	1	A
Aroclor 1221	ND		ug/kg	39.0	3.59	1	A
Aroclor 1232	ND		ug/kg	39.0	4.57	1	A
Aroclor 1242	ND		ug/kg	39.0	4.77	1	A
Aroclor 1248	ND		ug/kg	39.0	3.29	1	A
Aroclor 1254	ND		ug/kg	39.0	3.20	1	A
Aroclor 1260	ND		ug/kg	39.0	2.97	1	A
Aroclor 1262	ND		ug/kg	39.0	1.93	1	A
Aroclor 1268	ND		ug/kg	39.0	5.65	1	A
PCBs, Total	ND		ug/kg	39.0	1.93	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	78		30-150	A
Decachlorobiphenyl	71		30-150	A
2,4,5,6-Tetrachloro-m-xylene	82		30-150	B
Decachlorobiphenyl	82		30-150	B

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-03  
**Client ID:** SB-107 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/16/16 10:08  
**Analyst:** JW  
**Percent Solids:** 90%

**Date Collected:** 02/11/16 10:20  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/14/16 15:34  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/15/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/15/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.0	2.84	1	A
Aroclor 1221	ND		ug/kg	36.0	3.32	1	A
Aroclor 1232	ND		ug/kg	36.0	4.22	1	A
Aroclor 1242	ND		ug/kg	36.0	4.40	1	A
Aroclor 1248	ND		ug/kg	36.0	3.04	1	A
Aroclor 1254	ND		ug/kg	36.0	2.96	1	A
Aroclor 1260	ND		ug/kg	36.0	2.74	1	A
Aroclor 1262	ND		ug/kg	36.0	1.78	1	A
Aroclor 1268	ND		ug/kg	36.0	5.22	1	A
PCBs, Total	ND		ug/kg	36.0	1.78	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	79		30-150	A
Decachlorobiphenyl	69		30-150	A
2,4,5,6-Tetrachloro-m-xylene	85		30-150	B
Decachlorobiphenyl	80		30-150	B



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-04  
**Client ID:** SB-107 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/16/16 10:22  
**Analyst:** JW  
**Percent Solids:** 83%

**Date Collected:** 02/11/16 10:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/14/16 15:34  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/15/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/15/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	39.5	3.12	1	A
Aroclor 1221	ND		ug/kg	39.5	3.64	1	A
Aroclor 1232	ND		ug/kg	39.5	4.63	1	A
Aroclor 1242	ND		ug/kg	39.5	4.83	1	A
Aroclor 1248	ND		ug/kg	39.5	3.33	1	A
Aroclor 1254	ND		ug/kg	39.5	3.25	1	A
Aroclor 1260	ND		ug/kg	39.5	3.01	1	A
Aroclor 1262	ND		ug/kg	39.5	1.96	1	A
Aroclor 1268	ND		ug/kg	39.5	5.73	1	A
PCBs, Total	ND		ug/kg	39.5	1.96	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		30-150	A
Decachlorobiphenyl	70		30-150	A
2,4,5,6-Tetrachloro-m-xylene	77		30-150	B
Decachlorobiphenyl	81		30-150	B

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-05  
**Client ID:** SB-106 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/16/16 10:36  
**Analyst:** JW  
**Percent Solids:** 81%

**Date Collected:** 02/11/16 12:15  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/14/16 15:34  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/15/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/15/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	39.4	3.12	1	A
Aroclor 1221	ND		ug/kg	39.4	3.64	1	A
Aroclor 1232	ND		ug/kg	39.4	4.62	1	A
Aroclor 1242	ND		ug/kg	39.4	4.83	1	A
Aroclor 1248	ND		ug/kg	39.4	3.33	1	A
Aroclor 1254	ND		ug/kg	39.4	3.24	1	A
Aroclor 1260	ND		ug/kg	39.4	3.00	1	A
Aroclor 1262	ND		ug/kg	39.4	1.96	1	A
Aroclor 1268	ND		ug/kg	39.4	5.72	1	A
PCBs, Total	ND		ug/kg	39.4	1.96	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	80		30-150	A
Decachlorobiphenyl	79		30-150	A
2,4,5,6-Tetrachloro-m-xylene	83		30-150	B
Decachlorobiphenyl	85		30-150	B

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-06  
**Client ID:** SB-106 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/16/16 10:49  
**Analyst:** JW  
**Percent Solids:** 77%

**Date Collected:** 02/11/16 12:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/14/16 15:34  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/15/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/15/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	41.0	3.24	1	A
Aroclor 1221	ND		ug/kg	41.0	3.78	1	A
Aroclor 1232	ND		ug/kg	41.0	4.81	1	A
Aroclor 1242	ND		ug/kg	41.0	5.02	1	A
Aroclor 1248	ND		ug/kg	41.0	3.46	1	A
Aroclor 1254	ND		ug/kg	41.0	3.37	1	A
Aroclor 1260	ND		ug/kg	41.0	3.12	1	A
Aroclor 1262	ND		ug/kg	41.0	2.03	1	A
Aroclor 1268	ND		ug/kg	41.0	5.95	1	A
PCBs, Total	ND		ug/kg	41.0	2.03	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		30-150	A
Decachlorobiphenyl	82		30-150	A
2,4,5,6-Tetrachloro-m-xylene	75		30-150	B
Decachlorobiphenyl	87		30-150	B

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-07  
**Client ID:** SB-108 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/16/16 11:03  
**Analyst:** JW  
**Percent Solids:** 83%

**Date Collected:** 02/11/16 13:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/14/16 15:34  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/15/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/15/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	39.5	3.12	1	A
Aroclor 1221	ND		ug/kg	39.5	3.64	1	A
Aroclor 1232	ND		ug/kg	39.5	4.62	1	A
Aroclor 1242	ND		ug/kg	39.5	4.83	1	A
Aroclor 1248	ND		ug/kg	39.5	3.33	1	A
Aroclor 1254	ND		ug/kg	39.5	3.24	1	A
Aroclor 1260	ND		ug/kg	39.5	3.01	1	A
Aroclor 1262	ND		ug/kg	39.5	1.96	1	A
Aroclor 1268	ND		ug/kg	39.5	5.72	1	A
PCBs, Total	ND		ug/kg	39.5	1.96	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	A
Decachlorobiphenyl	95		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	94		30-150	B

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-08  
**Client ID:** SB-108 (4-6)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/16/16 11:17  
**Analyst:** JW  
**Percent Solids:** 83%

**Date Collected:** 02/11/16 13:40  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/14/16 15:34  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/15/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/15/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	38.3	3.02	1	A
Aroclor 1221	ND		ug/kg	38.3	3.53	1	A
Aroclor 1232	ND		ug/kg	38.3	4.49	1	A
Aroclor 1242	ND		ug/kg	38.3	4.69	1	A
Aroclor 1248	ND		ug/kg	38.3	3.23	1	A
Aroclor 1254	ND		ug/kg	38.3	3.15	1	A
Aroclor 1260	ND		ug/kg	38.3	2.92	1	A
Aroclor 1262	ND		ug/kg	38.3	1.90	1	A
Aroclor 1268	ND		ug/kg	38.3	5.55	1	A
PCBs, Total	ND		ug/kg	38.3	1.90	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		30-150	A
Decachlorobiphenyl	86		30-150	A
2,4,5,6-Tetrachloro-m-xylene	78		30-150	B
Decachlorobiphenyl	89		30-150	B

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-09  
**Client ID:** SB-108 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/16/16 11:31  
**Analyst:** JW  
**Percent Solids:** 83%

**Date Collected:** 02/11/16 13:50  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/14/16 15:34  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/15/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/15/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	37.7	2.98	1	A
Aroclor 1221	ND		ug/kg	37.7	3.48	1	A
Aroclor 1232	ND		ug/kg	37.7	4.42	1	A
Aroclor 1242	ND		ug/kg	37.7	4.61	1	A
Aroclor 1248	ND		ug/kg	37.7	3.18	1	A
Aroclor 1254	ND		ug/kg	37.7	3.10	1	A
Aroclor 1260	ND		ug/kg	37.7	2.87	1	A
Aroclor 1262	ND		ug/kg	37.7	1.87	1	A
Aroclor 1268	ND		ug/kg	37.7	5.47	1	A
PCBs, Total	ND		ug/kg	37.7	1.87	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74		30-150	A
Decachlorobiphenyl	82		30-150	A
2,4,5,6-Tetrachloro-m-xylene	75		30-150	B
Decachlorobiphenyl	85		30-150	B

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-10  
**Client ID:** DUP021116  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/16/16 11:44  
**Analyst:** JW  
**Percent Solids:** 85%

**Date Collected:** 02/11/16 14:00  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/14/16 15:34  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/15/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/15/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	37.0	2.92	1	A
Aroclor 1221	ND		ug/kg	37.0	3.41	1	A
Aroclor 1232	ND		ug/kg	37.0	4.34	1	A
Aroclor 1242	ND		ug/kg	37.0	4.53	1	A
Aroclor 1248	ND		ug/kg	37.0	3.12	1	A
Aroclor 1254	ND		ug/kg	37.0	3.04	1	A
Aroclor 1260	ND		ug/kg	37.0	2.82	1	A
Aroclor 1262	ND		ug/kg	37.0	1.84	1	A
Aroclor 1268	ND		ug/kg	37.0	5.37	1	A
PCBs, Total	ND		ug/kg	37.0	1.84	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		30-150	A
Decachlorobiphenyl	88		30-150	A
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	89		30-150	B

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-11  
**Client ID:** FB021116  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/17/16 13:48  
**Analyst:** JW

**Date Collected:** 02/11/16 14:15  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/16/16 06:02  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/16/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/16/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		30-150	A
Decachlorobiphenyl	69		30-150	A
2,4,5,6-Tetrachloro-m-xylene	75		30-150	B
Decachlorobiphenyl	71		30-150	B



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-12  
**Client ID:** SB-104 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/16/16 11:58  
**Analyst:** JW  
**Percent Solids:** 82%

**Date Collected:** 02/11/16 14:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/14/16 15:34  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/15/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/15/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	39.2	3.10	1	A
Aroclor 1221	ND		ug/kg	39.2	3.62	1	A
Aroclor 1232	ND		ug/kg	39.2	4.60	1	A
Aroclor 1242	ND		ug/kg	39.2	4.80	1	A
Aroclor 1248	ND		ug/kg	39.2	3.31	1	A
Aroclor 1254	ND		ug/kg	39.2	3.22	1	A
Aroclor 1260	14.7	J	ug/kg	39.2	2.99	1	B
Aroclor 1262	ND		ug/kg	39.2	1.94	1	A
Aroclor 1268	ND		ug/kg	39.2	5.69	1	A
PCBs, Total	14.7	J	ug/kg	39.2	1.94	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		30-150	A
Decachlorobiphenyl	81		30-150	A
2,4,5,6-Tetrachloro-m-xylene	75		30-150	B
Decachlorobiphenyl	85		30-150	B

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-13  
**Client ID:** SB-104 (5-7)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/16/16 12:12  
**Analyst:** JW  
**Percent Solids:** 85%

**Date Collected:** 02/11/16 14:40  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/14/16 15:34  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/15/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/15/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	37.7	2.98	1	A
Aroclor 1221	ND		ug/kg	37.7	3.48	1	A
Aroclor 1232	ND		ug/kg	37.7	4.42	1	A
Aroclor 1242	ND		ug/kg	37.7	4.62	1	A
Aroclor 1248	ND		ug/kg	37.7	3.18	1	A
Aroclor 1254	ND		ug/kg	37.7	3.10	1	A
Aroclor 1260	13.2	J	ug/kg	37.7	2.87	1	B
Aroclor 1262	ND		ug/kg	37.7	1.87	1	A
Aroclor 1268	ND		ug/kg	37.7	5.47	1	A
PCBs, Total	13.2	J	ug/kg	37.7	1.87	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	A
Decachlorobiphenyl	82		30-150	A
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	89		30-150	B

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-14  
**Client ID:** SB-104 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/16/16 12:25  
**Analyst:** JW  
**Percent Solids:** 78%

**Date Collected:** 02/11/16 14:50  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/14/16 15:35  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/15/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/15/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	40.5	3.20	1	A
Aroclor 1221	ND		ug/kg	40.5	3.73	1	A
Aroclor 1232	ND		ug/kg	40.5	4.74	1	A
Aroclor 1242	ND		ug/kg	40.5	4.95	1	A
Aroclor 1248	ND		ug/kg	40.5	3.42	1	A
Aroclor 1254	ND		ug/kg	40.5	3.33	1	A
Aroclor 1260	ND		ug/kg	40.5	3.08	1	A
Aroclor 1262	ND		ug/kg	40.5	2.01	1	A
Aroclor 1268	ND		ug/kg	40.5	5.87	1	A
PCBs, Total	ND		ug/kg	40.5	2.01	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74		30-150	A
Decachlorobiphenyl	89		30-150	A
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	94		30-150	B

**Project Name:** DUPONT STREET**Lab Number:** L1603689**Project Number:** 2587.0001Y000**Report Date:** 02/18/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082A  
 Analytical Date: 02/16/16 12:39  
 Analyst: JW

Extraction Method: EPA 3546  
 Extraction Date: 02/14/16 15:34  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 02/15/16  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 02/15/16

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-10,12-14 Batch: WG865163-1						
Aroclor 1016	ND		ug/kg	31.9	2.52	A
Aroclor 1221	ND		ug/kg	31.9	2.94	A
Aroclor 1232	ND		ug/kg	31.9	3.74	A
Aroclor 1242	ND		ug/kg	31.9	3.90	A
Aroclor 1248	ND		ug/kg	31.9	2.69	A
Aroclor 1254	ND		ug/kg	31.9	2.62	A
Aroclor 1260	ND		ug/kg	31.9	2.43	A
Aroclor 1262	ND		ug/kg	31.9	1.58	A
Aroclor 1268	ND		ug/kg	31.9	4.63	A
PCBs, Total	ND		ug/kg	31.9	1.58	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	78		30-150	A
Decachlorobiphenyl	89		30-150	A
2,4,5,6-Tetrachloro-m-xylene	80		30-150	B
Decachlorobiphenyl	90		30-150	B

**Project Name:** DUPONT STREET**Lab Number:** L1603689**Project Number:** 2587.0001Y000**Report Date:** 02/18/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082A  
 Analytical Date: 02/17/16 15:51  
 Analyst: JW

Extraction Method: EPA 3510C  
 Extraction Date: 02/16/16 06:02  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 02/16/16  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 02/16/16

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 11 Batch: WG865452-1						
Aroclor 1016	ND		ug/l	0.083	0.055	A
Aroclor 1221	ND		ug/l	0.083	0.053	A
Aroclor 1232	ND		ug/l	0.083	0.031	A
Aroclor 1242	ND		ug/l	0.083	0.060	A
Aroclor 1248	ND		ug/l	0.083	0.051	A
Aroclor 1254	ND		ug/l	0.083	0.034	A
Aroclor 1260	ND		ug/l	0.083	0.032	A
Aroclor 1262	ND		ug/l	0.083	0.029	A
Aroclor 1268	ND		ug/l	0.083	0.038	A
PCBs, Total	ND		ug/l	0.083	0.029	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	54		30-150	A
Decachlorobiphenyl	93		30-150	A
2,4,5,6-Tetrachloro-m-xylene	56		30-150	B
Decachlorobiphenyl	88		30-150	B

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-10,12-14 Batch: WG865163-2 WG865163-3									
Aroclor 1016	75		68		40-140	10		50	A
Aroclor 1260	59		54		40-140	9		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		77		30-150	A
Decachlorobiphenyl	67		71		30-150	A
2,4,5,6-Tetrachloro-m-xylene	80		79		30-150	B
Decachlorobiphenyl	81		82		30-150	B

**Lab Control Sample Analysis****Batch Quality Control****Project Name:** DUPONT STREET**Lab Number:** L1603689**Project Number:** 2587.0001Y000**Report Date:** 02/18/16

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>	<b>Column</b>
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 11 Batch: WG865452-2 WG865452-3									
Aroclor 1016	86		87		40-140	2		50	A
Aroclor 1260	109		111		40-140	2		50	A

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>	<b>Column</b>
2,4,5,6-Tetrachloro-m-xylene	62		62		30-150	A
Decachlorobiphenyl	95		90		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		62		30-150	B
Decachlorobiphenyl	90		86		30-150	B

# PESTICIDES



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-01  
**Client ID:** SB-105 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/16/16 22:23  
**Analyst:** EC  
**Percent Solids:** 84%

**Date Collected:** 02/11/16 09:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/14/16 13:56  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 02/16/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.87	0.367	1	A
Lindane	ND		ug/kg	0.780	0.349	1	A
Alpha-BHC	ND		ug/kg	0.780	0.222	1	A
Beta-BHC	ND		ug/kg	1.87	0.710	1	A
Heptachlor	ND		ug/kg	0.936	0.420	1	A
Aldrin	ND		ug/kg	1.87	0.659	1	A
Heptachlor epoxide	ND		ug/kg	3.51	1.05	1	A
Endrin	ND		ug/kg	0.780	0.320	1	A
Endrin aldehyde	ND		ug/kg	2.34	0.819	1	A
Endrin ketone	ND		ug/kg	1.87	0.482	1	A
Dieldrin	ND		ug/kg	1.17	0.585	1	A
4,4'-DDE	17.9		ug/kg	1.87	0.433	1	B
4,4'-DDD	ND		ug/kg	1.87	0.668	1	A
4,4'-DDT	77.0		ug/kg	3.51	1.51	1	A
Endosulfan I	ND		ug/kg	1.87	0.442	1	A
Endosulfan II	ND		ug/kg	1.87	0.626	1	A
Endosulfan sulfate	ND		ug/kg	0.780	0.371	1	A
Methoxychlor	ND		ug/kg	3.51	1.09	1	A
Toxaphene	ND		ug/kg	35.1	9.83	1	A
cis-Chlordane	ND		ug/kg	2.34	0.652	1	A
trans-Chlordane	2.02	JPI	ug/kg	2.34	0.618	1	A
Chlordane	ND		ug/kg	15.2	6.20	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	72		30-150	B
2,4,5,6-Tetrachloro-m-xylene	77		30-150	A
Decachlorobiphenyl	113		30-150	A

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-02  
**Client ID:** SB-105 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/16/16 22:38  
**Analyst:** EC  
**Percent Solids:** 83%

**Date Collected:** 02/11/16 09:45  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/14/16 13:56  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 02/16/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.82	0.356	1	A
Lindane	ND		ug/kg	0.757	0.338	1	A
Alpha-BHC	ND		ug/kg	0.757	0.215	1	A
Beta-BHC	ND		ug/kg	1.82	0.689	1	A
Heptachlor	ND		ug/kg	0.909	0.408	1	A
Aldrin	ND		ug/kg	1.82	0.640	1	A
Heptachlor epoxide	ND		ug/kg	3.41	1.02	1	A
Endrin	ND		ug/kg	0.757	0.310	1	A
Endrin aldehyde	ND		ug/kg	2.27	0.795	1	A
Endrin ketone	ND		ug/kg	1.82	0.468	1	A
Dieldrin	ND		ug/kg	1.14	0.568	1	A
4,4'-DDE	ND		ug/kg	1.82	0.420	1	A
4,4'-DDD	ND		ug/kg	1.82	0.648	1	A
4,4'-DDT	ND		ug/kg	3.41	1.46	1	A
Endosulfan I	ND		ug/kg	1.82	0.429	1	A
Endosulfan II	ND		ug/kg	1.82	0.607	1	A
Endosulfan sulfate	ND		ug/kg	0.757	0.360	1	A
Methoxychlor	ND		ug/kg	3.41	1.06	1	A
Toxaphene	ND		ug/kg	34.1	9.54	1	A
cis-Chlordane	ND		ug/kg	2.27	0.633	1	A
trans-Chlordane	0.720	JPI	ug/kg	2.27	0.600	1	A
Chlordane	ND		ug/kg	14.8	6.02	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	63		30-150	B
Decachlorobiphenyl	110		30-150	B
2,4,5,6-Tetrachloro-m-xylene	72		30-150	A
Decachlorobiphenyl	94		30-150	A

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-03  
**Client ID:** SB-107 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/16/16 22:53  
**Analyst:** EC  
**Percent Solids:** 90%

**Date Collected:** 02/11/16 10:20  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/14/16 13:56  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 02/16/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.77	0.346	1	A
Lindane	ND		ug/kg	0.736	0.329	1	A
Alpha-BHC	ND		ug/kg	0.736	0.209	1	A
Beta-BHC	ND		ug/kg	1.77	0.670	1	A
Heptachlor	ND		ug/kg	0.883	0.396	1	A
Aldrin	ND		ug/kg	1.77	0.622	1	A
Heptachlor epoxide	ND		ug/kg	3.31	0.993	1	A
Endrin	ND		ug/kg	0.736	0.302	1	A
Endrin aldehyde	ND		ug/kg	2.21	0.773	1	A
Endrin ketone	ND		ug/kg	1.77	0.455	1	A
Dieldrin	ND		ug/kg	1.10	0.552	1	A
4,4'-DDE	ND		ug/kg	1.77	0.408	1	A
4,4'-DDD	ND		ug/kg	1.77	0.630	1	A
4,4'-DDT	ND		ug/kg	3.31	1.42	1	A
Endosulfan I	ND		ug/kg	1.77	0.417	1	A
Endosulfan II	ND		ug/kg	1.77	0.590	1	A
Endosulfan sulfate	ND		ug/kg	0.736	0.350	1	A
Methoxychlor	ND		ug/kg	3.31	1.03	1	A
Toxaphene	ND		ug/kg	33.1	9.27	1	A
cis-Chlordane	1.83	J	ug/kg	2.21	0.615	1	A
trans-Chlordane	2.00	J	ug/kg	2.21	0.583	1	A
Chlordane	ND		ug/kg	14.3	5.85	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	63		30-150	B
Decachlorobiphenyl	76		30-150	B
2,4,5,6-Tetrachloro-m-xylene	71		30-150	A
Decachlorobiphenyl	90		30-150	A

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-04  
**Client ID:** SB-107 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/16/16 23:07  
**Analyst:** EC  
**Percent Solids:** 83%

**Date Collected:** 02/11/16 10:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/14/16 13:56  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 02/16/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.90	0.373	1	A
Lindane	ND		ug/kg	0.793	0.354	1	A
Alpha-BHC	ND		ug/kg	0.793	0.225	1	A
Beta-BHC	ND		ug/kg	1.90	0.722	1	A
Heptachlor	ND		ug/kg	0.952	0.427	1	A
Aldrin	ND		ug/kg	1.90	0.670	1	A
Heptachlor epoxide	ND		ug/kg	3.57	1.07	1	A
Endrin	ND		ug/kg	0.793	0.325	1	A
Endrin aldehyde	ND		ug/kg	2.38	0.833	1	A
Endrin ketone	ND		ug/kg	1.90	0.490	1	A
Dieldrin	ND		ug/kg	1.19	0.595	1	A
4,4'-DDE	ND		ug/kg	1.90	0.440	1	A
4,4'-DDD	ND		ug/kg	1.90	0.679	1	A
4,4'-DDT	ND		ug/kg	3.57	1.53	1	A
Endosulfan I	ND		ug/kg	1.90	0.450	1	A
Endosulfan II	ND		ug/kg	1.90	0.636	1	A
Endosulfan sulfate	ND		ug/kg	0.793	0.377	1	A
Methoxychlor	ND		ug/kg	3.57	1.11	1	A
Toxaphene	ND		ug/kg	35.7	9.99	1	A
cis-Chlordane	1.52	JPI	ug/kg	2.38	0.663	1	B
trans-Chlordane	3.24		ug/kg	2.38	0.628	1	A
Chlordane	ND		ug/kg	15.5	6.30	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		30-150	B
Decachlorobiphenyl	67		30-150	B
2,4,5,6-Tetrachloro-m-xylene	65		30-150	A
Decachlorobiphenyl	75		30-150	A

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-05  
**Client ID:** SB-106 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/16/16 23:22  
**Analyst:** EC  
**Percent Solids:** 81%

**Date Collected:** 02/11/16 12:15  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/14/16 13:56  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 02/16/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.96	0.384	1	A
Lindane	ND		ug/kg	0.817	0.365	1	A
Alpha-BHC	ND		ug/kg	0.817	0.232	1	A
Beta-BHC	ND		ug/kg	1.96	0.743	1	A
Heptachlor	ND		ug/kg	0.980	0.440	1	A
Aldrin	ND		ug/kg	1.96	0.690	1	A
Heptachlor epoxide	ND		ug/kg	3.68	1.10	1	A
Endrin	ND		ug/kg	0.817	0.335	1	A
Endrin aldehyde	ND		ug/kg	2.45	0.858	1	A
Endrin ketone	ND		ug/kg	1.96	0.505	1	A
Dieldrin	ND		ug/kg	1.22	0.613	1	A
4,4'-DDE	ND		ug/kg	1.96	0.453	1	A
4,4'-DDD	ND		ug/kg	1.96	0.699	1	A
4,4'-DDT	ND		ug/kg	3.68	1.58	1	A
Endosulfan I	ND		ug/kg	1.96	0.463	1	A
Endosulfan II	ND		ug/kg	1.96	0.655	1	A
Endosulfan sulfate	ND		ug/kg	0.817	0.389	1	A
Methoxychlor	ND		ug/kg	3.68	1.14	1	A
Toxaphene	ND		ug/kg	36.8	10.3	1	A
cis-Chlordane	1.46	J	ug/kg	2.45	0.683	1	A
trans-Chlordane	1.46	J	ug/kg	2.45	0.647	1	B
Chlordane	ND		ug/kg	15.9	6.50	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	57		30-150	B
Decachlorobiphenyl	66		30-150	B
2,4,5,6-Tetrachloro-m-xylene	65		30-150	A
Decachlorobiphenyl	75		30-150	A

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-06  
**Client ID:** SB-106 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/16/16 23:37  
**Analyst:** EC  
**Percent Solids:** 77%

**Date Collected:** 02/11/16 12:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/14/16 13:56  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 02/16/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	2.02	0.396	1	A
Lindane	ND		ug/kg	0.842	0.376	1	A
Alpha-BHC	ND		ug/kg	0.842	0.239	1	A
Beta-BHC	ND		ug/kg	2.02	0.766	1	A
Heptachlor	ND		ug/kg	1.01	0.453	1	A
Aldrin	ND		ug/kg	2.02	0.712	1	A
Heptachlor epoxide	ND		ug/kg	3.79	1.14	1	A
Endrin	ND		ug/kg	0.842	0.345	1	A
Endrin aldehyde	ND		ug/kg	2.53	0.884	1	A
Endrin ketone	ND		ug/kg	2.02	0.520	1	A
Dieldrin	ND		ug/kg	1.26	0.632	1	A
4,4'-DDE	ND		ug/kg	2.02	0.467	1	A
4,4'-DDD	ND		ug/kg	2.02	0.721	1	A
4,4'-DDT	ND		ug/kg	3.79	1.62	1	A
Endosulfan I	ND		ug/kg	2.02	0.478	1	A
Endosulfan II	ND		ug/kg	2.02	0.675	1	A
Endosulfan sulfate	ND		ug/kg	0.842	0.401	1	A
Methoxychlor	ND		ug/kg	3.79	1.18	1	A
Toxaphene	ND		ug/kg	37.9	10.6	1	A
cis-Chlordane	1.52	J	ug/kg	2.53	0.704	1	A
trans-Chlordane	1.13	JPI	ug/kg	2.53	0.667	1	A
Chlordane	ND		ug/kg	16.4	6.70	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	63		30-150	B
Decachlorobiphenyl	77		30-150	B
2,4,5,6-Tetrachloro-m-xylene	72		30-150	A
Decachlorobiphenyl	83		30-150	A

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-07  
**Client ID:** SB-108 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/16/16 23:52  
**Analyst:** EC  
**Percent Solids:** 83%

**Date Collected:** 02/11/16 13:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/14/16 13:56  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 02/16/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.89	0.371	1	A
Lindane	ND		ug/kg	0.789	0.353	1	A
Alpha-BHC	ND		ug/kg	0.789	0.224	1	A
Beta-BHC	ND		ug/kg	1.89	0.718	1	A
Heptachlor	ND		ug/kg	0.947	0.425	1	A
Aldrin	ND		ug/kg	1.89	0.667	1	A
Heptachlor epoxide	ND		ug/kg	3.55	1.06	1	A
Endrin	ND		ug/kg	0.789	0.324	1	A
Endrin aldehyde	ND		ug/kg	2.37	0.829	1	A
Endrin ketone	ND		ug/kg	1.89	0.488	1	A
Dieldrin	ND		ug/kg	1.18	0.592	1	A
4,4'-DDE	2.20		ug/kg	1.89	0.438	1	B
4,4'-DDD	ND		ug/kg	1.89	0.676	1	A
4,4'-DDT	1.90	JPI	ug/kg	3.55	1.52	1	B
Endosulfan I	ND		ug/kg	1.89	0.448	1	A
Endosulfan II	ND		ug/kg	1.89	0.633	1	A
Endosulfan sulfate	ND		ug/kg	0.789	0.376	1	A
Methoxychlor	ND		ug/kg	3.55	1.10	1	A
Toxaphene	ND		ug/kg	35.5	9.94	1	A
cis-Chlordane	1.71	J	ug/kg	2.37	0.660	1	A
trans-Chlordane	1.47	JPI	ug/kg	2.37	0.625	1	A
Chlordane	ND		ug/kg	15.4	6.27	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	38		30-150	B
Decachlorobiphenyl	76		30-150	B
2,4,5,6-Tetrachloro-m-xylene	40		30-150	A
Decachlorobiphenyl	89		30-150	A

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-08  
**Client ID:** SB-108 (4-6)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/17/16 00:07  
**Analyst:** EC  
**Percent Solids:** 83%

**Date Collected:** 02/11/16 13:40  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/14/16 13:56  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 02/16/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.85	0.363	1	A
Lindane	ND		ug/kg	0.772	0.345	1	A
Alpha-BHC	ND		ug/kg	0.772	0.219	1	A
Beta-BHC	ND		ug/kg	1.85	0.702	1	A
Heptachlor	ND		ug/kg	0.926	0.415	1	A
Aldrin	ND		ug/kg	1.85	0.652	1	A
Heptachlor epoxide	ND		ug/kg	3.47	1.04	1	A
Endrin	ND		ug/kg	0.772	0.316	1	A
Endrin aldehyde	ND		ug/kg	2.32	0.810	1	A
Endrin ketone	ND		ug/kg	1.85	0.477	1	A
Dieldrin	ND		ug/kg	1.16	0.579	1	A
4,4'-DDE	ND		ug/kg	1.85	0.428	1	A
4,4'-DDD	ND		ug/kg	1.85	0.661	1	A
4,4'-DDT	ND		ug/kg	3.47	1.49	1	A
Endosulfan I	ND		ug/kg	1.85	0.438	1	A
Endosulfan II	ND		ug/kg	1.85	0.619	1	A
Endosulfan sulfate	ND		ug/kg	0.772	0.367	1	A
Methoxychlor	ND		ug/kg	3.47	1.08	1	A
Toxaphene	ND		ug/kg	34.7	9.73	1	A
cis-Chlordane	ND		ug/kg	2.32	0.645	1	A
trans-Chlordane	0.970	JPI	ug/kg	2.32	0.611	1	A
Chlordane	ND		ug/kg	15.0	6.14	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		30-150	B
Decachlorobiphenyl	82		30-150	B
2,4,5,6-Tetrachloro-m-xylene	76		30-150	A
Decachlorobiphenyl	96		30-150	A



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-09  
**Client ID:** SB-108 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/17/16 00:22  
**Analyst:** EC  
**Percent Solids:** 83%

**Date Collected:** 02/11/16 13:50  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/14/16 13:56  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 02/16/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.85	0.362	1	A
Lindane	ND		ug/kg	0.770	0.344	1	A
Alpha-BHC	ND		ug/kg	0.770	0.219	1	A
Beta-BHC	ND		ug/kg	1.85	0.701	1	A
Heptachlor	ND		ug/kg	0.924	0.414	1	A
Aldrin	ND		ug/kg	1.85	0.651	1	A
Heptachlor epoxide	ND		ug/kg	3.47	1.04	1	A
Endrin	ND		ug/kg	0.770	0.316	1	A
Endrin aldehyde	ND		ug/kg	2.31	0.809	1	A
Endrin ketone	ND		ug/kg	1.85	0.476	1	A
Dieldrin	ND		ug/kg	1.16	0.578	1	A
4,4'-DDE	ND		ug/kg	1.85	0.428	1	A
4,4'-DDD	ND		ug/kg	1.85	0.660	1	A
4,4'-DDT	ND		ug/kg	3.47	1.49	1	A
Endosulfan I	ND		ug/kg	1.85	0.437	1	A
Endosulfan II	ND		ug/kg	1.85	0.618	1	A
Endosulfan sulfate	ND		ug/kg	0.770	0.367	1	A
Methoxychlor	ND		ug/kg	3.47	1.08	1	A
Toxaphene	ND		ug/kg	34.7	9.71	1	A
cis-Chlordane	1.77	J	ug/kg	2.31	0.644	1	A
trans-Chlordane	0.888	JPI	ug/kg	2.31	0.610	1	A
Chlordane	ND		ug/kg	15.0	6.12	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	B
Decachlorobiphenyl	84		30-150	B
2,4,5,6-Tetrachloro-m-xylene	80		30-150	A
Decachlorobiphenyl	96		30-150	A

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-10  
**Client ID:** DUP021116  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/17/16 00:37  
**Analyst:** EC  
**Percent Solids:** 85%

**Date Collected:** 02/11/16 14:00  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/14/16 13:56  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 02/16/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.84	0.361	1	A
Lindane	ND		ug/kg	0.769	0.344	1	A
Alpha-BHC	ND		ug/kg	0.769	0.218	1	A
Beta-BHC	ND		ug/kg	1.84	0.700	1	A
Heptachlor	ND		ug/kg	0.923	0.414	1	A
Aldrin	ND		ug/kg	1.84	0.650	1	A
Heptachlor epoxide	ND		ug/kg	3.46	1.04	1	A
Endrin	ND		ug/kg	0.769	0.315	1	A
Endrin aldehyde	ND		ug/kg	2.31	0.807	1	A
Endrin ketone	ND		ug/kg	1.84	0.475	1	A
Dieldrin	ND		ug/kg	1.15	0.577	1	A
4,4'-DDE	2.01		ug/kg	1.84	0.427	1	B
4,4'-DDD	7.90		ug/kg	1.84	0.658	1	B
4,4'-DDT	ND	PI	ug/kg	3.46	1.48	1	B
Endosulfan I	ND		ug/kg	1.84	0.436	1	A
Endosulfan II	ND		ug/kg	1.84	0.617	1	A
Endosulfan sulfate	ND		ug/kg	0.769	0.366	1	A
Methoxychlor	ND		ug/kg	3.46	1.08	1	A
Toxaphene	ND		ug/kg	34.6	9.69	1	A
cis-Chlordane	1.40	J	ug/kg	2.31	0.643	1	A
trans-Chlordane	1.02	JPI	ug/kg	2.31	0.609	1	A
Chlordane	ND		ug/kg	15.0	6.11	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	75		30-150	B
2,4,5,6-Tetrachloro-m-xylene	70		30-150	A
Decachlorobiphenyl	91		30-150	A

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-11  
**Client ID:** FB021116  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/17/16 01:11  
**Analyst:** AM

**Date Collected:** 02/11/16 14:15  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/16/16 14:23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.020	0.005	1	A
Lindane	ND		ug/l	0.020	0.004	1	A
Alpha-BHC	ND		ug/l	0.020	0.004	1	A
Beta-BHC	ND		ug/l	0.020	0.006	1	A
Heptachlor	ND		ug/l	0.020	0.003	1	A
Aldrin	ND		ug/l	0.020	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.020	0.004	1	A
Endrin	ND		ug/l	0.040	0.004	1	A
Endrin aldehyde	ND		ug/l	0.040	0.008	1	A
Endrin ketone	ND		ug/l	0.040	0.005	1	A
Dieldrin	ND		ug/l	0.040	0.004	1	A
4,4'-DDE	ND		ug/l	0.040	0.004	1	A
4,4'-DDD	ND		ug/l	0.040	0.005	1	A
4,4'-DDT	ND		ug/l	0.040	0.004	1	A
Endosulfan I	ND		ug/l	0.020	0.003	1	A
Endosulfan II	ND		ug/l	0.040	0.005	1	A
Endosulfan sulfate	ND		ug/l	0.040	0.005	1	A
Methoxychlor	ND		ug/l	0.200	0.007	1	A
Toxaphene	ND		ug/l	0.200	0.063	1	A
cis-Chlordane	ND		ug/l	0.020	0.007	1	A
trans-Chlordane	ND		ug/l	0.020	0.006	1	A
Chlordane	ND		ug/l	0.200	0.046	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	88		30-150	A
Decachlorobiphenyl	87		30-150	A
2,4,5,6-Tetrachloro-m-xylene	93		30-150	B
Decachlorobiphenyl	86		30-150	B

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-12  
**Client ID:** SB-104 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/17/16 00:52  
**Analyst:** EC  
**Percent Solids:** 82%

**Date Collected:** 02/11/16 14:30  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/14/16 13:56  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 02/16/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.89	0.371	1	A
Lindane	ND		ug/kg	0.789	0.353	1	A
Alpha-BHC	ND		ug/kg	0.789	0.224	1	A
Beta-BHC	ND		ug/kg	1.89	0.718	1	A
Heptachlor	ND		ug/kg	0.947	0.424	1	A
Aldrin	ND		ug/kg	1.89	0.667	1	A
Heptachlor epoxide	ND		ug/kg	3.55	1.06	1	A
Endrin	ND		ug/kg	0.789	0.323	1	A
Endrin aldehyde	ND		ug/kg	2.37	0.828	1	A
Endrin ketone	ND		ug/kg	1.89	0.488	1	A
Dieldrin	0.649	J	ug/kg	1.18	0.592	1	A
4,4'-DDE	0.542	J	ug/kg	1.89	0.438	1	A
4,4'-DDD	ND		ug/kg	1.89	0.675	1	A
4,4'-DDT	ND		ug/kg	3.55	1.52	1	B
Endosulfan I	ND		ug/kg	1.89	0.447	1	A
Endosulfan II	ND		ug/kg	1.89	0.633	1	A
Endosulfan sulfate	ND		ug/kg	0.789	0.376	1	A
Methoxychlor	ND		ug/kg	3.55	1.10	1	A
Toxaphene	ND		ug/kg	35.5	9.94	1	A
cis-Chlordane	0.800	J	ug/kg	2.37	0.660	1	A
trans-Chlordane	0.847	JPI	ug/kg	2.37	0.625	1	A
Chlordane	ND		ug/kg	15.4	6.27	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		30-150	B
Decachlorobiphenyl	68		30-150	B
2,4,5,6-Tetrachloro-m-xylene	66		30-150	A
Decachlorobiphenyl	78		30-150	A

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-13  
**Client ID:** SB-104 (5-7)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/17/16 01:07  
**Analyst:** EC  
**Percent Solids:** 85%

**Date Collected:** 02/11/16 14:40  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/14/16 13:56  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 02/16/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.78	0.348	1	A
Lindane	ND		ug/kg	0.740	0.331	1	A
Alpha-BHC	ND		ug/kg	0.740	0.210	1	A
Beta-BHC	ND		ug/kg	1.78	0.673	1	A
Heptachlor	ND		ug/kg	0.888	0.398	1	A
Aldrin	ND		ug/kg	1.78	0.625	1	A
Heptachlor epoxide	ND		ug/kg	3.33	0.999	1	A
Endrin	ND		ug/kg	0.740	0.303	1	A
Endrin aldehyde	ND		ug/kg	2.22	0.777	1	A
Endrin ketone	ND		ug/kg	1.78	0.457	1	A
Dieldrin	ND		ug/kg	1.11	0.555	1	A
4,4'-DDE	ND		ug/kg	1.78	0.410	1	A
4,4'-DDD	ND		ug/kg	1.78	0.633	1	A
4,4'-DDT	ND		ug/kg	3.33	1.43	1	A
Endosulfan I	ND		ug/kg	1.78	0.419	1	A
Endosulfan II	ND		ug/kg	1.78	0.593	1	A
Endosulfan sulfate	ND		ug/kg	0.740	0.352	1	A
Methoxychlor	ND		ug/kg	3.33	1.04	1	A
Toxaphene	ND		ug/kg	33.3	9.32	1	A
cis-Chlordane	1.02	J	ug/kg	2.22	0.618	1	A
trans-Chlordane	ND	PI	ug/kg	2.22	0.586	1	A
Chlordane	ND		ug/kg	14.4	5.88	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	66		30-150	B
2,4,5,6-Tetrachloro-m-xylene	66		30-150	A
Decachlorobiphenyl	76		30-150	A

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**SAMPLE RESULTS**

**Lab ID:** L1603689-14  
**Client ID:** SB-104 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/17/16 01:21  
**Analyst:** EC  
**Percent Solids:** 78%

**Date Collected:** 02/11/16 14:50  
**Date Received:** 02/11/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/14/16 13:56  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 02/16/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.97	0.386	1	A
Lindane	ND		ug/kg	0.820	0.367	1	A
Alpha-BHC	ND		ug/kg	0.820	0.233	1	A
Beta-BHC	ND		ug/kg	1.97	0.746	1	A
Heptachlor	ND		ug/kg	0.984	0.441	1	A
Aldrin	ND		ug/kg	1.97	0.693	1	A
Heptachlor epoxide	ND		ug/kg	3.69	1.11	1	A
Endrin	ND		ug/kg	0.820	0.336	1	A
Endrin aldehyde	ND		ug/kg	2.46	0.861	1	A
Endrin ketone	ND		ug/kg	1.97	0.507	1	A
Dieldrin	ND		ug/kg	1.23	0.615	1	A
4,4'-DDE	ND		ug/kg	1.97	0.455	1	A
4,4'-DDD	ND		ug/kg	1.97	0.702	1	A
4,4'-DDT	ND		ug/kg	3.69	1.58	1	A
Endosulfan I	ND		ug/kg	1.97	0.465	1	A
Endosulfan II	ND		ug/kg	1.97	0.658	1	A
Endosulfan sulfate	ND		ug/kg	0.820	0.390	1	A
Methoxychlor	ND		ug/kg	3.69	1.15	1	A
Toxaphene	ND		ug/kg	36.9	10.3	1	A
cis-Chlordane	ND		ug/kg	2.46	0.686	1	A
trans-Chlordane	2.04	J	ug/kg	2.46	0.650	1	B
Chlordane	ND		ug/kg	16.0	6.52	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		30-150	B
Decachlorobiphenyl	72		30-150	B
2,4,5,6-Tetrachloro-m-xylene	77		30-150	A
Decachlorobiphenyl	84		30-150	A

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8081B  
 Analytical Date: 02/16/16 21:37  
 Analyst: EC

Extraction Method: EPA 3546  
 Extraction Date: 02/14/16 13:56  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 02/16/16

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-10,12-14 Batch: WG865151-1						
Delta-BHC	ND		ug/kg	1.58	0.310	A
Lindane	ND		ug/kg	0.660	0.295	A
Alpha-BHC	ND		ug/kg	0.660	0.187	A
Beta-BHC	ND		ug/kg	1.58	0.601	A
Heptachlor	ND		ug/kg	0.792	0.355	A
Aldrin	ND		ug/kg	1.58	0.558	A
Heptachlor epoxide	ND		ug/kg	2.97	0.891	A
Endrin	ND		ug/kg	0.660	0.271	A
Endrin aldehyde	ND		ug/kg	1.98	0.693	A
Endrin ketone	ND		ug/kg	1.58	0.408	A
Dieldrin	ND		ug/kg	0.990	0.495	A
4,4'-DDE	ND		ug/kg	1.58	0.366	A
4,4'-DDD	ND		ug/kg	1.58	0.565	A
4,4'-DDT	ND		ug/kg	2.97	1.27	A
Endosulfan I	ND		ug/kg	1.58	0.374	A
Endosulfan II	ND		ug/kg	1.58	0.529	A
Endosulfan sulfate	ND		ug/kg	0.660	0.314	A
Methoxychlor	ND		ug/kg	2.97	0.924	A
Toxaphene	ND		ug/kg	29.7	8.32	A
cis-Chlordane	ND		ug/kg	1.98	0.552	A
trans-Chlordane	ND		ug/kg	1.98	0.523	A
Chlordane	ND		ug/kg	12.9	5.25	A

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8081B  
 Analytical Date: 02/16/16 21:37  
 Analyst: EC

Extraction Method: EPA 3546  
 Extraction Date: 02/14/16 13:56  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 02/16/16

Parameter	Result	Qualifier	Units	RL	MDL
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-10,12-14 Batch: WG865151-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		30-150	B
Decachlorobiphenyl	83		30-150	B
2,4,5,6-Tetrachloro-m-xylene	72		30-150	A
Decachlorobiphenyl	76		30-150	A



Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8081B  
 Analytical Date: 02/17/16 00:31  
 Analyst: AM

Extraction Method: EPA 3510C  
 Extraction Date: 02/16/16 14:23

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 11 Batch: WG865676-1						
Delta-BHC	ND		ug/l	0.020	0.005	A
Lindane	ND		ug/l	0.020	0.004	A
Alpha-BHC	ND		ug/l	0.020	0.004	A
Beta-BHC	ND		ug/l	0.020	0.006	A
Heptachlor	ND		ug/l	0.020	0.003	A
Aldrin	ND		ug/l	0.020	0.002	A
Heptachlor epoxide	ND		ug/l	0.020	0.004	A
Endrin	ND		ug/l	0.040	0.004	A
Endrin aldehyde	ND		ug/l	0.040	0.008	A
Endrin ketone	ND		ug/l	0.040	0.005	A
Dieldrin	ND		ug/l	0.040	0.004	A
4,4'-DDE	ND		ug/l	0.040	0.004	A
4,4'-DDD	ND		ug/l	0.040	0.005	A
4,4'-DDT	ND		ug/l	0.040	0.004	A
Endosulfan I	ND		ug/l	0.020	0.003	A
Endosulfan II	ND		ug/l	0.040	0.005	A
Endosulfan sulfate	ND		ug/l	0.040	0.005	A
Methoxychlor	ND		ug/l	0.200	0.007	A
Toxaphene	ND		ug/l	0.200	0.063	A
cis-Chlordane	ND		ug/l	0.020	0.007	A
trans-Chlordane	ND		ug/l	0.020	0.006	A
Chlordane	ND		ug/l	0.200	0.046	A

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8081B  
 Analytical Date: 02/17/16 00:31  
 Analyst: AM

Extraction Method: EPA 3510C  
 Extraction Date: 02/16/16 14:23

Parameter	Result	Qualifier	Units	RL	MDL
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 11 Batch: WG865676-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	79		30-150	A
Decachlorobiphenyl	75		30-150	A
2,4,5,6-Tetrachloro-m-xylene	85		30-150	B
Decachlorobiphenyl	79		30-150	B

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603689

Report Date: 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-10,12-14 Batch: WG865151-2 WG865151-3									
Delta-BHC	78		70		30-150	11		30	A
Lindane	73		66		30-150	10		30	A
Alpha-BHC	79		74		30-150	7		30	A
Beta-BHC	80		70		30-150	13		30	A
Heptachlor	76		67		30-150	13		30	A
Aldrin	77		71		30-150	8		30	A
Heptachlor epoxide	71		62		30-150	14		30	A
Endrin	77		69		30-150	11		30	A
Endrin ketone	74		66		30-150	11		30	A
Dieldrin	79		74		30-150	7		30	A
4,4'-DDE	80		73		30-150	9		30	A
4,4'-DDD	74		66		30-150	11		30	A
4,4'-DDT	79		72		30-150	9		30	A
Endosulfan I	74		67		30-150	10		30	A
Endosulfan II	77		71		30-150	8		30	A
Endosulfan sulfate	69		62		30-150	11		30	A
Methoxychlor	85		73		30-150	15		30	A
cis-Chlordane	79		72		30-150	9		30	A
trans-Chlordane	79		75		30-150	5		30	A

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-10,12-14 Batch: WG865151-2 WG865151-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		63		30-150	B
Decachlorobiphenyl	87		79		30-150	B
2,4,5,6-Tetrachloro-m-xylene	78		70		30-150	A
Decachlorobiphenyl	94		78		30-150	A

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 11 Batch: WG865676-2 WG865676-3									
Delta-BHC	97		113		30-150	15		20	A
Lindane	97		110		30-150	13		20	A
Alpha-BHC	99		114		30-150	14		20	A
Beta-BHC	97		111		30-150	13		20	A
Heptachlor	90		103		30-150	14		20	A
Aldrin	95		108		30-150	13		20	A
Heptachlor epoxide	99		114		30-150	14		20	A
Endrin	95		114		30-150	18		20	A
Endrin ketone	94		113		30-150	18		20	A
Dieldrin	94		106		30-150	12		20	A
4,4'-DDE	101		117		30-150	15		20	A
4,4'-DDD	102		120		30-150	16		20	A
4,4'-DDT	91		112		30-150	21	Q	20	A
Endosulfan I	103		115		30-150	11		20	A
Endosulfan II	99		117		30-150	17		20	A
Endosulfan sulfate	94		114		30-150	20		20	A
Methoxychlor	94		116		30-150	21	Q	20	A
cis-Chlordane	99		110		30-150	10		20	A
trans-Chlordane	98		114		30-150	15		20	A

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 11 Batch: WG865676-2 WG865676-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		78		30-150	A
Decachlorobiphenyl	69		87		30-150	A
2,4,5,6-Tetrachloro-m-xylene	73		86		30-150	B
Decachlorobiphenyl	71		89		30-150	B

## METALS

Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-01

Date Collected: 02/11/16 09:30

Client ID: SB-105 (0-2)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	6500		mg/kg	9.4	1.9	2	02/12/16 08:44	02/12/16 21:11	EPA 3050B	1,6010C	FB
Antimony, Total	1.5	J	mg/kg	4.7	0.75	2	02/12/16 08:44	02/12/16 21:11	EPA 3050B	1,6010C	FB
Arsenic, Total	8.5		mg/kg	0.94	0.19	2	02/12/16 08:44	02/12/16 21:11	EPA 3050B	1,6010C	FB
Barium, Total	490		mg/kg	0.94	0.28	2	02/12/16 08:44	02/12/16 21:11	EPA 3050B	1,6010C	FB
Beryllium, Total	0.33	J	mg/kg	0.47	0.09	2	02/12/16 08:44	02/12/16 21:11	EPA 3050B	1,6010C	FB
Cadmium, Total	ND		mg/kg	0.94	0.07	2	02/12/16 08:44	02/12/16 21:11	EPA 3050B	1,6010C	FB
Calcium, Total	16000		mg/kg	9.4	2.8	2	02/12/16 08:44	02/12/16 21:11	EPA 3050B	1,6010C	FB
Chromium, Total	23		mg/kg	0.94	0.19	2	02/12/16 08:44	02/12/16 21:11	EPA 3050B	1,6010C	FB
Cobalt, Total	6.0		mg/kg	1.9	0.47	2	02/12/16 08:44	02/12/16 21:11	EPA 3050B	1,6010C	FB
Copper, Total	38		mg/kg	0.94	0.19	2	02/12/16 08:44	02/12/16 21:11	EPA 3050B	1,6010C	FB
Iron, Total	15000		mg/kg	4.7	1.9	2	02/12/16 08:44	02/12/16 21:11	EPA 3050B	1,6010C	FB
Lead, Total	2500		mg/kg	4.7	0.19	2	02/12/16 08:44	02/12/16 21:11	EPA 3050B	1,6010C	FB
Magnesium, Total	2900		mg/kg	9.4	0.94	2	02/12/16 08:44	02/12/16 21:11	EPA 3050B	1,6010C	FB
Manganese, Total	240		mg/kg	0.94	0.19	2	02/12/16 08:44	02/12/16 21:11	EPA 3050B	1,6010C	FB
Mercury, Total	0.70		mg/kg	0.08	0.02	1	02/12/16 08:55	02/12/16 17:50	EPA 7471B	1,7471B	EA
Nickel, Total	13		mg/kg	2.4	0.38	2	02/12/16 08:44	02/12/16 21:11	EPA 3050B	1,6010C	FB
Potassium, Total	760		mg/kg	240	38.	2	02/12/16 08:44	02/12/16 21:11	EPA 3050B	1,6010C	FB
Selenium, Total	0.47	J	mg/kg	1.9	0.28	2	02/12/16 08:44	02/12/16 21:11	EPA 3050B	1,6010C	FB
Silver, Total	ND		mg/kg	0.94	0.19	2	02/12/16 08:44	02/12/16 21:11	EPA 3050B	1,6010C	FB
Sodium, Total	150	J	mg/kg	190	28.	2	02/12/16 08:44	02/12/16 21:11	EPA 3050B	1,6010C	FB
Thallium, Total	ND		mg/kg	1.9	0.38	2	02/12/16 08:44	02/12/16 21:11	EPA 3050B	1,6010C	FB
Vanadium, Total	26		mg/kg	0.94	0.09	2	02/12/16 08:44	02/12/16 21:11	EPA 3050B	1,6010C	FB
Zinc, Total	380		mg/kg	4.7	0.66	2	02/12/16 08:44	02/12/16 21:11	EPA 3050B	1,6010C	FB





Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-02  
 Client ID: SB-105 (10-12)  
 Sample Location: BROOKLYN, NY  
 Matrix: Soil  
 Percent Solids: 83%

Date Collected: 02/11/16 09:45  
 Date Received: 02/11/16  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	5000		mg/kg	9.5	1.9	2	02/12/16 08:44	02/12/16 21:15	EPA 3050B	1,6010C	FB
Antimony, Total	ND		mg/kg	4.8	0.76	2	02/12/16 08:44	02/12/16 21:15	EPA 3050B	1,6010C	FB
Arsenic, Total	3.9		mg/kg	0.95	0.19	2	02/12/16 08:44	02/12/16 21:15	EPA 3050B	1,6010C	FB
Barium, Total	26		mg/kg	0.95	0.28	2	02/12/16 08:44	02/12/16 21:15	EPA 3050B	1,6010C	FB
Beryllium, Total	0.30	J	mg/kg	0.48	0.10	2	02/12/16 08:44	02/12/16 21:15	EPA 3050B	1,6010C	FB
Cadmium, Total	ND		mg/kg	0.95	0.07	2	02/12/16 08:44	02/12/16 21:15	EPA 3050B	1,6010C	FB
Calcium, Total	510		mg/kg	9.5	2.8	2	02/12/16 08:44	02/12/16 21:15	EPA 3050B	1,6010C	FB
Chromium, Total	10		mg/kg	0.95	0.19	2	02/12/16 08:44	02/12/16 21:15	EPA 3050B	1,6010C	FB
Cobalt, Total	6.1		mg/kg	1.9	0.48	2	02/12/16 08:44	02/12/16 21:15	EPA 3050B	1,6010C	FB
Copper, Total	8.9		mg/kg	0.95	0.19	2	02/12/16 08:44	02/12/16 21:15	EPA 3050B	1,6010C	FB
Iron, Total	12000		mg/kg	4.8	1.9	2	02/12/16 08:44	02/12/16 21:15	EPA 3050B	1,6010C	FB
Lead, Total	1.7	J	mg/kg	4.8	0.19	2	02/12/16 08:44	02/12/16 21:15	EPA 3050B	1,6010C	FB
Magnesium, Total	1500		mg/kg	9.5	0.95	2	02/12/16 08:44	02/12/16 21:15	EPA 3050B	1,6010C	FB
Manganese, Total	180		mg/kg	0.95	0.19	2	02/12/16 08:44	02/12/16 21:15	EPA 3050B	1,6010C	FB
Mercury, Total	ND		mg/kg	0.08	0.02	1	02/12/16 08:55	02/12/16 17:52	EPA 7471B	1,7471B	EA
Nickel, Total	11		mg/kg	2.4	0.38	2	02/12/16 08:44	02/12/16 21:15	EPA 3050B	1,6010C	FB
Potassium, Total	630		mg/kg	240	38.	2	02/12/16 08:44	02/12/16 21:15	EPA 3050B	1,6010C	FB
Selenium, Total	ND		mg/kg	1.9	0.28	2	02/12/16 08:44	02/12/16 21:15	EPA 3050B	1,6010C	FB
Silver, Total	ND		mg/kg	0.95	0.19	2	02/12/16 08:44	02/12/16 21:15	EPA 3050B	1,6010C	FB
Sodium, Total	ND		mg/kg	190	28.	2	02/12/16 08:44	02/12/16 21:15	EPA 3050B	1,6010C	FB
Thallium, Total	ND		mg/kg	1.9	0.38	2	02/12/16 08:44	02/12/16 21:15	EPA 3050B	1,6010C	FB
Vanadium, Total	17		mg/kg	0.95	0.10	2	02/12/16 08:44	02/12/16 21:15	EPA 3050B	1,6010C	FB
Zinc, Total	30		mg/kg	4.8	0.67	2	02/12/16 08:44	02/12/16 21:15	EPA 3050B	1,6010C	FB



Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-03  
 Client ID: SB-107 (0-2)  
 Sample Location: BROOKLYN, NY  
 Matrix: Soil  
 Percent Solids: 90%

Date Collected: 02/11/16 10:20  
 Date Received: 02/11/16  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	5400		mg/kg	8.6	1.7	2	02/12/16 15:47	02/16/16 12:40	EPA 3050B	1,6010C	PS
Antimony, Total	ND		mg/kg	4.3	0.69	2	02/12/16 15:47	02/16/16 12:40	EPA 3050B	1,6010C	PS
Arsenic, Total	5.1		mg/kg	0.86	0.17	2	02/12/16 15:47	02/16/16 12:40	EPA 3050B	1,6010C	PS
Barium, Total	16		mg/kg	0.86	0.26	2	02/12/16 15:47	02/16/16 12:40	EPA 3050B	1,6010C	PS
Beryllium, Total	0.42	J	mg/kg	0.43	0.09	2	02/12/16 15:47	02/16/16 12:40	EPA 3050B	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.86	0.06	2	02/12/16 15:47	02/16/16 12:40	EPA 3050B	1,6010C	PS
Calcium, Total	450		mg/kg	8.6	2.6	2	02/12/16 15:47	02/16/16 12:40	EPA 3050B	1,6010C	PS
Chromium, Total	9.6		mg/kg	0.86	0.17	2	02/12/16 15:47	02/16/16 12:40	EPA 3050B	1,6010C	PS
Cobalt, Total	4.7		mg/kg	1.7	0.43	2	02/12/16 15:47	02/16/16 12:40	EPA 3050B	1,6010C	PS
Copper, Total	13		mg/kg	0.86	0.17	2	02/12/16 15:47	02/16/16 12:40	EPA 3050B	1,6010C	PS
Iron, Total	15000		mg/kg	4.3	1.7	2	02/12/16 15:47	02/16/16 12:40	EPA 3050B	1,6010C	PS
Lead, Total	ND		mg/kg	4.3	0.17	2	02/12/16 15:47	02/16/16 12:40	EPA 3050B	1,6010C	PS
Magnesium, Total	1300		mg/kg	8.6	0.86	2	02/12/16 15:47	02/16/16 12:40	EPA 3050B	1,6010C	PS
Manganese, Total	220		mg/kg	0.86	0.17	2	02/12/16 15:47	02/16/16 12:40	EPA 3050B	1,6010C	PS
Mercury, Total	0.02	J	mg/kg	0.07	0.02	1	02/12/16 08:55	02/12/16 17:54	EPA 7471B	1,7471B	EA
Nickel, Total	6.7		mg/kg	2.2	0.34	2	02/12/16 15:47	02/16/16 12:40	EPA 3050B	1,6010C	PS
Potassium, Total	720		mg/kg	220	34.	2	02/12/16 15:47	02/16/16 12:40	EPA 3050B	1,6010C	PS
Selenium, Total	ND		mg/kg	1.7	0.26	2	02/12/16 15:47	02/16/16 12:40	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.86	0.17	2	02/12/16 15:47	02/16/16 12:40	EPA 3050B	1,6010C	PS
Sodium, Total	28	J	mg/kg	170	26.	2	02/12/16 15:47	02/16/16 12:40	EPA 3050B	1,6010C	PS
Thallium, Total	ND		mg/kg	1.7	0.34	2	02/12/16 15:47	02/16/16 12:40	EPA 3050B	1,6010C	PS
Vanadium, Total	19		mg/kg	0.86	0.09	2	02/12/16 15:47	02/16/16 12:40	EPA 3050B	1,6010C	PS
Zinc, Total	39		mg/kg	4.3	0.60	2	02/12/16 15:47	02/16/16 12:40	EPA 3050B	1,6010C	PS



Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-04

Date Collected: 02/11/16 10:30

Client ID: SB-107 (10-12)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	11000		mg/kg	9.3	1.8	2	02/12/16 15:47	02/16/16 12:45	EPA 3050B	1,6010C	PS
Antimony, Total	ND		mg/kg	4.6	0.74	2	02/12/16 15:47	02/16/16 12:45	EPA 3050B	1,6010C	PS
Arsenic, Total	2.3		mg/kg	0.93	0.18	2	02/12/16 15:47	02/16/16 12:45	EPA 3050B	1,6010C	PS
Barium, Total	110		mg/kg	0.93	0.28	2	02/12/16 15:47	02/16/16 12:45	EPA 3050B	1,6010C	PS
Beryllium, Total	0.45	J	mg/kg	0.46	0.09	2	02/12/16 15:47	02/16/16 12:45	EPA 3050B	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.93	0.07	2	02/12/16 15:47	02/16/16 12:45	EPA 3050B	1,6010C	PS
Calcium, Total	12000		mg/kg	9.3	2.8	2	02/12/16 15:47	02/16/16 12:45	EPA 3050B	1,6010C	PS
Chromium, Total	27		mg/kg	0.93	0.18	2	02/12/16 15:47	02/16/16 12:45	EPA 3050B	1,6010C	PS
Cobalt, Total	9.3		mg/kg	1.8	0.46	2	02/12/16 15:47	02/16/16 12:45	EPA 3050B	1,6010C	PS
Copper, Total	23		mg/kg	0.93	0.18	2	02/12/16 15:47	02/16/16 12:45	EPA 3050B	1,6010C	PS
Iron, Total	22000		mg/kg	4.6	1.8	2	02/12/16 15:47	02/16/16 12:45	EPA 3050B	1,6010C	PS
Lead, Total	0.86	J	mg/kg	4.6	0.18	2	02/12/16 15:47	02/16/16 12:45	EPA 3050B	1,6010C	PS
Magnesium, Total	9200		mg/kg	9.3	0.93	2	02/12/16 15:47	02/16/16 12:45	EPA 3050B	1,6010C	PS
Manganese, Total	380		mg/kg	0.93	0.18	2	02/12/16 15:47	02/16/16 12:45	EPA 3050B	1,6010C	PS
Mercury, Total	0.02	J	mg/kg	0.08	0.02	1	02/12/16 08:55	02/12/16 17:55	EPA 7471B	1,7471B	EA
Nickel, Total	22		mg/kg	2.3	0.37	2	02/12/16 15:47	02/16/16 12:45	EPA 3050B	1,6010C	PS
Potassium, Total	4100		mg/kg	230	37.	2	02/12/16 15:47	02/16/16 12:45	EPA 3050B	1,6010C	PS
Selenium, Total	0.36	J	mg/kg	1.8	0.28	2	02/12/16 15:47	02/16/16 12:45	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.93	0.18	2	02/12/16 15:47	02/16/16 12:45	EPA 3050B	1,6010C	PS
Sodium, Total	180		mg/kg	180	28.	2	02/12/16 15:47	02/16/16 12:45	EPA 3050B	1,6010C	PS
Thallium, Total	ND		mg/kg	1.8	0.37	2	02/12/16 15:47	02/16/16 12:45	EPA 3050B	1,6010C	PS
Vanadium, Total	31		mg/kg	0.93	0.09	2	02/12/16 15:47	02/16/16 12:45	EPA 3050B	1,6010C	PS
Zinc, Total	58		mg/kg	4.6	0.65	2	02/12/16 15:47	02/16/16 12:45	EPA 3050B	1,6010C	PS



Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-05

Date Collected: 02/11/16 12:15

Client ID: SB-106 (0-2)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	8200		mg/kg	9.3	1.9	2	02/12/16 15:47	02/16/16 13:19	EPA 3050B	1,6010C	PS
Antimony, Total	ND		mg/kg	4.7	0.75	2	02/12/16 15:47	02/16/16 13:19	EPA 3050B	1,6010C	PS
Arsenic, Total	3.4		mg/kg	0.93	0.19	2	02/12/16 15:47	02/16/16 13:19	EPA 3050B	1,6010C	PS
Barium, Total	23		mg/kg	0.93	0.28	2	02/12/16 15:47	02/16/16 13:19	EPA 3050B	1,6010C	PS
Beryllium, Total	0.24	J	mg/kg	0.47	0.09	2	02/12/16 15:47	02/16/16 13:19	EPA 3050B	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.93	0.07	2	02/12/16 15:47	02/16/16 13:19	EPA 3050B	1,6010C	PS
Calcium, Total	2000		mg/kg	9.3	2.8	2	02/12/16 15:47	02/16/16 13:19	EPA 3050B	1,6010C	PS
Chromium, Total	18		mg/kg	0.93	0.19	2	02/12/16 15:47	02/16/16 13:19	EPA 3050B	1,6010C	PS
Cobalt, Total	5.9		mg/kg	1.9	0.47	2	02/12/16 15:47	02/16/16 13:19	EPA 3050B	1,6010C	PS
Copper, Total	16		mg/kg	0.93	0.19	2	02/12/16 15:47	02/16/16 13:19	EPA 3050B	1,6010C	PS
Iron, Total	15000		mg/kg	4.7	1.9	2	02/12/16 15:47	02/16/16 13:19	EPA 3050B	1,6010C	PS
Lead, Total	6.2		mg/kg	4.7	0.19	2	02/12/16 15:47	02/16/16 13:19	EPA 3050B	1,6010C	PS
Magnesium, Total	2600		mg/kg	9.3	0.93	2	02/12/16 15:47	02/16/16 13:19	EPA 3050B	1,6010C	PS
Manganese, Total	160		mg/kg	0.93	0.19	2	02/12/16 15:47	02/16/16 13:19	EPA 3050B	1,6010C	PS
Mercury, Total	0.076	J	mg/kg	0.078	0.016	1	02/12/16 08:55	02/12/16 17:57	EPA 7471B	1,7471B	EA
Nickel, Total	11		mg/kg	2.3	0.37	2	02/12/16 15:47	02/16/16 13:19	EPA 3050B	1,6010C	PS
Potassium, Total	510		mg/kg	230	37.	2	02/12/16 15:47	02/16/16 13:19	EPA 3050B	1,6010C	PS
Selenium, Total	ND		mg/kg	1.9	0.28	2	02/12/16 15:47	02/16/16 13:19	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.93	0.19	2	02/12/16 15:47	02/16/16 13:19	EPA 3050B	1,6010C	PS
Sodium, Total	140	J	mg/kg	190	28.	2	02/12/16 15:47	02/16/16 13:19	EPA 3050B	1,6010C	PS
Thallium, Total	ND		mg/kg	1.9	0.37	2	02/12/16 15:47	02/16/16 13:19	EPA 3050B	1,6010C	PS
Vanadium, Total	15		mg/kg	0.93	0.09	2	02/12/16 15:47	02/16/16 13:19	EPA 3050B	1,6010C	PS
Zinc, Total	240		mg/kg	4.7	0.65	2	02/12/16 15:47	02/16/16 13:19	EPA 3050B	1,6010C	PS



Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-06

Date Collected: 02/11/16 12:30

Client ID: SB-106 (10-12)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 77%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	3400		mg/kg	10	2.0	2	02/12/16 17:42	02/13/16 03:08	EPA 3050B	1,6010C	PS
Antimony, Total	ND		mg/kg	5.1	0.82	2	02/12/16 17:42	02/13/16 03:08	EPA 3050B	1,6010C	PS
Arsenic, Total	0.98	J	mg/kg	1.0	0.20	2	02/12/16 17:42	02/13/16 03:08	EPA 3050B	1,6010C	PS
Barium, Total	12		mg/kg	1.0	0.31	2	02/12/16 17:42	02/13/16 03:08	EPA 3050B	1,6010C	PS
Beryllium, Total	0.20	J	mg/kg	0.51	0.10	2	02/12/16 17:42	02/13/16 03:08	EPA 3050B	1,6010C	PS
Cadmium, Total	ND		mg/kg	1.0	0.07	2	02/12/16 17:42	02/13/16 03:08	EPA 3050B	1,6010C	PS
Calcium, Total	480		mg/kg	10	3.1	2	02/12/16 17:42	02/13/16 03:08	EPA 3050B	1,6010C	PS
Chromium, Total	7.6		mg/kg	1.0	0.20	2	02/12/16 17:42	02/13/16 03:08	EPA 3050B	1,6010C	PS
Cobalt, Total	2.6		mg/kg	2.0	0.51	2	02/12/16 17:42	02/13/16 03:08	EPA 3050B	1,6010C	PS
Copper, Total	5.4		mg/kg	1.0	0.20	2	02/12/16 17:42	02/13/16 03:08	EPA 3050B	1,6010C	PS
Iron, Total	7300		mg/kg	5.1	2.0	2	02/12/16 17:42	02/13/16 03:08	EPA 3050B	1,6010C	PS
Lead, Total	ND		mg/kg	5.1	0.20	2	02/12/16 17:42	02/13/16 03:08	EPA 3050B	1,6010C	PS
Magnesium, Total	1100		mg/kg	10	1.0	2	02/12/16 17:42	02/13/16 03:08	EPA 3050B	1,6010C	PS
Manganese, Total	45		mg/kg	1.0	0.20	2	02/12/16 17:42	02/13/16 03:08	EPA 3050B	1,6010C	PS
Mercury, Total	ND		mg/kg	0.08	0.02	1	02/12/16 08:55	02/12/16 17:59	EPA 7471B	1,7471B	EA
Nickel, Total	6.3		mg/kg	2.6	0.41	2	02/12/16 17:42	02/13/16 03:08	EPA 3050B	1,6010C	PS
Potassium, Total	420		mg/kg	260	41.	2	02/12/16 17:42	02/13/16 03:08	EPA 3050B	1,6010C	PS
Selenium, Total	ND		mg/kg	2.0	0.31	2	02/12/16 17:42	02/13/16 03:08	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	1.0	0.20	2	02/12/16 17:42	02/13/16 03:08	EPA 3050B	1,6010C	PS
Sodium, Total	41	J	mg/kg	200	31.	2	02/12/16 17:42	02/13/16 03:08	EPA 3050B	1,6010C	PS
Thallium, Total	ND		mg/kg	2.0	0.41	2	02/12/16 17:42	02/13/16 03:08	EPA 3050B	1,6010C	PS
Vanadium, Total	10		mg/kg	1.0	0.10	2	02/12/16 17:42	02/13/16 03:08	EPA 3050B	1,6010C	PS
Zinc, Total	64		mg/kg	5.1	0.72	2	02/12/16 17:42	02/13/16 03:08	EPA 3050B	1,6010C	PS



Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-07

Date Collected: 02/11/16 13:30

Client ID: SB-108 (0-2)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	9000		mg/kg	9.4	1.9	2	02/12/16 17:42	02/13/16 03:12	EPA 3050B	1,6010C	PS
Antimony, Total	1.6	J	mg/kg	4.7	0.75	2	02/12/16 17:42	02/13/16 03:12	EPA 3050B	1,6010C	PS
Arsenic, Total	4.2		mg/kg	0.94	0.19	2	02/12/16 17:42	02/13/16 03:12	EPA 3050B	1,6010C	PS
Barium, Total	300		mg/kg	0.94	0.28	2	02/12/16 17:42	02/13/16 03:12	EPA 3050B	1,6010C	PS
Beryllium, Total	0.33	J	mg/kg	0.47	0.09	2	02/12/16 17:42	02/13/16 03:12	EPA 3050B	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.94	0.07	2	02/12/16 17:42	02/13/16 03:12	EPA 3050B	1,6010C	PS
Calcium, Total	9000		mg/kg	9.4	2.8	2	02/12/16 17:42	02/13/16 03:12	EPA 3050B	1,6010C	PS
Chromium, Total	17		mg/kg	0.94	0.19	2	02/12/16 17:42	02/13/16 03:12	EPA 3050B	1,6010C	PS
Cobalt, Total	8.2		mg/kg	1.9	0.47	2	02/12/16 17:42	02/13/16 03:12	EPA 3050B	1,6010C	PS
Copper, Total	44		mg/kg	0.94	0.19	2	02/12/16 17:42	02/13/16 03:12	EPA 3050B	1,6010C	PS
Iron, Total	20000		mg/kg	4.7	1.9	2	02/12/16 17:42	02/13/16 03:12	EPA 3050B	1,6010C	PS
Lead, Total	230		mg/kg	4.7	0.19	2	02/12/16 17:42	02/13/16 03:12	EPA 3050B	1,6010C	PS
Magnesium, Total	4300		mg/kg	9.4	0.94	2	02/12/16 17:42	02/13/16 03:12	EPA 3050B	1,6010C	PS
Manganese, Total	310		mg/kg	0.94	0.19	2	02/12/16 17:42	02/13/16 03:12	EPA 3050B	1,6010C	PS
Mercury, Total	0.28		mg/kg	0.08	0.02	1	02/12/16 08:55	02/12/16 18:01	EPA 7471B	1,7471B	EA
Nickel, Total	13		mg/kg	2.4	0.38	2	02/12/16 17:42	02/13/16 03:12	EPA 3050B	1,6010C	PS
Potassium, Total	640		mg/kg	240	38.	2	02/12/16 17:42	02/13/16 03:12	EPA 3050B	1,6010C	PS
Selenium, Total	ND		mg/kg	1.9	0.28	2	02/12/16 17:42	02/13/16 03:12	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.94	0.19	2	02/12/16 17:42	02/13/16 03:12	EPA 3050B	1,6010C	PS
Sodium, Total	110	J	mg/kg	190	28.	2	02/12/16 17:42	02/13/16 03:12	EPA 3050B	1,6010C	PS
Thallium, Total	ND		mg/kg	1.9	0.38	2	02/12/16 17:42	02/13/16 03:12	EPA 3050B	1,6010C	PS
Vanadium, Total	21		mg/kg	0.94	0.09	2	02/12/16 17:42	02/13/16 03:12	EPA 3050B	1,6010C	PS
Zinc, Total	220		mg/kg	4.7	0.66	2	02/12/16 17:42	02/13/16 03:12	EPA 3050B	1,6010C	PS



Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-08

Date Collected: 02/11/16 13:40

Client ID: SB-108 (4-6)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	6400		mg/kg	9.0	1.8	2	02/12/16 17:42	02/13/16 03:17	EPA 3050B	1,6010C	PS
Antimony, Total	1.0	J	mg/kg	4.5	0.72	2	02/12/16 17:42	02/13/16 03:17	EPA 3050B	1,6010C	PS
Arsenic, Total	5.0		mg/kg	0.90	0.18	2	02/12/16 17:42	02/13/16 03:17	EPA 3050B	1,6010C	PS
Barium, Total	23		mg/kg	0.90	0.27	2	02/12/16 17:42	02/13/16 03:17	EPA 3050B	1,6010C	PS
Beryllium, Total	0.62		mg/kg	0.45	0.09	2	02/12/16 17:42	02/13/16 03:17	EPA 3050B	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.90	0.06	2	02/12/16 17:42	02/13/16 03:17	EPA 3050B	1,6010C	PS
Calcium, Total	680		mg/kg	9.0	2.7	2	02/12/16 17:42	02/13/16 03:17	EPA 3050B	1,6010C	PS
Chromium, Total	17		mg/kg	0.90	0.18	2	02/12/16 17:42	02/13/16 03:17	EPA 3050B	1,6010C	PS
Cobalt, Total	5.1		mg/kg	1.8	0.45	2	02/12/16 17:42	02/13/16 03:17	EPA 3050B	1,6010C	PS
Copper, Total	13		mg/kg	0.90	0.18	2	02/12/16 17:42	02/13/16 03:17	EPA 3050B	1,6010C	PS
Iron, Total	21000		mg/kg	4.5	1.8	2	02/12/16 17:42	02/13/16 03:17	EPA 3050B	1,6010C	PS
Lead, Total	ND		mg/kg	45	1.8	20	02/12/16 17:42	02/13/16 05:41	EPA 3050B	1,6010C	PS
Magnesium, Total	1800		mg/kg	9.0	0.90	2	02/12/16 17:42	02/13/16 03:17	EPA 3050B	1,6010C	PS
Manganese, Total	160		mg/kg	0.90	0.18	2	02/12/16 17:42	02/13/16 03:17	EPA 3050B	1,6010C	PS
Mercury, Total	ND		mg/kg	0.08	0.02	1	02/12/16 08:55	02/12/16 18:03	EPA 7471B	1,7471B	EA
Nickel, Total	10		mg/kg	2.3	0.36	2	02/12/16 17:42	02/13/16 03:17	EPA 3050B	1,6010C	PS
Potassium, Total	500		mg/kg	230	36.	2	02/12/16 17:42	02/13/16 03:17	EPA 3050B	1,6010C	PS
Selenium, Total	ND		mg/kg	1.8	0.27	2	02/12/16 17:42	02/13/16 03:17	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.90	0.18	2	02/12/16 17:42	02/13/16 03:17	EPA 3050B	1,6010C	PS
Sodium, Total	64	J	mg/kg	180	27.	2	02/12/16 17:42	02/13/16 03:17	EPA 3050B	1,6010C	PS
Thallium, Total	ND		mg/kg	1.8	0.36	2	02/12/16 17:42	02/13/16 03:17	EPA 3050B	1,6010C	PS
Vanadium, Total	22		mg/kg	0.90	0.09	2	02/12/16 17:42	02/13/16 03:17	EPA 3050B	1,6010C	PS
Zinc, Total	37		mg/kg	4.5	0.63	2	02/12/16 17:42	02/13/16 03:17	EPA 3050B	1,6010C	PS





Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-09

Date Collected: 02/11/16 13:50

Client ID: SB-108 (10-12)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	8000		mg/kg	9.4	1.9	2	02/12/16 17:42	02/13/16 03:21	EPA 3050B	1,6010C	PS
Antimony, Total	0.94	J	mg/kg	4.7	0.75	2	02/12/16 17:42	02/13/16 03:21	EPA 3050B	1,6010C	PS
Arsenic, Total	3.2		mg/kg	0.94	0.19	2	02/12/16 17:42	02/13/16 03:21	EPA 3050B	1,6010C	PS
Barium, Total	35		mg/kg	0.94	0.28	2	02/12/16 17:42	02/13/16 03:21	EPA 3050B	1,6010C	PS
Beryllium, Total	0.34	J	mg/kg	0.47	0.09	2	02/12/16 17:42	02/13/16 03:21	EPA 3050B	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.94	0.07	2	02/12/16 17:42	02/13/16 03:21	EPA 3050B	1,6010C	PS
Calcium, Total	10000		mg/kg	9.4	2.8	2	02/12/16 17:42	02/13/16 03:21	EPA 3050B	1,6010C	PS
Chromium, Total	15		mg/kg	0.94	0.19	2	02/12/16 17:42	02/13/16 03:21	EPA 3050B	1,6010C	PS
Cobalt, Total	5.8		mg/kg	1.9	0.47	2	02/12/16 17:42	02/13/16 03:21	EPA 3050B	1,6010C	PS
Copper, Total	16		mg/kg	0.94	0.19	2	02/12/16 17:42	02/13/16 03:21	EPA 3050B	1,6010C	PS
Iron, Total	16000		mg/kg	4.7	1.9	2	02/12/16 17:42	02/13/16 03:21	EPA 3050B	1,6010C	PS
Lead, Total	11		mg/kg	4.7	0.19	2	02/12/16 17:42	02/13/16 03:21	EPA 3050B	1,6010C	PS
Magnesium, Total	5400		mg/kg	9.4	0.94	2	02/12/16 17:42	02/13/16 03:21	EPA 3050B	1,6010C	PS
Manganese, Total	340		mg/kg	0.94	0.19	2	02/12/16 17:42	02/13/16 03:21	EPA 3050B	1,6010C	PS
Mercury, Total	0.03	J	mg/kg	0.08	0.02	1	02/12/16 08:55	02/12/16 18:04	EPA 7471B	1,7471B	EA
Nickel, Total	11		mg/kg	2.4	0.38	2	02/12/16 17:42	02/13/16 03:21	EPA 3050B	1,6010C	PS
Potassium, Total	580		mg/kg	240	38.	2	02/12/16 17:42	02/13/16 03:21	EPA 3050B	1,6010C	PS
Selenium, Total	ND		mg/kg	1.9	0.28	2	02/12/16 17:42	02/13/16 03:21	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.94	0.19	2	02/12/16 17:42	02/13/16 03:21	EPA 3050B	1,6010C	PS
Sodium, Total	88	J	mg/kg	190	28.	2	02/12/16 17:42	02/13/16 03:21	EPA 3050B	1,6010C	PS
Thallium, Total	ND		mg/kg	1.9	0.38	2	02/12/16 17:42	02/13/16 03:21	EPA 3050B	1,6010C	PS
Vanadium, Total	16		mg/kg	0.94	0.09	2	02/12/16 17:42	02/13/16 03:21	EPA 3050B	1,6010C	PS
Zinc, Total	44		mg/kg	4.7	0.66	2	02/12/16 17:42	02/13/16 03:21	EPA 3050B	1,6010C	PS





Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-10

Date Collected: 02/11/16 14:00

Client ID: DUP021116

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	8100		mg/kg	9.1	1.8	2	02/12/16 17:42	02/13/16 03:25	EPA 3050B	1,6010C	PS
Antimony, Total	2.4	J	mg/kg	4.5	0.73	2	02/12/16 17:42	02/13/16 03:25	EPA 3050B	1,6010C	PS
Arsenic, Total	6.7		mg/kg	0.91	0.18	2	02/12/16 17:42	02/13/16 03:25	EPA 3050B	1,6010C	PS
Barium, Total	310		mg/kg	0.91	0.27	2	02/12/16 17:42	02/13/16 03:25	EPA 3050B	1,6010C	PS
Beryllium, Total	0.30	J	mg/kg	0.45	0.09	2	02/12/16 17:42	02/13/16 03:25	EPA 3050B	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.91	0.06	2	02/12/16 17:42	02/13/16 03:25	EPA 3050B	1,6010C	PS
Calcium, Total	16000		mg/kg	9.1	2.7	2	02/12/16 17:42	02/13/16 03:25	EPA 3050B	1,6010C	PS
Chromium, Total	18		mg/kg	0.91	0.18	2	02/12/16 17:42	02/13/16 03:25	EPA 3050B	1,6010C	PS
Cobalt, Total	11		mg/kg	1.8	0.45	2	02/12/16 17:42	02/13/16 03:25	EPA 3050B	1,6010C	PS
Copper, Total	120		mg/kg	0.91	0.18	2	02/12/16 17:42	02/13/16 03:25	EPA 3050B	1,6010C	PS
Iron, Total	29000		mg/kg	4.5	1.8	2	02/12/16 17:42	02/13/16 03:25	EPA 3050B	1,6010C	PS
Lead, Total	680		mg/kg	4.5	0.18	2	02/12/16 17:42	02/13/16 03:25	EPA 3050B	1,6010C	PS
Magnesium, Total	6300		mg/kg	9.1	0.91	2	02/12/16 17:42	02/13/16 03:25	EPA 3050B	1,6010C	PS
Manganese, Total	340		mg/kg	0.91	0.18	2	02/12/16 17:42	02/13/16 03:25	EPA 3050B	1,6010C	PS
Mercury, Total	0.26		mg/kg	0.08	0.02	1	02/12/16 08:55	02/12/16 18:10	EPA 7471B	1,7471B	EA
Nickel, Total	16		mg/kg	2.3	0.36	2	02/12/16 17:42	02/13/16 03:25	EPA 3050B	1,6010C	PS
Potassium, Total	650		mg/kg	230	36.	2	02/12/16 17:42	02/13/16 03:25	EPA 3050B	1,6010C	PS
Selenium, Total	0.38	J	mg/kg	1.8	0.27	2	02/12/16 17:42	02/13/16 03:25	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.91	0.18	2	02/12/16 17:42	02/13/16 03:25	EPA 3050B	1,6010C	PS
Sodium, Total	130	J	mg/kg	180	27.	2	02/12/16 17:42	02/13/16 03:25	EPA 3050B	1,6010C	PS
Thallium, Total	ND		mg/kg	1.8	0.36	2	02/12/16 17:42	02/13/16 03:25	EPA 3050B	1,6010C	PS
Vanadium, Total	28		mg/kg	0.91	0.09	2	02/12/16 17:42	02/13/16 03:25	EPA 3050B	1,6010C	PS
Zinc, Total	240		mg/kg	4.5	0.64	2	02/12/16 17:42	02/13/16 03:25	EPA 3050B	1,6010C	PS



Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-11

Date Collected: 02/11/16 14:15

Client ID: FB021116

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	ND		mg/l	0.10	0.02	1	02/12/16 09:05	02/15/16 22:44	EPA 3005A	1,6010C	PS
Antimony, Total	ND		mg/l	0.0500	0.0080	1	02/12/16 09:05	02/15/16 22:44	EPA 3005A	1,6010C	PS
Arsenic, Total	ND		mg/l	0.005	0.002	1	02/12/16 09:05	02/15/16 22:44	EPA 3005A	1,6010C	PS
Barium, Total	ND		mg/l	0.010	0.003	1	02/12/16 09:05	02/15/16 22:44	EPA 3005A	1,6010C	PS
Beryllium, Total	ND		mg/l	0.005	0.001	1	02/12/16 09:05	02/16/16 01:29	EPA 3005A	1,6010C	PS
Cadmium, Total	ND		mg/l	0.005	0.001	1	02/12/16 09:05	02/15/16 22:44	EPA 3005A	1,6010C	PS
Calcium, Total	ND		mg/l	0.10	0.03	1	02/12/16 09:05	02/15/16 22:44	EPA 3005A	1,6010C	PS
Chromium, Total	ND		mg/l	0.01	0.002	1	02/12/16 09:05	02/15/16 22:44	EPA 3005A	1,6010C	PS
Cobalt, Total	ND		mg/l	0.020	0.005	1	02/12/16 09:05	02/15/16 22:44	EPA 3005A	1,6010C	PS
Copper, Total	0.0028	J	mg/l	0.0100	0.0020	1	02/12/16 09:05	02/15/16 22:44	EPA 3005A	1,6010C	PS
Iron, Total	ND		mg/l	0.050	0.020	1	02/12/16 09:05	02/15/16 22:44	EPA 3005A	1,6010C	PS
Lead, Total	ND		mg/l	0.0100	0.0020	1	02/12/16 09:05	02/15/16 22:44	EPA 3005A	1,6010C	PS
Magnesium, Total	ND		mg/l	0.10	0.010	1	02/12/16 09:05	02/15/16 22:44	EPA 3005A	1,6010C	PS
Manganese, Total	ND		mg/l	0.0100	0.0020	1	02/12/16 09:05	02/15/16 22:44	EPA 3005A	1,6010C	PS
Mercury, Total	ND		mg/l	0.00020	0.00006	1	02/12/16 11:30	02/12/16 22:01	EPA 7470A	1,7470A	JH
Nickel, Total	ND		mg/l	0.0250	0.0040	1	02/12/16 09:05	02/15/16 22:44	EPA 3005A	1,6010C	PS
Potassium, Total	ND		mg/l	2.5	0.40	1	02/12/16 09:05	02/15/16 22:44	EPA 3005A	1,6010C	PS
Selenium, Total	ND		mg/l	0.0100	0.0030	1	02/12/16 09:05	02/15/16 22:44	EPA 3005A	1,6010C	PS
Silver, Total	ND		mg/l	0.007	0.002	1	02/12/16 09:05	02/15/16 22:44	EPA 3005A	1,6010C	PS
Sodium, Total	ND		mg/l	2.0	0.30	1	02/12/16 09:05	02/15/16 22:44	EPA 3005A	1,6010C	PS
Thallium, Total	ND		mg/l	0.0200	0.0040	1	02/12/16 09:05	02/15/16 22:44	EPA 3005A	1,6010C	PS
Vanadium, Total	ND		mg/l	0.0100	0.0010	1	02/12/16 09:05	02/15/16 22:44	EPA 3005A	1,6010C	PS
Zinc, Total	ND		mg/l	0.0500	0.0070	1	02/12/16 09:05	02/15/16 22:44	EPA 3005A	1,6010C	PS



Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-12

Date Collected: 02/11/16 14:30

Client ID: SB-104 (0-2)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	10000		mg/kg	9.2	1.8	2	02/12/16 17:42	02/13/16 03:29	EPA 3050B	1,6010C	PS
Antimony, Total	1.1	J	mg/kg	4.6	0.73	2	02/12/16 17:42	02/13/16 03:29	EPA 3050B	1,6010C	PS
Arsenic, Total	3.3		mg/kg	0.92	0.18	2	02/12/16 17:42	02/13/16 03:29	EPA 3050B	1,6010C	PS
Barium, Total	26		mg/kg	0.92	0.28	2	02/12/16 17:42	02/13/16 03:29	EPA 3050B	1,6010C	PS
Beryllium, Total	0.33	J	mg/kg	0.46	0.09	2	02/12/16 17:42	02/13/16 03:29	EPA 3050B	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.92	0.06	2	02/12/16 17:42	02/13/16 03:29	EPA 3050B	1,6010C	PS
Calcium, Total	2000		mg/kg	9.2	2.8	2	02/12/16 17:42	02/13/16 03:29	EPA 3050B	1,6010C	PS
Chromium, Total	14		mg/kg	0.92	0.18	2	02/12/16 17:42	02/13/16 03:29	EPA 3050B	1,6010C	PS
Cobalt, Total	6.7		mg/kg	1.8	0.46	2	02/12/16 17:42	02/13/16 03:29	EPA 3050B	1,6010C	PS
Copper, Total	15		mg/kg	0.92	0.18	2	02/12/16 17:42	02/13/16 03:29	EPA 3050B	1,6010C	PS
Iron, Total	18000		mg/kg	4.6	1.8	2	02/12/16 17:42	02/13/16 03:29	EPA 3050B	1,6010C	PS
Lead, Total	ND		mg/kg	4.6	0.18	2	02/12/16 17:42	02/13/16 03:29	EPA 3050B	1,6010C	PS
Magnesium, Total	2900		mg/kg	9.2	0.92	2	02/12/16 17:42	02/13/16 03:29	EPA 3050B	1,6010C	PS
Manganese, Total	290		mg/kg	0.92	0.18	2	02/12/16 17:42	02/13/16 03:29	EPA 3050B	1,6010C	PS
Mercury, Total	0.05	J	mg/kg	0.08	0.02	1	02/12/16 08:55	02/12/16 18:12	EPA 7471B	1,7471B	EA
Nickel, Total	13		mg/kg	2.3	0.37	2	02/12/16 17:42	02/13/16 03:29	EPA 3050B	1,6010C	PS
Potassium, Total	470		mg/kg	230	37.	2	02/12/16 17:42	02/13/16 03:29	EPA 3050B	1,6010C	PS
Selenium, Total	ND		mg/kg	1.8	0.28	2	02/12/16 17:42	02/13/16 03:29	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.92	0.18	2	02/12/16 17:42	02/13/16 03:29	EPA 3050B	1,6010C	PS
Sodium, Total	78	J	mg/kg	180	28.	2	02/12/16 17:42	02/13/16 03:29	EPA 3050B	1,6010C	PS
Thallium, Total	ND		mg/kg	1.8	0.37	2	02/12/16 17:42	02/13/16 03:29	EPA 3050B	1,6010C	PS
Vanadium, Total	18		mg/kg	0.92	0.09	2	02/12/16 17:42	02/13/16 03:29	EPA 3050B	1,6010C	PS
Zinc, Total	110		mg/kg	4.6	0.64	2	02/12/16 17:42	02/13/16 03:29	EPA 3050B	1,6010C	PS



Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-13

Date Collected: 02/11/16 14:40

Client ID: SB-104 (5-7)

Date Received: 02/11/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	7400		mg/kg	9.3	1.9	2	02/12/16 17:42	02/13/16 03:59	EPA 3050B	1,6010C	PS
Antimony, Total	0.90	J	mg/kg	4.7	0.75	2	02/12/16 17:42	02/13/16 03:59	EPA 3050B	1,6010C	PS
Arsenic, Total	2.7		mg/kg	0.93	0.19	2	02/12/16 17:42	02/13/16 03:59	EPA 3050B	1,6010C	PS
Barium, Total	20		mg/kg	0.93	0.28	2	02/12/16 17:42	02/13/16 03:59	EPA 3050B	1,6010C	PS
Beryllium, Total	0.31	J	mg/kg	0.47	0.09	2	02/12/16 17:42	02/13/16 03:59	EPA 3050B	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.93	0.07	2	02/12/16 17:42	02/13/16 03:59	EPA 3050B	1,6010C	PS
Calcium, Total	1200		mg/kg	9.3	2.8	2	02/12/16 17:42	02/13/16 03:59	EPA 3050B	1,6010C	PS
Chromium, Total	16		mg/kg	0.93	0.19	2	02/12/16 17:42	02/13/16 03:59	EPA 3050B	1,6010C	PS
Cobalt, Total	6.9		mg/kg	1.9	0.47	2	02/12/16 17:42	02/13/16 03:59	EPA 3050B	1,6010C	PS
Copper, Total	14		mg/kg	0.93	0.19	2	02/12/16 17:42	02/13/16 03:59	EPA 3050B	1,6010C	PS
Iron, Total	14000		mg/kg	4.7	1.9	2	02/12/16 17:42	02/13/16 03:59	EPA 3050B	1,6010C	PS
Lead, Total	ND		mg/kg	4.7	0.19	2	02/12/16 17:42	02/13/16 03:59	EPA 3050B	1,6010C	PS
Magnesium, Total	2400		mg/kg	9.3	0.93	2	02/12/16 17:42	02/13/16 03:59	EPA 3050B	1,6010C	PS
Manganese, Total	380		mg/kg	0.93	0.19	2	02/12/16 17:42	02/13/16 03:59	EPA 3050B	1,6010C	PS
Mercury, Total	0.02	J	mg/kg	0.08	0.02	1	02/12/16 08:55	02/12/16 18:13	EPA 7471B	1,7471B	EA
Nickel, Total	11		mg/kg	2.3	0.37	2	02/12/16 17:42	02/13/16 03:59	EPA 3050B	1,6010C	PS
Potassium, Total	450		mg/kg	230	37.	2	02/12/16 17:42	02/13/16 03:59	EPA 3050B	1,6010C	PS
Selenium, Total	ND		mg/kg	1.9	0.28	2	02/12/16 17:42	02/13/16 03:59	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.93	0.19	2	02/12/16 17:42	02/13/16 03:59	EPA 3050B	1,6010C	PS
Sodium, Total	55	J	mg/kg	190	28.	2	02/12/16 17:42	02/13/16 03:59	EPA 3050B	1,6010C	PS
Thallium, Total	ND		mg/kg	1.9	0.37	2	02/12/16 17:42	02/13/16 03:59	EPA 3050B	1,6010C	PS
Vanadium, Total	15		mg/kg	0.93	0.09	2	02/12/16 17:42	02/13/16 03:59	EPA 3050B	1,6010C	PS
Zinc, Total	68		mg/kg	4.7	0.65	2	02/12/16 17:42	02/13/16 03:59	EPA 3050B	1,6010C	PS



Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## SAMPLE RESULTS

Lab ID: L1603689-14  
 Client ID: SB-104 (10-12)  
 Sample Location: BROOKLYN, NY  
 Matrix: Soil  
 Percent Solids: 78%

Date Collected: 02/11/16 14:50  
 Date Received: 02/11/16  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	6200		mg/kg	9.8	2.0	2	02/12/16 17:42	02/13/16 04:03	EPA 3050B	1,6010C	PS
Antimony, Total	ND		mg/kg	4.9	0.78	2	02/12/16 17:42	02/13/16 04:03	EPA 3050B	1,6010C	PS
Arsenic, Total	2.9		mg/kg	0.98	0.20	2	02/12/16 17:42	02/13/16 04:03	EPA 3050B	1,6010C	PS
Barium, Total	23		mg/kg	0.98	0.29	2	02/12/16 17:42	02/13/16 04:03	EPA 3050B	1,6010C	PS
Beryllium, Total	0.31	J	mg/kg	0.49	0.10	2	02/12/16 17:42	02/13/16 04:03	EPA 3050B	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.98	0.07	2	02/12/16 17:42	02/13/16 04:03	EPA 3050B	1,6010C	PS
Calcium, Total	730		mg/kg	9.8	2.9	2	02/12/16 17:42	02/13/16 04:03	EPA 3050B	1,6010C	PS
Chromium, Total	11		mg/kg	0.98	0.20	2	02/12/16 17:42	02/13/16 04:03	EPA 3050B	1,6010C	PS
Cobalt, Total	5.1		mg/kg	2.0	0.49	2	02/12/16 17:42	02/13/16 04:03	EPA 3050B	1,6010C	PS
Copper, Total	11		mg/kg	0.98	0.20	2	02/12/16 17:42	02/13/16 04:03	EPA 3050B	1,6010C	PS
Iron, Total	11000		mg/kg	4.9	2.0	2	02/12/16 17:42	02/13/16 04:03	EPA 3050B	1,6010C	PS
Lead, Total	ND		mg/kg	4.9	0.20	2	02/12/16 17:42	02/13/16 04:03	EPA 3050B	1,6010C	PS
Magnesium, Total	2000		mg/kg	9.8	0.98	2	02/12/16 17:42	02/13/16 04:03	EPA 3050B	1,6010C	PS
Manganese, Total	110		mg/kg	0.98	0.20	2	02/12/16 17:42	02/13/16 04:03	EPA 3050B	1,6010C	PS
Mercury, Total	ND		mg/kg	0.08	0.02	1	02/12/16 08:55	02/12/16 18:15	EPA 7471B	1,7471B	EA
Nickel, Total	10		mg/kg	2.4	0.39	2	02/12/16 17:42	02/13/16 04:03	EPA 3050B	1,6010C	PS
Potassium, Total	430		mg/kg	240	39.	2	02/12/16 17:42	02/13/16 04:03	EPA 3050B	1,6010C	PS
Selenium, Total	ND		mg/kg	2.0	0.29	2	02/12/16 17:42	02/13/16 04:03	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.98	0.20	2	02/12/16 17:42	02/13/16 04:03	EPA 3050B	1,6010C	PS
Sodium, Total	52	J	mg/kg	200	29.	2	02/12/16 17:42	02/13/16 04:03	EPA 3050B	1,6010C	PS
Thallium, Total	ND		mg/kg	2.0	0.39	2	02/12/16 17:42	02/13/16 04:03	EPA 3050B	1,6010C	PS
Vanadium, Total	14		mg/kg	0.98	0.10	2	02/12/16 17:42	02/13/16 04:03	EPA 3050B	1,6010C	PS
Zinc, Total	43		mg/kg	4.9	0.69	2	02/12/16 17:42	02/13/16 04:03	EPA 3050B	1,6010C	PS



Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-10,12-14 Batch: WG864642-1										
Mercury, Total	ND		mg/kg	0.08	0.02	1	02/12/16 08:55	02/12/16 17:31	1,7471B	EA

### Prep Information

Digestion Method: EPA 7471B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-02 Batch: WG864702-1										
Aluminum, Total	ND		mg/kg	4.0	0.80	1	02/12/16 08:44	02/12/16 19:11	1,6010C	FB
Antimony, Total	ND		mg/kg	2.0	0.32	1	02/12/16 08:44	02/12/16 19:11	1,6010C	FB
Arsenic, Total	ND		mg/kg	0.40	0.08	1	02/12/16 08:44	02/12/16 19:11	1,6010C	FB
Barium, Total	ND		mg/kg	0.40	0.12	1	02/12/16 08:44	02/12/16 19:11	1,6010C	FB
Beryllium, Total	ND		mg/kg	0.20	0.04	1	02/12/16 08:44	02/12/16 19:11	1,6010C	FB
Cadmium, Total	ND		mg/kg	0.40	0.03	1	02/12/16 08:44	02/12/16 19:11	1,6010C	FB
Calcium, Total	ND		mg/kg	4.0	1.2	1	02/12/16 08:44	02/12/16 19:11	1,6010C	FB
Chromium, Total	ND		mg/kg	0.40	0.08	1	02/12/16 08:44	02/12/16 19:11	1,6010C	FB
Cobalt, Total	ND		mg/kg	0.80	0.20	1	02/12/16 08:44	02/12/16 19:11	1,6010C	FB
Copper, Total	ND		mg/kg	0.40	0.08	1	02/12/16 08:44	02/12/16 19:11	1,6010C	FB
Iron, Total	1.1	J	mg/kg	2.0	0.80	1	02/12/16 08:44	02/12/16 19:11	1,6010C	FB
Lead, Total	0.24	J	mg/kg	2.0	0.08	1	02/12/16 08:44	02/12/16 19:11	1,6010C	FB
Magnesium, Total	ND		mg/kg	4.0	0.40	1	02/12/16 08:44	02/12/16 19:11	1,6010C	FB
Manganese, Total	0.09	J	mg/kg	0.40	0.08	1	02/12/16 08:44	02/12/16 19:11	1,6010C	FB
Nickel, Total	ND		mg/kg	1.0	0.16	1	02/12/16 08:44	02/12/16 19:11	1,6010C	FB
Potassium, Total	ND		mg/kg	100	16.	1	02/12/16 08:44	02/12/16 19:11	1,6010C	FB
Selenium, Total	ND		mg/kg	0.80	0.12	1	02/12/16 08:44	02/12/16 19:11	1,6010C	FB
Silver, Total	ND		mg/kg	0.40	0.08	1	02/12/16 08:44	02/12/16 19:11	1,6010C	FB
Sodium, Total	ND		mg/kg	80	12.	1	02/12/16 08:44	02/12/16 19:11	1,6010C	FB
Thallium, Total	ND		mg/kg	0.80	0.16	1	02/12/16 08:44	02/12/16 19:11	1,6010C	FB
Vanadium, Total	ND		mg/kg	0.40	0.04	1	02/12/16 08:44	02/12/16 19:11	1,6010C	FB
Zinc, Total	ND		mg/kg	2.0	0.28	1	02/12/16 08:44	02/12/16 19:11	1,6010C	FB



Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## Method Blank Analysis Batch Quality Control

### Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 11 Batch: WG864717-1										
Aluminum, Total	ND		mg/l	0.10	0.02	1	02/12/16 09:05	02/15/16 20:54	1,6010C	PS
Antimony, Total	ND		mg/l	0.0500	0.0080	1	02/12/16 09:05	02/15/16 20:54	1,6010C	PS
Arsenic, Total	ND		mg/l	0.005	0.002	1	02/12/16 09:05	02/15/16 20:54	1,6010C	PS
Barium, Total	ND		mg/l	0.010	0.003	1	02/12/16 09:05	02/15/16 20:54	1,6010C	PS
Beryllium, Total	ND		mg/l	0.005	0.001	1	02/12/16 09:05	02/15/16 20:54	1,6010C	PS
Cadmium, Total	ND		mg/l	0.005	0.001	1	02/12/16 09:05	02/15/16 20:54	1,6010C	PS
Calcium, Total	ND		mg/l	0.10	0.03	1	02/12/16 09:05	02/15/16 20:54	1,6010C	PS
Chromium, Total	ND		mg/l	0.01	0.002	1	02/12/16 09:05	02/15/16 20:54	1,6010C	PS
Cobalt, Total	ND		mg/l	0.020	0.005	1	02/12/16 09:05	02/15/16 20:54	1,6010C	PS
Copper, Total	ND		mg/l	0.0100	0.0020	1	02/12/16 09:05	02/15/16 20:54	1,6010C	PS
Iron, Total	ND		mg/l	0.050	0.020	1	02/12/16 09:05	02/15/16 20:54	1,6010C	PS
Lead, Total	ND		mg/l	0.0100	0.0020	1	02/12/16 09:05	02/15/16 20:54	1,6010C	PS
Magnesium, Total	ND		mg/l	0.10	0.010	1	02/12/16 09:05	02/15/16 20:54	1,6010C	PS
Manganese, Total	ND		mg/l	0.0100	0.0020	1	02/12/16 09:05	02/15/16 20:54	1,6010C	PS
Nickel, Total	ND		mg/l	0.0250	0.0040	1	02/12/16 09:05	02/15/16 20:54	1,6010C	PS
Potassium, Total	ND		mg/l	2.5	0.40	1	02/12/16 09:05	02/15/16 20:54	1,6010C	PS
Selenium, Total	ND		mg/l	0.0100	0.0030	1	02/12/16 09:05	02/15/16 20:54	1,6010C	PS
Silver, Total	ND		mg/l	0.007	0.002	1	02/12/16 09:05	02/15/16 20:54	1,6010C	PS
Sodium, Total	ND		mg/l	2.0	0.30	1	02/12/16 09:05	02/15/16 20:54	1,6010C	PS
Thallium, Total	ND		mg/l	0.0200	0.0040	1	02/12/16 09:05	02/15/16 20:54	1,6010C	PS
Vanadium, Total	ND		mg/l	0.0100	0.0010	1	02/12/16 09:05	02/15/16 20:54	1,6010C	PS
Zinc, Total	ND		mg/l	0.0500	0.0070	1	02/12/16 09:05	02/15/16 20:54	1,6010C	PS

### Prep Information

Digestion Method: EPA 3005A



Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 11 Batch: WG864778-1										
Mercury, Total	ND		mg/l	0.00020	0.00006	1	02/12/16 11:30	02/12/16 21:52	1,7470A	JH

### Prep Information

Digestion Method: EPA 7470A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 03-05 Batch: WG864810-1										
Aluminum, Total	ND		mg/kg	4.0	0.80	1	02/12/16 15:47	02/16/16 09:25	1,6010C	PS
Antimony, Total	ND		mg/kg	2.0	0.32	1	02/12/16 15:47	02/16/16 09:25	1,6010C	PS
Arsenic, Total	ND		mg/kg	0.40	0.08	1	02/12/16 15:47	02/16/16 09:25	1,6010C	PS
Barium, Total	ND		mg/kg	0.40	0.12	1	02/12/16 15:47	02/16/16 09:25	1,6010C	PS
Beryllium, Total	ND		mg/kg	0.20	0.04	1	02/12/16 15:47	02/16/16 09:25	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.40	0.03	1	02/12/16 15:47	02/16/16 09:25	1,6010C	PS
Calcium, Total	ND		mg/kg	4.0	1.2	1	02/12/16 15:47	02/16/16 09:25	1,6010C	PS
Chromium, Total	ND		mg/kg	0.40	0.08	1	02/12/16 15:47	02/16/16 09:25	1,6010C	PS
Cobalt, Total	ND		mg/kg	0.80	0.20	1	02/12/16 15:47	02/16/16 09:25	1,6010C	PS
Copper, Total	ND		mg/kg	0.40	0.08	1	02/12/16 15:47	02/16/16 09:25	1,6010C	PS
Iron, Total	ND		mg/kg	2.0	0.80	1	02/12/16 15:47	02/16/16 09:25	1,6010C	PS
Lead, Total	ND		mg/kg	2.0	0.08	1	02/12/16 15:47	02/16/16 09:25	1,6010C	PS
Magnesium, Total	ND		mg/kg	4.0	0.40	1	02/12/16 15:47	02/16/16 09:25	1,6010C	PS
Manganese, Total	ND		mg/kg	0.40	0.08	1	02/12/16 15:47	02/16/16 09:25	1,6010C	PS
Nickel, Total	ND		mg/kg	1.0	0.16	1	02/12/16 15:47	02/16/16 09:25	1,6010C	PS
Potassium, Total	ND		mg/kg	100	16.	1	02/12/16 15:47	02/16/16 09:25	1,6010C	PS
Selenium, Total	ND		mg/kg	0.80	0.12	1	02/12/16 15:47	02/16/16 09:25	1,6010C	PS
Silver, Total	ND		mg/kg	0.40	0.08	1	02/12/16 15:47	02/16/16 09:25	1,6010C	PS
Sodium, Total	ND		mg/kg	80	12.	1	02/12/16 15:47	02/16/16 09:25	1,6010C	PS
Thallium, Total	ND		mg/kg	0.80	0.16	1	02/12/16 15:47	02/16/16 09:25	1,6010C	PS
Vanadium, Total	ND		mg/kg	0.40	0.04	1	02/12/16 15:47	02/16/16 09:25	1,6010C	PS
Zinc, Total	ND		mg/kg	2.0	0.28	1	02/12/16 15:47	02/16/16 09:25	1,6010C	PS



Project Name: DUPONT STREET

Lab Number: L1603689

Project Number: 2587.0001Y000

Report Date: 02/18/16

## Method Blank Analysis Batch Quality Control

### Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 06-10,12-14 Batch: WG864887-1										
Aluminum, Total	ND		mg/kg	4.0	0.80	1	02/12/16 17:42	02/13/16 01:28	1,6010C	PS
Antimony, Total	ND		mg/kg	2.0	0.32	1	02/12/16 17:42	02/13/16 01:28	1,6010C	PS
Arsenic, Total	ND		mg/kg	0.40	0.08	1	02/12/16 17:42	02/13/16 01:28	1,6010C	PS
Barium, Total	ND		mg/kg	0.40	0.12	1	02/12/16 17:42	02/13/16 01:28	1,6010C	PS
Beryllium, Total	ND		mg/kg	0.20	0.04	1	02/12/16 17:42	02/13/16 01:28	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.40	0.03	1	02/12/16 17:42	02/13/16 01:28	1,6010C	PS
Calcium, Total	ND		mg/kg	4.0	1.2	1	02/12/16 17:42	02/13/16 01:28	1,6010C	PS
Chromium, Total	ND		mg/kg	0.40	0.08	1	02/12/16 17:42	02/13/16 01:28	1,6010C	PS
Cobalt, Total	ND		mg/kg	0.80	0.20	1	02/12/16 17:42	02/13/16 01:28	1,6010C	PS
Copper, Total	ND		mg/kg	0.40	0.08	1	02/12/16 17:42	02/13/16 01:28	1,6010C	PS
Iron, Total	ND		mg/kg	2.0	0.80	1	02/12/16 17:42	02/13/16 01:28	1,6010C	PS
Lead, Total	ND		mg/kg	2.0	0.08	1	02/12/16 17:42	02/13/16 01:28	1,6010C	PS
Magnesium, Total	ND		mg/kg	4.0	0.40	1	02/12/16 17:42	02/13/16 01:28	1,6010C	PS
Manganese, Total	ND		mg/kg	0.40	0.08	1	02/12/16 17:42	02/13/16 01:28	1,6010C	PS
Nickel, Total	ND		mg/kg	1.0	0.16	1	02/12/16 17:42	02/13/16 01:28	1,6010C	PS
Potassium, Total	ND		mg/kg	100	16.	1	02/12/16 17:42	02/13/16 01:28	1,6010C	PS
Selenium, Total	ND		mg/kg	0.80	0.12	1	02/12/16 17:42	02/13/16 01:28	1,6010C	PS
Silver, Total	ND		mg/kg	0.40	0.08	1	02/12/16 17:42	02/13/16 01:28	1,6010C	PS
Sodium, Total	ND		mg/kg	80	12.	1	02/12/16 17:42	02/13/16 01:28	1,6010C	PS
Thallium, Total	ND		mg/kg	0.80	0.16	1	02/12/16 17:42	02/13/16 01:28	1,6010C	PS
Vanadium, Total	ND		mg/kg	0.40	0.04	1	02/12/16 17:42	02/13/16 01:28	1,6010C	PS
Zinc, Total	ND		mg/kg	2.0	0.28	1	02/12/16 17:42	02/13/16 01:28	1,6010C	PS

### Prep Information

Digestion Method: EPA 3050B



**Lab Control Sample Analysis****Batch Quality Control****Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603689**Report Date:** 02/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-10,12-14 Batch: WG864642-2 SRM Lot Number: D088-540								
Mercury, Total	118		-		72-128	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-02 Batch: WG864702-2 SRM Lot Number: D088-540					
Aluminum, Total	58	-	48-151	-	
Antimony, Total	178	-	1-208	-	
Arsenic, Total	96	-	79-121	-	
Barium, Total	88	-	83-117	-	
Beryllium, Total	92	-	83-117	-	
Cadmium, Total	90	-	83-117	-	
Calcium, Total	85	-	81-119	-	
Chromium, Total	90	-	80-120	-	
Cobalt, Total	91	-	84-115	-	
Copper, Total	90	-	81-118	-	
Iron, Total	75	-	45-155	-	
Lead, Total	87	-	81-117	-	
Magnesium, Total	84	-	76-124	-	
Manganese, Total	88	-	81-118	-	
Nickel, Total	92	-	83-117	-	
Potassium, Total	76	-	71-129	-	
Selenium, Total	97	-	78-122	-	
Silver, Total	93	-	75-124	-	
Sodium, Total	88	-	72-127	-	
Thallium, Total	90	-	80-120	-	
Vanadium, Total	85	-	78-122	-	

**Lab Control Sample Analysis**  
Batch Quality Control**Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603689**Report Date:** 02/18/16

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-02 Batch: WG864702-2 SRM Lot Number: D088-540					
Zinc, Total	88	-	82-118	-	

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 11 Batch: WG864717-2					
Aluminum, Total	95	-	80-120	-	
Antimony, Total	92	-	80-120	-	
Arsenic, Total	97	-	80-120	-	
Barium, Total	92	-	80-120	-	
Beryllium, Total	88	-	80-120	-	
Cadmium, Total	97	-	80-120	-	
Calcium, Total	99	-	80-120	-	
Chromium, Total	90	-	80-120	-	
Cobalt, Total	89	-	80-120	-	
Copper, Total	93	-	80-120	-	
Iron, Total	92	-	80-120	-	
Lead, Total	96	-	80-120	-	
Magnesium, Total	95	-	80-120	-	
Manganese, Total	92	-	80-120	-	
Nickel, Total	90	-	80-120	-	
Potassium, Total	96	-	80-120	-	
Selenium, Total	101	-	80-120	-	
Silver, Total	102	-	80-120	-	
Sodium, Total	98	-	80-120	-	
Thallium, Total	96	-	80-120	-	
Vanadium, Total	99	-	80-120	-	

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 11 Batch: WG864717-2					
Zinc, Total	92	-	80-120	-	
Total Metals - Westborough Lab Associated sample(s): 11 Batch: WG864778-2					
Mercury, Total	90	-	80-120	-	

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 03-05 Batch: WG864810-2 SRM Lot Number: D088-540					
Aluminum, Total	78	-	48-151	-	
Antimony, Total	150	-	1-208	-	
Arsenic, Total	96	-	79-121	-	
Barium, Total	83	-	83-117	-	
Beryllium, Total	88	-	83-117	-	
Cadmium, Total	88	-	83-117	-	
Calcium, Total	90	-	81-119	-	
Chromium, Total	86	-	80-120	-	
Cobalt, Total	89	-	84-115	-	
Copper, Total	90	-	81-118	-	
Iron, Total	89	-	45-155	-	
Lead, Total	82	-	81-117	-	
Magnesium, Total	81	-	76-124	-	
Manganese, Total	88	-	81-118	-	
Nickel, Total	86	-	83-117	-	
Potassium, Total	86	-	71-129	-	
Selenium, Total	97	-	78-122	-	
Silver, Total	91	-	75-124	-	
Sodium, Total	90	-	72-127	-	
Thallium, Total	90	-	80-120	-	
Vanadium, Total	88	-	78-122	-	

**Lab Control Sample Analysis**  
Batch Quality Control**Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603689**Report Date:** 02/18/16

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 03-05 Batch: WG864810-2 SRM Lot Number: D088-540					
Zinc, Total	88	-	82-118	-	



# Lab Control Sample Analysis

## Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603689

Report Date: 02/18/16

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 06-10,12-14 Batch: WG864887-2 SRM Lot Number: D088-540					
Aluminum, Total	71	-	48-151	-	
Antimony, Total	159	-	1-208	-	
Arsenic, Total	87	-	79-121	-	
Barium, Total	94	-	83-117	-	
Beryllium, Total	83	-	83-117	-	
Cadmium, Total	84	-	83-117	-	
Calcium, Total	92	-	81-119	-	
Chromium, Total	85	-	80-120	-	
Cobalt, Total	85	-	84-115	-	
Copper, Total	90	-	81-118	-	
Iron, Total	82	-	45-155	-	
Lead, Total	86	-	81-117	-	
Magnesium, Total	81	-	76-124	-	
Manganese, Total	81	-	81-118	-	
Nickel, Total	88	-	83-117	-	
Potassium, Total	82	-	71-129	-	
Selenium, Total	91	-	78-122	-	
Silver, Total	84	-	75-124	-	
Sodium, Total	86	-	72-127	-	
Thallium, Total	85	-	80-120	-	
Vanadium, Total	85	-	78-122	-	

**Lab Control Sample Analysis****Batch Quality Control****Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603689**Report Date:** 02/18/16

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 06-10,12-14 Batch: WG864887-2 SRM Lot Number: D088-540					
Zinc, Total	88	-	82-118	-	

# **Matrix Spike Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Lab Number:** L1603689

**Project Number:** 2587.0001Y000

**Report Date:** 02/18/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-10,12-14    QC Batch ID: WG864642-4    QC Sample: L1603525-01    Client ID: MS Sample												
Mercury, Total	0.03J	0.153	0.23	150	Q	-	-		80-120	-		20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-02    QC Batch ID: WG864702-4    QC Sample: L1603776-01    Client ID: MS Sample									
Aluminum, Total	7200	186	6800	0	Q	-	75-125	-	20
Antimony, Total	ND	46.6	30	64	Q	-	75-125	-	20
Arsenic, Total	2.0	11.2	9.5	67	Q	-	75-125	-	20
Barium, Total	28.	186	150	65	Q	-	75-125	-	20
Beryllium, Total	0.34	4.66	3.5	68	Q	-	75-125	-	20
Cadmium, Total	ND	4.75	2.4	50	Q	-	75-125	-	20
Calcium, Total	590	932	1100	55	Q	-	75-125	-	20
Chromium, Total	16.	18.6	30	75	-	-	75-125	-	20
Cobalt, Total	5.9	46.6	35	62	Q	-	75-125	-	20
Copper, Total	12.	23.3	31	82	-	-	75-125	-	20
Iron, Total	16000	93.2	17000	1070	Q	-	75-125	-	20
Lead, Total	6.4	47.5	35	60	Q	-	75-125	-	20
Magnesium, Total	1600	932	1900	32	Q	-	75-125	-	20
Manganese, Total	350	46.6	350	0	Q	-	75-125	-	20
Nickel, Total	10.	46.6	41	66	Q	-	75-125	-	20
Potassium, Total	760	932	1300	58	Q	-	75-125	-	20
Selenium, Total	0.26J	11.2	8.1	72	Q	-	75-125	-	20
Silver, Total	ND	28	19	68	Q	-	75-125	-	20
Sodium, Total	160	932	810	70	Q	-	75-125	-	20
Thallium, Total	ND	11.2	6.7	60	Q	-	75-125	-	20
Vanadium, Total	21.	46.6	55	73	Q	-	75-125	-	20

# **Matrix Spike Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG864702-4 QC Sample: L1603776-01 Client ID: MS Sample									
Zinc, Total	26.	46.6	57	66	Q	-	75-125	-	20

# **Matrix Spike Analysis** **Batch Quality Control**

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 11 QC Batch ID: WG864717-3 WG864717-4 QC Sample: L1600002-38 Client ID: MS Sample									
Aluminum, Total	ND	2	2.0	100	2.0	100	75-125	0	20
Antimony, Total	0.0216J	0.5	0.484	97	0.488	98	75-125	1	20
Arsenic, Total	ND	0.12	0.122	102	0.120	100	75-125	2	20
Barium, Total	0.056	2	1.93	94	1.97	96	75-125	2	20
Beryllium, Total	ND	0.05	0.046	91	0.046	92	75-125	2	20
Cadmium, Total	ND	0.051	0.051	99	0.051	99	75-125	0	20
Calcium, Total	10.	10	21	110	21	110	75-125	0	20
Chromium, Total	ND	0.2	0.19	95	0.19	95	75-125	0	20
Cobalt, Total	ND	0.5	0.460	92	0.461	92	75-125	0	20
Copper, Total	0.0028J	0.25	0.242	97	0.245	98	75-125	1	20
Iron, Total	7.7	1	8.8	110	9.1	140	Q 75-125	3	20
Lead, Total	ND	0.51	0.500	98	0.500	98	75-125	0	20
Magnesium, Total	4.8	10	15	102	15	102	75-125	0	20
Manganese, Total	0.311	0.5	0.786	95	0.804	99	75-125	2	20
Nickel, Total	ND	0.5	0.466	93	0.467	93	75-125	0	20
Potassium, Total	1.9J	10	12	120	12	120	75-125	0	20
Selenium, Total	ND	0.12	0.100	83	0.0979	82	75-125	2	20
Silver, Total	ND	0.05	0.054	107	0.054	107	75-125	0	20
Sodium, Total	11.	10	21	100	22	110	75-125	5	20
Thallium, Total	ND	0.12	0.119	99	0.120	100	75-125	1	20
Vanadium, Total	ND	0.5	0.510	102	0.512	102	75-125	0	20

# **Matrix Spike Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 11 QC Batch ID: WG864717-3 WG864717-4 QC Sample: L1600002-38 Client ID: MS Sample									
Zinc, Total	ND	0.5	0.474	95	0.477	95	75-125	1	20
Total Metals - Westborough Lab Associated sample(s): 11 QC Batch ID: WG864778-4 QC Sample: L1603752-01 Client ID: MS Sample									
Mercury, Total	ND	0.005	0.00437	87	-	-	75-125	-	20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 03-05 QC Batch ID: WG864810-4 QC Sample: L1603620-01 Client ID: MS Sample									
Aluminum, Total	12000	189	13000	528	Q	-	75-125	-	20
Antimony, Total	ND	47.3	31	66	Q	-	75-125	-	20
Arsenic, Total	1.9	11.4	12	89		-	75-125	-	20
Barium, Total	67.	189	400	176	Q	-	75-125	-	20
Beryllium, Total	0.44J	4.73	4.6	97		-	75-125	-	20
Cadmium, Total	ND	4.83	3.5	72	Q	-	75-125	-	20
Calcium, Total	960	946	2100	120		-	75-125	-	20
Chromium, Total	19.	18.9	37	95		-	75-125	-	20
Cobalt, Total	6.4	47.3	46	84		-	75-125	-	20
Copper, Total	21.	23.6	49	118		-	75-125	-	20
Iron, Total	16000	94.6	18000	2110	Q	-	75-125	-	20
Lead, Total	25.	48.3	74	102		-	75-125	-	20
Magnesium, Total	2600	946	3800	127	Q	-	75-125	-	20
Manganese, Total	270	47.3	440	359	Q	-	75-125	-	20
Nickel, Total	15.	47.3	54	82		-	75-125	-	20
Potassium, Total	1400	946	2700	137	Q	-	75-125	-	20
Selenium, Total	0.70J	11.4	10	88		-	75-125	-	20
Silver, Total	ND	28.4	25	88		-	75-125	-	20
Sodium, Total	47.J	946	990	105		-	75-125	-	20
Thallium, Total	ND	11.4	8.6	76		-	75-125	-	20
Vanadium, Total	24.	47.3	69	95		-	75-125	-	20



# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 03-05 QC Batch ID: WG864810-4 QC Sample: L1603620-01 Client ID: MS Sample									
Zinc, Total	48.	47.3	110	131	Q	-	75-125	-	20

# **Matrix Spike Analysis** **Batch Quality Control**

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 06-10,12-14    QC Batch ID: WG864887-4    QC Sample: L1603754-01    Client ID: MS Sample									
Aluminum, Total	3600	292	4700	376	Q	-	75-125	-	20
Antimony, Total	7.5	73	70	86		-	75-125	-	20
Arsenic, Total	0.70J	17.5	17	97		-	75-125	-	20
Barium, Total	32.	292	290	88		-	75-125	-	20
Beryllium, Total	0.21J	7.3	6.7	92		-	75-125	-	20
Cadmium, Total	ND	7.45	6.6	88		-	75-125	-	20
Calcium, Total	2200	1460	4700	171	Q	-	75-125	-	20
Chromium, Total	9.1	29.2	36	92		-	75-125	-	20
Cobalt, Total	3.2	73	65	85		-	75-125	-	20
Copper, Total	12.	36.5	47	96		-	75-125	-	20
Iron, Total	7000	146	8200	821	Q	-	75-125	-	20
Lead, Total	20.	74.5	85	87		-	75-125	-	20
Magnesium, Total	1700	1460	3700	137	Q	-	75-125	-	20
Manganese, Total	230	73	380	205	Q	-	75-125	-	20
Nickel, Total	19.	73	85	90		-	75-125	-	20
Potassium, Total	630	1460	2100	101		-	75-125	-	20
Selenium, Total	ND	17.5	17	97		-	75-125	-	20
Silver, Total	ND	43.8	40	91		-	75-125	-	20
Sodium, Total	630	1460	2100	101		-	75-125	-	20
Thallium, Total	ND	17.5	14	80		-	75-125	-	20
Vanadium, Total	11.	73	81	96		-	75-125	-	20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 06-10,12-14 QC Batch ID: WG864887-4 QC Sample: L1603754-01 Client ID: MS Sample									
Zinc, Total	18.	73	86	93	-	-	75-125	-	20

# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-10,12-14 QC Batch ID: WG864642-3 QC Sample: L1603525-01 Client ID: DUP Sample						
Mercury, Total	0.03J	0.03J	mg/kg	NC		20
Total Metals - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG864702-3 QC Sample: L1603776-01 Client ID: DUP Sample						
Lead, Total	6.4	5.5	mg/kg	15		20
Total Metals - Westborough Lab Associated sample(s): 11 QC Batch ID: WG864778-3 QC Sample: L1603752-01 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/l	NC		20

# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603689

**Report Date:** 02/18/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 03-05 QC Batch ID: WG864810-3 QC Sample: L1603620-01 Client ID: DUP Sample					
Aluminum, Total	12000	11000	mg/kg	9	20
Antimony, Total	ND	ND	mg/kg	NC	20
Arsenic, Total	1.9	2.3	mg/kg	19	20
Barium, Total	67.	68	mg/kg	1	20
Beryllium, Total	0.44J	0.41J	mg/kg	NC	20
Cadmium, Total	ND	ND	mg/kg	NC	20
Calcium, Total	960	1000	mg/kg	4	20
Chromium, Total	19.	20	mg/kg	5	20
Cobalt, Total	6.4	7.4	mg/kg	14	20
Copper, Total	21.	29	mg/kg	32	Q 20
Iron, Total	16000	17000	mg/kg	6	20
Lead, Total	25.	52	mg/kg	70	Q 20
Magnesium, Total	2600	2600	mg/kg	0	20
Manganese, Total	270	300	mg/kg	11	20
Nickel, Total	15.	14	mg/kg	7	20
Potassium, Total	1400	1600	mg/kg	13	20
Selenium, Total	0.70J	0.58J	mg/kg	NC	20
Silver, Total	ND	ND	mg/kg	NC	20
Sodium, Total	47.J	54J	mg/kg	NC	20

# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 03-05 QC Batch ID: WG864810-3 QC Sample: L1603620-01 Client ID: DUP Sample					
Thallium, Total	ND	ND	mg/kg	NC	20
Vanadium, Total	24.	26	mg/kg	8	20
Zinc, Total	48.	58	mg/kg	19	20
Total Metals - Westborough Lab Associated sample(s): 06-10,12-14 QC Batch ID: WG864887-3 QC Sample: L1603754-01 Client ID: DUP Sample					
Arsenic, Total	0.70J	0.87	mg/kg	NC	20
Barium, Total	32.	34	mg/kg	6	20
Cadmium, Total	ND	ND	mg/kg	NC	20
Chromium, Total	9.1	11	mg/kg	19	20
Lead, Total	20.	20	mg/kg	0	20
Selenium, Total	ND	ND	mg/kg	NC	20
Silver, Total	ND	ND	mg/kg	NC	20

# **INORGANICS & MISCELLANEOUS**

**Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603689**Report Date:** 02/18/16**SAMPLE RESULTS****Lab ID:** L1603689-01**Client ID:** SB-105 (0-2)**Sample Location:** BROOKLYN, NY**Matrix:** Soil**Date Collected:** 02/11/16 09:30**Date Received:** 02/11/16**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.8		%	0.100	NA	1	-	02/12/16 04:17	30,2540G	RT





**Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603689**Report Date:** 02/18/16**SAMPLE RESULTS****Lab ID:** L1603689-02**Client ID:** SB-105 (10-12)**Sample Location:** BROOKLYN, NY**Matrix:** Soil**Date Collected:** 02/11/16 09:45**Date Received:** 02/11/16**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.4		%	0.100	NA	1	-	02/12/16 04:17	30,2540G	RT



**Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603689**Report Date:** 02/18/16**SAMPLE RESULTS****Lab ID:** L1603689-03**Client ID:** SB-107 (0-2)**Sample Location:** BROOKLYN, NY**Matrix:** Soil**Date Collected:** 02/11/16 10:20**Date Received:** 02/11/16**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.7		%	0.100	NA	1	-	02/12/16 04:17	30,2540G	RT



**Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603689**Report Date:** 02/18/16**SAMPLE RESULTS****Lab ID:** L1603689-04**Client ID:** SB-107 (10-12)**Sample Location:** BROOKLYN, NY**Matrix:** Soil**Date Collected:** 02/11/16 10:30**Date Received:** 02/11/16**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.8		%	0.100	NA	1	-	02/12/16 04:17	30,2540G	RT



**Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603689**Report Date:** 02/18/16**SAMPLE RESULTS****Lab ID:** L1603689-05**Client ID:** SB-106 (0-2)**Sample Location:** BROOKLYN, NY**Matrix:** Soil**Date Collected:** 02/11/16 12:15**Date Received:** 02/11/16**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.9		%	0.100	NA	1	-	02/12/16 04:17	30,2540G	RT



**Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603689**Report Date:** 02/18/16**SAMPLE RESULTS****Lab ID:** L1603689-06**Client ID:** SB-106 (10-12)**Sample Location:** BROOKLYN, NY**Matrix:** Soil**Date Collected:** 02/11/16 12:30**Date Received:** 02/11/16**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	77.4		%	0.100	NA	1	-	02/12/16 04:17	30,2540G	RT



**Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603689**Report Date:** 02/18/16**SAMPLE RESULTS****Lab ID:** L1603689-07**Client ID:** SB-108 (0-2)**Sample Location:** BROOKLYN, NY**Matrix:** Soil**Date Collected:** 02/11/16 13:30**Date Received:** 02/11/16**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.3		%	0.100	NA	1	-	02/12/16 04:17	30,2540G	RT



**Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603689**Report Date:** 02/18/16**SAMPLE RESULTS****Lab ID:** L1603689-08**Client ID:** SB-108 (4-6)**Sample Location:** BROOKLYN, NY**Matrix:** Soil**Date Collected:** 02/11/16 13:40**Date Received:** 02/11/16**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.2		%	0.100	NA	1	-	02/12/16 04:17	30,2540G	RT



**Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603689**Report Date:** 02/18/16**SAMPLE RESULTS****Lab ID:** L1603689-09**Client ID:** SB-108 (10-12)**Sample Location:** BROOKLYN, NY**Matrix:** Soil**Date Collected:** 02/11/16 13:50**Date Received:** 02/11/16**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.2		%	0.100	NA	1	-	02/12/16 04:17	30,2540G	RT





**Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603689**Report Date:** 02/18/16**SAMPLE RESULTS****Lab ID:** L1603689-10**Client ID:** DUP021116**Sample Location:** BROOKLYN, NY**Matrix:** Soil**Date Collected:** 02/11/16 14:00**Date Received:** 02/11/16**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.0		%	0.100	NA	1	-	02/12/16 04:17	30,2540G	RT



**Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603689**Report Date:** 02/18/16**SAMPLE RESULTS****Lab ID:** L1603689-12**Client ID:** SB-104 (0-2)**Sample Location:** BROOKLYN, NY**Matrix:** Soil**Date Collected:** 02/11/16 14:30**Date Received:** 02/11/16**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.1		%	0.100	NA	1	-	02/12/16 04:17	30,2540G	RT



**Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603689**Report Date:** 02/18/16**SAMPLE RESULTS****Lab ID:** L1603689-13**Client ID:** SB-104 (5-7)**Sample Location:** BROOKLYN, NY**Matrix:** Soil**Date Collected:** 02/11/16 14:40**Date Received:** 02/11/16**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.4		%	0.100	NA	1	-	02/12/16 04:17	30,2540G	RT



**Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603689**Report Date:** 02/18/16**SAMPLE RESULTS****Lab ID:** L1603689-14**Client ID:** SB-104 (10-12)**Sample Location:** BROOKLYN, NY**Matrix:** Soil**Date Collected:** 02/11/16 14:50**Date Received:** 02/11/16**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	77.5		%	0.100	NA	1	-	02/12/16 04:17	30,2540G	RT



**Lab Duplicate Analysis**  
Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603689

Report Date: 02/18/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-10,12-14 QC Batch ID: WG864661-1 QC Sample: L1603645-01 Client ID: DUP Sample						
Solids, Total	83.8	83.6	%	0		20

Project Name: DUPONT STREET

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## Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Reagent H2O Preserved Vials Frozen on: 12-FEB-16 06:49

## Cooler Information Custody Seal

## Cooler

A Absent

B Absent

## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1603689-01A	5 gram Encore Sampler	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(2)
L1603689-01B	5 gram Encore Sampler	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(2)
L1603689-01C	5 gram Encore Sampler	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(2)
L1603689-01D	Plastic 2oz unpreserved for TS	A	N/A	3.6	Y	Absent	TS(7)
L1603689-01E	Glass 500ml/16oz unpreserved	A	N/A	3.6	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),NYTCL-8081(14),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),NYTCL-8082(14),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1603689-01X	Vial MeOH preserved split	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(14)
L1603689-01Y	Vial Water preserved split	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(14)
L1603689-01Z	Vial Water preserved split	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(14)
L1603689-02A	5 gram Encore Sampler	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(2)
L1603689-02B	5 gram Encore Sampler	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(2)
L1603689-02C	5 gram Encore Sampler	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(2)
L1603689-02D	Plastic 2oz unpreserved for TS	A	N/A	3.6	Y	Absent	TS(7)

\*Values in parentheses indicate holding time in days



Project Name: DUPONT STREET

Project Number: 2587.0001Y000

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Report Date: 02/18/16

## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1603689-02E	Glass 500ml/16oz unpreserved	A	N/A	3.6	Y	Absent	BE-Ti(180),NYTCL-8270(14),AS-Ti(180),BA-Ti(180),AG-Ti(180),AL-Ti(180),CR-Ti(180),NI-Ti(180),TL-Ti(180),CU-Ti(180),PB-Ti(180),SB-Ti(180),SE-Ti(180),ZN-Ti(180),CO-Ti(180),NYTCL-8081(14),V-Ti(180),FE-Ti(180),HG-T(28),MG-Ti(180),MN-Ti(180),NYTCL-8082(14),CA-Ti(180),CD-Ti(180),K-Ti(180),NA-Ti(180)
L1603689-02X	Vial MeOH preserved split	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(14)
L1603689-02Y	Vial Water preserved split	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(14)
L1603689-02Z	Vial Water preserved split	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(14)
L1603689-03A	5 gram Encore Sampler	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(2)
L1603689-03B	5 gram Encore Sampler	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(2)
L1603689-03C	5 gram Encore Sampler	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(2)
L1603689-03D	Plastic 2oz unpreserved for TS	A	N/A	3.6	Y	Absent	TS(7)
L1603689-03E	Glass 500ml/16oz unpreserved	A	N/A	3.6	Y	Absent	BE-Ti(180),NYTCL-8270(14),AS-Ti(180),BA-Ti(180),AG-Ti(180),AL-Ti(180),CR-Ti(180),NI-Ti(180),TL-Ti(180),CU-Ti(180),PB-Ti(180),SB-Ti(180),SE-Ti(180),ZN-Ti(180),CO-Ti(180),NYTCL-8081(14),V-Ti(180),FE-Ti(180),HG-T(28),MG-Ti(180),MN-Ti(180),NYTCL-8082(14),CA-Ti(180),CD-Ti(180),K-Ti(180),NA-Ti(180)
L1603689-03X	Vial MeOH preserved split	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(14)
L1603689-03Y	Vial Water preserved split	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(14)
L1603689-03Z	Vial Water preserved split	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(14)
L1603689-04A	5 gram Encore Sampler	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(2)
L1603689-04B	5 gram Encore Sampler	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(2)
L1603689-04C	5 gram Encore Sampler	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(2)
L1603689-04D	Plastic 2oz unpreserved for TS	A	N/A	3.6	Y	Absent	TS(7)

\*Values in parentheses indicate holding time in days



Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603689

Report Date: 02/18/16

## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1603689-04E	Glass 500ml/16oz unpreserved	A	N/A	3.6	Y	Absent	BE-Ti(180),NYTCL-8270(14),AS-Ti(180),BA-Ti(180),AG-Ti(180),AL-Ti(180),CR-Ti(180),NI-Ti(180),TL-Ti(180),CU-Ti(180),PB-Ti(180),SB-Ti(180),SE-Ti(180),ZN-Ti(180),CO-Ti(180),NYTCL-8081(14),V-Ti(180),FE-Ti(180),HG-T(28),MG-Ti(180),MN-Ti(180),NYTCL-8082(14),CA-Ti(180),CD-Ti(180),K-Ti(180),NA-Ti(180)
L1603689-04X	Vial MeOH preserved split	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(14)
L1603689-04Y	Vial Water preserved split	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(14)
L1603689-04Z	Vial Water preserved split	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(14)
L1603689-05A	5 gram Encore Sampler	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(2)
L1603689-05B	5 gram Encore Sampler	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(2)
L1603689-05C	5 gram Encore Sampler	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(2)
L1603689-05D	Plastic 2oz unpreserved for TS	B	N/A	3.8	Y	Absent	TS(7)
L1603689-05E	Glass 500ml/16oz unpreserved	B	N/A	3.8	Y	Absent	BE-Ti(180),NYTCL-8270(14),AS-Ti(180),BA-Ti(180),AG-Ti(180),AL-Ti(180),CR-Ti(180),NI-Ti(180),TL-Ti(180),CU-Ti(180),PB-Ti(180),SB-Ti(180),SE-Ti(180),ZN-Ti(180),CO-Ti(180),NYTCL-8081(14),V-Ti(180),FE-Ti(180),HG-T(28),MG-Ti(180),MN-Ti(180),NYTCL-8082(14),CA-Ti(180),CD-Ti(180),K-Ti(180),NA-Ti(180)
L1603689-05X	Vial MeOH preserved split	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(14)
L1603689-05Y	Vial Water preserved split	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(14)
L1603689-05Z	Vial Water preserved split	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(14)
L1603689-06A	5 gram Encore Sampler	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(2)
L1603689-06B	5 gram Encore Sampler	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(2)
L1603689-06C	5 gram Encore Sampler	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(2)
L1603689-06D	Plastic 2oz unpreserved for TS	B	N/A	3.8	Y	Absent	TS(7)

\*Values in parentheses indicate holding time in days





Project Name: DUPONT STREET

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## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1603689-06E	Glass 500ml/16oz unpreserved	B	N/A	3.8	Y	Absent	BE-Ti(180),NYTCL-8270(14),AS-Ti(180),BA-Ti(180),AG-Ti(180),AL-Ti(180),CR-Ti(180),NI-Ti(180),TL-Ti(180),CU-Ti(180),PB-Ti(180),SB-Ti(180),SE-Ti(180),ZN-Ti(180),CO-Ti(180),NYTCL-8081(14),V-Ti(180),FE-Ti(180),HG-T(28),MG-Ti(180),MN-Ti(180),NYTCL-8082(14),CA-Ti(180),CD-Ti(180),K-Ti(180),NA-Ti(180)
L1603689-06X	Vial MeOH preserved split	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(14)
L1603689-06Y	Vial Water preserved split	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(14)
L1603689-06Z	Vial Water preserved split	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(14)
L1603689-07A	5 gram Encore Sampler	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(2)
L1603689-07B	5 gram Encore Sampler	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(2)
L1603689-07C	5 gram Encore Sampler	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(2)
L1603689-07D	Plastic 2oz unpreserved for TS	B	N/A	3.8	Y	Absent	TS(7)
L1603689-07E	Glass 500ml/16oz unpreserved	B	N/A	3.8	Y	Absent	BE-Ti(180),NYTCL-8270(14),AS-Ti(180),BA-Ti(180),AG-Ti(180),AL-Ti(180),CR-Ti(180),NI-Ti(180),TL-Ti(180),CU-Ti(180),PB-Ti(180),SB-Ti(180),SE-Ti(180),ZN-Ti(180),CO-Ti(180),NYTCL-8081(14),V-Ti(180),FE-Ti(180),HG-T(28),MG-Ti(180),MN-Ti(180),NYTCL-8082(14),CA-Ti(180),CD-Ti(180),K-Ti(180),NA-Ti(180)
L1603689-07X	Vial MeOH preserved split	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(14)
L1603689-07Y	Vial Water preserved split	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(14)
L1603689-07Z	Vial Water preserved split	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(14)
L1603689-08A	5 gram Encore Sampler	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(2)
L1603689-08B	5 gram Encore Sampler	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(2)
L1603689-08C	5 gram Encore Sampler	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(2)
L1603689-08D	Plastic 2oz unpreserved for TS	B	N/A	3.8	Y	Absent	TS(7)

\*Values in parentheses indicate holding time in days



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## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1603689-08E	Glass 500ml/16oz unpreserved	B	N/A	3.8	Y	Absent	BE-Ti(180),NYTCL-8270(14),AS-Ti(180),BA-Ti(180),AG-Ti(180),AL-Ti(180),CR-Ti(180),NI-Ti(180),TL-Ti(180),CU-Ti(180),PB-Ti(180),SB-Ti(180),SE-Ti(180),ZN-Ti(180),CO-Ti(180),NYTCL-8081(14),V-Ti(180),FE-Ti(180),HG-T(28),MG-Ti(180),MN-Ti(180),NYTCL-8082(14),CA-Ti(180),CD-Ti(180),K-Ti(180),NA-Ti(180)
L1603689-08X	Vial MeOH preserved split	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(14)
L1603689-08Y	Vial Water preserved split	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(14)
L1603689-08Z	Vial Water preserved split	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(14)
L1603689-09A	5 gram Encore Sampler	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(2)
L1603689-09B	5 gram Encore Sampler	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(2)
L1603689-09C	5 gram Encore Sampler	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(2)
L1603689-09D	Plastic 2oz unpreserved for TS	B	N/A	3.8	Y	Absent	TS(7)
L1603689-09E	Glass 500ml/16oz unpreserved	B	N/A	3.8	Y	Absent	BE-Ti(180),NYTCL-8270(14),AS-Ti(180),BA-Ti(180),AG-Ti(180),AL-Ti(180),CR-Ti(180),NI-Ti(180),TL-Ti(180),CU-Ti(180),PB-Ti(180),SB-Ti(180),SE-Ti(180),ZN-Ti(180),CO-Ti(180),NYTCL-8081(14),V-Ti(180),FE-Ti(180),HG-T(28),MG-Ti(180),MN-Ti(180),NYTCL-8082(14),CA-Ti(180),CD-Ti(180),K-Ti(180),NA-Ti(180)
L1603689-09X	Vial MeOH preserved split	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(14)
L1603689-09Y	Vial Water preserved split	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(14)
L1603689-09Z	Vial Water preserved split	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(14)
L1603689-10A	5 gram Encore Sampler	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(2)
L1603689-10B	5 gram Encore Sampler	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(2)
L1603689-10C	5 gram Encore Sampler	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(2)
L1603689-10D	Plastic 2oz unpreserved for TS	B	N/A	3.8	Y	Absent	TS(7)

\*Values in parentheses indicate holding time in days



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## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1603689-10E	Glass 500ml/16oz unpreserved	B	N/A	3.8	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),NYTCL-8081(14),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),NYTCL-8082(14),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1603689-10X	Vial MeOH preserved split	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(14)
L1603689-10Y	Vial Water preserved split	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(14)
L1603689-10Z	Vial Water preserved split	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(14)
L1603689-11A	Vial HCl preserved	A	N/A	3.6	Y	Absent	NYTCL-8260(14)
L1603689-11B	Vial HCl preserved	A	N/A	3.6	Y	Absent	NYTCL-8260(14)
L1603689-11C	Vial HCl preserved	A	N/A	3.6	Y	Absent	NYTCL-8260(14)
L1603689-11D	Plastic 250ml HNO3 preserved	A	<2	3.6	Y	Absent	BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1603689-11E	Amber 500ml unpreserved	A	7	3.6	Y	Absent	NYTCL-8081(7)
L1603689-11F	Amber 500ml unpreserved	A	7	3.6	Y	Absent	NYTCL-8081(7)
L1603689-11G	Amber 1000ml unpreserved	A	7	3.6	Y	Absent	NYTCL-8270(7)
L1603689-11H	Amber 1000ml unpreserved	A	7	3.6	Y	Absent	NYTCL-8270(7)
L1603689-11I	Amber 1000ml unpreserved	A	7	3.6	Y	Absent	NYTCL-8082-1200ML(7)
L1603689-11J	Amber 1000ml unpreserved	A	7	3.6	Y	Absent	NYTCL-8082-1200ML(7)
L1603689-12A	5 gram Encore Sampler	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(2)
L1603689-12B	5 gram Encore Sampler	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(2)
L1603689-12C	5 gram Encore Sampler	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(2)
L1603689-12D	Plastic 2oz unpreserved for TS	A	N/A	3.6	Y	Absent	TS(7)

\*Values in parentheses indicate holding time in days



Project Name: DUPONT STREET

Project Number: 2587.0001Y000

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## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1603689-12E	Glass 500ml/16oz unpreserved	A	N/A	3.6	Y	Absent	BE-Ti(180),NYTCL-8270(14),AS-Ti(180),BA-Ti(180),AG-Ti(180),AL-Ti(180),CR-Ti(180),NI-Ti(180),TL-Ti(180),CU-Ti(180),PB-Ti(180),SB-Ti(180),SE-Ti(180),ZN-Ti(180),CO-Ti(180),NYTCL-8081(14),V-Ti(180),FE-Ti(180),HG-T(28),MG-Ti(180),MN-Ti(180),NYTCL-8082(14),CA-Ti(180),CD-Ti(180),K-Ti(180),NA-Ti(180)
L1603689-12X	Vial MeOH preserved split	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(14)
L1603689-12Y	Vial Water preserved split	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(14)
L1603689-12Z	Vial Water preserved split	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(14)
L1603689-13A	5 gram Encore Sampler	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(2)
L1603689-13B	5 gram Encore Sampler	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(2)
L1603689-13C	5 gram Encore Sampler	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(2)
L1603689-13D	Plastic 2oz unpreserved for TS	A	N/A	3.6	Y	Absent	TS(7)
L1603689-13E	Glass 500ml/16oz unpreserved	A	N/A	3.6	Y	Absent	BE-Ti(180),NYTCL-8270(14),AS-Ti(180),BA-Ti(180),AG-Ti(180),AL-Ti(180),CR-Ti(180),NI-Ti(180),TL-Ti(180),CU-Ti(180),PB-Ti(180),SB-Ti(180),SE-Ti(180),ZN-Ti(180),CO-Ti(180),NYTCL-8081(14),V-Ti(180),FE-Ti(180),HG-T(28),MG-Ti(180),MN-Ti(180),NYTCL-8082(14),CA-Ti(180),CD-Ti(180),K-Ti(180),NA-Ti(180)
L1603689-13X	Vial MeOH preserved split	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(14)
L1603689-13Y	Vial Water preserved split	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(14)
L1603689-13Z	Vial Water preserved split	A	N/A	3.6	Y	Absent	NYTCL-8260HLW(14)
L1603689-14A	5 gram Encore Sampler	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(2)
L1603689-14B	5 gram Encore Sampler	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(2)
L1603689-14C	5 gram Encore Sampler	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(2)
L1603689-14D	Plastic 2oz unpreserved for TS	B	N/A	3.8	Y	Absent	TS(7)

\*Values in parentheses indicate holding time in days



Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603689

Report Date: 02/18/16

## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1603689-14E	Glass 500ml/16oz unpreserved	B	N/A	3.8	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),NYTCL-8081(14),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),NYTCL-8082(14),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1603689-14X	Vial MeOH preserved split	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(14)
L1603689-14Y	Vial Water preserved split	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(14)
L1603689-14Z	Vial Water preserved split	B	N/A	3.8	Y	Absent	NYTCL-8260HLW(14)
L1603689-15A	Vial HCl preserved	A	N/A	3.6	Y	Absent	NYTCL-8260(14)
L1603689-15B	Vial HCl preserved	A	N/A	3.6	Y	Absent	NYTCL-8260(14)

\*Values in parentheses indicate holding time in days

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

## GLOSSARY

### Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

### Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### Terms

**Total:** With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

**Report Format:** DU Report with 'J' Qualifiers



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

**Data Qualifiers**

- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603689  
**Report Date:** 02/18/16

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.





## Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

### Westborough Facility

**EPA 524.2:** 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene

**EPA 624:** 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene

**EPA 625:** Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.

**EPA 1010A:** NPW: Ignitability

**EPA 6010C:** NPW: Strontium; SCM: Strontium

**EPA 8151A:** NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP

**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D:** NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 9010:** NPW: Amenable Cyanide Distillation, Total Cyanide Distillation

**EPA 9038:** NPW: Sulfate

**EPA 9050A:** NPW: Specific Conductance

**EPA 9056:** NPW: Chloride, Nitrate, Sulfate

**EPA 9065:** NPW: Phenols

**EPA 9251:** NPW: Chloride

**SM3500:** NPW: Ferrous Iron

**SM4500:** NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**SM5310C:** DW: Dissolved Organic Carbon

### Mansfield Facility

**EPA 8270D:** NPW: Biphenyl; SCM: Biphenyl, Caprolactam

**EPA 8270D-SIM Isotope Dilution:** SCM: 1,4-Dioxane

**SM 2540D:** TSS

**SM2540G:** SCM: Percent Solids

**EPA 1631E:** SCM: Mercury

**EPA 7474:** SCM: Mercury

**EPA 8081B:** NPW and SCM: Mirex, Hexachlorobenzene.

**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

**EPA 8270-SIM:** NPW and SCM: Alkylated PAHs.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.

**Biological Tissue Matrix:** **8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:** Lead; **8270D:** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

### Drinking Water

**EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Ti; **EPA 200.7:** Ba, Be, Ca, Cd, Cr, Cu, Na; **EPA 245.1:** Mercury;

**EPA 300.0:** Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO<sub>3</sub>-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1,**

**SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

### Non-Potable Water

**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, Ti, Zn;

**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Ti, Tl, V, Zn;

**EPA 245.1, SM4500H-B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH<sub>3</sub>-BH, EPA**

**350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO<sub>3</sub>-F,**

**EPA 353.2:** Nitrate-N, **SM4500NH<sub>3</sub>-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D,**

**EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**


**EPA 624:** Volatile Halocarbons & Aromatics,

**EPA 608:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 <b>ALPHA ANALYTICAL</b> Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	<b>NEW YORK CHAIN OF CUSTODY</b> Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	<b>Service Centers</b> Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page <u>1</u> of <u>2</u>		Date Rec'd in Lab <u>2/11/16</u>		ALPHA Job # <u>L1603689</u>	
		<b>Project Information</b> Project Name: <u>DuPont Street</u> Project Location: <u>Brooklyn, NY</u> Project # <u>1587.00014000</u> (Use Project name as Project #) <input type="checkbox"/>				<b>Deliverables</b> <input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other			
<b>Client Information</b> Client: <u>Kay Associates Inc</u> Address: <u>209 Shafter Street</u> <u>Islandia, NY 11749</u> Phone: <u>631-232-2600</u> Fax: <u>631-232-9898</u> Email: <u>1-1010100@kayinc.com</u>		Project Manager: <u>Ron Lombino</u> ALPHAQuote #:		<b>Regulatory Requirement</b> <input type="checkbox"/> NY TOGS <input checked="" type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge				<b>Disposal Site Information</b> Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:	
Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		<b>ANALYSIS</b>				<b>Sample Filtration</b> <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <b>Preservation</b> <input type="checkbox"/> Lab to do (Please Specify below)		Total Bottles	
These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments:		VOC 8260 SVOC 8270 TAL Metals TCL Pest TCL PCB Total Solids				Sample Specific Comments			
Please specify Metals or TAL.									
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials				
		Date	Time						
03689-01	SB-105(0-2)	2/11/16	0930	Soil	RL	X	X		X
02	SB-105(10-12)		0945		RL	X	X		X
03	SB-107(0-2)		1020		RL	X	X		X
04	SB-107(10-12)		1030		RL	X	X		X
05	SB-106(0-2)		1215		RL	X	X		X
06	SB-106(10-12)		1230		RL	X	X	X	
07	SB-108(0-2)		1330		RL	X	X	X	
08	SB-108(4-6)		1340		RL	X	X	X	
09	SB-108(10-12)		1350		RL	X	X	X	
10	<del>SB-108</del> DuPont 1116		1400		RL	X	X	X	
Preservative Code: A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type Preservative		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)	
		Relinquished By:		Date/Time		Received By:		Date/Time	
		<u>[Signature]</u>		<u>2/11/16 1453</u>		<u>Bol. Jan Goy AAL</u>		<u>2/11/16 14:53</u>	
		<u>Bol. Jan Goy</u>		<u>2/11/16 1820</u>		<u>Tech-Tech</u>		<u>2-11-16, 1820</u>	
		<u>Tom T. O'Leary</u>		<u>2/11/16 2230</u>		<u>Willie Miller</u>		<u>2/11/16 2230</u>	



**Mansfield, MA 02048**  
**320 Forbes Blvd**  
**TEL: 508-822-9300**  
**FAX: 508-822-3288**

Page 2  
of 2

2/11/16

ALPHA Job #  
21603689

Email: [rlombard@psn.wv.com](mailto:rlombard@psn.wv.com)

Standard	<input checked="" type="checkbox"/>	Due D
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PO #

☐ Other \_\_\_\_\_☐ Other: \_\_\_\_\_

(Please Specify below)

Total Bottles

A	A	A	A	<del>A</del>	A
---	---	---	---	--------------	---

Date/Time

2/11/16 14:59  
2-11-16 1820  
2/11/16 2023



## ANALYTICAL REPORT

Lab Number:	L1603880
Client:	Roux Associates, Inc. 209 Shafter Street Islandia, NY 11749-5074
ATTN:	Ronald Lombino
Phone:	(631) 630-2372
Project Name:	DUPONT STREET
Project Number:	2587.0001Y000
Report Date:	02/24/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1603880-01	SB-103 (0-2)	SOIL	BROOKLYN, NY	02/12/16 08:00	02/12/16
L1603880-02	SB-103 (4-6)	SOIL	BROOKLYN, NY	02/12/16 08:15	02/12/16
L1603880-03	SB-103 (10-12)	SOIL	BROOKLYN, NY	02/12/16 08:30	02/12/16
L1603880-04	SB-101 (0-2)	SOIL	BROOKLYN, NY	02/12/16 09:15	02/12/16
L1603880-05	SB-101 (5-7)	SOIL	BROOKLYN, NY	02/12/16 09:30	02/12/16
L1603880-06	SB-101 (10-12)	SOIL	BROOKLYN, NY	02/12/16 09:45	02/12/16
L1603880-07	DUP021216	SOIL	BROOKLYN, NY	02/12/16 10:00	02/12/16
L1603880-08	SB-102 (0-2)	SOIL	BROOKLYN, NY	02/12/16 10:30	02/12/16
L1603880-09	SB-102 (5-7)	SOIL	BROOKLYN, NY	02/12/16 10:45	02/12/16
L1603880-10	SB-102 (10-12)	SOIL	BROOKLYN, NY	02/12/16 11:00	02/12/16
L1603880-11	FB021216	WATER	BROOKLYN, NY	02/12/16 11:15	02/12/16
L1603880-12	TRIP BLANK	WATER	BROOKLYN, NY	02/12/16 00:00	02/12/16

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

### Case Narrative

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

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

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

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

#### HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

### Case Narrative (continued)

#### Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

L1603880-07: At the client's request, the sample was analyzed.

#### Metals

L1603880-01 through -10: The samples have elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

WG866560-1: The Method Blank, associated with L1603880-07, has concentrations above the reporting limits for Iron. Since the associated sample concentrations are greater than 10x the blank concentrations for these analytes, no corrective action is required.

The WG865453-4 MS recovery, performed on L1603880-01, is outside the acceptance criteria for mercury (31%). A post digestion spike was performed and was within acceptance criteria.

The WG865459-4 MS recoveries for aluminum (2720%), iron (4110%) and manganese (0%), performed on L1603880-04, do not apply because the sample concentrations are greater than four times the spike amounts added.

The WG865459-4 MS recoveries, performed on L1603880-04, are outside the acceptance criteria for antimony (66%), arsenic (68%), cadmium (73%), calcium (0%), cobalt (67%), magnesium (134%), nickel (70%), silver (72%) and thallium (68%). A post digestion spike was performed and yielded unacceptable recoveries for antimony (66%), arsenic (60%), cadmium (67%), calcium (0%), cobalt (59%), nickel (62%), silver (63%) and thallium (61%). This has been attributed to sample matrix.

The WG865459-3 Laboratory Duplicate RPDs, performed on L1603880-04, are outside the acceptance criteria for aluminum (24%), calcium (83%), cobalt (32%), lead (78%) and manganese (73%). The elevated RPDs have been attributed to the non-homogeneous nature of the native sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Cristin Walker

Title: Technical Director/Representative

Date: 02/24/16

# ORGANICS



# **VOLATILES**

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-01  
**Client ID:** SB-103 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/17/16 15:43  
**Analyst:** BN  
**Percent Solids:** 79%

**Date Collected:** 02/12/16 08:00  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	12	1.3	1
1,1-Dichloroethane	ND		ug/kg	1.7	0.10	1
Chloroform	ND		ug/kg	1.7	0.43	1
Carbon tetrachloride	ND		ug/kg	1.2	0.24	1
1,2-Dichloropropane	ND		ug/kg	4.0	0.26	1
Dibromochloromethane	ND		ug/kg	1.2	0.18	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	0.35	1
Tetrachloroethene	ND		ug/kg	1.2	0.16	1
Chlorobenzene	ND		ug/kg	1.2	0.40	1
Trichlorofluoromethane	ND		ug/kg	5.8	0.45	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.13	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.13	1
Bromodichloromethane	ND		ug/kg	1.2	0.20	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.14	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.14	1
1,3-Dichloropropene, Total	ND		ug/kg	1.2	0.14	1
1,1-Dichloropropene	ND		ug/kg	5.8	0.16	1
Bromoform	ND		ug/kg	4.6	0.27	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.12	1
Benzene	ND		ug/kg	1.2	0.14	1
Toluene	0.23	J	ug/kg	1.7	0.22	1
Ethylbenzene	ND		ug/kg	1.2	0.15	1
Chloromethane	ND		ug/kg	5.8	0.34	1
Bromomethane	ND		ug/kg	2.3	0.39	1
Vinyl chloride	ND		ug/kg	2.3	0.14	1
Chloroethane	ND		ug/kg	2.3	0.36	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.30	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.24	1
Trichloroethene	ND		ug/kg	1.2	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	5.8	0.18	1

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-01

Date Collected: 02/12/16 08:00

Client ID: SB-103 (0-2)

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	5.8	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	5.8	0.16	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.10	1
p/m-Xylene	ND		ug/kg	2.3	0.23	1
o-Xylene	ND		ug/kg	2.3	0.20	1
Xylenes, Total	ND		ug/kg	2.3	0.20	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.16	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.16	1
Dibromomethane	ND		ug/kg	12	0.19	1
Styrene	ND		ug/kg	2.3	0.46	1
Dichlorodifluoromethane	ND		ug/kg	12	0.22	1
Acetone	18		ug/kg	12	1.2	1
Carbon disulfide	ND		ug/kg	12	1.3	1
2-Butanone	ND		ug/kg	12	0.31	1
Vinyl acetate	ND		ug/kg	12	0.15	1
4-Methyl-2-pentanone	ND		ug/kg	12	0.28	1
1,2,3-Trichloropropane	ND		ug/kg	12	0.19	1
2-Hexanone	ND		ug/kg	12	0.77	1
Bromochloromethane	ND		ug/kg	5.8	0.32	1
2,2-Dichloropropane	ND		ug/kg	5.8	0.26	1
1,2-Dibromoethane	ND		ug/kg	4.6	0.20	1
1,3-Dichloropropane	ND		ug/kg	5.8	0.17	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.2	0.37	1
Bromobenzene	ND		ug/kg	5.8	0.24	1
n-Butylbenzene	ND		ug/kg	1.2	0.13	1
sec-Butylbenzene	ND		ug/kg	1.2	0.14	1
tert-Butylbenzene	ND		ug/kg	5.8	0.16	1
o-Chlorotoluene	ND		ug/kg	5.8	0.18	1
p-Chlorotoluene	ND		ug/kg	5.8	0.15	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.8	0.46	1
Hexachlorobutadiene	ND		ug/kg	5.8	0.26	1
Isopropylbenzene	ND		ug/kg	1.2	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.14	1
Naphthalene	ND		ug/kg	5.8	0.16	1
Acrylonitrile	ND		ug/kg	12	0.59	1
n-Propylbenzene	ND		ug/kg	1.2	0.13	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.8	0.17	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.8	0.21	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.8	0.16	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-01  
**Client ID:** SB-103 (0-2)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/12/16 08:00  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	5.8	0.16	1
1,4-Dioxane	ND		ug/kg	120	17.	1
p-Diethylbenzene	ND		ug/kg	4.6	0.18	1
p-Ethyltoluene	ND		ug/kg	4.6	0.14	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.6	0.15	1
Ethyl ether	ND		ug/kg	5.8	0.30	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.8	0.45	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	103		70-130

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-02  
**Client ID:** SB-103 (4-6)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/17/16 16:09  
**Analyst:** BN  
**Percent Solids:** 80%

**Date Collected:** 02/12/16 08:15  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	11	1.2	1
1,1-Dichloroethane	ND		ug/kg	1.6	0.09	1
Chloroform	ND		ug/kg	1.6	0.40	1
Carbon tetrachloride	ND		ug/kg	1.1	0.23	1
1,2-Dichloropropane	ND		ug/kg	3.8	0.25	1
Dibromochloromethane	ND		ug/kg	1.1	0.17	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	0.33	1
Tetrachloroethene	ND		ug/kg	1.1	0.15	1
Chlorobenzene	ND		ug/kg	1.1	0.38	1
Trichlorofluoromethane	ND		ug/kg	5.5	0.42	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.12	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.12	1
Bromodichloromethane	ND		ug/kg	1.1	0.19	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.13	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	0.13	1
1,3-Dichloropropene, Total	ND		ug/kg	1.1	0.13	1
1,1-Dichloropropene	ND		ug/kg	5.5	0.16	1
Bromoform	ND		ug/kg	4.4	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	0.11	1
Benzene	ND		ug/kg	1.1	0.13	1
Toluene	0.36	J	ug/kg	1.6	0.21	1
Ethylbenzene	ND		ug/kg	1.1	0.14	1
Chloromethane	ND		ug/kg	5.5	0.32	1
Bromomethane	ND		ug/kg	2.2	0.37	1
Vinyl chloride	ND		ug/kg	2.2	0.13	1
Chloroethane	ND		ug/kg	2.2	0.35	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.29	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.23	1
Trichloroethene	ND		ug/kg	1.1	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	5.5	0.17	1

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-02

Date Collected: 02/12/16 08:15

Client ID: SB-103 (4-6)

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	5.5	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	5.5	0.15	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.09	1
p/m-Xylene	ND		ug/kg	2.2	0.22	1
o-Xylene	ND		ug/kg	2.2	0.19	1
Xylenes, Total	ND		ug/kg	2.2	0.19	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.16	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.16	1
Dibromomethane	ND		ug/kg	11	0.18	1
Styrene	ND		ug/kg	2.2	0.44	1
Dichlorodifluoromethane	ND		ug/kg	11	0.21	1
Acetone	13		ug/kg	11	1.1	1
Carbon disulfide	ND		ug/kg	11	1.2	1
2-Butanone	ND		ug/kg	11	0.30	1
Vinyl acetate	ND		ug/kg	11	0.14	1
4-Methyl-2-pentanone	ND		ug/kg	11	0.27	1
1,2,3-Trichloropropane	ND		ug/kg	11	0.18	1
2-Hexanone	ND		ug/kg	11	0.73	1
Bromochloromethane	ND		ug/kg	5.5	0.30	1
2,2-Dichloropropane	ND		ug/kg	5.5	0.25	1
1,2-Dibromoethane	ND		ug/kg	4.4	0.19	1
1,3-Dichloropropane	ND		ug/kg	5.5	0.16	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	0.35	1
Bromobenzene	ND		ug/kg	5.5	0.23	1
n-Butylbenzene	ND		ug/kg	1.1	0.12	1
sec-Butylbenzene	ND		ug/kg	1.1	0.13	1
tert-Butylbenzene	ND		ug/kg	5.5	0.15	1
o-Chlorotoluene	ND		ug/kg	5.5	0.18	1
p-Chlorotoluene	ND		ug/kg	5.5	0.14	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.5	0.43	1
Hexachlorobutadiene	ND		ug/kg	5.5	0.25	1
Isopropylbenzene	ND		ug/kg	1.1	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.14	1
Naphthalene	0.29	J	ug/kg	5.5	0.15	1
Acrylonitrile	ND		ug/kg	11	0.56	1
n-Propylbenzene	ND		ug/kg	1.1	0.12	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.5	0.16	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.5	0.20	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.5	0.16	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-02  
**Client ID:** SB-103 (4-6)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/12/16 08:15  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	5.5	0.16	1
1,4-Dioxane	ND		ug/kg	110	16.	1
p-Diethylbenzene	ND		ug/kg	4.4	0.18	1
p-Ethyltoluene	ND		ug/kg	4.4	0.14	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.4	0.14	1
Ethyl ether	ND		ug/kg	5.5	0.28	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.5	0.43	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	103		70-130

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-03  
**Client ID:** SB-103 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/17/16 16:35  
**Analyst:** BN  
**Percent Solids:** 82%

**Date Collected:** 02/12/16 08:30  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	44	4.8	1
1,1-Dichloroethane	ND		ug/kg	6.6	0.38	1
Chloroform	ND		ug/kg	6.6	1.6	1
Carbon tetrachloride	ND		ug/kg	4.4	0.92	1
1,2-Dichloropropane	ND		ug/kg	15	1.0	1
Dibromochloromethane	ND		ug/kg	4.4	0.67	1
1,1,2-Trichloroethane	ND		ug/kg	6.6	1.3	1
Tetrachloroethene	ND		ug/kg	4.4	0.61	1
Chlorobenzene	ND		ug/kg	4.4	1.5	1
Trichlorofluoromethane	ND		ug/kg	22	1.7	1
1,2-Dichloroethane	ND		ug/kg	4.4	0.50	1
1,1,1-Trichloroethane	ND		ug/kg	4.4	0.48	1
Bromodichloromethane	ND		ug/kg	4.4	0.76	1
trans-1,3-Dichloropropene	ND		ug/kg	4.4	0.53	1
cis-1,3-Dichloropropene	ND		ug/kg	4.4	0.52	1
1,3-Dichloropropene, Total	ND		ug/kg	4.4	0.52	1
1,1-Dichloropropene	ND		ug/kg	22	0.62	1
Bromoform	ND		ug/kg	18	1.0	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	4.4	0.44	1
Benzene	ND		ug/kg	4.4	0.52	1
Toluene	1.1	J	ug/kg	6.6	0.85	1
Ethylbenzene	ND		ug/kg	4.4	0.56	1
Chloromethane	ND		ug/kg	22	1.3	1
Bromomethane	ND		ug/kg	8.8	1.5	1
Vinyl chloride	ND		ug/kg	8.8	0.51	1
Chloroethane	ND		ug/kg	8.8	1.4	1
1,1-Dichloroethene	ND		ug/kg	4.4	1.1	1
trans-1,2-Dichloroethene	ND		ug/kg	6.6	0.93	1
Trichloroethene	ND		ug/kg	4.4	0.55	1
1,2-Dichlorobenzene	ND		ug/kg	22	0.67	1



Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-03

Date Collected: 02/12/16 08:30

Client ID: SB-103 (10-12)

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	22	0.59	1
1,4-Dichlorobenzene	ND		ug/kg	22	0.61	1
Methyl tert butyl ether	ND		ug/kg	8.8	0.37	1
p/m-Xylene	2.2	J	ug/kg	8.8	0.87	1
o-Xylene	1.1	J	ug/kg	8.8	0.75	1
Xylenes, Total	3.3	J	ug/kg	8.8	0.75	1
cis-1,2-Dichloroethene	ND		ug/kg	4.4	0.62	1
1,2-Dichloroethene, Total	ND		ug/kg	4.4	0.62	1
Dibromomethane	ND		ug/kg	44	0.72	1
Styrene	ND		ug/kg	8.8	1.8	1
Dichlorodifluoromethane	ND		ug/kg	44	0.84	1
Acetone	22	J	ug/kg	44	4.5	1
Carbon disulfide	ND		ug/kg	44	4.8	1
2-Butanone	ND		ug/kg	44	1.2	1
Vinyl acetate	ND		ug/kg	44	0.58	1
4-Methyl-2-pentanone	ND		ug/kg	44	1.1	1
1,2,3-Trichloropropane	ND		ug/kg	44	0.71	1
2-Hexanone	ND		ug/kg	44	2.9	1
Bromochloromethane	ND		ug/kg	22	1.2	1
2,2-Dichloropropane	ND		ug/kg	22	0.99	1
1,2-Dibromoethane	ND		ug/kg	18	0.76	1
1,3-Dichloropropane	ND		ug/kg	22	0.64	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	4.4	1.4	1
Bromobenzene	ND		ug/kg	22	0.91	1
n-Butylbenzene	ND		ug/kg	4.4	0.50	1
sec-Butylbenzene	ND		ug/kg	4.4	0.53	1
tert-Butylbenzene	ND		ug/kg	22	0.59	1
o-Chlorotoluene	ND		ug/kg	22	0.70	1
p-Chlorotoluene	ND		ug/kg	22	0.58	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	22	1.7	1
Hexachlorobutadiene	ND		ug/kg	22	1.0	1
Isopropylbenzene	ND		ug/kg	4.4	0.45	1
p-Isopropyltoluene	ND		ug/kg	4.4	0.55	1
Naphthalene	ND		ug/kg	22	0.61	1
Acrylonitrile	ND		ug/kg	44	2.2	1
n-Propylbenzene	ND		ug/kg	4.4	0.48	1
1,2,3-Trichlorobenzene	ND		ug/kg	22	0.65	1
1,2,4-Trichlorobenzene	ND		ug/kg	22	0.80	1
1,3,5-Trimethylbenzene	ND		ug/kg	22	0.63	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-03  
**Client ID:** SB-103 (10-12)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/12/16 08:30  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	22	0.62	1
1,4-Dioxane	ND		ug/kg	440	63.	1
p-Diethylbenzene	ND		ug/kg	18	0.70	1
p-Ethyltoluene	ND		ug/kg	18	0.54	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	18	0.57	1
Ethyl ether	ND		ug/kg	22	1.1	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	22	1.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	98		70-130

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-04  
**Client ID:** SB-101 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/17/16 17:01  
**Analyst:** BN  
**Percent Solids:** 82%

**Date Collected:** 02/12/16 09:15  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	12	1.3	1
1,1-Dichloroethane	ND		ug/kg	1.7	0.10	1
Chloroform	ND		ug/kg	1.7	0.43	1
Carbon tetrachloride	ND		ug/kg	1.2	0.24	1
1,2-Dichloropropane	ND		ug/kg	4.0	0.26	1
Dibromochloromethane	ND		ug/kg	1.2	0.18	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	0.35	1
Tetrachloroethene	ND		ug/kg	1.2	0.16	1
Chlorobenzene	ND		ug/kg	1.2	0.40	1
Trichlorofluoromethane	ND		ug/kg	5.8	0.45	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.13	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.13	1
Bromodichloromethane	ND		ug/kg	1.2	0.20	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.14	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.14	1
1,3-Dichloropropene, Total	ND		ug/kg	1.2	0.14	1
1,1-Dichloropropene	ND		ug/kg	5.8	0.16	1
Bromoform	ND		ug/kg	4.6	0.27	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.12	1
Benzene	ND		ug/kg	1.2	0.14	1
Toluene	ND		ug/kg	1.7	0.22	1
Ethylbenzene	ND		ug/kg	1.2	0.15	1
Chloromethane	ND		ug/kg	5.8	0.34	1
Bromomethane	ND		ug/kg	2.3	0.39	1
Vinyl chloride	ND		ug/kg	2.3	0.14	1
Chloroethane	ND		ug/kg	2.3	0.36	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.30	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.24	1
Trichloroethene	ND		ug/kg	1.2	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	5.8	0.18	1

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-04

Date Collected: 02/12/16 09:15

Client ID: SB-101 (0-2)

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	5.8	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	5.8	0.16	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.10	1
p/m-Xylene	ND		ug/kg	2.3	0.23	1
o-Xylene	ND		ug/kg	2.3	0.20	1
Xylenes, Total	ND		ug/kg	2.3	0.20	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.16	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.16	1
Dibromomethane	ND		ug/kg	12	0.19	1
Styrene	ND		ug/kg	2.3	0.46	1
Dichlorodifluoromethane	ND		ug/kg	12	0.22	1
Acetone	3.6	J	ug/kg	12	1.2	1
Carbon disulfide	ND		ug/kg	12	1.3	1
2-Butanone	ND		ug/kg	12	0.31	1
Vinyl acetate	ND		ug/kg	12	0.15	1
4-Methyl-2-pentanone	ND		ug/kg	12	0.28	1
1,2,3-Trichloropropane	ND		ug/kg	12	0.19	1
2-Hexanone	ND		ug/kg	12	0.77	1
Bromochloromethane	ND		ug/kg	5.8	0.32	1
2,2-Dichloropropane	ND		ug/kg	5.8	0.26	1
1,2-Dibromoethane	ND		ug/kg	4.6	0.20	1
1,3-Dichloropropane	ND		ug/kg	5.8	0.17	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.2	0.37	1
Bromobenzene	ND		ug/kg	5.8	0.24	1
n-Butylbenzene	ND		ug/kg	1.2	0.13	1
sec-Butylbenzene	ND		ug/kg	1.2	0.14	1
tert-Butylbenzene	ND		ug/kg	5.8	0.16	1
o-Chlorotoluene	ND		ug/kg	5.8	0.18	1
p-Chlorotoluene	ND		ug/kg	5.8	0.15	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.8	0.46	1
Hexachlorobutadiene	ND		ug/kg	5.8	0.26	1
Isopropylbenzene	ND		ug/kg	1.2	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.14	1
Naphthalene	ND		ug/kg	5.8	0.16	1
Acrylonitrile	ND		ug/kg	12	0.59	1
n-Propylbenzene	ND		ug/kg	1.2	0.13	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.8	0.17	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.8	0.21	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.8	0.16	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-04  
**Client ID:** SB-101 (0-2)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/12/16 09:15  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	5.8	0.16	1
1,4-Dioxane	ND		ug/kg	120	17.	1
p-Diethylbenzene	ND		ug/kg	4.6	0.18	1
p-Ethyltoluene	ND		ug/kg	4.6	0.14	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.6	0.15	1
Ethyl ether	ND		ug/kg	5.8	0.30	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.8	0.45	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	104		70-130

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-05  
**Client ID:** SB-101 (5-7)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/17/16 17:27  
**Analyst:** BN  
**Percent Solids:** 82%

**Date Collected:** 02/12/16 09:30  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	10	1.2	1
1,1-Dichloroethane	ND		ug/kg	1.6	0.09	1
Chloroform	ND		ug/kg	1.6	0.39	1
Carbon tetrachloride	ND		ug/kg	1.0	0.22	1
1,2-Dichloropropane	ND		ug/kg	3.7	0.24	1
Dibromochloromethane	ND		ug/kg	1.0	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	0.32	1
Tetrachloroethene	ND		ug/kg	1.0	0.15	1
Chlorobenzene	ND		ug/kg	1.0	0.36	1
Trichlorofluoromethane	ND		ug/kg	5.2	0.40	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.12	1
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.12	1
Bromodichloromethane	ND		ug/kg	1.0	0.18	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.13	1
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.12	1
1,3-Dichloropropene, Total	ND		ug/kg	1.0	0.12	1
1,1-Dichloropropene	ND		ug/kg	5.2	0.15	1
Bromoform	ND		ug/kg	4.2	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.10	1
Benzene	ND		ug/kg	1.0	0.12	1
Toluene	0.22	J	ug/kg	1.6	0.20	1
Ethylbenzene	ND		ug/kg	1.0	0.13	1
Chloromethane	ND		ug/kg	5.2	0.31	1
Bromomethane	ND		ug/kg	2.1	0.35	1
Vinyl chloride	ND		ug/kg	2.1	0.12	1
Chloroethane	ND		ug/kg	2.1	0.33	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.27	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.22	1
Trichloroethene	ND		ug/kg	1.0	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	5.2	0.16	1

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-05

Date Collected: 02/12/16 09:30

Client ID: SB-101 (5-7)

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	5.2	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	5.2	0.14	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.09	1
p/m-Xylene	ND		ug/kg	2.1	0.21	1
o-Xylene	ND		ug/kg	2.1	0.18	1
Xylenes, Total	ND		ug/kg	2.1	0.18	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.15	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.15	1
Dibromomethane	ND		ug/kg	10	0.17	1
Styrene	ND		ug/kg	2.1	0.42	1
Dichlorodifluoromethane	ND		ug/kg	10	0.20	1
Acetone	5.2	J	ug/kg	10	1.1	1
Carbon disulfide	ND		ug/kg	10	1.2	1
2-Butanone	ND		ug/kg	10	0.28	1
Vinyl acetate	ND		ug/kg	10	0.14	1
4-Methyl-2-pentanone	ND		ug/kg	10	0.26	1
1,2,3-Trichloropropane	ND		ug/kg	10	0.17	1
2-Hexanone	ND		ug/kg	10	0.70	1
Bromochloromethane	ND		ug/kg	5.2	0.29	1
2,2-Dichloropropane	ND		ug/kg	5.2	0.24	1
1,2-Dibromoethane	ND		ug/kg	4.2	0.18	1
1,3-Dichloropropane	ND		ug/kg	5.2	0.15	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	0.33	1
Bromobenzene	ND		ug/kg	5.2	0.22	1
n-Butylbenzene	ND		ug/kg	1.0	0.12	1
sec-Butylbenzene	ND		ug/kg	1.0	0.13	1
tert-Butylbenzene	ND		ug/kg	5.2	0.14	1
o-Chlorotoluene	ND		ug/kg	5.2	0.17	1
p-Chlorotoluene	ND		ug/kg	5.2	0.14	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.2	0.41	1
Hexachlorobutadiene	ND		ug/kg	5.2	0.24	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.13	1
Naphthalene	ND		ug/kg	5.2	0.14	1
Acrylonitrile	ND		ug/kg	10	0.54	1
n-Propylbenzene	ND		ug/kg	1.0	0.11	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.2	0.15	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.2	0.19	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.2	0.15	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-05  
**Client ID:** SB-101 (5-7)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/12/16 09:30  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	5.2	0.15	1
1,4-Dioxane	ND		ug/kg	100	15.	1
p-Diethylbenzene	ND		ug/kg	4.2	0.17	1
p-Ethyltoluene	ND		ug/kg	4.2	0.13	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.2	0.14	1
Ethyl ether	ND		ug/kg	5.2	0.27	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.2	0.41	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	91		70-130
Dibromofluoromethane	97		70-130



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-06  
**Client ID:** SB-101 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/18/16 11:59  
**Analyst:** BN  
**Percent Solids:** 83%

**Date Collected:** 02/12/16 09:45  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	11	1.2	1
1,1-Dichloroethane	ND		ug/kg	1.7	0.10	1
Chloroform	ND		ug/kg	1.7	0.41	1
Carbon tetrachloride	ND		ug/kg	1.1	0.23	1
1,2-Dichloropropane	ND		ug/kg	3.9	0.25	1
Dibromochloromethane	ND		ug/kg	1.1	0.17	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	0.34	1
Tetrachloroethene	ND		ug/kg	1.1	0.16	1
Chlorobenzene	ND		ug/kg	1.1	0.39	1
Trichlorofluoromethane	ND		ug/kg	5.6	0.43	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.13	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.12	1
Bromodichloromethane	ND		ug/kg	1.1	0.19	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.13	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	0.13	1
1,3-Dichloropropene, Total	ND		ug/kg	1.1	0.13	1
1,1-Dichloropropene	ND		ug/kg	5.6	0.16	1
Bromoform	ND		ug/kg	4.5	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	0.11	1
Benzene	ND		ug/kg	1.1	0.13	1
Toluene	ND		ug/kg	1.7	0.22	1
Ethylbenzene	ND		ug/kg	1.1	0.14	1
Chloromethane	ND		ug/kg	5.6	0.33	1
Bromomethane	ND		ug/kg	2.2	0.38	1
Vinyl chloride	ND		ug/kg	2.2	0.13	1
Chloroethane	ND		ug/kg	2.2	0.35	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.29	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.24	1
Trichloroethene	ND		ug/kg	1.1	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	5.6	0.17	1

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-06

Date Collected: 02/12/16 09:45

Client ID: SB-101 (10-12)

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	5.6	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	5.6	0.15	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.09	1
p/m-Xylene	ND		ug/kg	2.2	0.22	1
o-Xylene	ND		ug/kg	2.2	0.19	1
Xylenes, Total	ND		ug/kg	2.2	0.19	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.16	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.16	1
Dibromomethane	ND		ug/kg	11	0.18	1
Styrene	ND		ug/kg	2.2	0.45	1
Dichlorodifluoromethane	ND		ug/kg	11	0.21	1
Acetone	16		ug/kg	11	1.2	1
Carbon disulfide	ND		ug/kg	11	1.2	1
2-Butanone	ND		ug/kg	11	0.30	1
Vinyl acetate	ND		ug/kg	11	0.15	1
4-Methyl-2-pentanone	ND		ug/kg	11	0.27	1
1,2,3-Trichloropropane	ND		ug/kg	11	0.18	1
2-Hexanone	ND		ug/kg	11	0.74	1
Bromochloromethane	ND		ug/kg	5.6	0.31	1
2,2-Dichloropropane	ND		ug/kg	5.6	0.25	1
1,2-Dibromoethane	ND		ug/kg	4.5	0.19	1
1,3-Dichloropropane	ND		ug/kg	5.6	0.16	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	0.35	1
Bromobenzene	ND		ug/kg	5.6	0.23	1
n-Butylbenzene	ND		ug/kg	1.1	0.13	1
sec-Butylbenzene	ND		ug/kg	1.1	0.14	1
tert-Butylbenzene	ND		ug/kg	5.6	0.15	1
o-Chlorotoluene	ND		ug/kg	5.6	0.18	1
p-Chlorotoluene	ND		ug/kg	5.6	0.15	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.6	0.44	1
Hexachlorobutadiene	ND		ug/kg	5.6	0.25	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.14	1
Naphthalene	ND		ug/kg	5.6	0.15	1
Acrylonitrile	ND		ug/kg	11	0.57	1
n-Propylbenzene	ND		ug/kg	1.1	0.12	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.6	0.16	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.6	0.20	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.6	0.16	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-06  
**Client ID:** SB-101 (10-12)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/12/16 09:45  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	5.6	0.16	1
1,4-Dioxane	ND		ug/kg	110	16.	1
p-Diethylbenzene	ND		ug/kg	4.5	0.18	1
p-Ethyltoluene	ND		ug/kg	4.5	0.14	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.5	0.14	1
Ethyl ether	ND		ug/kg	5.6	0.29	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.6	0.44	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	80		70-130

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-07  
**Client ID:** DUP021216  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/19/16 10:08  
**Analyst:** BN  
**Percent Solids:** 83%

**Date Collected:** 02/12/16 10:00  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	11	1.2	1
1,1-Dichloroethane	ND		ug/kg	1.6	0.09	1
Chloroform	ND		ug/kg	1.6	0.40	1
Carbon tetrachloride	ND		ug/kg	1.1	0.22	1
1,2-Dichloropropane	ND		ug/kg	3.8	0.24	1
Dibromochloromethane	ND		ug/kg	1.1	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	0.32	1
Tetrachloroethene	ND		ug/kg	1.1	0.15	1
Chlorobenzene	ND		ug/kg	1.1	0.37	1
Trichlorofluoromethane	ND		ug/kg	5.4	0.42	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.12	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.12	1
Bromodichloromethane	ND		ug/kg	1.1	0.18	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.13	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	0.13	1
1,3-Dichloropropene, Total	ND		ug/kg	1.1	0.13	1
1,1-Dichloropropene	ND		ug/kg	5.4	0.15	1
Bromoform	ND		ug/kg	4.3	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	0.11	1
Benzene	ND		ug/kg	1.1	0.13	1
Toluene	0.31	J	ug/kg	1.6	0.21	1
Ethylbenzene	ND		ug/kg	1.1	0.14	1
Chloromethane	ND		ug/kg	5.4	0.32	1
Bromomethane	ND		ug/kg	2.1	0.36	1
Vinyl chloride	ND		ug/kg	2.1	0.12	1
Chloroethane	ND		ug/kg	2.1	0.34	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.23	1
Trichloroethene	ND		ug/kg	1.1	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	5.4	0.16	1

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-07

Date Collected: 02/12/16 10:00

Client ID: DUP021216

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	5.4	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	5.4	0.15	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.09	1
p/m-Xylene	ND		ug/kg	2.1	0.21	1
o-Xylene	ND		ug/kg	2.1	0.18	1
Xylenes, Total	ND		ug/kg	2.1	0.18	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.15	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1
Dibromomethane	ND		ug/kg	11	0.18	1
Styrene	ND		ug/kg	2.1	0.43	1
Dichlorodifluoromethane	ND		ug/kg	11	0.20	1
Acetone	10	J	ug/kg	11	1.1	1
Carbon disulfide	ND		ug/kg	11	1.2	1
2-Butanone	ND		ug/kg	11	0.29	1
Vinyl acetate	ND		ug/kg	11	0.14	1
4-Methyl-2-pentanone	ND		ug/kg	11	0.26	1
1,2,3-Trichloropropane	ND		ug/kg	11	0.17	1
2-Hexanone	ND		ug/kg	11	0.71	1
Bromochloromethane	ND		ug/kg	5.4	0.30	1
2,2-Dichloropropane	ND		ug/kg	5.4	0.24	1
1,2-Dibromoethane	ND		ug/kg	4.3	0.19	1
1,3-Dichloropropane	ND		ug/kg	5.4	0.16	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	0.34	1
Bromobenzene	ND		ug/kg	5.4	0.22	1
n-Butylbenzene	ND		ug/kg	1.1	0.12	1
sec-Butylbenzene	ND		ug/kg	1.1	0.13	1
tert-Butylbenzene	ND		ug/kg	5.4	0.14	1
o-Chlorotoluene	ND		ug/kg	5.4	0.17	1
p-Chlorotoluene	ND		ug/kg	5.4	0.14	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.4	0.42	1
Hexachlorobutadiene	ND		ug/kg	5.4	0.24	1
Isopropylbenzene	ND		ug/kg	1.1	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.13	1
Naphthalene	0.26	J	ug/kg	5.4	0.15	1
Acrylonitrile	ND		ug/kg	11	0.55	1
n-Propylbenzene	ND		ug/kg	1.1	0.12	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.4	0.16	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.4	0.19	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.4	0.15	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-07  
**Client ID:** DUP021216  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/12/16 10:00  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	5.4	0.15	1
1,4-Dioxane	ND		ug/kg	110	15.	1
p-Diethylbenzene	ND		ug/kg	4.3	0.17	1
p-Ethyltoluene	ND		ug/kg	4.3	0.13	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.3	0.14	1
Ethyl ether	ND		ug/kg	5.4	0.28	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.4	0.42	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	98		70-130

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-08  
**Client ID:** SB-102 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/18/16 12:26  
**Analyst:** BN  
**Percent Solids:** 83%

**Date Collected:** 02/12/16 10:30  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	12	1.3	1
1,1-Dichloroethane	ND		ug/kg	1.8	0.10	1
Chloroform	ND		ug/kg	1.8	0.45	1
Carbon tetrachloride	ND		ug/kg	1.2	0.25	1
1,2-Dichloropropane	ND		ug/kg	4.2	0.28	1
Dibromochloromethane	ND		ug/kg	1.2	0.18	1
1,1,2-Trichloroethane	ND		ug/kg	1.8	0.37	1
Tetrachloroethene	ND		ug/kg	1.2	0.17	1
Chlorobenzene	ND		ug/kg	1.2	0.42	1
Trichlorofluoromethane	ND		ug/kg	6.0	0.47	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.14	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.13	1
Bromodichloromethane	ND		ug/kg	1.2	0.21	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.14	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.14	1
1,3-Dichloropropene, Total	ND		ug/kg	1.2	0.14	1
1,1-Dichloropropene	ND		ug/kg	6.0	0.17	1
Bromoform	ND		ug/kg	4.8	0.28	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.12	1
Benzene	ND		ug/kg	1.2	0.14	1
Toluene	ND		ug/kg	1.8	0.23	1
Ethylbenzene	ND		ug/kg	1.2	0.15	1
Chloromethane	ND		ug/kg	6.0	0.35	1
Bromomethane	ND		ug/kg	2.4	0.41	1
Vinyl chloride	ND		ug/kg	2.4	0.14	1
Chloroethane	ND		ug/kg	2.4	0.38	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.32	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.26	1
Trichloroethene	ND		ug/kg	1.2	0.15	1
1,2-Dichlorobenzene	ND		ug/kg	6.0	0.18	1

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-08

Date Collected: 02/12/16 10:30

Client ID: SB-102 (0-2)

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	6.0	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	6.0	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.4	0.10	1
p/m-Xylene	ND		ug/kg	2.4	0.24	1
o-Xylene	ND		ug/kg	2.4	0.21	1
Xylenes, Total	ND		ug/kg	2.4	0.21	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.17	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.17	1
Dibromomethane	ND		ug/kg	12	0.20	1
Styrene	ND		ug/kg	2.4	0.48	1
Dichlorodifluoromethane	ND		ug/kg	12	0.23	1
Acetone	2.7	J	ug/kg	12	1.2	1
Carbon disulfide	ND		ug/kg	12	1.3	1
2-Butanone	ND		ug/kg	12	0.33	1
Vinyl acetate	ND		ug/kg	12	0.16	1
4-Methyl-2-pentanone	ND		ug/kg	12	0.29	1
1,2,3-Trichloropropane	ND		ug/kg	12	0.20	1
2-Hexanone	ND		ug/kg	12	0.80	1
Bromochloromethane	ND		ug/kg	6.0	0.33	1
2,2-Dichloropropane	ND		ug/kg	6.0	0.27	1
1,2-Dibromoethane	ND		ug/kg	4.8	0.21	1
1,3-Dichloropropane	ND		ug/kg	6.0	0.18	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.2	0.38	1
Bromobenzene	ND		ug/kg	6.0	0.25	1
n-Butylbenzene	ND		ug/kg	1.2	0.14	1
sec-Butylbenzene	ND		ug/kg	1.2	0.15	1
tert-Butylbenzene	ND		ug/kg	6.0	0.16	1
o-Chlorotoluene	ND		ug/kg	6.0	0.19	1
p-Chlorotoluene	ND		ug/kg	6.0	0.16	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.0	0.48	1
Hexachlorobutadiene	ND		ug/kg	6.0	0.28	1
Isopropylbenzene	ND		ug/kg	1.2	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.15	1
Naphthalene	ND		ug/kg	6.0	0.17	1
Acrylonitrile	ND		ug/kg	12	0.62	1
n-Propylbenzene	ND		ug/kg	1.2	0.13	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.0	0.18	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.0	0.22	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.0	0.17	1



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-08  
**Client ID:** SB-102 (0-2)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/12/16 10:30  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	6.0	0.17	1
1,4-Dioxane	ND		ug/kg	120	17.	1
p-Diethylbenzene	ND		ug/kg	4.8	0.19	1
p-Ethyltoluene	ND		ug/kg	4.8	0.15	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.8	0.16	1
Ethyl ether	ND		ug/kg	6.0	0.31	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.0	0.47	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	97		70-130

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-09  
**Client ID:** SB-102 (5-7)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/18/16 12:52  
**Analyst:** BN  
**Percent Solids:** 84%

**Date Collected:** 02/12/16 10:45  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	11	1.2	1
1,1-Dichloroethane	ND		ug/kg	1.7	0.10	1
Chloroform	ND		ug/kg	1.7	0.42	1
Carbon tetrachloride	ND		ug/kg	1.1	0.24	1
1,2-Dichloropropane	ND		ug/kg	3.9	0.26	1
Dibromochloromethane	ND		ug/kg	1.1	0.17	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	0.34	1
Tetrachloroethene	ND		ug/kg	1.1	0.16	1
Chlorobenzene	ND		ug/kg	1.1	0.39	1
Trichlorofluoromethane	ND		ug/kg	5.6	0.44	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.13	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.12	1
Bromodichloromethane	ND		ug/kg	1.1	0.19	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.14	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	0.13	1
1,3-Dichloropropene, Total	ND		ug/kg	1.1	0.13	1
1,1-Dichloropropene	ND		ug/kg	5.6	0.16	1
Bromoform	ND		ug/kg	4.5	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	0.11	1
Benzene	ND		ug/kg	1.1	0.13	1
Toluene	ND		ug/kg	1.7	0.22	1
Ethylbenzene	ND		ug/kg	1.1	0.14	1
Chloromethane	ND		ug/kg	5.6	0.33	1
Bromomethane	ND		ug/kg	2.2	0.38	1
Vinyl chloride	ND		ug/kg	2.2	0.13	1
Chloroethane	ND		ug/kg	2.2	0.35	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.29	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.24	1
Trichloroethene	ND		ug/kg	1.1	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	5.6	0.17	1

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-09

Date Collected: 02/12/16 10:45

Client ID: SB-102 (5-7)

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	5.6	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	5.6	0.16	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.10	1
p/m-Xylene	ND		ug/kg	2.2	0.22	1
o-Xylene	ND		ug/kg	2.2	0.19	1
Xylenes, Total	ND		ug/kg	2.2	0.19	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.16	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.16	1
Dibromomethane	ND		ug/kg	11	0.18	1
Styrene	ND		ug/kg	2.2	0.45	1
Dichlorodifluoromethane	ND		ug/kg	11	0.21	1
Acetone	2.2	J	ug/kg	11	1.2	1
Carbon disulfide	ND		ug/kg	11	1.2	1
2-Butanone	ND		ug/kg	11	0.30	1
Vinyl acetate	ND		ug/kg	11	0.15	1
4-Methyl-2-pentanone	ND		ug/kg	11	0.27	1
1,2,3-Trichloropropane	ND		ug/kg	11	0.18	1
2-Hexanone	ND		ug/kg	11	0.75	1
Bromochloromethane	ND		ug/kg	5.6	0.31	1
2,2-Dichloropropane	ND		ug/kg	5.6	0.25	1
1,2-Dibromoethane	ND		ug/kg	4.5	0.20	1
1,3-Dichloropropane	ND		ug/kg	5.6	0.16	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	0.36	1
Bromobenzene	ND		ug/kg	5.6	0.23	1
n-Butylbenzene	ND		ug/kg	1.1	0.13	1
sec-Butylbenzene	ND		ug/kg	1.1	0.14	1
tert-Butylbenzene	ND		ug/kg	5.6	0.15	1
o-Chlorotoluene	ND		ug/kg	5.6	0.18	1
p-Chlorotoluene	ND		ug/kg	5.6	0.15	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.6	0.44	1
Hexachlorobutadiene	ND		ug/kg	5.6	0.26	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.14	1
Naphthalene	ND		ug/kg	5.6	0.16	1
Acrylonitrile	ND		ug/kg	11	0.58	1
n-Propylbenzene	ND		ug/kg	1.1	0.12	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.6	0.16	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.6	0.20	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.6	0.16	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-09  
**Client ID:** SB-102 (5-7)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/12/16 10:45  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	5.6	0.16	1
1,4-Dioxane	ND		ug/kg	110	16.	1
p-Diethylbenzene	ND		ug/kg	4.5	0.18	1
p-Ethyltoluene	ND		ug/kg	4.5	0.14	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.5	0.15	1
Ethyl ether	ND		ug/kg	5.6	0.29	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.6	0.44	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	96		70-130

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-10  
**Client ID:** SB-102 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/18/16 13:18  
**Analyst:** BN  
**Percent Solids:** 79%

**Date Collected:** 02/12/16 11:00  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	11	1.2	1
1,1-Dichloroethane	ND		ug/kg	1.7	0.10	1
Chloroform	ND		ug/kg	1.7	0.42	1
Carbon tetrachloride	ND		ug/kg	1.1	0.24	1
1,2-Dichloropropane	ND		ug/kg	4.0	0.26	1
Dibromochloromethane	ND		ug/kg	1.1	0.17	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	0.34	1
Tetrachloroethene	ND		ug/kg	1.1	0.16	1
Chlorobenzene	ND		ug/kg	1.1	0.39	1
Trichlorofluoromethane	ND		ug/kg	5.6	0.44	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.13	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.12	1
Bromodichloromethane	ND		ug/kg	1.1	0.20	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.14	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	0.13	1
1,3-Dichloropropene, Total	ND		ug/kg	1.1	0.13	1
1,1-Dichloropropene	ND		ug/kg	5.6	0.16	1
Bromoform	ND		ug/kg	4.5	0.27	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	0.11	1
Benzene	ND		ug/kg	1.1	0.13	1
Toluene	ND		ug/kg	1.7	0.22	1
Ethylbenzene	ND		ug/kg	1.1	0.14	1
Chloromethane	ND		ug/kg	5.6	0.33	1
Bromomethane	ND		ug/kg	2.3	0.38	1
Vinyl chloride	ND		ug/kg	2.3	0.13	1
Chloroethane	ND		ug/kg	2.3	0.36	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.30	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.24	1
Trichloroethene	ND		ug/kg	1.1	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	5.6	0.17	1

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-10

Date Collected: 02/12/16 11:00

Client ID: SB-102 (10-12)

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	5.6	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	5.6	0.16	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.10	1
p/m-Xylene	ND		ug/kg	2.3	0.22	1
o-Xylene	ND		ug/kg	2.3	0.19	1
Xylenes, Total	ND		ug/kg	2.3	0.19	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.16	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.16	1
Dibromomethane	ND		ug/kg	11	0.18	1
Styrene	ND		ug/kg	2.3	0.45	1
Dichlorodifluoromethane	ND		ug/kg	11	0.22	1
Acetone	3.4	J	ug/kg	11	1.2	1
Carbon disulfide	ND		ug/kg	11	1.2	1
2-Butanone	ND		ug/kg	11	0.31	1
Vinyl acetate	ND		ug/kg	11	0.15	1
4-Methyl-2-pentanone	ND		ug/kg	11	0.28	1
1,2,3-Trichloropropane	ND		ug/kg	11	0.18	1
2-Hexanone	ND		ug/kg	11	0.75	1
Bromochloromethane	ND		ug/kg	5.6	0.31	1
2,2-Dichloropropane	ND		ug/kg	5.6	0.26	1
1,2-Dibromoethane	ND		ug/kg	4.5	0.20	1
1,3-Dichloropropane	ND		ug/kg	5.6	0.16	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	0.36	1
Bromobenzene	ND		ug/kg	5.6	0.24	1
n-Butylbenzene	ND		ug/kg	1.1	0.13	1
sec-Butylbenzene	ND		ug/kg	1.1	0.14	1
tert-Butylbenzene	ND		ug/kg	5.6	0.15	1
o-Chlorotoluene	ND		ug/kg	5.6	0.18	1
p-Chlorotoluene	ND		ug/kg	5.6	0.15	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.6	0.45	1
Hexachlorobutadiene	ND		ug/kg	5.6	0.26	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.14	1
Naphthalene	ND		ug/kg	5.6	0.16	1
Acrylonitrile	ND		ug/kg	11	0.58	1
n-Propylbenzene	ND		ug/kg	1.1	0.12	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.6	0.17	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.6	0.20	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.6	0.16	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-10  
**Client ID:** SB-102 (10-12)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/12/16 11:00  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	5.6	0.16	1
1,4-Dioxane	ND		ug/kg	110	16.	1
p-Diethylbenzene	ND		ug/kg	4.5	0.18	1
p-Ethyltoluene	ND		ug/kg	4.5	0.14	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.5	0.15	1
Ethyl ether	ND		ug/kg	5.6	0.29	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.6	0.44	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	97		70-130

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-11  
**Client ID:** FB021216  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/17/16 12:50  
**Analyst:** PD

**Date Collected:** 02/12/16 11:15  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1



Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-11

Date Collected: 02/12/16 11:15

Client ID: FB021216

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-11  
**Client ID:** FB021216  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/12/16 11:15  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	41.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	80		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	90		70-130

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-12  
**Client ID:** TRIP BLANK  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/17/16 13:17  
**Analyst:** PD

**Date Collected:** 02/12/16 00:00  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-12

Date Collected: 02/12/16 00:00

Client ID: TRIP BLANK

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-12  
**Client ID:** TRIP BLANK  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/12/16 00:00  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	41.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	80		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	90		70-130

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/17/16 10:03  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 11-12 Batch: WG865963-3					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.13
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.14
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/17/16 10:03  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 11-12 Batch: WG865963-3					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/17/16 10:03  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 11-12 Batch: WG865963-3					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	41.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

#### Tentatively Identified Compounds

No Tentatively Identified Compounds ND ug/l



**Project Name:** DUPONT STREET**Lab Number:** L1603880**Project Number:** 2587.0001Y000**Report Date:** 02/24/16**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C

Analytical Date: 02/17/16 10:03

Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 11-12 Batch: WG865963-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	81		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	89		70-130

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/17/16 08:50  
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01-05 Batch: WG866228-3					
Methylene chloride	1.2	J	ug/kg	10	1.1
1,1-Dichloroethane	ND		ug/kg	1.5	0.09
Chloroform	ND		ug/kg	1.5	0.37
Carbon tetrachloride	ND		ug/kg	1.0	0.21
1,2-Dichloropropane	ND		ug/kg	3.5	0.23
Dibromochloromethane	ND		ug/kg	1.0	0.15
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.30
Tetrachloroethene	ND		ug/kg	1.0	0.14
Chlorobenzene	ND		ug/kg	1.0	0.35
Trichlorofluoromethane	ND		ug/kg	5.0	0.39
1,2-Dichloroethane	ND		ug/kg	1.0	0.11
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.11
Bromodichloromethane	ND		ug/kg	1.0	0.17
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.12
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.12
1,3-Dichloropropene, Total	ND		ug/kg	1.0	0.12
1,1-Dichloropropene	ND		ug/kg	5.0	0.14
Bromoform	ND		ug/kg	4.0	0.24
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.10
Benzene	ND		ug/kg	1.0	0.12
Toluene	ND		ug/kg	1.5	0.19
Ethylbenzene	ND		ug/kg	1.0	0.13
Chloromethane	ND		ug/kg	5.0	0.29
Bromomethane	ND		ug/kg	2.0	0.34
Vinyl chloride	ND		ug/kg	2.0	0.12
Chloroethane	ND		ug/kg	2.0	0.32
1,1-Dichloroethene	ND		ug/kg	1.0	0.26
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.21
Trichloroethene	ND		ug/kg	1.0	0.12

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/17/16 08:50  
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01-05 Batch: WG866228-3					
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.15
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.14
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.14
Methyl tert butyl ether	ND		ug/kg	2.0	0.08
p/m-Xylene	ND		ug/kg	2.0	0.20
o-Xylene	ND		ug/kg	2.0	0.17
Xylenes, Total	ND		ug/kg	2.0	0.17
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.14
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	10	0.16
Styrene	ND		ug/kg	2.0	0.40
Dichlorodifluoromethane	ND		ug/kg	10	0.19
Acetone	ND		ug/kg	10	1.0
Carbon disulfide	ND		ug/kg	10	1.1
2-Butanone	ND		ug/kg	10	0.27
Vinyl acetate	ND		ug/kg	10	0.13
4-Methyl-2-pentanone	ND		ug/kg	10	0.24
1,2,3-Trichloropropane	ND		ug/kg	10	0.16
2-Hexanone	ND		ug/kg	10	0.67
Bromochloromethane	ND		ug/kg	5.0	0.28
2,2-Dichloropropane	ND		ug/kg	5.0	0.23
1,2-Dibromoethane	ND		ug/kg	4.0	0.17
1,3-Dichloropropane	ND		ug/kg	5.0	0.14
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	0.32
Bromobenzene	ND		ug/kg	5.0	0.21
n-Butylbenzene	ND		ug/kg	1.0	0.11
sec-Butylbenzene	ND		ug/kg	1.0	0.12
tert-Butylbenzene	ND		ug/kg	5.0	0.14
o-Chlorotoluene	ND		ug/kg	5.0	0.16

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/17/16 08:50  
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01-05 Batch: WG866228-3					
p-Chlorotoluene	ND		ug/kg	5.0	0.13
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	0.40
Hexachlorobutadiene	ND		ug/kg	5.0	0.23
Isopropylbenzene	ND		ug/kg	1.0	0.10
p-Isopropyltoluene	ND		ug/kg	1.0	0.12
Naphthalene	ND		ug/kg	5.0	0.14
Acrylonitrile	ND		ug/kg	10	0.51
n-Propylbenzene	ND		ug/kg	1.0	0.11
1,2,3-Trichlorobenzene	ND		ug/kg	5.0	0.15
1,2,4-Trichlorobenzene	ND		ug/kg	5.0	0.18
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	0.14
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	0.14
1,4-Dioxane	ND		ug/kg	100	14.
p-Diethylbenzene	ND		ug/kg	4.0	0.16
p-Ethyltoluene	ND		ug/kg	4.0	0.12
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.0	0.13
Ethyl ether	ND		ug/kg	5.0	0.26
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	0.39

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	101		70-130

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/18/16 08:56  
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 06,08-10 Batch: WG866321-3					
Methylene chloride	ND		ug/kg	10	1.1
1,1-Dichloroethane	ND		ug/kg	1.5	0.09
Chloroform	ND		ug/kg	1.5	0.37
Carbon tetrachloride	ND		ug/kg	1.0	0.21
1,2-Dichloropropane	ND		ug/kg	3.5	0.23
Dibromochloromethane	ND		ug/kg	1.0	0.15
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.30
Tetrachloroethene	ND		ug/kg	1.0	0.14
Chlorobenzene	ND		ug/kg	1.0	0.35
Trichlorofluoromethane	ND		ug/kg	5.0	0.39
1,2-Dichloroethane	ND		ug/kg	1.0	0.11
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.11
Bromodichloromethane	ND		ug/kg	1.0	0.17
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.12
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.12
1,3-Dichloropropene, Total	ND		ug/kg	1.0	0.12
1,1-Dichloropropene	ND		ug/kg	5.0	0.14
Bromoform	ND		ug/kg	4.0	0.24
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.10
Benzene	ND		ug/kg	1.0	0.12
Toluene	ND		ug/kg	1.5	0.19
Ethylbenzene	ND		ug/kg	1.0	0.13
Chloromethane	ND		ug/kg	5.0	0.29
Bromomethane	0.58	J	ug/kg	2.0	0.34
Vinyl chloride	ND		ug/kg	2.0	0.12
Chloroethane	ND		ug/kg	2.0	0.32
1,1-Dichloroethene	ND		ug/kg	1.0	0.26
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.21
Trichloroethene	ND		ug/kg	1.0	0.12

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/18/16 08:56  
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 06,08-10 Batch: WG866321-3					
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.15
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.14
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.14
Methyl tert butyl ether	ND		ug/kg	2.0	0.08
p/m-Xylene	ND		ug/kg	2.0	0.20
o-Xylene	ND		ug/kg	2.0	0.17
Xylenes, Total	ND		ug/kg	2.0	0.17
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.14
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	10	0.16
Styrene	ND		ug/kg	2.0	0.40
Dichlorodifluoromethane	ND		ug/kg	10	0.19
Acetone	ND		ug/kg	10	1.0
Carbon disulfide	ND		ug/kg	10	1.1
2-Butanone	ND		ug/kg	10	0.27
Vinyl acetate	ND		ug/kg	10	0.13
4-Methyl-2-pentanone	ND		ug/kg	10	0.24
1,2,3-Trichloropropane	ND		ug/kg	10	0.16
2-Hexanone	ND		ug/kg	10	0.67
Bromochloromethane	ND		ug/kg	5.0	0.28
2,2-Dichloropropane	ND		ug/kg	5.0	0.23
1,2-Dibromoethane	ND		ug/kg	4.0	0.17
1,3-Dichloropropane	ND		ug/kg	5.0	0.14
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	0.32
Bromobenzene	ND		ug/kg	5.0	0.21
n-Butylbenzene	ND		ug/kg	1.0	0.11
sec-Butylbenzene	ND		ug/kg	1.0	0.12
tert-Butylbenzene	ND		ug/kg	5.0	0.14
o-Chlorotoluene	ND		ug/kg	5.0	0.16

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/18/16 08:56  
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 06,08-10 Batch: WG866321-3					
p-Chlorotoluene	ND		ug/kg	5.0	0.13
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	0.40
Hexachlorobutadiene	ND		ug/kg	5.0	0.23
Isopropylbenzene	ND		ug/kg	1.0	0.10
p-Isopropyltoluene	ND		ug/kg	1.0	0.12
Naphthalene	ND		ug/kg	5.0	0.14
Acrylonitrile	ND		ug/kg	10	0.51
n-Propylbenzene	ND		ug/kg	1.0	0.11
1,2,3-Trichlorobenzene	ND		ug/kg	5.0	0.15
1,2,4-Trichlorobenzene	ND		ug/kg	5.0	0.18
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	0.14
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	0.14
1,4-Dioxane	ND		ug/kg	100	14.
p-Diethylbenzene	ND		ug/kg	4.0	0.16
p-Ethyltoluene	ND		ug/kg	4.0	0.12
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.0	0.13
Ethyl ether	ND		ug/kg	5.0	0.26
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	0.39

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	109		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	92		70-130

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/19/16 08:52  
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 07 Batch: WG866715-3					
Methylene chloride	ND		ug/kg	10	1.1
1,1-Dichloroethane	ND		ug/kg	1.5	0.09
Chloroform	ND		ug/kg	1.5	0.37
Carbon tetrachloride	ND		ug/kg	1.0	0.21
1,2-Dichloropropane	ND		ug/kg	3.5	0.23
Dibromochloromethane	ND		ug/kg	1.0	0.15
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.30
Tetrachloroethene	ND		ug/kg	1.0	0.14
Chlorobenzene	ND		ug/kg	1.0	0.35
Trichlorofluoromethane	ND		ug/kg	5.0	0.39
1,2-Dichloroethane	ND		ug/kg	1.0	0.11
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.11
Bromodichloromethane	ND		ug/kg	1.0	0.17
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.12
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.12
1,3-Dichloropropene, Total	ND		ug/kg	1.0	0.12
1,1-Dichloropropene	ND		ug/kg	5.0	0.14
Bromoform	ND		ug/kg	4.0	0.24
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.10
Benzene	ND		ug/kg	1.0	0.12
Toluene	ND		ug/kg	1.5	0.19
Ethylbenzene	ND		ug/kg	1.0	0.13
Chloromethane	ND		ug/kg	5.0	0.29
Bromomethane	ND		ug/kg	2.0	0.34
Vinyl chloride	ND		ug/kg	2.0	0.12
Chloroethane	ND		ug/kg	2.0	0.32
1,1-Dichloroethene	ND		ug/kg	1.0	0.26
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.21
Trichloroethene	ND		ug/kg	1.0	0.12



Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/19/16 08:52  
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 07 Batch: WG866715-3					
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.15
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.14
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.14
Methyl tert butyl ether	ND		ug/kg	2.0	0.08
p/m-Xylene	ND		ug/kg	2.0	0.20
o-Xylene	ND		ug/kg	2.0	0.17
Xylenes, Total	ND		ug/kg	2.0	0.17
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.14
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	10	0.16
Styrene	ND		ug/kg	2.0	0.40
Dichlorodifluoromethane	ND		ug/kg	10	0.19
Acetone	ND		ug/kg	10	1.0
Carbon disulfide	ND		ug/kg	10	1.1
2-Butanone	ND		ug/kg	10	0.27
Vinyl acetate	ND		ug/kg	10	0.13
4-Methyl-2-pentanone	ND		ug/kg	10	0.24
1,2,3-Trichloropropane	ND		ug/kg	10	0.16
2-Hexanone	ND		ug/kg	10	0.67
Bromochloromethane	ND		ug/kg	5.0	0.28
2,2-Dichloropropane	ND		ug/kg	5.0	0.23
1,2-Dibromoethane	ND		ug/kg	4.0	0.17
1,3-Dichloropropane	ND		ug/kg	5.0	0.14
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	0.32
Bromobenzene	ND		ug/kg	5.0	0.21
n-Butylbenzene	ND		ug/kg	1.0	0.11
sec-Butylbenzene	ND		ug/kg	1.0	0.12
tert-Butylbenzene	ND		ug/kg	5.0	0.14
o-Chlorotoluene	ND		ug/kg	5.0	0.16

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/19/16 08:52  
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 07 Batch: WG866715-3					
p-Chlorotoluene	ND		ug/kg	5.0	0.13
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	0.40
Hexachlorobutadiene	ND		ug/kg	5.0	0.23
Isopropylbenzene	ND		ug/kg	1.0	0.10
p-Isopropyltoluene	ND		ug/kg	1.0	0.12
Naphthalene	ND		ug/kg	5.0	0.14
Acrylonitrile	ND		ug/kg	10	0.51
n-Propylbenzene	ND		ug/kg	1.0	0.11
1,2,3-Trichlorobenzene	ND		ug/kg	5.0	0.15
1,2,4-Trichlorobenzene	ND		ug/kg	5.0	0.18
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	0.14
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	0.14
1,4-Dioxane	ND		ug/kg	100	14.
p-Diethylbenzene	ND		ug/kg	4.0	0.16
p-Ethyltoluene	ND		ug/kg	4.0	0.12
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.0	0.13
Ethyl ether	ND		ug/kg	5.0	0.26
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	0.39

#### Tentatively Identified Compounds

No Tentatively Identified Compounds ND ug/kg

**Project Name:** DUPONT STREET**Lab Number:** L1603880**Project Number:** 2587.0001Y000**Report Date:** 02/24/16**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C

Analytical Date: 02/19/16 08:52

Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 07 Batch: WG866715-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	96		70-130

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 11-12 Batch: WG865963-1 WG865963-2								
Methylene chloride	92		92		70-130	0		20
1,1-Dichloroethane	90		90		70-130	0		20
Chloroform	84		84		70-130	0		20
2-Chloroethylvinyl ether	75		79		70-130	5		20
Carbon tetrachloride	74		73		63-132	1		20
1,2-Dichloropropane	90		91		70-130	1		20
Dibromochloromethane	79		80		63-130	1		20
1,1,2-Trichloroethane	84		84		70-130	0		20
Tetrachloroethene	83		82		70-130	1		20
Chlorobenzene	86		86		75-130	0		20
Trichlorofluoromethane	79		78		62-150	1		20
1,2-Dichloroethane	74		74		70-130	0		20
1,1,1-Trichloroethane	78		78		67-130	0		20
Bromodichloromethane	81		82		67-130	1		20
trans-1,3-Dichloropropene	80		81		70-130	1		20
cis-1,3-Dichloropropene	85		85		70-130	0		20
1,1-Dichloropropene	85		84		70-130	1		20
Bromoform	82		81		54-136	1		20
1,1,2,2-Tetrachloroethane	87		88		67-130	1		20
Benzene	96		96		70-130	0		20
Toluene	86		84		70-130	2		20

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 11-12 Batch: WG865963-1 WG865963-2								
Ethylbenzene	94		92		70-130	2		20
Chloromethane	112		110		64-130	2		20
Bromomethane	80		80		39-139	0		20
Vinyl chloride	111		109		55-140	2		20
Chloroethane	111		110		55-138	1		20
1,1-Dichloroethene	92		90		61-145	2		20
trans-1,2-Dichloroethene	92		91		70-130	1		20
Trichloroethene	87		86		70-130	1		20
1,2-Dichlorobenzene	84		84		70-130	0		20
1,3-Dichlorobenzene	87		86		70-130	1		20
1,4-Dichlorobenzene	86		85		70-130	1		20
Methyl tert butyl ether	80		82		63-130	2		20
p/m-Xylene	92		91		70-130	1		20
o-Xylene	95		94		70-130	1		20
cis-1,2-Dichloroethene	90		90		70-130	0		20
Dibromomethane	79		80		70-130	1		20
1,2,3-Trichloropropane	84		87		64-130	4		20
Acrylonitrile	85		90		70-130	6		20
Isopropyl Ether	95		95		70-130	0		20
tert-Butyl Alcohol	75		81		70-130	8		20
Styrene	100		99		70-130	1		20

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 11-12 Batch: WG865963-1 WG865963-2								
Dichlorodifluoromethane	116		113		36-147	3		20
Acetone	80		83		58-148	4		20
Carbon disulfide	106		105		51-130	1		20
2-Butanone	80		83		63-138	4		20
Vinyl acetate	73		76		70-130	4		20
4-Methyl-2-pentanone	82		88		59-130	7		20
2-Hexanone	76		77		57-130	1		20
Acrolein	79		78		40-160	1		20
Bromochloromethane	85		86		70-130	1		20
2,2-Dichloropropane	82		81		63-133	1		20
1,2-Dibromoethane	80		81		70-130	1		20
1,3-Dichloropropane	84		85		70-130	1		20
1,1,1,2-Tetrachloroethane	82		82		64-130	0		20
Bromobenzene	85		84		70-130	1		20
n-Butylbenzene	98		95		53-136	3		20
sec-Butylbenzene	98		95		70-130	3		20
tert-Butylbenzene	92		90		70-130	2		20
o-Chlorotoluene	90		88		70-130	2		20
p-Chlorotoluene	92		90		70-130	2		20
1,2-Dibromo-3-chloropropane	87		87		41-144	0		20
Hexachlorobutadiene	99		98		63-130	1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603880

Report Date: 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 11-12 Batch: WG865963-1 WG865963-2								
Isopropylbenzene	97		94		70-130	3		20
p-Isopropyltoluene	94		92		70-130	2		20
Naphthalene	84		89		70-130	6		20
n-Propylbenzene	94		92		69-130	2		20
1,2,3-Trichlorobenzene	80		88		70-130	10		20
1,2,4-Trichlorobenzene	89		92		70-130	3		20
1,3,5-Trimethylbenzene	94		92		64-130	2		20
1,2,4-Trimethylbenzene	94		92		70-130	2		20
Methyl Acetate	86		91		70-130	6		20
Ethyl Acetate	72		74		70-130	3		20
Cyclohexane	95		94		70-130	1		20
Ethyl-Tert-Butyl-Ether	88		90		70-130	2		20
Tertiary-Amyl Methyl Ether	85		87		66-130	2		20
1,4-Dioxane	86		84		56-162	2		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	92		91		70-130	1		20
p-Diethylbenzene	98		96		70-130	2		20
p-Ethyltoluene	105		102		70-130	3		20
1,2,4,5-Tetramethylbenzene	97		96		70-130	1		20
Ethyl ether	90		92		59-134	2		20
trans-1,4-Dichloro-2-butene	72		75		70-130	4		20
Methyl cyclohexane	94		92		70-130	2		20

**Lab Control Sample Analysis****Batch Quality Control****Project Name:** DUPONT STREET**Lab Number:** L1603880**Project Number:** 2587.0001Y000**Report Date:** 02/24/16

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
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Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 11-12 Batch: WG865963-1 WG865963-2

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	77		79		70-130
Toluene-d8	95		95		70-130
4-Bromofluorobenzene	99		100		70-130
Dibromofluoromethane	91		92		70-130



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603880

Report Date: 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01-05 Batch: WG866228-1 WG866228-2								
Methylene chloride	108		105		70-130	3		30
1,1-Dichloroethane	99		94		70-130	5		30
Chloroform	104		100		70-130	4		30
Carbon tetrachloride	110		100		70-130	10		30
1,2-Dichloropropane	98		95		70-130	3		30
Dibromochloromethane	105		105		70-130	0		30
2-Chloroethylvinyl ether	84		83		70-130	1		30
1,1,2-Trichloroethane	102		100		70-130	2		30
Tetrachloroethene	116		108		70-130	7		30
Chlorobenzene	105		101		70-130	4		30
Trichlorofluoromethane	126		113		70-139	11		30
1,2-Dichloroethane	98		96		70-130	2		30
1,1,1-Trichloroethane	109		100		70-130	9		30
Bromodichloromethane	105		102		70-130	3		30
trans-1,3-Dichloropropene	100		100		70-130	0		30
cis-1,3-Dichloropropene	104		102		70-130	2		30
1,1-Dichloropropene	107		96		70-130	11		30
Bromoform	105		106		70-130	1		30
1,1,2,2-Tetrachloroethane	98		97		70-130	1		30
Benzene	102		95		70-130	7		30
Toluene	100		95		70-130	5		30

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01-05 Batch: WG866228-1 WG866228-2								
Ethylbenzene	104		98		70-130	6		30
Chloromethane	82		75		52-130	9		30
Bromomethane	99		108		57-147	9		30
Vinyl chloride	95		85		67-130	11		30
Chloroethane	103		94		50-151	9		30
1,1-Dichloroethene	113		102		65-135	10		30
trans-1,2-Dichloroethene	107		100		70-130	7		30
Trichloroethene	108		101		70-130	7		30
1,2-Dichlorobenzene	110		106		70-130	4		30
1,3-Dichlorobenzene	110		106		70-130	4		30
1,4-Dichlorobenzene	111		107		70-130	4		30
Methyl tert butyl ether	103		102		66-130	1		30
p/m-Xylene	107		100		70-130	7		30
o-Xylene	106		101		70-130	5		30
cis-1,2-Dichloroethene	109		101		70-130	8		30
Dibromomethane	106		104		70-130	2		30
Styrene	107		103		70-130	4		30
Dichlorodifluoromethane	108		95		30-146	13		30
Acetone	87		87		54-140	0		30
Carbon disulfide	102		93		59-130	9		30
2-Butanone	81		80		70-130	1		30

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01-05 Batch: WG866228-1 WG866228-2								
Vinyl acetate	74		74		70-130	0		30
4-Methyl-2-pentanone	97		98		70-130	1		30
1,2,3-Trichloropropane	96		97		68-130	1		30
2-Hexanone	76		78		70-130	3		30
Bromochloromethane	114		112		70-130	2		30
2,2-Dichloropropane	107		98		70-130	9		30
1,2-Dibromoethane	106		106		70-130	0		30
1,3-Dichloropropane	100		98		69-130	2		30
1,1,1,2-Tetrachloroethane	107		104		70-130	3		30
Bromobenzene	109		105		70-130	4		30
n-Butylbenzene	105		97		70-130	8		30
sec-Butylbenzene	104		97		70-130	7		30
tert-Butylbenzene	105		98		70-130	7		30
o-Chlorotoluene	101		96		70-130	5		30
p-Chlorotoluene	105		100		70-130	5		30
1,2-Dibromo-3-chloropropane	103		104		68-130	1		30
Hexachlorobutadiene	125		115		67-130	8		30
Isopropylbenzene	108		101		70-130	7		30
p-Isopropyltoluene	108		100		70-130	8		30
Naphthalene	107		107		70-130	0		30
Acrylonitrile	89		90		70-130	1		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603880

Report Date: 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01-05 Batch: WG866228-1 WG866228-2								
Isopropyl Ether	81		79		66-130	3		30
tert-Butyl Alcohol	96		94		70-130	2		30
n-Propylbenzene	102		95		70-130	7		30
1,2,3-Trichlorobenzene	120		117		70-130	3		30
1,2,4-Trichlorobenzene	123		118		70-130	4		30
1,3,5-Trimethylbenzene	104		99		70-130	5		30
1,2,4-Trimethylbenzene	104		100		70-130	4		30
Methyl Acetate	75		74		51-146	1		30
Ethyl Acetate	74		74		70-130	0		30
Acrolein	92		93		70-130	1		30
Cyclohexane	98		88		59-142	11		30
1,4-Dioxane	100		101		65-136	1		30
1,1,2-Trichloro-1,2,2-Trifluoroethane	116		103		50-139	12		30
p-Diethylbenzene	119		111		70-130	7		30
p-Ethyltoluene	114		106		70-130	7		30
1,2,4,5-Tetramethylbenzene	120		114		70-130	5		30
Tetrahydrofuran	87		78		66-130	11		30
Ethyl ether	106		103		67-130	3		30
trans-1,4-Dichloro-2-butene	85		86		70-130	1		30
Methyl cyclohexane	108		96		70-130	12		30
Ethyl-Tert-Butyl-Ether	97		94		70-130	3		30

**Lab Control Sample Analysis****Batch Quality Control****Project Name:** DUPONT STREET**Lab Number:** L1603880**Project Number:** 2587.0001Y000**Report Date:** 02/24/16

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01-05 Batch: WG866228-1 WG866228-2								
Tertiary-Amyl Methyl Ether	101		100		70-130	1		30

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	95		93		70-130
Toluene-d8	97		97		70-130
4-Bromofluorobenzene	93		94		70-130
Dibromofluoromethane	103		104		70-130

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 06,08-10 Batch: WG866321-1 WG866321-2								
Methylene chloride	79		80		70-130	1		30
1,1-Dichloroethane	80		81		70-130	1		30
Chloroform	80		81		70-130	1		30
Carbon tetrachloride	83		84		70-130	1		30
1,2-Dichloropropane	80		79		70-130	1		30
Dibromochloromethane	93		96		70-130	3		30
2-Chloroethylvinyl ether	76		81		70-130	6		30
1,1,2-Trichloroethane	94		98		70-130	4		30
Tetrachloroethene	100		103		70-130	3		30
Chlorobenzene	95		97		70-130	2		30
Trichlorofluoromethane	89		88		70-139	1		30
1,2-Dichloroethane	79		79		70-130	0		30
1,1,1-Trichloroethane	82		83		70-130	1		30
Bromodichloromethane	80		81		70-130	1		30
trans-1,3-Dichloropropene	94		97		70-130	3		30
cis-1,3-Dichloropropene	80		80		70-130	0		30
1,1-Dichloropropene	82		83		70-130	1		30
Bromoform	97		101		70-130	4		30
1,1,2,2-Tetrachloroethane	98		101		70-130	3		30
Benzene	81		82		70-130	1		30
Toluene	95		97		70-130	2		30

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 06,08-10 Batch: WG866321-1 WG866321-2								
Ethylbenzene	96		98		70-130	2		30
Chloromethane	81		79		52-130	3		30
Bromomethane	80		78		57-147	3		30
Vinyl chloride	79		78		67-130	1		30
Chloroethane	98		88		50-151	11		30
1,1-Dichloroethene	83		84		65-135	1		30
trans-1,2-Dichloroethene	82		83		70-130	1		30
Trichloroethene	82		83		70-130	1		30
1,2-Dichlorobenzene	102		104		70-130	2		30
1,3-Dichlorobenzene	102		105		70-130	3		30
1,4-Dichlorobenzene	102		104		70-130	2		30
Methyl tert butyl ether	79		80		66-130	1		30
p/m-Xylene	96		97		70-130	1		30
o-Xylene	96		97		70-130	1		30
cis-1,2-Dichloroethene	84		82		70-130	2		30
Dibromomethane	80		82		70-130	2		30
Styrene	96		98		70-130	2		30
Dichlorodifluoromethane	79		79		30-146	0		30
Acetone	82		83		54-140	1		30
Carbon disulfide	83		84		59-130	1		30
2-Butanone	76		75		70-130	1		30

# Lab Control Sample Analysis

## Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603880

Report Date: 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 06,08-10 Batch: WG866321-1 WG866321-2								
Vinyl acetate	80		82		70-130	2		30
4-Methyl-2-pentanone	75		76		70-130	1		30
1,2,3-Trichloropropane	95		101		68-130	6		30
2-Hexanone	90		93		70-130	3		30
Bromochloromethane	85		83		70-130	2		30
2,2-Dichloropropane	83		82		70-130	1		30
1,2-Dibromoethane	95		97		70-130	2		30
1,3-Dichloropropane	93		96		69-130	3		30
1,1,1,2-Tetrachloroethane	94		96		70-130	2		30
Bromobenzene	100		103		70-130	3		30
n-Butylbenzene	105		107		70-130	2		30
sec-Butylbenzene	105		107		70-130	2		30
tert-Butylbenzene	104		107		70-130	3		30
o-Chlorotoluene	101		102		70-130	1		30
p-Chlorotoluene	101		102		70-130	1		30
1,2-Dibromo-3-chloropropane	94		98		68-130	4		30
Hexachlorobutadiene	106		112		67-130	6		30
Isopropylbenzene	102		106		70-130	4		30
p-Isopropyltoluene	106		108		70-130	2		30
Naphthalene	99		104		70-130	5		30
Acrylonitrile	82		83		70-130	1		30



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603880

Report Date: 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 06,08-10 Batch: WG866321-1 WG866321-2								
Isopropyl Ether	79		79		66-130	0		30
tert-Butyl Alcohol	78		80		70-130	3		30
n-Propylbenzene	103		105		70-130	2		30
1,2,3-Trichlorobenzene	103		107		70-130	4		30
1,2,4-Trichlorobenzene	104		108		70-130	4		30
1,3,5-Trimethylbenzene	103		105		70-130	2		30
1,2,4-Trimethylbenzene	103		104		70-130	1		30
Methyl Acetate	81		82		51-146	1		30
Ethyl Acetate	79		80		70-130	1		30
Acrolein	81		79		70-130	3		30
Cyclohexane	80		80		59-142	0		30
1,4-Dioxane	82		85		65-136	4		30
1,1,2-Trichloro-1,2,2-Trifluoroethane	81		83		50-139	2		30
p-Diethylbenzene	105		107		70-130	2		30
p-Ethyltoluene	103		104		70-130	1		30
1,2,4,5-Tetramethylbenzene	103		107		70-130	4		30
Tetrahydrofuran	80		82		66-130	2		30
Ethyl ether	72		92		67-130	24		30
trans-1,4-Dichloro-2-butene	98		100		70-130	2		30
Methyl cyclohexane	82		82		70-130	0		30
Ethyl-Tert-Butyl-Ether	79		80		70-130	1		30

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 06,08-10 Batch: WG866321-1 WG866321-2								
Tertiary-Amyl Methyl Ether	79		80		70-130	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	93		91		70-130
Toluene-d8	106		107		70-130
4-Bromofluorobenzene	98		98		70-130
Dibromofluoromethane	99		97		70-130

# Lab Control Sample Analysis

## Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603880

Report Date: 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 07 Batch: WG866715-1 WG866715-2								
Methylene chloride	91		88		70-130	3		30
1,1-Dichloroethane	109		104		70-130	5		30
Chloroform	103		98		70-130	5		30
Carbon tetrachloride	109		102		70-130	7		30
1,2-Dichloropropane	102		100		70-130	2		30
Dibromochloromethane	90		91		70-130	1		30
2-Chloroethylvinyl ether	88		90		70-130	2		30
1,1,2-Trichloroethane	98		100		70-130	2		30
Tetrachloroethene	109		104		70-130	5		30
Chlorobenzene	100		97		70-130	3		30
Trichlorofluoromethane	118		107		70-139	10		30
1,2-Dichloroethane	99		98		70-130	1		30
1,1,1-Trichloroethane	111		103		70-130	7		30
Bromodichloromethane	94		94		70-130	0		30
trans-1,3-Dichloropropene	91		93		70-130	2		30
cis-1,3-Dichloropropene	92		91		70-130	1		30
1,1-Dichloropropene	114		107		70-130	6		30
Bromoform	84		86		70-130	2		30
1,1,2,2-Tetrachloroethane	97		99		70-130	2		30
Benzene	106		101		70-130	5		30
Toluene	105		102		70-130	3		30

# Lab Control Sample Analysis

## Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603880

Report Date: 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 07 Batch: WG866715-1 WG866715-2								
Ethylbenzene	106		101		70-130	5		30
Chloromethane	107		100		52-130	7		30
Bromomethane	103		93		57-147	10		30
Vinyl chloride	116		106		67-130	9		30
Chloroethane	122		112		50-151	9		30
1,1-Dichloroethene	110		101		65-135	9		30
trans-1,2-Dichloroethene	106		98		70-130	8		30
Trichloroethene	107		102		70-130	5		30
1,2-Dichlorobenzene	98		95		70-130	3		30
1,3-Dichlorobenzene	101		98		70-130	3		30
1,4-Dichlorobenzene	102		96		70-130	6		30
Methyl tert butyl ether	90		89		66-130	1		30
p/m-Xylene	106		101		70-130	5		30
o-Xylene	102		98		70-130	4		30
cis-1,2-Dichloroethene	101		96		70-130	5		30
Dibromomethane	92		92		70-130	0		30
Styrene	101		98		70-130	3		30
Dichlorodifluoromethane	106		93		30-146	13		30
Acetone	86		102		54-140	17		30
Carbon disulfide	105		99		59-130	6		30
2-Butanone	90		93		70-130	3		30

# Lab Control Sample Analysis

## Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603880

Report Date: 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 07 Batch: WG866715-1 WG866715-2								
Vinyl acetate	93		92		70-130	1		30
4-Methyl-2-pentanone	85		87		70-130	2		30
1,2,3-Trichloropropane	96		98		68-130	2		30
2-Hexanone	80		86		70-130	7		30
Bromochloromethane	98		95		70-130	3		30
2,2-Dichloropropane	107		101		70-130	6		30
1,2-Dibromoethane	91		93		70-130	2		30
1,3-Dichloropropane	97		98		69-130	1		30
1,1,1,2-Tetrachloroethane	96		94		70-130	2		30
Bromobenzene	96		93		70-130	3		30
n-Butylbenzene	115		109		70-130	5		30
sec-Butylbenzene	112		106		70-130	6		30
tert-Butylbenzene	105		100		70-130	5		30
o-Chlorotoluene	107		103		70-130	4		30
p-Chlorotoluene	104		101		70-130	3		30
1,2-Dibromo-3-chloropropane	71		73		68-130	3		30
Hexachlorobutadiene	100		95		67-130	5		30
Isopropylbenzene	108		102		70-130	6		30
p-Isopropyltoluene	108		102		70-130	6		30
Naphthalene	83		86		70-130	4		30
Acrylonitrile	97		102		70-130	5		30

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 07 Batch: WG866715-1 WG866715-2								
Isopropyl Ether	101		99		66-130	2		30
tert-Butyl Alcohol	78		84		70-130	7		30
n-Propylbenzene	111		106		70-130	5		30
1,2,3-Trichlorobenzene	93		92		70-130	1		30
1,2,4-Trichlorobenzene	96		95		70-130	1		30
1,3,5-Trimethylbenzene	105		102		70-130	3		30
1,2,4-Trimethylbenzene	104		99		70-130	5		30
Methyl Acetate	91		94		51-146	3		30
Ethyl Acetate	96		108		70-130	12		30
Acrolein	88		89		70-130	1		30
Cyclohexane	132		122		59-142	8		30
1,4-Dioxane	99		104		65-136	5		30
1,1,2-Trichloro-1,2,2-Trifluoroethane	127		113		50-139	12		30
p-Diethylbenzene	104		98		70-130	6		30
p-Ethyltoluene	106		100		70-130	6		30
1,2,4,5-Tetramethylbenzene	93		91		70-130	2		30
Tetrahydrofuran	96		102		66-130	6		30
Ethyl ether	94		93		67-130	1		30
trans-1,4-Dichloro-2-butene	94		99		70-130	5		30
Methyl cyclohexane	123		113		70-130	8		30
Ethyl-Tert-Butyl-Ether	96		96		70-130	0		30

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 07 Batch: WG866715-1 WG866715-2								
Tertiary-Amyl Methyl Ether	90		90		70-130	0		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	105		107		70-130
Toluene-d8	104		106		70-130
4-Bromofluorobenzene	100		100		70-130
Dibromofluoromethane	103		103		70-130

# SEMIVOLATILES



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-01  
**Client ID:** SB-103 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/18/16 20:11  
**Analyst:** JB  
**Percent Solids:** 79%

**Date Collected:** 02/12/16 08:00  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 18:53

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	710		ug/kg	170	22.	1
1,2,4-Trichlorobenzene	ND		ug/kg	210	24.	1
Hexachlorobenzene	ND		ug/kg	130	24.	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	29.	1
2-Chloronaphthalene	ND		ug/kg	210	21.	1
1,2-Dichlorobenzene	ND		ug/kg	210	38.	1
1,3-Dichlorobenzene	ND		ug/kg	210	36.	1
1,4-Dichlorobenzene	ND		ug/kg	210	37.	1
3,3'-Dichlorobenzidine	ND		ug/kg	210	56.	1
2,4-Dinitrotoluene	ND		ug/kg	210	42.	1
2,6-Dinitrotoluene	ND		ug/kg	210	36.	1
Fluoranthene	19000	E	ug/kg	130	24.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	210	23.	1
4-Bromophenyl phenyl ether	ND		ug/kg	210	32.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	250	36.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	230	21.	1
Hexachlorobutadiene	ND		ug/kg	210	31.	1
Hexachlorocyclopentadiene	ND		ug/kg	600	190	1
Hexachloroethane	ND		ug/kg	170	34.	1
Isophorone	ND		ug/kg	190	27.	1
Naphthalene	570		ug/kg	210	26.	1
Nitrobenzene	ND		ug/kg	190	31.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	170	24.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	210	33.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	210	73.	1
Butyl benzyl phthalate	ND		ug/kg	210	53.	1
Di-n-butylphthalate	ND		ug/kg	210	40.	1
Di-n-octylphthalate	ND		ug/kg	210	72.	1
Diethyl phthalate	ND		ug/kg	210	20.	1
Dimethyl phthalate	ND		ug/kg	210	44.	1

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-01

Date Collected: 02/12/16 08:00

Client ID: SB-103 (0-2)

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	9200	E	ug/kg	130	24.	1
Benzo(a)pyrene	8400		ug/kg	170	52.	1
Benzo(b)fluoranthene	12000	E	ug/kg	130	36.	1
Benzo(k)fluoranthene	3400		ug/kg	130	34.	1
Chrysene	9000	E	ug/kg	130	22.	1
Acenaphthylene	870		ug/kg	170	33.	1
Anthracene	2600		ug/kg	130	41.	1
Benzo(ghi)perylene	5200		ug/kg	170	25.	1
Fluorene	770		ug/kg	210	20.	1
Phenanthrene	15000	E	ug/kg	130	26.	1
Dibenzo(a,h)anthracene	1300		ug/kg	130	24.	1
Indeno(1,2,3-cd)Pyrene	5600		ug/kg	170	29.	1
Pyrene	18000	E	ug/kg	130	21.	1
Biphenyl	82	J	ug/kg	480	49.	1
4-Chloroaniline	ND		ug/kg	210	38.	1
2-Nitroaniline	ND		ug/kg	210	41.	1
3-Nitroaniline	ND		ug/kg	210	40.	1
4-Nitroaniline	ND		ug/kg	210	87.	1
Dibenzofuran	660		ug/kg	210	20.	1
2-Methylnaphthalene	200	J	ug/kg	250	26.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	210	22.	1
Acetophenone	ND		ug/kg	210	26.	1
2,4,6-Trichlorophenol	ND		ug/kg	130	40.	1
P-Chloro-M-Cresol	ND		ug/kg	210	31.	1
2-Chlorophenol	ND		ug/kg	210	25.	1
2,4-Dichlorophenol	ND		ug/kg	190	34.	1
2,4-Dimethylphenol	ND		ug/kg	210	70.	1
2-Nitrophenol	ND		ug/kg	460	79.	1
4-Nitrophenol	ND		ug/kg	300	86.	1
2,4-Dinitrophenol	ND		ug/kg	1000	98.	1
4,6-Dinitro-o-cresol	ND		ug/kg	550	100	1
Pentachlorophenol	ND		ug/kg	170	46.	1
Phenol	ND		ug/kg	210	32.	1
2-Methylphenol	ND		ug/kg	210	33.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	300	33.	1
2,4,5-Trichlorophenol	ND		ug/kg	210	40.	1
Benzoic Acid	ND		ug/kg	680	210	1
Benzyl Alcohol	ND		ug/kg	210	65.	1
Carbazole	1300		ug/kg	210	20.	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-01  
**Client ID:** SB-103 (0-2)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/12/16 08:00  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	77		25-120
Phenol-d6	80		10-120
Nitrobenzene-d5	83		23-120
2-Fluorobiphenyl	79		30-120
2,4,6-Tribromophenol	77		10-136
4-Terphenyl-d14	69		18-120

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

Lab ID: L1603880-01 D  
 Client ID: SB-103 (0-2)  
 Sample Location: BROOKLYN, NY  
 Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 02/19/16 10:21  
 Analyst: JB  
 Percent Solids: 79%

Date Collected: 02/12/16 08:00  
 Date Received: 02/12/16  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 02/17/16 18:53

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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**Semivolatile Organics by GC/MS - Westborough Lab**

Fluoranthene	22000		ug/kg	630	120	5
Benzo(a)anthracene	9200		ug/kg	630	120	5
Benzo(b)fluoranthene	11000		ug/kg	630	180	5
Chrysene	9800		ug/kg	630	110	5
Phenanthrene	16000		ug/kg	630	130	5
Pyrene	21000		ug/kg	630	100	5

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-02  
**Client ID:** SB-103 (4-6)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/18/16 20:38  
**Analyst:** JB  
**Percent Solids:** 80%

**Date Collected:** 02/12/16 08:15  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 18:53

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	23.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	28.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	37.	1
1,3-Dichlorobenzene	ND		ug/kg	200	35.	1
1,4-Dichlorobenzene	ND		ug/kg	200	36.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	54.	1
2,4-Dinitrotoluene	ND		ug/kg	200	41.	1
2,6-Dinitrotoluene	ND		ug/kg	200	35.	1
Fluoranthene	54	J	ug/kg	120	24.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	31.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	35.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	20.	1
Hexachlorobutadiene	ND		ug/kg	200	30.	1
Hexachlorocyclopentadiene	ND		ug/kg	580	180	1
Hexachloroethane	ND		ug/kg	160	33.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	ND		ug/kg	200	25.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	32.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	200	71.	1
Butyl benzyl phthalate	ND		ug/kg	200	52.	1
Di-n-butylphthalate	ND		ug/kg	200	39.	1
Di-n-octylphthalate	ND		ug/kg	200	70.	1
Diethyl phthalate	ND		ug/kg	200	19.	1
Dimethyl phthalate	ND		ug/kg	200	43.	1

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-02

Date Collected: 02/12/16 08:15

Client ID: SB-103 (4-6)

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	28	J	ug/kg	120	23.	1
Benzo(a)pyrene	ND		ug/kg	160	50.	1
Benzo(b)fluoranthene	ND		ug/kg	120	34.	1
Benzo(k)fluoranthene	ND		ug/kg	120	33.	1
Chrysene	26	J	ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	32.	1
Anthracene	ND		ug/kg	120	40.	1
Benzo(ghi)perylene	ND		ug/kg	160	24.	1
Fluorene	ND		ug/kg	200	20.	1
Phenanthrene	37	J	ug/kg	120	25.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	24.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	28.	1
Pyrene	52	J	ug/kg	120	20.	1
Biphenyl	ND		ug/kg	470	48.	1
4-Chloroaniline	ND		ug/kg	200	37.	1
2-Nitroaniline	ND		ug/kg	200	39.	1
3-Nitroaniline	ND		ug/kg	200	39.	1
4-Nitroaniline	ND		ug/kg	200	85.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	25.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	25.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	39.	1
P-Chloro-M-Cresol	ND		ug/kg	200	30.	1
2-Chlorophenol	ND		ug/kg	200	24.	1
2,4-Dichlorophenol	ND		ug/kg	180	33.	1
2,4-Dimethylphenol	ND		ug/kg	200	68.	1
2-Nitrophenol	ND		ug/kg	440	77.	1
4-Nitrophenol	ND		ug/kg	290	84.	1
2,4-Dinitrophenol	ND		ug/kg	980	95.	1
4,6-Dinitro-o-cresol	ND		ug/kg	530	98.	1
Pentachlorophenol	ND		ug/kg	160	45.	1
Phenol	ND		ug/kg	200	31.	1
2-Methylphenol	ND		ug/kg	200	32.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	32.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	39.	1
Benzoic Acid	ND		ug/kg	660	210	1
Benzyl Alcohol	ND		ug/kg	200	63.	1
Carbazole	ND		ug/kg	200	20.	1

**Project Name:** DUPONT STREET**Lab Number:** L1603880**Project Number:** 2587.0001Y000**Report Date:** 02/24/16**SAMPLE RESULTS**

Lab ID: L1603880-02

Date Collected: 02/12/16 08:15

Client ID: SB-103 (4-6)

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	84		25-120
Phenol-d6	86		10-120
Nitrobenzene-d5	87		23-120
2-Fluorobiphenyl	72		30-120
2,4,6-Tribromophenol	77		10-136
4-Terphenyl-d14	52		18-120

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-03  
**Client ID:** SB-103 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/18/16 21:04  
**Analyst:** JB  
**Percent Solids:** 82%

**Date Collected:** 02/12/16 08:30  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 18:53

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	23.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	28.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	36.	1
1,3-Dichlorobenzene	ND		ug/kg	200	35.	1
1,4-Dichlorobenzene	ND		ug/kg	200	35.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	54.	1
2,4-Dinitrotoluene	ND		ug/kg	200	40.	1
2,6-Dinitrotoluene	ND		ug/kg	200	35.	1
Fluoranthene	79	J	ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	31.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	35.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	20.	1
Hexachlorobutadiene	ND		ug/kg	200	30.	1
Hexachlorocyclopentadiene	ND		ug/kg	580	180	1
Hexachloroethane	ND		ug/kg	160	33.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	ND		ug/kg	200	25.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	31.	1
Bis(2-Ethylhexyl)phthalate	240		ug/kg	200	70.	1
Butyl benzyl phthalate	ND		ug/kg	200	51.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	69.	1
Diethyl phthalate	ND		ug/kg	200	19.	1
Dimethyl phthalate	ND		ug/kg	200	43.	1



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-03  
**Client ID:** SB-103 (10-12)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/12/16 08:30  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	37	J	ug/kg	120	23.	1
Benzo(a)pyrene	ND		ug/kg	160	50.	1
Benzo(b)fluoranthene	44	J	ug/kg	120	34.	1
Benzo(k)fluoranthene	ND		ug/kg	120	32.	1
Chrysene	36	J	ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	31.	1
Anthracene	ND		ug/kg	120	40.	1
Benzo(ghi)perylene	ND		ug/kg	160	24.	1
Fluorene	ND		ug/kg	200	20.	1
Phenanthrene	66	J	ug/kg	120	25.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	28.	1
Pyrene	75	J	ug/kg	120	20.	1
Biphenyl	ND		ug/kg	460	47.	1
4-Chloroaniline	ND		ug/kg	200	37.	1
2-Nitroaniline	ND		ug/kg	200	39.	1
3-Nitroaniline	ND		ug/kg	200	38.	1
4-Nitroaniline	ND		ug/kg	200	84.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	25.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
P-Chloro-M-Cresol	ND		ug/kg	200	30.	1
2-Chlorophenol	ND		ug/kg	200	24.	1
2,4-Dichlorophenol	ND		ug/kg	180	33.	1
2,4-Dimethylphenol	ND		ug/kg	200	67.	1
2-Nitrophenol	ND		ug/kg	440	76.	1
4-Nitrophenol	ND		ug/kg	280	83.	1
2,4-Dinitrophenol	ND		ug/kg	970	94.	1
4,6-Dinitro-o-cresol	ND		ug/kg	530	97.	1
Pentachlorophenol	ND		ug/kg	160	45.	1
Phenol	ND		ug/kg	200	31.	1
2-Methylphenol	ND		ug/kg	200	31.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	32.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	39.	1
Benzoic Acid	ND		ug/kg	660	200	1
Benzyl Alcohol	ND		ug/kg	200	62.	1
Carbazole	ND		ug/kg	200	20.	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-03  
**Client ID:** SB-103 (10-12)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/12/16 08:30  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	40		25-120
Phenol-d6	75		10-120
Nitrobenzene-d5	85		23-120
2-Fluorobiphenyl	79		30-120
2,4,6-Tribromophenol	34		10-136
4-Terphenyl-d14	63		18-120

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-04  
**Client ID:** SB-101 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/18/16 21:30  
**Analyst:** JB  
**Percent Solids:** 82%

**Date Collected:** 02/12/16 09:15  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 18:53

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	23.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	28.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	37.	1
1,3-Dichlorobenzene	ND		ug/kg	200	35.	1
1,4-Dichlorobenzene	ND		ug/kg	200	36.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	54.	1
2,4-Dinitrotoluene	ND		ug/kg	200	41.	1
2,6-Dinitrotoluene	ND		ug/kg	200	35.	1
Fluoranthene	ND		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	31.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	35.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	20.	1
Hexachlorobutadiene	ND		ug/kg	200	30.	1
Hexachlorocyclopentadiene	ND		ug/kg	580	180	1
Hexachloroethane	ND		ug/kg	160	33.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	ND		ug/kg	200	25.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	31.	1
Bis(2-Ethylhexyl)phthalate	1500		ug/kg	200	70.	1
Butyl benzyl phthalate	ND		ug/kg	200	51.	1
Di-n-butylphthalate	ND		ug/kg	200	39.	1
Di-n-octylphthalate	ND		ug/kg	200	69.	1
Diethyl phthalate	ND		ug/kg	200	19.	1
Dimethyl phthalate	ND		ug/kg	200	43.	1

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-04

Date Collected: 02/12/16 09:15

Client ID: SB-101 (0-2)

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	ND		ug/kg	120	23.	1
Benzo(a)pyrene	ND		ug/kg	160	50.	1
Benzo(b)fluoranthene	ND		ug/kg	120	34.	1
Benzo(k)fluoranthene	ND		ug/kg	120	33.	1
Chrysene	ND		ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	31.	1
Anthracene	ND		ug/kg	120	40.	1
Benzo(ghi)perylene	ND		ug/kg	160	24.	1
Fluorene	ND		ug/kg	200	20.	1
Phenanthrene	ND		ug/kg	120	25.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	24.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	28.	1
Pyrene	ND		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	460	47.	1
4-Chloroaniline	ND		ug/kg	200	37.	1
2-Nitroaniline	ND		ug/kg	200	39.	1
3-Nitroaniline	ND		ug/kg	200	38.	1
4-Nitroaniline	ND		ug/kg	200	84.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	25.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	25.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	39.	1
P-Chloro-M-Cresol	ND		ug/kg	200	30.	1
2-Chlorophenol	ND		ug/kg	200	24.	1
2,4-Dichlorophenol	ND		ug/kg	180	33.	1
2,4-Dimethylphenol	ND		ug/kg	200	67.	1
2-Nitrophenol	ND		ug/kg	440	77.	1
4-Nitrophenol	ND		ug/kg	280	83.	1
2,4-Dinitrophenol	ND		ug/kg	980	95.	1
4,6-Dinitro-o-cresol	ND		ug/kg	530	98.	1
Pentachlorophenol	ND		ug/kg	160	45.	1
Phenol	ND		ug/kg	200	31.	1
2-Methylphenol	ND		ug/kg	200	32.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	32.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	39.	1
Benzoic Acid	ND		ug/kg	660	210	1
Benzyl Alcohol	ND		ug/kg	200	62.	1
Carbazole	ND		ug/kg	200	20.	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-04  
**Client ID:** SB-101 (0-2)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/12/16 09:15  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	64		25-120
Phenol-d6	76		10-120
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	68		30-120
2,4,6-Tribromophenol	40		10-136
4-Terphenyl-d14	49		18-120

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-05  
**Client ID:** SB-101 (5-7)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/18/16 21:57  
**Analyst:** JB  
**Percent Solids:** 82%

**Date Collected:** 02/12/16 09:30  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 18:53

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	36.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	35.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	53.	1
2,4-Dinitrotoluene	ND		ug/kg	200	40.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	ND		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	570	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	ND		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	31.	1
Bis(2-Ethylhexyl)phthalate	2000		ug/kg	200	69.	1
Butyl benzyl phthalate	ND		ug/kg	200	50.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	68.	1
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	42.	1

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-05

Date Collected: 02/12/16 09:30

Client ID: SB-101 (5-7)

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	49.	1
Benzo(b)fluoranthene	ND		ug/kg	120	34.	1
Benzo(k)fluoranthene	ND		ug/kg	120	32.	1
Chrysene	ND		ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	31.	1
Anthracene	ND		ug/kg	120	39.	1
Benzo(ghi)perylene	ND		ug/kg	160	23.	1
Fluorene	ND		ug/kg	200	19.	1
Phenanthrene	ND		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	28.	1
Pyrene	ND		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	450	46.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	38.	1
3-Nitroaniline	ND		ug/kg	200	38.	1
4-Nitroaniline	ND		ug/kg	200	82.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	25.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
P-Chloro-M-Cresol	ND		ug/kg	200	30.	1
2-Chlorophenol	ND		ug/kg	200	24.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	66.	1
2-Nitrophenol	ND		ug/kg	430	75.	1
4-Nitrophenol	ND		ug/kg	280	81.	1
2,4-Dinitrophenol	ND		ug/kg	960	93.	1
4,6-Dinitro-o-cresol	ND		ug/kg	520	96.	1
Pentachlorophenol	ND		ug/kg	160	44.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	31.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	31.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	38.	1
Benzoic Acid	ND		ug/kg	650	200	1
Benzyl Alcohol	ND		ug/kg	200	61.	1
Carbazole	ND		ug/kg	200	19.	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-05  
**Client ID:** SB-101 (5-7)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/12/16 09:30  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	47		25-120
Phenol-d6	79		10-120
Nitrobenzene-d5	91		23-120
2-Fluorobiphenyl	85		30-120
2,4,6-Tribromophenol	41		10-136
4-Terphenyl-d14	76		18-120



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-06  
**Client ID:** SB-101 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/18/16 22:23  
**Analyst:** JB  
**Percent Solids:** 83%

**Date Collected:** 02/12/16 09:45  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 18:53

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	36.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	53.	1
2,4-Dinitrotoluene	ND		ug/kg	200	40.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	ND		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	570	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	ND		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	29.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	30.	1
Bis(2-Ethylhexyl)phthalate	390		ug/kg	200	68.	1
Butyl benzyl phthalate	ND		ug/kg	200	50.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	67.	1
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	42.	1

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-06

Date Collected: 02/12/16 09:45

Client ID: SB-101 (10-12)

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	48.	1
Benzo(b)fluoranthene	ND		ug/kg	120	33.	1
Benzo(k)fluoranthene	ND		ug/kg	120	32.	1
Chrysene	ND		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	160	30.	1
Anthracene	ND		ug/kg	120	39.	1
Benzo(ghi)perylene	ND		ug/kg	160	23.	1
Fluorene	ND		ug/kg	200	19.	1
Phenanthrene	ND		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	28.	1
Pyrene	ND		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	450	46.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	38.	1
3-Nitroaniline	ND		ug/kg	200	37.	1
4-Nitroaniline	ND		ug/kg	200	82.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
P-Chloro-M-Cresol	ND		ug/kg	200	29.	1
2-Chlorophenol	ND		ug/kg	200	23.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	65.	1
2-Nitrophenol	ND		ug/kg	430	74.	1
4-Nitrophenol	ND		ug/kg	280	81.	1
2,4-Dinitrophenol	ND		ug/kg	950	92.	1
4,6-Dinitro-o-cresol	ND		ug/kg	510	95.	1
Pentachlorophenol	ND		ug/kg	160	44.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	31.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	31.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	38.	1
Benzoic Acid	ND		ug/kg	640	200	1
Benzyl Alcohol	ND		ug/kg	200	60.	1
Carbazole	ND		ug/kg	200	19.	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-06  
**Client ID:** SB-101 (10-12)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/12/16 09:45  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	21	Q	25-120
Phenol-d6	65		10-120
Nitrobenzene-d5	87		23-120
2-Fluorobiphenyl	81		30-120
2,4,6-Tribromophenol	17		10-136
4-Terphenyl-d14	63		18-120

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-07  
**Client ID:** DUP021216  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/19/16 15:05  
**Analyst:** JB  
**Percent Solids:** 83%

**Date Collected:** 02/12/16 10:00  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/19/16 02:58

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	35.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	52.	1
2,4-Dinitrotoluene	ND		ug/kg	200	39.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	ND		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	560	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	ND		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	29.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	30.	1
Bis(2-Ethylhexyl)phthalate	1200		ug/kg	200	68.	1
Butyl benzyl phthalate	ND		ug/kg	200	50.	1
Di-n-butylphthalate	ND		ug/kg	200	37.	1
Di-n-octylphthalate	120	J	ug/kg	200	67.	1
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	41.	1

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-07

Date Collected: 02/12/16 10:00

Client ID: DUP021216

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	48.	1
Benzo(b)fluoranthene	ND		ug/kg	120	33.	1
Benzo(k)fluoranthene	ND		ug/kg	120	32.	1
Chrysene	ND		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	160	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	ND		ug/kg	160	23.	1
Fluorene	ND		ug/kg	200	19.	1
Phenanthrene	ND		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	27.	1
Pyrene	ND		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	450	46.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	38.	1
3-Nitroaniline	ND		ug/kg	200	37.	1
4-Nitroaniline	ND		ug/kg	200	82.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	20.	1
Acetophenone	ND		ug/kg	200	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
P-Chloro-M-Cresol	ND		ug/kg	200	29.	1
2-Chlorophenol	ND		ug/kg	200	23.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	65.	1
2-Nitrophenol	ND		ug/kg	420	74.	1
4-Nitrophenol	ND		ug/kg	280	80.	1
2,4-Dinitrophenol	ND		ug/kg	950	92.	1
4,6-Dinitro-o-cresol	ND		ug/kg	510	95.	1
Pentachlorophenol	ND		ug/kg	160	43.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	31.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	38.	1
Benzoic Acid	ND		ug/kg	640	200	1
Benzyl Alcohol	ND		ug/kg	200	60.	1
Carbazole	ND		ug/kg	200	19.	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-07  
**Client ID:** DUP021216  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/12/16 10:00  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	71		25-120
Phenol-d6	100		10-120
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	94		30-120
2,4,6-Tribromophenol	45		10-136
4-Terphenyl-d14	95		18-120

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-08  
**Client ID:** SB-102 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/18/16 22:50  
**Analyst:** JB  
**Percent Solids:** 83%

**Date Collected:** 02/12/16 10:30  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 18:53

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	35.	1
1,3-Dichlorobenzene	ND		ug/kg	190	33.	1
1,4-Dichlorobenzene	ND		ug/kg	190	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	52.	1
2,4-Dinitrotoluene	ND		ug/kg	190	39.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	ND		ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	33.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	20.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	560	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	25.	1
Naphthalene	ND		ug/kg	190	24.	1
Nitrobenzene	ND		ug/kg	180	29.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	30.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	190	67.	1
Butyl benzyl phthalate	ND		ug/kg	190	49.	1
Di-n-butylphthalate	ND		ug/kg	190	37.	1
Di-n-octylphthalate	ND		ug/kg	190	66.	1
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	41.	1

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-08

Date Collected: 02/12/16 10:30

Client ID: SB-102 (0-2)

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	48.	1
Benzo(b)fluoranthene	ND		ug/kg	120	33.	1
Benzo(k)fluoranthene	ND		ug/kg	120	31.	1
Chrysene	ND		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	160	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	ND		ug/kg	160	23.	1
Fluorene	ND		ug/kg	190	19.	1
Phenanthrene	ND		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	22.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	27.	1
Pyrene	ND		ug/kg	120	19.	1
Biphenyl	ND		ug/kg	440	45.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	38.	1
3-Nitroaniline	ND		ug/kg	190	37.	1
4-Nitroaniline	ND		ug/kg	190	81.	1
Dibenzofuran	ND		ug/kg	190	18.	1
2-Methylnaphthalene	ND		ug/kg	230	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
P-Chloro-M-Cresol	ND		ug/kg	190	29.	1
2-Chlorophenol	ND		ug/kg	190	23.	1
2,4-Dichlorophenol	ND		ug/kg	180	31.	1
2,4-Dimethylphenol	ND		ug/kg	190	64.	1
2-Nitrophenol	ND		ug/kg	420	73.	1
4-Nitrophenol	ND		ug/kg	270	79.	1
2,4-Dinitrophenol	ND		ug/kg	930	91.	1
4,6-Dinitro-o-cresol	ND		ug/kg	510	93.	1
Pentachlorophenol	ND		ug/kg	160	43.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	30.	1
2,4,5-Trichlorophenol	ND		ug/kg	190	37.	1
Benzoic Acid	ND		ug/kg	630	200	1
Benzyl Alcohol	ND		ug/kg	190	60.	1
Carbazole	ND		ug/kg	190	19.	1



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-08  
**Client ID:** SB-102 (0-2)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/12/16 10:30  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	70		25-120
Phenol-d6	79		10-120
Nitrobenzene-d5	87		23-120
2-Fluorobiphenyl	69		30-120
2,4,6-Tribromophenol	74		10-136
4-Terphenyl-d14	55		18-120

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-09  
**Client ID:** SB-102 (5-7)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/18/16 23:16  
**Analyst:** JB  
**Percent Solids:** 84%

**Date Collected:** 02/12/16 10:45  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 18:53

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	35.	1
1,3-Dichlorobenzene	ND		ug/kg	190	33.	1
1,4-Dichlorobenzene	ND		ug/kg	190	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	51.	1
2,4-Dinitrotoluene	ND		ug/kg	190	39.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	ND		ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	33.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	550	180	1
Hexachloroethane	ND		ug/kg	150	31.	1
Isophorone	ND		ug/kg	170	25.	1
Naphthalene	ND		ug/kg	190	24.	1
Nitrobenzene	ND		ug/kg	170	29.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	30.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	190	67.	1
Butyl benzyl phthalate	ND		ug/kg	190	49.	1
Di-n-butylphthalate	ND		ug/kg	190	37.	1
Di-n-octylphthalate	ND		ug/kg	190	66.	1
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	41.	1

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-09

Date Collected: 02/12/16 10:45

Client ID: SB-102 (5-7)

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	150	47.	1
Benzo(b)fluoranthene	ND		ug/kg	120	32.	1
Benzo(k)fluoranthene	ND		ug/kg	120	31.	1
Chrysene	ND		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	150	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	ND		ug/kg	150	23.	1
Fluorene	ND		ug/kg	190	19.	1
Phenanthrene	ND		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	22.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	150	27.	1
Pyrene	ND		ug/kg	120	19.	1
Biphenyl	ND		ug/kg	440	45.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	37.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	80.	1
Dibenzofuran	ND		ug/kg	190	18.	1
2-Methylnaphthalene	ND		ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
P-Chloro-M-Cresol	ND		ug/kg	190	29.	1
2-Chlorophenol	ND		ug/kg	190	23.	1
2,4-Dichlorophenol	ND		ug/kg	170	31.	1
2,4-Dimethylphenol	ND		ug/kg	190	64.	1
2-Nitrophenol	ND		ug/kg	420	73.	1
4-Nitrophenol	ND		ug/kg	270	79.	1
2,4-Dinitrophenol	ND		ug/kg	930	90.	1
4,6-Dinitro-o-cresol	ND		ug/kg	500	93.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	30.	1
2,4,5-Trichlorophenol	ND		ug/kg	190	37.	1
Benzoic Acid	ND		ug/kg	630	200	1
Benzyl Alcohol	ND		ug/kg	190	59.	1
Carbazole	ND		ug/kg	190	19.	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-09  
**Client ID:** SB-102 (5-7)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/12/16 10:45  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	77		25-120
Phenol-d6	84		10-120
Nitrobenzene-d5	83		23-120
2-Fluorobiphenyl	76		30-120
2,4,6-Tribromophenol	80		10-136
4-Terphenyl-d14	57		18-120

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-10  
**Client ID:** SB-102 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/18/16 23:42  
**Analyst:** JB  
**Percent Solids:** 79%

**Date Collected:** 02/12/16 11:00  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 18:53

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	24.	1
Hexachlorobenzene	ND		ug/kg	120	23.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	28.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	37.	1
1,3-Dichlorobenzene	ND		ug/kg	200	35.	1
1,4-Dichlorobenzene	ND		ug/kg	200	36.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	55.	1
2,4-Dinitrotoluene	ND		ug/kg	200	41.	1
2,6-Dinitrotoluene	ND		ug/kg	200	35.	1
Fluoranthene	68	J	ug/kg	120	24.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	31.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	250	35.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	21.	1
Hexachlorobutadiene	ND		ug/kg	200	30.	1
Hexachlorocyclopentadiene	ND		ug/kg	590	190	1
Hexachloroethane	ND		ug/kg	160	33.	1
Isophorone	ND		ug/kg	180	27.	1
Naphthalene	ND		ug/kg	200	25.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	32.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	200	71.	1
Butyl benzyl phthalate	ND		ug/kg	200	52.	1
Di-n-butylphthalate	ND		ug/kg	200	39.	1
Di-n-octylphthalate	ND		ug/kg	200	70.	1
Diethyl phthalate	ND		ug/kg	200	19.	1
Dimethyl phthalate	ND		ug/kg	200	43.	1

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-10

Date Collected: 02/12/16 11:00

Client ID: SB-102 (10-12)

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	35	J	ug/kg	120	23.	1
Benzo(a)pyrene	ND		ug/kg	160	50.	1
Benzo(b)fluoranthene	40	J	ug/kg	120	35.	1
Benzo(k)fluoranthene	ND		ug/kg	120	33.	1
Chrysene	33	J	ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	32.	1
Anthracene	ND		ug/kg	120	40.	1
Benzo(ghi)perylene	29	J	ug/kg	160	24.	1
Fluorene	ND		ug/kg	200	20.	1
Phenanthrene	52	J	ug/kg	120	25.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	24.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	29.	1
Pyrene	56	J	ug/kg	120	20.	1
Biphenyl	ND		ug/kg	470	48.	1
4-Chloroaniline	ND		ug/kg	200	37.	1
2-Nitroaniline	ND		ug/kg	200	40.	1
3-Nitroaniline	ND		ug/kg	200	39.	1
4-Nitroaniline	ND		ug/kg	200	85.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	250	25.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	25.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	39.	1
P-Chloro-M-Cresol	ND		ug/kg	200	31.	1
2-Chlorophenol	ND		ug/kg	200	24.	1
2,4-Dichlorophenol	ND		ug/kg	180	33.	1
2,4-Dimethylphenol	ND		ug/kg	200	68.	1
2-Nitrophenol	ND		ug/kg	440	77.	1
4-Nitrophenol	ND		ug/kg	290	84.	1
2,4-Dinitrophenol	ND		ug/kg	990	96.	1
4,6-Dinitro-o-cresol	ND		ug/kg	530	99.	1
Pentachlorophenol	ND		ug/kg	160	45.	1
Phenol	ND		ug/kg	200	31.	1
2-Methylphenol	ND		ug/kg	200	32.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	300	32.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	39.	1
Benzoic Acid	ND		ug/kg	670	210	1
Benzyl Alcohol	ND		ug/kg	200	63.	1
Carbazole	ND		ug/kg	200	20.	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-10  
**Client ID:** SB-102 (10-12)  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/12/16 11:00  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	15	Q	25-120
Phenol-d6	57		10-120
Nitrobenzene-d5	93		23-120
2-Fluorobiphenyl	84		30-120
2,4,6-Tribromophenol	10		10-136
4-Terphenyl-d14	65		18-120

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-11  
**Client ID:** FB021216  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/18/16 01:33  
**Analyst:** PS

**Date Collected:** 02/12/16 11:15  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/16/16 23:34

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/l	2.0	0.59	1
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Hexachlorobenzene	ND		ug/l	2.0	0.58	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
2-Chloronaphthalene	ND		ug/l	2.0	0.64	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.73	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.73	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.71	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
Fluoranthene	ND		ug/l	2.0	0.57	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Hexachloroethane	ND		ug/l	2.0	0.68	1
Isophorone	ND		ug/l	5.0	0.60	1
Naphthalene	ND		ug/l	2.0	0.68	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-Ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-11  
**Client ID:** FB021216  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/12/16 11:15  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	ND		ug/l	2.0	0.61	1
Benzo(a)pyrene	ND		ug/l	2.0	0.54	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.64	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.60	1
Chrysene	ND		ug/l	2.0	0.54	1
Acenaphthylene	ND		ug/l	2.0	0.66	1
Anthracene	ND		ug/l	2.0	0.64	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.61	1
Fluorene	ND		ug/l	2.0	0.62	1
Phenanthrene	ND		ug/l	2.0	0.61	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.55	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	2.0	0.71	1
Pyrene	ND		ug/l	2.0	0.57	1
Biphenyl	ND		ug/l	2.0	0.76	1
4-Chloroaniline	ND		ug/l	5.0	0.63	1
2-Nitroaniline	ND		ug/l	5.0	1.1	1
3-Nitroaniline	ND		ug/l	5.0	1.1	1
4-Nitroaniline	ND		ug/l	5.0	1.3	1
Dibenzofuran	ND		ug/l	2.0	0.66	1
2-Methylnaphthalene	ND		ug/l	2.0	0.72	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.67	1
Acetophenone	ND		ug/l	5.0	0.85	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
P-Chloro-M-Cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Pentachlorophenol	ND		ug/l	10	3.4	1
Phenol	ND		ug/l	5.0	1.9	1
2-Methylphenol	ND		ug/l	5.0	1.0	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	1.1	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.72	1
Benzoic Acid	ND		ug/l	50	13.	1
Benzyl Alcohol	ND		ug/l	2.0	0.72	1
Carbazole	ND		ug/l	2.0	0.63	1

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-11  
**Client ID:** FB021216  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/12/16 11:15  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	50		21-120
Phenol-d6	37		10-120
Nitrobenzene-d5	72		23-120
2-Fluorobiphenyl	77		15-120
2,4,6-Tribromophenol	77		10-120
4-Terphenyl-d14	88		41-149

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/17/16 19:15  
 Analyst: PS

Extraction Method: EPA 3510C  
 Extraction Date: 02/16/16 23:34

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 11 Batch: WG865779-1					
Acenaphthene	ND		ug/l	2.0	0.59
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66
Benzidine	ND		ug/l	20	8.1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67
Hexachlorobenzene	ND		ug/l	2.0	0.58
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67
2-Chloronaphthalene	ND		ug/l	2.0	0.64
1,2-Dichlorobenzene	ND		ug/l	2.0	0.73
1,3-Dichlorobenzene	ND		ug/l	2.0	0.73
1,4-Dichlorobenzene	ND		ug/l	2.0	0.71
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1
Azobenzene	ND		ug/l	2.0	0.75
Fluoranthene	ND		ug/l	2.0	0.57
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Hexachlorocyclopentadiene	ND		ug/l	20	7.8
Hexachloroethane	ND		ug/l	2.0	0.68
Isophorone	ND		ug/l	5.0	0.60
Naphthalene	ND		ug/l	2.0	0.68
Nitrobenzene	ND		ug/l	2.0	0.75
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/l	2.0	0.64
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70
Bis(2-Ethylhexyl)phthalate	ND		ug/l	3.0	0.91
Butyl benzyl phthalate	ND		ug/l	5.0	1.3

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/17/16 19:15  
 Analyst: PS

Extraction Method: EPA 3510C  
 Extraction Date: 02/16/16 23:34

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 11 Batch: WG865779-1					
Di-n-butylphthalate	ND		ug/l	5.0	0.69
Di-n-octylphthalate	ND		ug/l	5.0	1.1
Diethyl phthalate	ND		ug/l	5.0	0.63
Dimethyl phthalate	ND		ug/l	5.0	0.65
Benzo(a)anthracene	ND		ug/l	2.0	0.61
Benzo(a)pyrene	ND		ug/l	2.0	0.54
Benzo(b)fluoranthene	ND		ug/l	2.0	0.64
Benzo(k)fluoranthene	ND		ug/l	2.0	0.60
Chrysene	ND		ug/l	2.0	0.54
Acenaphthylene	ND		ug/l	2.0	0.66
Anthracene	ND		ug/l	2.0	0.64
Benzo(ghi)perylene	ND		ug/l	2.0	0.61
Fluorene	ND		ug/l	2.0	0.62
Phenanthrene	ND		ug/l	2.0	0.61
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.55
Indeno(1,2,3-cd)Pyrene	ND		ug/l	2.0	0.71
Pyrene	ND		ug/l	2.0	0.57
Biphenyl	ND		ug/l	2.0	0.76
4-Chloroaniline	ND		ug/l	5.0	0.63
2-Nitroaniline	ND		ug/l	5.0	1.1
3-Nitroaniline	ND		ug/l	5.0	1.1
4-Nitroaniline	ND		ug/l	5.0	1.3
Dibenzofuran	ND		ug/l	2.0	0.66
2-Methylnaphthalene	ND		ug/l	2.0	0.72
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.67
Acetophenone	ND		ug/l	5.0	0.85
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68
P-Chloro-M-Cresol	ND		ug/l	2.0	0.62
2-Chlorophenol	ND		ug/l	2.0	0.63

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/17/16 19:15  
 Analyst: PS

Extraction Method: EPA 3510C  
 Extraction Date: 02/16/16 23:34

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 11 Batch: WG865779-1					
2,4-Dichlorophenol	ND		ug/l	5.0	0.77
2,4-Dimethylphenol	ND		ug/l	5.0	1.6
2-Nitrophenol	ND		ug/l	10	1.5
4-Nitrophenol	ND		ug/l	10	1.8
2,4-Dinitrophenol	ND		ug/l	20	5.5
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1
Pentachlorophenol	ND		ug/l	10	3.4
Phenol	ND		ug/l	5.0	1.9
2-Methylphenol	ND		ug/l	5.0	1.0
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	1.1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.72
Benzoic Acid	ND		ug/l	50	13.
Benzyl Alcohol	ND		ug/l	2.0	0.72
Carbazole	ND		ug/l	2.0	0.63
Benzaldehyde	ND		ug/l	5.0	1.1
Caprolactam	ND		ug/l	10	3.6
Atrazine	ND		ug/l	10	1.8
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.93

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	68		21-120
Phenol-d6	50		10-120
Nitrobenzene-d5	102		23-120
2-Fluorobiphenyl	89		15-120
2,4,6-Tribromophenol	102		10-120
4-Terphenyl-d14	106		41-149

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/18/16 18:54  
 Analyst: JB

Extraction Method: EPA 3546  
 Extraction Date: 02/17/16 18:53

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-06,08-10 Batch: WG866098-1					
Acenaphthene	ND		ug/kg	130	17.
Benzidine	ND		ug/kg	540	180
n-Nitrosodimethylamine	ND		ug/kg	330	32.
1,2,4-Trichlorobenzene	ND		ug/kg	160	19.
Hexachlorobenzene	ND		ug/kg	99	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	30.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	29.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	99	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	18.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Azobenzene	ND		ug/kg	160	16.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	27.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	26.
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	160	57.
Butyl benzyl phthalate	ND		ug/kg	160	42.

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/18/16 18:54  
 Analyst: JB

Extraction Method: EPA 3546  
 Extraction Date: 02/17/16 18:53

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-06,08-10 Batch: WG866098-1					
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.
Dimethyl phthalate	ND		ug/kg	160	35.
Benzo(a)anthracene	ND		ug/kg	99	19.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	26.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.
Biphenyl	ND		ug/kg	380	38.
Aniline	ND		ug/kg	200	78.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	99	31.
P-Chloro-M-Cresol	ND		ug/kg	160	25.

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/18/16 18:54  
 Analyst: JB

Extraction Method: EPA 3546  
 Extraction Date: 02/17/16 18:53

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-06,08-10 Batch: WG866098-1					
2-Chlorophenol	ND		ug/kg	160	20.
2,4-Dichlorophenol	ND		ug/kg	150	27.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	360	62.
4-Nitrophenol	ND		ug/kg	230	68.
2,4-Dinitrophenol	ND		ug/kg	790	77.
4,6-Dinitro-o-cresol	ND		ug/kg	430	79.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	26.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	32.
Benzoic Acid	ND		ug/kg	540	170
Benzyl Alcohol	ND		ug/kg	160	51.
Carbazole	ND		ug/kg	160	16.
Benzaldehyde	ND		ug/kg	220	45.
Caprolactam	ND		ug/kg	160	50.
Atrazine	ND		ug/kg	130	58.
2,3,4,6-Tetrachlorophenol	ND		ug/kg	160	33.
Pyridine	ND		ug/kg	660	63.
Parathion, ethyl	ND		ug/kg	160	100
1-Methylnaphthalene	ND		ug/kg	160	19.



Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/18/16 18:54  
 Analyst: JB

Extraction Method: EPA 3546  
 Extraction Date: 02/17/16 18:53

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-06,08-10 Batch: WG866098-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	85		25-120
Phenol-d6	91		10-120
Nitrobenzene-d5	87		23-120
2-Fluorobiphenyl	90		30-120
2,4,6-Tribromophenol	89		10-136
4-Terphenyl-d14	99		18-120

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/19/16 12:06  
 Analyst: JB

Extraction Method: EPA 3546  
 Extraction Date: 02/19/16 02:39

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 07 Batch: WG866542-1					
Acenaphthene	ND		ug/kg	130	17.
Benzidine	ND		ug/kg	540	180
n-Nitrosodimethylamine	ND		ug/kg	330	32.
1,2,4-Trichlorobenzene	ND		ug/kg	160	19.
Hexachlorobenzene	ND		ug/kg	99	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	30.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	29.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	99	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	18.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Azobenzene	ND		ug/kg	160	16.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	27.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	160	57.
Butyl benzyl phthalate	ND		ug/kg	160	41.

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/19/16 12:06  
 Analyst: JB

Extraction Method: EPA 3546  
 Extraction Date: 02/19/16 02:39

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 07 Batch: WG866542-1					
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.
Dimethyl phthalate	ND		ug/kg	160	34.
Benzo(a)anthracene	ND		ug/kg	99	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.
Biphenyl	ND		ug/kg	380	38.
Aniline	ND		ug/kg	200	78.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	99	31.
P-Chloro-M-Cresol	ND		ug/kg	160	24.

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/19/16 12:06  
 Analyst: JB

Extraction Method: EPA 3546  
 Extraction Date: 02/19/16 02:39

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 07 Batch: WG866542-1					
2-Chlorophenol	ND		ug/kg	160	19.
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	360	62.
4-Nitrophenol	ND		ug/kg	230	67.
2,4-Dinitrophenol	ND		ug/kg	790	77.
4,6-Dinitro-o-cresol	ND		ug/kg	430	79.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	26.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	32.
Benzoic Acid	ND		ug/kg	530	170
Benzyl Alcohol	ND		ug/kg	160	50.
Carbazole	ND		ug/kg	160	16.
Benzaldehyde	ND		ug/kg	220	44.
Caprolactam	ND		ug/kg	160	50.
Atrazine	ND		ug/kg	130	58.
2,3,4,6-Tetrachlorophenol	ND		ug/kg	160	33.
Pyridine	ND		ug/kg	660	62.
Parathion, ethyl	ND		ug/kg	160	100
1-Methylnaphthalene	ND		ug/kg	160	19.

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/19/16 12:06  
 Analyst: JB

Extraction Method: EPA 3546  
 Extraction Date: 02/19/16 02:39

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 07 Batch: WG866542-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	84		25-120
Phenol-d6	91		10-120
Nitrobenzene-d5	89		23-120
2-Fluorobiphenyl	83		30-120
2,4,6-Tribromophenol	85		10-136
4-Terphenyl-d14	88		18-120

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603880

Report Date: 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG865779-2 WG865779-3								
Acenaphthene	90		91		37-111	1		30
1,2,4-Trichlorobenzene	66		68		39-98	3		30
Benzidine	0	Q	15		10-66	193	Q	30
n-Nitrosodimethylamine	55		55		22-100	0		30
Hexachlorobenzene	89		90		40-140	1		30
Bis(2-chloroethyl)ether	88		89		40-140	1		30
2-Chloronaphthalene	81		82		40-140	1		30
1,2-Dichlorobenzene	68		74		40-140	8		30
1,3-Dichlorobenzene	64		68		40-140	6		30
1,4-Dichlorobenzene	64		70		36-97	9		30
3,3'-Dichlorobenzidine	61		71		40-140	15		30
2,4-Dinitrotoluene	96		98	Q	24-96	2		30
2,6-Dinitrotoluene	95		97		40-140	2		30
Azobenzene	102		103		40-140	1		30
Fluoranthene	100		102		40-140	2		30
4-Chlorophenyl phenyl ether	88		88		40-140	0		30
4-Bromophenyl phenyl ether	90		89		40-140	1		30
Bis(2-chloroisopropyl)ether	94		95		40-140	1		30
Bis(2-chloroethoxy)methane	94		94		40-140	0		30
Hexachlorobutadiene	62		66		40-140	6		30
Hexachlorocyclopentadiene	40		42		40-140	5		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603880

Report Date: 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG865779-2 WG865779-3								
Hexachloroethane	62		67		40-140	8		30
Isophorone	99		100		40-140	1		30
Naphthalene	77		79		40-140	3		30
Nitrobenzene	100		97		40-140	3		30
NitrosoDiPhenylAmine(NDPA)/DPA	95		95		40-140	0		30
n-Nitrosodi-n-propylamine	99		99		29-132	0		30
Bis(2-Ethylhexyl)phthalate	98		99		40-140	1		30
Butyl benzyl phthalate	100		103		40-140	3		30
Di-n-butylphthalate	103		106		40-140	3		30
Di-n-octylphthalate	103		102		40-140	1		30
Diethyl phthalate	95		97		40-140	2		30
Dimethyl phthalate	97		98		40-140	1		30
Benzo(a)anthracene	99		98		40-140	1		30
Benzo(a)pyrene	99		102		40-140	3		30
Benzo(b)fluoranthene	98		101		40-140	3		30
Benzo(k)fluoranthene	96		98		40-140	2		30
Chrysene	95		92		40-140	3		30
Acenaphthylene	89		92		45-123	3		30
Anthracene	99		99		40-140	0		30
Benzo(ghi)perylene	96		96		40-140	0		30
Fluorene	95		94		40-140	1		30

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG865779-2 WG865779-3								
Phenanthrene	98		98		40-140	0		30
Dibenzo(a,h)anthracene	101		100		40-140	1		30
Indeno(1,2,3-cd)Pyrene	98		98		40-140	0		30
Pyrene	99		103		26-127	4		30
Biphenyl	91		92		54-104	1		30
4-Chloroaniline	75		77		40-140	3		30
2-Nitroaniline	92		96		52-143	4		30
3-Nitroaniline	59		65		25-145	10		30
4-Nitroaniline	87		93		51-143	7		30
Dibenzofuran	94		93		40-140	1		30
2-Methylnaphthalene	78		79		40-140	1		30
1,2,4,5-Tetrachlorobenzene	79		82		2-134	4		30
Acetophenone	106		107		39-129	1		30
2,4,6-Trichlorophenol	94		97		30-130	3		30
P-Chloro-M-Cresol	99	Q	104	Q	23-97	5		30
2-Chlorophenol	94		95		27-123	1		30
2,4-Dichlorophenol	98		100		30-130	2		30
2,4-Dimethylphenol	85		95		30-130	11		30
2-Nitrophenol	91		92		30-130	1		30
4-Nitrophenol	73		71		10-80	3		30
2,4-Dinitrophenol	83		84		20-130	1		30



# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG865779-2 WG865779-3								
4,6-Dinitro-o-cresol	94		94		20-164	0		30
Pentachlorophenol	77		78		9-103	1		30
Phenol	51		53		12-110	4		30
2-Methylphenol	83		88		30-130	6		30
3-Methylphenol/4-Methylphenol	90		93		30-130	3		30
2,4,5-Trichlorophenol	94		95		30-130	1		30
Benzoic Acid	32		21		10-110	42	Q	30
Benzyl Alcohol	86		90		15-110	5		30
Carbazole	100		102		55-144	2		30
Benzaldehyde	106		130		40-140	20		30
Caprolactam	37		37		10-130	0		30
Atrazine	92		104		40-140	12		30
2,3,4,6-Tetrachlorophenol	92		94		54-145	2		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	65		72		21-120
Phenol-d6	51		54		10-120
Nitrobenzene-d5	96		102		23-120
2-Fluorobiphenyl	83		89		15-120
2,4,6-Tribromophenol	86		94		10-120
4-Terphenyl-d14	88		97		41-149

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06,08-10 Batch: WG866098-2 WG866098-3								
Acenaphthene	78		88		31-137	12		50
Benzidine	36		48		10-66	29		50
n-Nitrosodimethylamine	70		71		22-100	1		50
1,2,4-Trichlorobenzene	74		79		38-107	7		50
Hexachlorobenzene	74		84		40-140	13		50
Bis(2-chloroethyl)ether	71		78		40-140	9		50
2-Chloronaphthalene	74		86		40-140	15		50
1,2-Dichlorobenzene	73		79		40-140	8		50
1,3-Dichlorobenzene	70		74		40-140	6		50
1,4-Dichlorobenzene	70		74		28-104	6		50
3,3'-Dichlorobenzidine	53		70		40-140	28		50
2,4-Dinitrotoluene	78		94	Q	28-89	19		50
2,6-Dinitrotoluene	73		90		40-140	21		50
Fluoranthene	80		98		40-140	20		50
4-Chlorophenyl phenyl ether	75		84		40-140	11		50
4-Bromophenyl phenyl ether	74		86		40-140	15		50
Azobenzene	84		95		40-140	12		50
Bis(2-chloroisopropyl)ether	78		86		40-140	10		50
Bis(2-chloroethoxy)methane	76		86		40-117	12		50
Hexachlorobutadiene	75		81		40-140	8		50
Hexachlorocyclopentadiene	60		69		40-140	14		50

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06,08-10 Batch: WG866098-2 WG866098-3								
Hexachloroethane	76		79		40-140	4		50
Isophorone	79		92		40-140	15		50
Naphthalene	77		86		40-140	11		50
Nitrobenzene	80		88		40-140	10		50
NitrosoDiPhenylAmine(NDPA)/DPA	80		91		36-157	13		50
n-Nitrosodi-n-propylamine	78		89		32-121	13		50
Bis(2-Ethylhexyl)phthalate	79		94		40-140	17		50
Butyl benzyl phthalate	82		98		40-140	18		50
Di-n-butylphthalate	82		99		40-140	19		50
Di-n-octylphthalate	82		96		40-140	16		50
Diethyl phthalate	80		90		40-140	12		50
Dimethyl phthalate	81		92		40-140	13		50
Benzo(a)anthracene	77		91		40-140	17		50
Benzo(a)pyrene	80		97		40-140	19		50
Benzo(b)fluoranthene	77		92		40-140	18		50
Benzo(k)fluoranthene	77		93		40-140	19		50
Chrysene	78		91		40-140	15		50
Acenaphthylene	79		92		40-140	15		50
Anthracene	80		91		40-140	13		50
Benzo(ghi)perylene	76		89		40-140	16		50
Fluorene	80		89		40-140	11		50

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06,08-10 Batch: WG866098-2 WG866098-3								
Phenanthrene	78		90		40-140	14		50
Dibenzo(a,h)anthracene	78		93		40-140	18		50
Indeno(1,2,3-cd)Pyrene	76		90		40-140	17		50
Pyrene	80		97		35-142	19		50
Biphenyl	83		89		54-104	7		50
Aniline	50		64		40-140	25		50
4-Chloroaniline	107		122		40-140	13		50
2-Nitroaniline	74		88		47-134	17		50
3-Nitroaniline	62		75		26-129	19		50
4-Nitroaniline	76		88		41-125	15		50
Dibenzofuran	81		92		40-140	13		50
2-Methylnaphthalene	75		86		40-140	14		50
1,2,4,5-Tetrachlorobenzene	79		88		40-117	11		50
Acetophenone	85		96		14-144	12		50
2,4,6-Trichlorophenol	76		90		30-130	17		50
P-Chloro-M-Cresol	85		100		26-103	16		50
2-Chlorophenol	79		88		25-102	11		50
2,4-Dichlorophenol	82		92		30-130	11		50
2,4-Dimethylphenol	82		92		30-130	11		50
2-Nitrophenol	75		85		30-130	13		50
4-Nitrophenol	87		107		11-114	21		50

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06,08-10 Batch: WG866098-2 WG866098-3								
2,4-Dinitrophenol	43		57		4-130	28		50
4,6-Dinitro-o-cresol	73		85		10-130	15		50
Pentachlorophenol	56		68		17-109	19		50
Phenol	77		89		26-90	14		50
2-Methylphenol	79		90		30-130.	13		50
3-Methylphenol/4-Methylphenol	88		100		30-130	13		50
2,4,5-Trichlorophenol	75		89		30-130	17		50
Benzoic Acid	10		15		10-66	41		50
Benzyl Alcohol	83		97		40-140	16		50
Carbazole	81		97		54-128	18		50
Benzaldehyde	82		94		40-140	14		50
Caprolactam	96		115		15-130	18		50
Atrazine	79		97		40-140	20		50
2,3,4,6-Tetrachlorophenol	75		87		40-140	15		50
Pyridine	56		54		10-93	4		50
Parathion, ethyl	94		113		40-140	18		50
1-Methylnaphthalene	84		98		26-130	15		50

**Lab Control Sample Analysis****Batch Quality Control****Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603880**Report Date:** 02/24/16

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06,08-10 Batch: WG866098-2 WG866098-3

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
2-Fluorophenol	82		85		25-120
Phenol-d6	86		94		10-120
Nitrobenzene-d5	85		91		23-120
2-Fluorobiphenyl	78		88		30-120
2,4,6-Tribromophenol	79		88		10-136
4-Terphenyl-d14	81		91		18-120

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 07 Batch: WG866542-2 WG866542-3								
Acenaphthene	88		81		31-137	8		50
Benzidine	56		50		10-66	11		50
n-Nitrosodimethylamine	72		68		22-100	6		50
1,2,4-Trichlorobenzene	81		75		38-107	8		50
Hexachlorobenzene	88		78		40-140	12		50
Bis(2-chloroethyl)ether	78		71		40-140	9		50
2-Chloronaphthalene	88		80		40-140	10		50
1,2-Dichlorobenzene	78		75		40-140	4		50
1,3-Dichlorobenzene	73		71		40-140	3		50
1,4-Dichlorobenzene	75		71		28-104	5		50
3,3'-Dichlorobenzidine	74		68		40-140	8		50
2,4-Dinitrotoluene	94	Q	82		28-89	14		50
2,6-Dinitrotoluene	92		83		40-140	10		50
Fluoranthene	99		86		40-140	14		50
4-Chlorophenyl phenyl ether	83		78		40-140	6		50
4-Bromophenyl phenyl ether	85		76		40-140	11		50
Azobenzene	98		88		40-140	11		50
Bis(2-chloroisopropyl)ether	89		81		40-140	9		50
Bis(2-chloroethoxy)methane	85		74		40-117	14		50
Hexachlorobutadiene	83		75		40-140	10		50
Hexachlorocyclopentadiene	50		47		40-140	6		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603880

Report Date: 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 07 Batch: WG866542-2 WG866542-3								
Hexachloroethane	81		74		40-140	9		50
Isophorone	93		83		40-140	11		50
Naphthalene	86		79		40-140	8		50
Nitrobenzene	89		83		40-140	7		50
NitrosoDiPhenylAmine(NDPA)/DPA	92		83		36-157	10		50
n-Nitrosodi-n-propylamine	90		81		32-121	11		50
Bis(2-Ethylhexyl)phthalate	93		80		40-140	15		50
Butyl benzyl phthalate	94		85		40-140	10		50
Di-n-butylphthalate	97		86		40-140	12		50
Di-n-octylphthalate	96		83		40-140	15		50
Diethyl phthalate	90		81		40-140	11		50
Dimethyl phthalate	90		82		40-140	9		50
Benzo(a)anthracene	95		82		40-140	15		50
Benzo(a)pyrene	96		87		40-140	10		50
Benzo(b)fluoranthene	98		83		40-140	17		50
Benzo(k)fluoranthene	91		87		40-140	4		50
Chrysene	87		78		40-140	11		50
Acenaphthylene	91		82		40-140	10		50
Anthracene	93		84		40-140	10		50
Benzo(ghi)perylene	87		78		40-140	11		50
Fluorene	91		85		40-140	7		50



# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 07 Batch: WG866542-2 WG866542-3								
Phenanthrene	94		83		40-140	12		50
Dibenzo(a,h)anthracene	89		82		40-140	8		50
Indeno(1,2,3-cd)Pyrene	88		80		40-140	10		50
Pyrene	98		88		35-142	11		50
Biphenyl	94		87		54-104	8		50
Aniline	63		62		40-140	2		50
4-Chloroaniline	110		104		40-140	6		50
2-Nitroaniline	90		84		47-134	7		50
3-Nitroaniline	72		67		26-129	7		50
4-Nitroaniline	87		79		41-125	10		50
Dibenzofuran	88		83		40-140	6		50
2-Methylnaphthalene	88		79		40-140	11		50
1,2,4,5-Tetrachlorobenzene	88		80		40-117	10		50
Acetophenone	95		88		14-144	8		50
2,4,6-Trichlorophenol	90		84		30-130	7		50
P-Chloro-M-Cresol	98		90		26-103	9		50
2-Chlorophenol	89		80		25-102	11		50
2,4-Dichlorophenol	92		86		30-130	7		50
2,4-Dimethylphenol	94		84		30-130	11		50
2-Nitrophenol	83		79		30-130	5		50
4-Nitrophenol	104		93		11-114	11		50

# Lab Control Sample Analysis

## Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603880

Report Date: 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 07 Batch: WG866542-2 WG866542-3								
2,4-Dinitrophenol	47		48		4-130	2		50
4,6-Dinitro-o-cresol	59		62		10-130	5		50
Pentachlorophenol	80		68		17-109	16		50
Phenol	87		79		26-90	10		50
2-Methylphenol	91		82		30-130.	10		50
3-Methylphenol/4-Methylphenol	102		91		30-130	11		50
2,4,5-Trichlorophenol	91		82		30-130	10		50
Benzoic Acid	39		36		10-66	8		50
Benzyl Alcohol	97		88		40-140	10		50
Carbazole	97		87		54-128	11		50
Benzaldehyde	95		84		40-140	12		50
Caprolactam	118		105		15-130	12		50
Atrazine	101		90		40-140	12		50
2,3,4,6-Tetrachlorophenol	91		84		40-140	8		50
Pyridine	55		56		10-93	2		50
Parathion, ethyl	123		106		40-140	15		50
1-Methylnaphthalene	94		89		26-130	5		50

**Lab Control Sample Analysis****Batch Quality Control****Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603880**Report Date:** 02/24/16

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 07 Batch: WG866542-2 WG866542-3

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
2-Fluorophenol	91		81		25-120
Phenol-d6	97		88		10-120
Nitrobenzene-d5	97		87		23-120
2-Fluorobiphenyl	91		85		30-120
2,4,6-Tribromophenol	92		85		10-136
4-Terphenyl-d14	96		85		18-120

# PCBS

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-01  
**Client ID:** SB-103 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/18/16 10:27  
**Analyst:** JW  
**Percent Solids:** 79%

**Date Collected:** 02/12/16 08:00  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 00:21  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/17/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/17/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	41.0	3.24	1	A
Aroclor 1221	ND		ug/kg	41.0	3.78	1	A
Aroclor 1232	ND		ug/kg	41.0	4.80	1	A
Aroclor 1242	ND		ug/kg	41.0	5.02	1	A
Aroclor 1248	ND		ug/kg	41.0	3.46	1	A
Aroclor 1254	ND		ug/kg	41.0	3.37	1	A
Aroclor 1260	ND		ug/kg	41.0	3.12	1	A
Aroclor 1262	ND		ug/kg	41.0	2.03	1	A
Aroclor 1268	17.9	J	ug/kg	41.0	5.94	1	A
PCBs, Total	17.9	J	ug/kg	41.0	2.03	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	140		30-150	A
2,4,5,6-Tetrachloro-m-xylene	67		30-150	B
Decachlorobiphenyl	136		30-150	B

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-02  
**Client ID:** SB-103 (4-6)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/18/16 10:43  
**Analyst:** JW  
**Percent Solids:** 80%

**Date Collected:** 02/12/16 08:15  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 00:21  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/17/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/17/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	39.7	3.14	1	A
Aroclor 1221	ND		ug/kg	39.7	3.66	1	A
Aroclor 1232	ND		ug/kg	39.7	4.66	1	A
Aroclor 1242	ND		ug/kg	39.7	4.86	1	A
Aroclor 1248	ND		ug/kg	39.7	3.35	1	A
Aroclor 1254	ND		ug/kg	39.7	3.27	1	A
Aroclor 1260	ND		ug/kg	39.7	3.03	1	A
Aroclor 1262	ND		ug/kg	39.7	1.97	1	A
Aroclor 1268	ND		ug/kg	39.7	5.76	1	A
PCBs, Total	ND		ug/kg	39.7	1.97	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		30-150	A
Decachlorobiphenyl	83		30-150	A
2,4,5,6-Tetrachloro-m-xylene	68		30-150	B
Decachlorobiphenyl	77		30-150	B

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-03  
**Client ID:** SB-103 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/18/16 10:59  
**Analyst:** JW  
**Percent Solids:** 82%

**Date Collected:** 02/12/16 08:30  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 00:21  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/17/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/17/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	39.4	3.11	1	A
Aroclor 1221	ND		ug/kg	39.4	3.63	1	A
Aroclor 1232	ND		ug/kg	39.4	4.61	1	A
Aroclor 1242	ND		ug/kg	39.4	4.82	1	A
Aroclor 1248	ND		ug/kg	39.4	3.32	1	A
Aroclor 1254	ND		ug/kg	39.4	3.23	1	A
Aroclor 1260	ND		ug/kg	39.4	3.00	1	A
Aroclor 1262	ND		ug/kg	39.4	1.95	1	A
Aroclor 1268	ND		ug/kg	39.4	5.71	1	A
PCBs, Total	ND		ug/kg	39.4	1.95	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74		30-150	A
Decachlorobiphenyl	93		30-150	A
2,4,5,6-Tetrachloro-m-xylene	72		30-150	B
Decachlorobiphenyl	86		30-150	B

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-04  
**Client ID:** SB-101 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/18/16 11:16  
**Analyst:** JW  
**Percent Solids:** 82%

**Date Collected:** 02/12/16 09:15  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 00:21  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/17/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/17/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	39.4	3.11	1	A
Aroclor 1221	ND		ug/kg	39.4	3.63	1	A
Aroclor 1232	ND		ug/kg	39.4	4.62	1	A
Aroclor 1242	ND		ug/kg	39.4	4.82	1	A
Aroclor 1248	ND		ug/kg	39.4	3.32	1	A
Aroclor 1254	ND		ug/kg	39.4	3.24	1	A
Aroclor 1260	26.1	J	ug/kg	39.4	3.00	1	A
Aroclor 1262	ND		ug/kg	39.4	1.95	1	A
Aroclor 1268	ND		ug/kg	39.4	5.71	1	A
PCBs, Total	26.1	J	ug/kg	39.4	1.95	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	85		30-150	A
Decachlorobiphenyl	100		30-150	A
2,4,5,6-Tetrachloro-m-xylene	85		30-150	B
Decachlorobiphenyl	96		30-150	B



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-05  
**Client ID:** SB-101 (5-7)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/18/16 11:32  
**Analyst:** JW  
**Percent Solids:** 82%

**Date Collected:** 02/12/16 09:30  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 00:21  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/17/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/17/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	38.4	3.04	1	A
Aroclor 1221	ND		ug/kg	38.4	3.54	1	A
Aroclor 1232	ND		ug/kg	38.4	4.51	1	A
Aroclor 1242	ND		ug/kg	38.4	4.71	1	A
Aroclor 1248	ND		ug/kg	38.4	3.24	1	A
Aroclor 1254	ND		ug/kg	38.4	3.16	1	A
Aroclor 1260	12.8	J	ug/kg	38.4	2.93	1	B
Aroclor 1262	ND		ug/kg	38.4	1.91	1	A
Aroclor 1268	ND		ug/kg	38.4	5.58	1	A
PCBs, Total	12.8	J	ug/kg	38.4	1.91	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		30-150	A
Decachlorobiphenyl	87		30-150	A
2,4,5,6-Tetrachloro-m-xylene	71		30-150	B
Decachlorobiphenyl	84		30-150	B

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-06  
**Client ID:** SB-101 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/18/16 11:48  
**Analyst:** JW  
**Percent Solids:** 83%

**Date Collected:** 02/12/16 09:45  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 00:21  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/17/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/17/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	38.3	3.03	1	A
Aroclor 1221	ND		ug/kg	38.3	3.54	1	A
Aroclor 1232	ND		ug/kg	38.3	4.49	1	A
Aroclor 1242	ND		ug/kg	38.3	4.69	1	A
Aroclor 1248	ND		ug/kg	38.3	3.24	1	A
Aroclor 1254	ND		ug/kg	38.3	3.15	1	A
Aroclor 1260	26.4	J	ug/kg	38.3	2.92	1	B
Aroclor 1262	ND		ug/kg	38.3	1.90	1	A
Aroclor 1268	ND		ug/kg	38.3	5.56	1	A
PCBs, Total	26.4	J	ug/kg	38.3	1.90	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	A
Decachlorobiphenyl	98		30-150	A
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	95		30-150	B

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-07  
**Client ID:** DUP021216  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/20/16 01:06  
**Analyst:** BO  
**Percent Solids:** 83%

**Date Collected:** 02/12/16 10:00  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/19/16 02:58  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/19/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/19/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	39.6	3.13	1	A
Aroclor 1221	ND		ug/kg	39.6	3.65	1	A
Aroclor 1232	ND		ug/kg	39.6	4.64	1	A
Aroclor 1242	ND		ug/kg	39.6	4.85	1	A
Aroclor 1248	ND		ug/kg	39.6	3.34	1	A
Aroclor 1254	ND		ug/kg	39.6	3.25	1	A
Aroclor 1260	26.5	J	ug/kg	39.6	3.02	1	B
Aroclor 1262	ND		ug/kg	39.6	1.96	1	A
Aroclor 1268	ND		ug/kg	39.6	5.74	1	A
PCBs, Total	26.5	J	ug/kg	39.6	1.96	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	63		30-150	A
Decachlorobiphenyl	54		30-150	A
2,4,5,6-Tetrachloro-m-xylene	68		30-150	B
Decachlorobiphenyl	53		30-150	B

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-08  
**Client ID:** SB-102 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/18/16 12:05  
**Analyst:** JW  
**Percent Solids:** 83%

**Date Collected:** 02/12/16 10:30  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 00:21  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/17/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/17/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	38.8	3.07	1	A
Aroclor 1221	ND		ug/kg	38.8	3.58	1	A
Aroclor 1232	ND		ug/kg	38.8	4.55	1	A
Aroclor 1242	ND		ug/kg	38.8	4.75	1	A
Aroclor 1248	ND		ug/kg	38.8	3.28	1	A
Aroclor 1254	ND		ug/kg	38.8	3.19	1	A
Aroclor 1260	ND		ug/kg	38.8	2.96	1	A
Aroclor 1262	ND		ug/kg	38.8	1.92	1	A
Aroclor 1268	ND		ug/kg	38.8	5.63	1	A
PCBs, Total	ND		ug/kg	38.8	1.92	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74		30-150	A
Decachlorobiphenyl	95		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	92		30-150	B

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-09  
**Client ID:** SB-102 (5-7)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/18/16 12:21  
**Analyst:** JW  
**Percent Solids:** 84%

**Date Collected:** 02/12/16 10:45  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 00:21  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/17/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/17/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	38.5	3.04	1	A
Aroclor 1221	ND		ug/kg	38.5	3.55	1	A
Aroclor 1232	ND		ug/kg	38.5	4.51	1	A
Aroclor 1242	ND		ug/kg	38.5	4.71	1	A
Aroclor 1248	ND		ug/kg	38.5	3.25	1	A
Aroclor 1254	ND		ug/kg	38.5	3.16	1	A
Aroclor 1260	ND		ug/kg	38.5	2.93	1	A
Aroclor 1262	ND		ug/kg	38.5	1.91	1	A
Aroclor 1268	ND		ug/kg	38.5	5.58	1	A
PCBs, Total	ND		ug/kg	38.5	1.91	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74		30-150	A
Decachlorobiphenyl	89		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	88		30-150	B

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-10  
**Client ID:** SB-102 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/18/16 12:38  
**Analyst:** JW  
**Percent Solids:** 79%

**Date Collected:** 02/12/16 11:00  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 00:21  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/17/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/17/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	40.4	3.19	1	A
Aroclor 1221	ND		ug/kg	40.4	3.72	1	A
Aroclor 1232	ND		ug/kg	40.4	4.73	1	A
Aroclor 1242	ND		ug/kg	40.4	4.94	1	A
Aroclor 1248	ND		ug/kg	40.4	3.41	1	A
Aroclor 1254	ND		ug/kg	40.4	3.32	1	A
Aroclor 1260	ND		ug/kg	40.4	3.08	1	A
Aroclor 1262	ND		ug/kg	40.4	2.00	1	A
Aroclor 1268	ND		ug/kg	40.4	5.86	1	A
PCBs, Total	ND		ug/kg	40.4	2.00	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	91		30-150	A
Decachlorobiphenyl	112		30-150	A
2,4,5,6-Tetrachloro-m-xylene	92		30-150	B
Decachlorobiphenyl	109		30-150	B

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-11  
**Client ID:** FB021216  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/17/16 17:00  
**Analyst:** JW

**Date Collected:** 02/12/16 11:15  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/16/16 06:02  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/16/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/16/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		30-150	A
Decachlorobiphenyl	76		30-150	A
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	71		30-150	B

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082A  
 Analytical Date: 02/17/16 15:51  
 Analyst: JW

Extraction Method: EPA 3510C  
 Extraction Date: 02/16/16 06:02  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 02/16/16  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 02/16/16

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 11 Batch: WG865452-1						
Aroclor 1016	ND		ug/l	0.083	0.055	A
Aroclor 1221	ND		ug/l	0.083	0.053	A
Aroclor 1232	ND		ug/l	0.083	0.031	A
Aroclor 1242	ND		ug/l	0.083	0.060	A
Aroclor 1248	ND		ug/l	0.083	0.051	A
Aroclor 1254	ND		ug/l	0.083	0.034	A
Aroclor 1260	ND		ug/l	0.083	0.032	A
Aroclor 1262	ND		ug/l	0.083	0.029	A
Aroclor 1268	ND		ug/l	0.083	0.038	A
PCBs, Total	ND		ug/l	0.083	0.029	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	54		30-150	A
Decachlorobiphenyl	93		30-150	A
2,4,5,6-Tetrachloro-m-xylene	56		30-150	B
Decachlorobiphenyl	88		30-150	B



**Project Name:** DUPONT STREET**Lab Number:** L1603880**Project Number:** 2587.0001Y000**Report Date:** 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082A  
 Analytical Date: 02/18/16 15:05  
 Analyst: JW

Extraction Method: EPA 3546  
 Extraction Date: 02/17/16 00:21  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 02/17/16  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 02/17/16

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-06,08-10 Batch: WG865787-1						
Aroclor 1016	ND		ug/kg	31.9	2.52	A
Aroclor 1221	ND		ug/kg	31.9	2.94	A
Aroclor 1232	ND		ug/kg	31.9	3.74	A
Aroclor 1242	ND		ug/kg	31.9	3.90	A
Aroclor 1248	ND		ug/kg	31.9	2.69	A
Aroclor 1254	ND		ug/kg	31.9	2.62	A
Aroclor 1260	ND		ug/kg	31.9	2.43	A
Aroclor 1262	ND		ug/kg	31.9	1.58	A
Aroclor 1268	ND		ug/kg	31.9	4.62	A
PCBs, Total	ND		ug/kg	31.9	1.58	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	89		30-150	A
Decachlorobiphenyl	106		30-150	A
2,4,5,6-Tetrachloro-m-xylene	91		30-150	B
Decachlorobiphenyl	101		30-150	B

**Project Name:** DUPONT STREET**Lab Number:** L1603880**Project Number:** 2587.0001Y000**Report Date:** 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082A  
 Analytical Date: 02/20/16 01:20  
 Analyst: BO

Extraction Method: EPA 3546  
 Extraction Date: 02/19/16 02:26  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 02/19/16  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 02/19/16

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 07 Batch: WG866540-1						
Aroclor 1016	ND		ug/kg	32.0	2.52	A
Aroclor 1221	ND		ug/kg	32.0	2.95	A
Aroclor 1232	ND		ug/kg	32.0	3.75	A
Aroclor 1242	ND		ug/kg	32.0	3.91	A
Aroclor 1248	ND		ug/kg	32.0	2.70	A
Aroclor 1254	ND		ug/kg	32.0	2.63	A
Aroclor 1260	ND		ug/kg	32.0	2.44	A
Aroclor 1262	ND		ug/kg	32.0	1.58	A
Aroclor 1268	ND		ug/kg	32.0	4.64	A
PCBs, Total	ND		ug/kg	32.0	1.58	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	87		30-150	A
Decachlorobiphenyl	80		30-150	A
2,4,5,6-Tetrachloro-m-xylene	89		30-150	B
Decachlorobiphenyl	68		30-150	B

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 11 Batch: WG865452-2 WG865452-3									
Aroclor 1016	86		87		40-140	2		50	A
Aroclor 1260	109		111		40-140	2		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		62		30-150	A
Decachlorobiphenyl	95		90		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		62		30-150	B
Decachlorobiphenyl	90		86		30-150	B

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-06,08-10 Batch: WG865787-2 WG865787-3									
Aroclor 1016	92		92		40-140	0		50	A
Aroclor 1260	85		88		40-140	3		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	96		91		30-150	A
Decachlorobiphenyl	110		107		30-150	A
2,4,5,6-Tetrachloro-m-xylene	95		92		30-150	B
Decachlorobiphenyl	105		104		30-150	B

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 07 Batch: WG866540-2 WG866540-3									
Aroclor 1016	79		85		40-140	7		50	A
Aroclor 1260	73		71		40-140	3		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	85		89		30-150	A
Decachlorobiphenyl	94		94		30-150	A
2,4,5,6-Tetrachloro-m-xylene	86		87		30-150	B
Decachlorobiphenyl	71		72		30-150	B

# PESTICIDES

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-01  
**Client ID:** SB-103 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/18/16 12:58  
**Analyst:** EC  
**Percent Solids:** 79%

**Date Collected:** 02/12/16 08:00  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 00:17  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 02/18/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	2.02	0.396	1	A
Lindane	ND		ug/kg	0.843	0.377	1	A
Alpha-BHC	ND		ug/kg	0.843	0.239	1	A
Beta-BHC	ND		ug/kg	2.02	0.767	1	A
Heptachlor	ND		ug/kg	1.01	0.453	1	A
Aldrin	ND		ug/kg	2.02	0.712	1	A
Heptachlor epoxide	2.54	J	ug/kg	3.79	1.14	1	B
Endrin	ND		ug/kg	0.843	0.345	1	A
Endrin aldehyde	ND		ug/kg	2.53	0.885	1	A
Endrin ketone	ND		ug/kg	2.02	0.521	1	A
Dieldrin	ND		ug/kg	1.26	0.632	1	A
4,4'-DDE	ND		ug/kg	2.02	0.468	1	A
4,4'-DDD	ND		ug/kg	2.02	0.721	1	A
4,4'-DDT	ND		ug/kg	3.79	1.63	1	A
Endosulfan I	ND		ug/kg	2.02	0.478	1	A
Endosulfan II	ND		ug/kg	2.02	0.676	1	A
Endosulfan sulfate	ND		ug/kg	0.843	0.401	1	A
Methoxychlor	ND		ug/kg	3.79	1.18	1	A
Toxaphene	ND		ug/kg	37.9	10.6	1	A
cis-Chlordane	ND		ug/kg	2.53	0.704	1	A
trans-Chlordane	ND		ug/kg	2.53	0.667	1	A
Chlordane	ND		ug/kg	16.4	6.70	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	101		30-150	B
2,4,5,6-Tetrachloro-m-xylene	75		30-150	A
Decachlorobiphenyl	133		30-150	A

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-02  
**Client ID:** SB-103 (4-6)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/18/16 13:14  
**Analyst:** EC  
**Percent Solids:** 80%

**Date Collected:** 02/12/16 08:15  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 00:17  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 02/18/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.92	0.377	1	A
Lindane	ND		ug/kg	0.802	0.358	1	A
Alpha-BHC	ND		ug/kg	0.802	0.228	1	A
Beta-BHC	ND		ug/kg	1.92	0.730	1	A
Heptachlor	ND		ug/kg	0.962	0.431	1	A
Aldrin	ND		ug/kg	1.92	0.678	1	A
Heptachlor epoxide	ND		ug/kg	3.61	1.08	1	A
Endrin	ND		ug/kg	0.802	0.329	1	A
Endrin aldehyde	1.08	J	ug/kg	2.40	0.842	1	A
Endrin ketone	ND		ug/kg	1.92	0.496	1	A
Dieldrin	ND		ug/kg	1.20	0.601	1	A
4,4'-DDE	ND		ug/kg	1.92	0.445	1	A
4,4'-DDD	ND		ug/kg	1.92	0.686	1	A
4,4'-DDT	ND		ug/kg	3.61	1.55	1	A
Endosulfan I	ND		ug/kg	1.92	0.455	1	A
Endosulfan II	ND		ug/kg	1.92	0.643	1	A
Endosulfan sulfate	ND		ug/kg	0.802	0.382	1	A
Methoxychlor	ND		ug/kg	3.61	1.12	1	A
Toxaphene	ND		ug/kg	36.1	10.1	1	A
cis-Chlordane	ND		ug/kg	2.40	0.670	1	A
trans-Chlordane	ND		ug/kg	2.40	0.635	1	A
Chlordane	ND		ug/kg	15.6	6.37	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	61		30-150	B
Decachlorobiphenyl	96		30-150	B
2,4,5,6-Tetrachloro-m-xylene	66		30-150	A
Decachlorobiphenyl	94		30-150	A



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-03  
**Client ID:** SB-103 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/18/16 13:28  
**Analyst:** EC  
**Percent Solids:** 82%

**Date Collected:** 02/12/16 08:30  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 00:17  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 02/18/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.88	0.369	1	A
Lindane	ND		ug/kg	0.785	0.351	1	A
Alpha-BHC	ND		ug/kg	0.785	0.223	1	A
Beta-BHC	ND		ug/kg	1.88	0.714	1	A
Heptachlor	ND		ug/kg	0.942	0.422	1	A
Aldrin	ND		ug/kg	1.88	0.663	1	A
Heptachlor epoxide	ND		ug/kg	3.53	1.06	1	A
Endrin	ND		ug/kg	0.785	0.322	1	A
Endrin aldehyde	ND		ug/kg	2.36	0.824	1	A
Endrin ketone	ND		ug/kg	1.88	0.485	1	A
Dieldrin	ND		ug/kg	1.18	0.589	1	A
4,4'-DDE	ND		ug/kg	1.88	0.436	1	A
4,4'-DDD	ND		ug/kg	1.88	0.672	1	A
4,4'-DDT	ND		ug/kg	3.53	1.52	1	A
Endosulfan I	ND		ug/kg	1.88	0.445	1	A
Endosulfan II	ND		ug/kg	1.88	0.630	1	A
Endosulfan sulfate	ND		ug/kg	0.785	0.374	1	A
Methoxychlor	ND		ug/kg	3.53	1.10	1	A
Toxaphene	ND		ug/kg	35.3	9.89	1	A
cis-Chlordane	ND		ug/kg	2.36	0.656	1	A
trans-Chlordane	ND		ug/kg	2.36	0.622	1	A
Chlordane	ND		ug/kg	15.3	6.24	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	117		30-150	B
2,4,5,6-Tetrachloro-m-xylene	74		30-150	A
Decachlorobiphenyl	98		30-150	A

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-04  
**Client ID:** SB-101 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/18/16 13:43  
**Analyst:** EC  
**Percent Solids:** 82%

**Date Collected:** 02/12/16 09:15  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 00:17  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 02/18/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.91	0.375	1	A
Lindane	ND		ug/kg	0.798	0.357	1	A
Alpha-BHC	ND		ug/kg	0.798	0.226	1	A
Beta-BHC	ND		ug/kg	1.91	0.726	1	A
Heptachlor	ND		ug/kg	0.957	0.429	1	A
Aldrin	ND		ug/kg	1.91	0.674	1	A
Heptachlor epoxide	ND		ug/kg	3.59	1.08	1	A
Endrin	ND		ug/kg	0.798	0.327	1	A
Endrin aldehyde	ND		ug/kg	2.39	0.838	1	A
Endrin ketone	ND		ug/kg	1.91	0.493	1	A
Dieldrin	ND		ug/kg	1.20	0.598	1	A
4,4'-DDE	0.854	J	ug/kg	1.91	0.443	1	A
4,4'-DDD	ND		ug/kg	1.91	0.683	1	A
4,4'-DDT	ND		ug/kg	3.59	1.54	1	A
Endosulfan I	ND		ug/kg	1.91	0.452	1	A
Endosulfan II	ND		ug/kg	1.91	0.640	1	A
Endosulfan sulfate	ND		ug/kg	0.798	0.380	1	A
Methoxychlor	ND		ug/kg	3.59	1.12	1	A
Toxaphene	ND		ug/kg	35.9	10.0	1	A
cis-Chlordane	ND		ug/kg	2.39	0.667	1	A
trans-Chlordane	ND		ug/kg	2.39	0.632	1	A
Chlordane	ND		ug/kg	15.6	6.34	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		30-150	B
Decachlorobiphenyl	82		30-150	B
2,4,5,6-Tetrachloro-m-xylene	74		30-150	A
Decachlorobiphenyl	97		30-150	A

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-05  
**Client ID:** SB-101 (5-7)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/18/16 13:58  
**Analyst:** EC  
**Percent Solids:** 82%

**Date Collected:** 02/12/16 09:30  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 00:17  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 02/18/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.93	0.377	1	A
Lindane	ND		ug/kg	0.803	0.359	1	A
Alpha-BHC	ND		ug/kg	0.803	0.228	1	A
Beta-BHC	ND		ug/kg	1.93	0.731	1	A
Heptachlor	ND		ug/kg	0.964	0.432	1	A
Aldrin	ND		ug/kg	1.93	0.679	1	A
Heptachlor epoxide	ND		ug/kg	3.61	1.08	1	A
Endrin	ND		ug/kg	0.803	0.329	1	A
Endrin aldehyde	ND		ug/kg	2.41	0.843	1	A
Endrin ketone	ND		ug/kg	1.93	0.496	1	A
Dieldrin	1.81	PI	ug/kg	1.20	0.602	1	B
4,4'-DDE	3.54		ug/kg	1.93	0.446	1	A
4,4'-DDD	ND		ug/kg	1.93	0.688	1	A
4,4'-DDT	ND		ug/kg	3.61	1.55	1	A
Endosulfan I	ND		ug/kg	1.93	0.455	1	A
Endosulfan II	ND		ug/kg	1.93	0.644	1	A
Endosulfan sulfate	ND		ug/kg	0.803	0.382	1	A
Methoxychlor	ND		ug/kg	3.61	1.12	1	A
Toxaphene	ND		ug/kg	36.1	10.1	1	A
cis-Chlordane	ND		ug/kg	2.41	0.671	1	A
trans-Chlordane	ND		ug/kg	2.41	0.636	1	A
Chlordane	ND		ug/kg	15.7	6.38	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	78		30-150	B
2,4,5,6-Tetrachloro-m-xylene	73		30-150	A
Decachlorobiphenyl	89		30-150	A

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-06  
**Client ID:** SB-101 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/18/16 14:14  
**Analyst:** EC  
**Percent Solids:** 83%

**Date Collected:** 02/12/16 09:45  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 00:17  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 02/18/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.88	0.367	1	A
Lindane	ND		ug/kg	0.781	0.349	1	A
Alpha-BHC	ND		ug/kg	0.781	0.222	1	A
Beta-BHC	ND		ug/kg	1.88	0.711	1	A
Heptachlor	ND		ug/kg	0.938	0.420	1	A
Aldrin	ND		ug/kg	1.88	0.660	1	A
Heptachlor epoxide	ND		ug/kg	3.52	1.05	1	A
Endrin	ND		ug/kg	0.781	0.320	1	A
Endrin aldehyde	ND		ug/kg	2.34	0.820	1	A
Endrin ketone	ND		ug/kg	1.88	0.483	1	A
Dieldrin	0.906	J	ug/kg	1.17	0.586	1	A
4,4'-DDE	0.894	J	ug/kg	1.88	0.434	1	A
4,4'-DDD	ND		ug/kg	1.88	0.669	1	A
4,4'-DDT	ND		ug/kg	3.52	1.51	1	A
Endosulfan I	ND		ug/kg	1.88	0.443	1	A
Endosulfan II	ND		ug/kg	1.88	0.627	1	A
Endosulfan sulfate	ND		ug/kg	0.781	0.372	1	A
Methoxychlor	ND		ug/kg	3.52	1.09	1	A
Toxaphene	ND		ug/kg	35.2	9.84	1	A
cis-Chlordane	ND		ug/kg	2.34	0.653	1	A
trans-Chlordane	ND		ug/kg	2.34	0.619	1	A
Chlordane	ND		ug/kg	15.2	6.21	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		30-150	B
Decachlorobiphenyl	87		30-150	B
2,4,5,6-Tetrachloro-m-xylene	80		30-150	A
Decachlorobiphenyl	91		30-150	A

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-07  
**Client ID:** DUP021216  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/19/16 12:21  
**Analyst:** EC  
**Percent Solids:** 83%

**Date Collected:** 02/12/16 10:00  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/19/16 03:17  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 02/19/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.88	0.367	1	A
Lindane	ND		ug/kg	0.782	0.349	1	A
Alpha-BHC	ND		ug/kg	0.782	0.222	1	A
Beta-BHC	ND		ug/kg	1.88	0.711	1	A
Heptachlor	ND		ug/kg	0.938	0.420	1	A
Aldrin	ND		ug/kg	1.88	0.660	1	A
Heptachlor epoxide	ND		ug/kg	3.52	1.06	1	A
Endrin	ND		ug/kg	0.782	0.320	1	A
Endrin aldehyde	ND		ug/kg	2.34	0.821	1	A
Endrin ketone	ND		ug/kg	1.88	0.483	1	A
Dieldrin	0.669	JPI	ug/kg	1.17	0.586	1	B
4,4'-DDE	2.06		ug/kg	1.88	0.434	1	B
4,4'-DDD	4.27		ug/kg	1.88	0.669	1	A
4,4'-DDT	3.29	J	ug/kg	3.52	1.51	1	A
Endosulfan I	ND		ug/kg	1.88	0.443	1	A
Endosulfan II	ND		ug/kg	1.88	0.627	1	A
Endosulfan sulfate	ND		ug/kg	0.782	0.372	1	A
Methoxychlor	ND		ug/kg	3.52	1.09	1	A
Toxaphene	ND		ug/kg	35.2	9.85	1	A
cis-Chlordane	ND		ug/kg	2.34	0.653	1	A
trans-Chlordane	ND		ug/kg	2.34	0.619	1	A
Chlordane	ND		ug/kg	15.2	6.21	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	99		30-150	B
Decachlorobiphenyl	98		30-150	B
2,4,5,6-Tetrachloro-m-xylene	107		30-150	A
Decachlorobiphenyl	88		30-150	A

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-08  
**Client ID:** SB-102 (0-2)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/18/16 20:16  
**Analyst:** AM  
**Percent Solids:** 83%

**Date Collected:** 02/12/16 10:30  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 00:17  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 02/18/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.90	0.372	1	A
Lindane	ND		ug/kg	0.791	0.354	1	A
Alpha-BHC	ND		ug/kg	0.791	0.225	1	A
Beta-BHC	ND		ug/kg	1.90	0.720	1	A
Heptachlor	ND		ug/kg	0.949	0.426	1	A
Aldrin	ND		ug/kg	1.90	0.668	1	A
Heptachlor epoxide	ND		ug/kg	3.56	1.07	1	A
Endrin	ND		ug/kg	0.791	0.324	1	A
Endrin aldehyde	ND		ug/kg	2.37	0.830	1	A
Endrin ketone	ND		ug/kg	1.90	0.489	1	A
Dieldrin	ND		ug/kg	1.19	0.593	1	A
4,4'-DDE	ND		ug/kg	1.90	0.439	1	A
4,4'-DDD	ND		ug/kg	1.90	0.677	1	A
4,4'-DDT	ND		ug/kg	3.56	1.53	1	A
Endosulfan I	ND		ug/kg	1.90	0.448	1	A
Endosulfan II	ND		ug/kg	1.90	0.634	1	A
Endosulfan sulfate	ND		ug/kg	0.791	0.376	1	A
Methoxychlor	ND		ug/kg	3.56	1.11	1	A
Toxaphene	ND		ug/kg	35.6	9.97	1	A
cis-Chlordane	ND		ug/kg	2.37	0.661	1	A
trans-Chlordane	ND		ug/kg	2.37	0.626	1	A
Chlordane	ND		ug/kg	15.4	6.29	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	79		30-150	B
Decachlorobiphenyl	106		30-150	B
2,4,5,6-Tetrachloro-m-xylene	77		30-150	A
Decachlorobiphenyl	98		30-150	A

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-09  
**Client ID:** SB-102 (5-7)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/18/16 20:29  
**Analyst:** AM  
**Percent Solids:** 84%

**Date Collected:** 02/12/16 10:45  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 00:17  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 02/18/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.84	0.359	1	A
Lindane	ND		ug/kg	0.764	0.342	1	A
Alpha-BHC	ND		ug/kg	0.764	0.217	1	A
Beta-BHC	ND		ug/kg	1.84	0.696	1	A
Heptachlor	ND		ug/kg	0.918	0.411	1	A
Aldrin	ND		ug/kg	1.84	0.646	1	A
Heptachlor epoxide	ND		ug/kg	3.44	1.03	1	A
Endrin	ND		ug/kg	0.764	0.313	1	A
Endrin aldehyde	ND		ug/kg	2.29	0.803	1	A
Endrin ketone	ND		ug/kg	1.84	0.472	1	A
Dieldrin	ND		ug/kg	1.15	0.573	1	A
4,4'-DDE	ND		ug/kg	1.84	0.424	1	A
4,4'-DDD	ND		ug/kg	1.84	0.654	1	A
4,4'-DDT	ND		ug/kg	3.44	1.48	1	A
Endosulfan I	ND		ug/kg	1.84	0.434	1	A
Endosulfan II	ND		ug/kg	1.84	0.613	1	A
Endosulfan sulfate	ND		ug/kg	0.764	0.364	1	A
Methoxychlor	ND		ug/kg	3.44	1.07	1	A
Toxaphene	ND		ug/kg	34.4	9.63	1	A
cis-Chlordane	ND		ug/kg	2.29	0.639	1	A
trans-Chlordane	ND		ug/kg	2.29	0.606	1	A
Chlordane	ND		ug/kg	14.9	6.08	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	103		30-150	B
Decachlorobiphenyl	133		30-150	B
2,4,5,6-Tetrachloro-m-xylene	100		30-150	A
Decachlorobiphenyl	127		30-150	A

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-10  
**Client ID:** SB-102 (10-12)  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/18/16 20:42  
**Analyst:** AM  
**Percent Solids:** 79%

**Date Collected:** 02/12/16 11:00  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 02/17/16 00:17  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 02/18/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.95	0.382	1	A
Lindane	ND		ug/kg	0.812	0.363	1	A
Alpha-BHC	ND		ug/kg	0.812	0.230	1	A
Beta-BHC	ND		ug/kg	1.95	0.739	1	A
Heptachlor	ND		ug/kg	0.974	0.437	1	A
Aldrin	ND		ug/kg	1.95	0.686	1	A
Heptachlor epoxide	ND		ug/kg	3.65	1.10	1	A
Endrin	ND		ug/kg	0.812	0.333	1	A
Endrin aldehyde	ND		ug/kg	2.44	0.852	1	A
Endrin ketone	ND		ug/kg	1.95	0.502	1	A
Dieldrin	ND		ug/kg	1.22	0.609	1	A
4,4'-DDE	ND		ug/kg	1.95	0.451	1	A
4,4'-DDD	ND		ug/kg	1.95	0.695	1	A
4,4'-DDT	ND		ug/kg	3.65	1.57	1	A
Endosulfan I	ND		ug/kg	1.95	0.460	1	A
Endosulfan II	ND		ug/kg	1.95	0.651	1	A
Endosulfan sulfate	ND		ug/kg	0.812	0.386	1	A
Methoxychlor	ND		ug/kg	3.65	1.14	1	A
Toxaphene	ND		ug/kg	36.5	10.2	1	A
cis-Chlordane	ND		ug/kg	2.44	0.679	1	A
trans-Chlordane	ND		ug/kg	2.44	0.643	1	A
Chlordane	ND		ug/kg	15.8	6.45	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		30-150	B
Decachlorobiphenyl	92		30-150	B
2,4,5,6-Tetrachloro-m-xylene	69		30-150	A
Decachlorobiphenyl	91		30-150	A



**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

**SAMPLE RESULTS**

**Lab ID:** L1603880-11  
**Client ID:** FB021216  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/19/16 13:28  
**Analyst:** EC

**Date Collected:** 02/12/16 11:15  
**Date Received:** 02/12/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/17/16 22:33

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.020	0.005	1	A
Lindane	ND		ug/l	0.020	0.004	1	A
Alpha-BHC	ND		ug/l	0.020	0.004	1	A
Beta-BHC	ND		ug/l	0.020	0.006	1	A
Heptachlor	ND		ug/l	0.020	0.003	1	A
Aldrin	ND		ug/l	0.020	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.020	0.004	1	A
Endrin	ND		ug/l	0.040	0.004	1	A
Endrin aldehyde	ND		ug/l	0.040	0.008	1	A
Endrin ketone	ND		ug/l	0.040	0.005	1	A
Dieldrin	ND		ug/l	0.040	0.004	1	A
4,4'-DDE	ND		ug/l	0.040	0.004	1	A
4,4'-DDD	ND		ug/l	0.040	0.005	1	A
4,4'-DDT	ND		ug/l	0.040	0.004	1	A
Endosulfan I	ND		ug/l	0.020	0.003	1	A
Endosulfan II	ND		ug/l	0.040	0.005	1	A
Endosulfan sulfate	ND		ug/l	0.040	0.005	1	A
Methoxychlor	ND		ug/l	0.200	0.007	1	A
Toxaphene	ND		ug/l	0.200	0.063	1	A
cis-Chlordane	ND		ug/l	0.020	0.007	1	A
trans-Chlordane	ND		ug/l	0.020	0.006	1	A
Chlordane	ND		ug/l	0.200	0.046	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	93		30-150	A
Decachlorobiphenyl	93		30-150	A
2,4,5,6-Tetrachloro-m-xylene	85		30-150	B
Decachlorobiphenyl	82		30-150	B

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8081B  
 Analytical Date: 02/18/16 11:37  
 Analyst: EC

Extraction Method: EPA 3546  
 Extraction Date: 02/17/16 00:17  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 02/18/16

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-06,08-10 Batch: WG865785-1						
Delta-BHC	ND		ug/kg	1.57	0.308	A
Lindane	ND		ug/kg	0.654	0.292	A
Alpha-BHC	ND		ug/kg	0.654	0.186	A
Beta-BHC	ND		ug/kg	1.57	0.596	A
Heptachlor	ND		ug/kg	0.785	0.352	A
Aldrin	ND		ug/kg	1.57	0.553	A
Heptachlor epoxide	ND		ug/kg	2.94	0.884	A
Endrin	ND		ug/kg	0.654	0.268	A
Endrin aldehyde	ND		ug/kg	1.96	0.687	A
Endrin ketone	ND		ug/kg	1.57	0.404	A
Dieldrin	ND		ug/kg	0.982	0.491	A
4,4'-DDE	ND		ug/kg	1.57	0.363	A
4,4'-DDD	ND		ug/kg	1.57	0.560	A
4,4'-DDT	ND		ug/kg	2.94	1.26	A
Endosulfan I	ND		ug/kg	1.57	0.371	A
Endosulfan II	ND		ug/kg	1.57	0.525	A
Endosulfan sulfate	ND		ug/kg	0.654	0.312	A
Methoxychlor	ND		ug/kg	2.94	0.916	A
Toxaphene	ND		ug/kg	29.4	8.25	A
cis-Chlordane	ND		ug/kg	1.96	0.547	A
trans-Chlordane	ND		ug/kg	1.96	0.518	A
Chlordane	ND		ug/kg	12.8	5.20	A

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8081B  
 Analytical Date: 02/18/16 11:37  
 Analyst: EC

Extraction Method: EPA 3546  
 Extraction Date: 02/17/16 00:17  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 02/18/16

Parameter	Result	Qualifier	Units	RL	MDL
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-06,08-10 Batch: WG865785-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		30-150	B
Decachlorobiphenyl	63		30-150	B
2,4,5,6-Tetrachloro-m-xylene	72		30-150	A
Decachlorobiphenyl	77		30-150	A

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8081B  
 Analytical Date: 02/18/16 16:07  
 Analyst: AM

Extraction Method: EPA 3510C  
 Extraction Date: 02/17/16 22:33

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 11 Batch: WG866129-1						
Delta-BHC	ND		ug/l	0.020	0.005	A
Lindane	ND		ug/l	0.020	0.004	A
Alpha-BHC	ND		ug/l	0.020	0.004	A
Beta-BHC	ND		ug/l	0.020	0.006	A
Heptachlor	ND		ug/l	0.020	0.003	A
Aldrin	ND		ug/l	0.020	0.002	A
Heptachlor epoxide	ND		ug/l	0.020	0.004	A
Endrin	ND		ug/l	0.040	0.004	A
Endrin aldehyde	ND		ug/l	0.040	0.008	A
Endrin ketone	ND		ug/l	0.040	0.005	A
Dieldrin	ND		ug/l	0.040	0.004	A
4,4'-DDE	ND		ug/l	0.040	0.004	A
4,4'-DDD	ND		ug/l	0.040	0.005	A
4,4'-DDT	ND		ug/l	0.040	0.004	A
Endosulfan I	ND		ug/l	0.020	0.003	A
Endosulfan II	ND		ug/l	0.040	0.005	A
Endosulfan sulfate	ND		ug/l	0.040	0.005	A
Methoxychlor	ND		ug/l	0.200	0.007	A
Toxaphene	ND		ug/l	0.200	0.063	A
cis-Chlordane	ND		ug/l	0.020	0.007	A
trans-Chlordane	ND		ug/l	0.020	0.006	A
Chlordane	ND		ug/l	0.200	0.046	A

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8081B  
 Analytical Date: 02/18/16 16:07  
 Analyst: AM

Extraction Method: EPA 3510C  
 Extraction Date: 02/17/16 22:33

Parameter	Result	Qualifier	Units	RL	MDL
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 11 Batch: WG866129-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	88		30-150	A
Decachlorobiphenyl	98		30-150	A
2,4,5,6-Tetrachloro-m-xylene	97		30-150	B
Decachlorobiphenyl	107		30-150	B

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8081B  
 Analytical Date: 02/19/16 11:19  
 Analyst: EC

Extraction Method: EPA 3546  
 Extraction Date: 02/19/16 02:00  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 02/19/16

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 07 Batch: WG866533-1						
Delta-BHC	ND		ug/kg	1.53	0.300	A
Lindane	ND		ug/kg	0.637	0.285	A
Alpha-BHC	ND		ug/kg	0.637	0.181	A
Beta-BHC	ND		ug/kg	1.53	0.580	A
Heptachlor	ND		ug/kg	0.765	0.343	A
Aldrin	ND		ug/kg	1.53	0.538	A
Heptachlor epoxide	ND		ug/kg	2.87	0.860	A
Endrin	ND		ug/kg	0.637	0.261	A
Endrin aldehyde	ND		ug/kg	1.91	0.669	A
Endrin ketone	ND		ug/kg	1.53	0.394	A
Dieldrin	ND		ug/kg	0.956	0.478	A
4,4'-DDE	ND		ug/kg	1.53	0.354	A
4,4'-DDD	ND		ug/kg	1.53	0.546	A
4,4'-DDT	ND		ug/kg	2.87	1.23	A
Endosulfan I	ND		ug/kg	1.53	0.361	A
Endosulfan II	ND		ug/kg	1.53	0.511	A
Endosulfan sulfate	ND		ug/kg	0.637	0.303	A
Methoxychlor	ND		ug/kg	2.87	0.892	A
Toxaphene	ND		ug/kg	28.7	8.03	A
cis-Chlordane	ND		ug/kg	1.91	0.533	A
trans-Chlordane	ND		ug/kg	1.91	0.505	A
Chlordane	ND		ug/kg	12.4	5.07	A

Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8081B  
 Analytical Date: 02/19/16 11:19  
 Analyst: EC

Extraction Method: EPA 3546  
 Extraction Date: 02/19/16 02:00  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 02/19/16

Parameter	Result	Qualifier	Units	RL	MDL
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 07 Batch: WG866533-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	91		30-150	B
Decachlorobiphenyl	101		30-150	B
2,4,5,6-Tetrachloro-m-xylene	105		30-150	A
Decachlorobiphenyl	94		30-150	A

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603880

Report Date: 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-06,08-10 Batch: WG865785-2 WG865785-3									
Delta-BHC	87		76		30-150	13		30	A
Lindane	83		75		30-150	10		30	A
Alpha-BHC	90		80		30-150	12		30	A
Beta-BHC	93		80		30-150	15		30	A
Heptachlor	84		78		30-150	7		30	A
Aldrin	88		79		30-150	11		30	A
Heptachlor epoxide	74		67		30-150	10		30	A
Endrin	82		75		30-150	9		30	A
Endrin ketone	72		63		30-150	13		30	A
Dieldrin	86		78		30-150	10		30	A
4,4'-DDE	85		77		30-150	10		30	A
4,4'-DDD	77		70		30-150	10		30	A
4,4'-DDT	84		76		30-150	10		30	A
Endosulfan I	81		75		30-150	8		30	A
Endosulfan II	79		71		30-150	11		30	A
Endosulfan sulfate	65		56		30-150	15		30	A
Methoxychlor	81		74		30-150	9		30	A
cis-Chlordane	83		76		30-150	9		30	A
trans-Chlordane	88		78		30-150	12		30	A



**Lab Control Sample Analysis****Batch Quality Control****Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603880**Report Date:** 02/24/16

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-06,08-10 Batch: WG865785-2 WG865785-3

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>	<b>Column</b>
2,4,5,6-Tetrachloro-m-xylene	76		69		30-150	B
Decachlorobiphenyl	87		81		30-150	B
2,4,5,6-Tetrachloro-m-xylene	84		75		30-150	A
Decachlorobiphenyl	100		89		30-150	A

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603880

Report Date: 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 11 Batch: WG866129-2 WG866129-3									
Delta-BHC	105		138		30-150	27	Q	20	A
Lindane	107		137		30-150	25	Q	20	A
Alpha-BHC	110		142		30-150	25	Q	20	A
Beta-BHC	107		135		30-150	23	Q	20	A
Heptachlor	94		122		30-150	26	Q	20	A
Aldrin	97		130		30-150	29	Q	20	A
Heptachlor epoxide	110		141		30-150	25	Q	20	A
Endrin	108		142		30-150	27	Q	20	A
Endrin ketone	110		145		30-150	27	Q	20	A
Dieldrin	105		137		30-150	26	Q	20	A
4,4'-DDE	111		145		30-150	27	Q	20	A
4,4'-DDD	114		151	Q	30-150	28	Q	20	A
4,4'-DDT	108		144		30-150	29	Q	20	A
Endosulfan I	119		148		30-150	22	Q	20	A
Endosulfan II	113		148		30-150	27	Q	20	A
Endosulfan sulfate	108		145		30-150	29	Q	20	A
Methoxychlor	114		149		30-150	27	Q	20	A
cis-Chlordane	109		139		30-150	24	Q	20	A
trans-Chlordane	108		140		30-150	26	Q	20	A

**Lab Control Sample Analysis****Batch Quality Control****Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603880**Report Date:** 02/24/16

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 11 Batch: WG866129-2 WG866129-3								

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>	<b>Column</b>
2,4,5,6-Tetrachloro-m-xylene	72		94		30-150	A
Decachlorobiphenyl	86		112		30-150	A
2,4,5,6-Tetrachloro-m-xylene	79		104		30-150	B
Decachlorobiphenyl	86		112		30-150	B

# Lab Control Sample Analysis

## Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603880

Report Date: 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 07 Batch: WG866533-2 WG866533-3									
Delta-BHC	106		105		30-150	1		30	A
Lindane	107		104		30-150	3		30	A
Alpha-BHC	110		109		30-150	1		30	A
Beta-BHC	95		100		30-150	5		30	A
Heptachlor	121		117		30-150	3		30	A
Aldrin	113		111		30-150	2		30	A
Heptachlor epoxide	103		102		30-150	1		30	A
Endrin	132		130		30-150	2		30	A
Endrin aldehyde	81		76		30-150	6		30	A
Endrin ketone	99		101		30-150	2		30	A
Dieldrin	117		116		30-150	1		30	A
4,4'-DDE	105		104		30-150	1		30	A
4,4'-DDD	120		121		30-150	1		30	A
4,4'-DDT	124		122		30-150	2		30	A
Endosulfan I	113		110		30-150	3		30	A
Endosulfan II	113		112		30-150	1		30	A
Endosulfan sulfate	94		97		30-150	3		30	A
Methoxychlor	118		120		30-150	2		30	A
cis-Chlordane	108		106		30-150	2		30	A
trans-Chlordane	111		109		30-150	2		30	A

**Lab Control Sample Analysis****Batch Quality Control****Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603880**Report Date:** 02/24/16

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 07 Batch: WG866533-2 WG866533-3

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>	<b>Column</b>
2,4,5,6-Tetrachloro-m-xylene	116		111		30-150	B
Decachlorobiphenyl	124		123		30-150	B
2,4,5,6-Tetrachloro-m-xylene	120		123		30-150	A
Decachlorobiphenyl	117		116		30-150	A

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>	<i>Column</i>
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 11 QC Batch ID: WG866129-4 WG866129-5 QC Sample: L1603922-03 Client ID: MS													
Delta-BHC	ND	0.5	0.898	180	Q	0.803	161	Q	30-150	11		30	A
Lindane	ND	0.5	0.854	171	Q	0.766	153	Q	30-150	11		30	A
Alpha-BHC	ND	0.5	0.851	170	Q	0.764	153	Q	30-150	11		30	A
Beta-BHC	ND	0.5	0.859	172	Q	0.775	155	Q	30-150	10		30	A
Heptachlor	ND	0.5	0.817	163	Q	0.731	146		30-150	11		30	A
Aldrin	ND	0.5	0.879	176	Q	0.782	156	Q	30-150	12		30	A
Heptachlor epoxide	ND	0.5	0.938	188	Q	0.862	172	Q	30-150	8		30	A
Endrin	ND	0.5	1.01	202	Q	0.943	189	Q	30-150	7		30	A
Endrin ketone	ND	0.5	1.06	212	Q	0.997	199	Q	30-150	6		30	A
Dieldrin	ND	0.5	0.955	191	Q	0.888	178	Q	30-150	7		30	A
4,4'-DDE	ND	0.5	0.944	189	Q	0.821	164	Q	30-150	14		30	A
4,4'-DDD	ND	0.5	1.02	204	Q	0.943	189	Q	30-150	8		30	A
4,4'-DDT	ND	0.5	1.01	202	Q	0.898	180	Q	30-150	12		30	A
Endosulfan I	ND	0.5	0.950	190	Q	0.958	192	Q	30-150	1		30	A
Endosulfan II	ND	0.5	1.07	214	Q	0.992	198	Q	30-150	8		30	A
Endosulfan sulfate	ND	0.5	1.07	214	Q	1.00	200	Q	30-150	7		30	A
Methoxychlor	ND	0.5	1.00	200	Q	0.975	195	Q	30-150	3		30	A
cis-Chlordane	ND	0.5	0.940	188	Q	0.867	173	Q	30-150	8		30	A
trans-Chlordane	ND	0.5	0.924	185	Q	0.842	168	Q	30-150	9		30	A

**Matrix Spike Analysis**

Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603880

Report Date: 02/24/16

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 11 QC Batch ID: WG866129-4 WG866129-5 QC Sample: L1603922-03 Client ID: MS Sample

<i>Surrogate</i>	<i>MS % Recovery</i>	<i>Qualifier</i>	<i>MSD % Recovery</i>	<i>Qualifier</i>	<i>Acceptance Criteria</i>	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	109		100		30-150	A
Decachlorobiphenyl	155	Q	132		30-150	A
2,4,5,6-Tetrachloro-m-xylene	115		97		30-150	B
Decachlorobiphenyl	149		118		30-150	B

## METALS



Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-01

Date Collected: 02/12/16 08:00

Client ID: SB-103 (0-2)

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 79%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	6000		mg/kg	9.8	2.0	2	02/16/16 05:00	02/17/16 23:15	EPA 3050B	1,6010C	MC
Antimony, Total	ND		mg/kg	4.9	0.79	2	02/16/16 05:00	02/17/16 23:15	EPA 3050B	1,6010C	MC
Arsenic, Total	3.0		mg/kg	0.98	0.20	2	02/16/16 05:00	02/17/16 23:15	EPA 3050B	1,6010C	MC
Barium, Total	68		mg/kg	0.98	0.30	2	02/16/16 05:00	02/17/16 23:15	EPA 3050B	1,6010C	MC
Beryllium, Total	0.25	J	mg/kg	0.49	0.10	2	02/16/16 05:00	02/17/16 23:15	EPA 3050B	1,6010C	MC
Cadmium, Total	ND		mg/kg	0.98	0.07	2	02/16/16 05:00	02/17/16 23:15	EPA 3050B	1,6010C	MC
Calcium, Total	2400		mg/kg	9.8	3.0	2	02/16/16 05:00	02/17/16 23:15	EPA 3050B	1,6010C	MC
Chromium, Total	10		mg/kg	0.98	0.20	2	02/16/16 05:00	02/17/16 23:15	EPA 3050B	1,6010C	MC
Cobalt, Total	2.4		mg/kg	2.0	0.49	2	02/16/16 05:00	02/17/16 23:15	EPA 3050B	1,6010C	MC
Copper, Total	19		mg/kg	0.98	0.20	2	02/16/16 05:00	02/17/16 23:15	EPA 3050B	1,6010C	MC
Iron, Total	7700		mg/kg	4.9	2.0	2	02/16/16 05:00	02/17/16 23:15	EPA 3050B	1,6010C	MC
Lead, Total	160		mg/kg	4.9	0.20	2	02/16/16 05:00	02/17/16 23:15	EPA 3050B	1,6010C	MC
Magnesium, Total	1200		mg/kg	9.8	0.98	2	02/16/16 05:00	02/17/16 23:15	EPA 3050B	1,6010C	MC
Manganese, Total	130		mg/kg	0.98	0.20	2	02/16/16 05:00	02/17/16 23:15	EPA 3050B	1,6010C	MC
Mercury, Total	0.27		mg/kg	0.08	0.02	1	02/16/16 10:07	02/16/16 17:57	EPA 7471B	1,7471B	JH
Nickel, Total	5.8		mg/kg	2.5	0.39	2	02/16/16 05:00	02/17/16 23:15	EPA 3050B	1,6010C	MC
Potassium, Total	300		mg/kg	250	39.	2	02/16/16 05:00	02/17/16 23:15	EPA 3050B	1,6010C	MC
Selenium, Total	0.51	J	mg/kg	2.0	0.30	2	02/16/16 05:00	02/17/16 23:15	EPA 3050B	1,6010C	MC
Silver, Total	0.34	J	mg/kg	0.98	0.20	2	02/16/16 05:00	02/17/16 23:15	EPA 3050B	1,6010C	MC
Sodium, Total	75	J	mg/kg	200	30.	2	02/16/16 05:00	02/17/16 23:15	EPA 3050B	1,6010C	MC
Thallium, Total	ND		mg/kg	2.0	0.39	2	02/16/16 05:00	02/17/16 23:15	EPA 3050B	1,6010C	MC
Vanadium, Total	10		mg/kg	0.98	0.10	2	02/16/16 05:00	02/17/16 23:15	EPA 3050B	1,6010C	MC
Zinc, Total	56		mg/kg	4.9	0.69	2	02/16/16 05:00	02/17/16 23:15	EPA 3050B	1,6010C	MC



Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-02

Date Collected: 02/12/16 08:15

Client ID: SB-103 (4-6)

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 80%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	9200		mg/kg	9.9	2.0	2	02/16/16 05:00	02/17/16 23:19	EPA 3050B	1,6010C	MC
Antimony, Total	ND		mg/kg	5.0	0.79	2	02/16/16 05:00	02/17/16 23:19	EPA 3050B	1,6010C	MC
Arsenic, Total	5.1		mg/kg	0.99	0.20	2	02/16/16 05:00	02/17/16 23:19	EPA 3050B	1,6010C	MC
Barium, Total	9.1		mg/kg	0.99	0.30	2	02/16/16 05:00	02/17/16 23:19	EPA 3050B	1,6010C	MC
Beryllium, Total	0.29	J	mg/kg	0.50	0.10	2	02/16/16 05:00	02/17/16 23:19	EPA 3050B	1,6010C	MC
Cadmium, Total	ND		mg/kg	0.99	0.07	2	02/16/16 05:00	02/17/16 23:19	EPA 3050B	1,6010C	MC
Calcium, Total	330		mg/kg	9.9	3.0	2	02/16/16 05:00	02/17/16 23:19	EPA 3050B	1,6010C	MC
Chromium, Total	22		mg/kg	0.99	0.20	2	02/16/16 05:00	02/17/16 23:19	EPA 3050B	1,6010C	MC
Cobalt, Total	5.2		mg/kg	2.0	0.50	2	02/16/16 05:00	02/17/16 23:19	EPA 3050B	1,6010C	MC
Copper, Total	18		mg/kg	0.99	0.20	2	02/16/16 05:00	02/17/16 23:19	EPA 3050B	1,6010C	MC
Iron, Total	20000		mg/kg	5.0	2.0	2	02/16/16 05:00	02/17/16 23:19	EPA 3050B	1,6010C	MC
Lead, Total	15		mg/kg	5.0	0.20	2	02/16/16 05:00	02/17/16 23:19	EPA 3050B	1,6010C	MC
Magnesium, Total	2400		mg/kg	9.9	0.99	2	02/16/16 05:00	02/17/16 23:19	EPA 3050B	1,6010C	MC
Manganese, Total	210		mg/kg	0.99	0.20	2	02/16/16 05:00	02/17/16 23:19	EPA 3050B	1,6010C	MC
Mercury, Total	0.22		mg/kg	0.08	0.02	1	02/16/16 10:07	02/16/16 18:10	EPA 7471B	1,7471B	JH
Nickel, Total	12		mg/kg	2.5	0.40	2	02/16/16 05:00	02/17/16 23:19	EPA 3050B	1,6010C	MC
Potassium, Total	520		mg/kg	250	40.	2	02/16/16 05:00	02/17/16 23:19	EPA 3050B	1,6010C	MC
Selenium, Total	0.43	J	mg/kg	2.0	0.30	2	02/16/16 05:00	02/17/16 23:19	EPA 3050B	1,6010C	MC
Silver, Total	ND		mg/kg	0.99	0.20	2	02/16/16 05:00	02/17/16 23:19	EPA 3050B	1,6010C	MC
Sodium, Total	56	J	mg/kg	200	30.	2	02/16/16 05:00	02/17/16 23:19	EPA 3050B	1,6010C	MC
Thallium, Total	ND		mg/kg	2.0	0.40	2	02/16/16 05:00	02/17/16 23:19	EPA 3050B	1,6010C	MC
Vanadium, Total	20		mg/kg	0.99	0.10	2	02/16/16 05:00	02/17/16 23:19	EPA 3050B	1,6010C	MC
Zinc, Total	34		mg/kg	5.0	0.69	2	02/16/16 05:00	02/17/16 23:19	EPA 3050B	1,6010C	MC



Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-03

Date Collected: 02/12/16 08:30

Client ID: SB-103 (10-12)

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	5800		mg/kg	9.7	1.9	2	02/16/16 05:00	02/17/16 23:23	EPA 3050B	1,6010C	MC
Antimony, Total	ND		mg/kg	4.9	0.78	2	02/16/16 05:00	02/17/16 23:23	EPA 3050B	1,6010C	MC
Arsenic, Total	2.4		mg/kg	0.97	0.19	2	02/16/16 05:00	02/17/16 23:23	EPA 3050B	1,6010C	MC
Barium, Total	23		mg/kg	0.97	0.29	2	02/16/16 05:00	02/17/16 23:23	EPA 3050B	1,6010C	MC
Beryllium, Total	0.22	J	mg/kg	0.49	0.10	2	02/16/16 05:00	02/17/16 23:23	EPA 3050B	1,6010C	MC
Cadmium, Total	ND		mg/kg	0.97	0.07	2	02/16/16 05:00	02/17/16 23:23	EPA 3050B	1,6010C	MC
Calcium, Total	4000		mg/kg	9.7	2.9	2	02/16/16 05:00	02/17/16 23:23	EPA 3050B	1,6010C	MC
Chromium, Total	10		mg/kg	0.97	0.19	2	02/16/16 05:00	02/17/16 23:23	EPA 3050B	1,6010C	MC
Cobalt, Total	3.6		mg/kg	1.9	0.49	2	02/16/16 05:00	02/17/16 23:23	EPA 3050B	1,6010C	MC
Copper, Total	11		mg/kg	0.97	0.19	2	02/16/16 05:00	02/17/16 23:23	EPA 3050B	1,6010C	MC
Iron, Total	9600		mg/kg	4.9	1.9	2	02/16/16 05:00	02/17/16 23:23	EPA 3050B	1,6010C	MC
Lead, Total	12		mg/kg	4.9	0.19	2	02/16/16 05:00	02/17/16 23:23	EPA 3050B	1,6010C	MC
Magnesium, Total	2600		mg/kg	9.7	0.97	2	02/16/16 05:00	02/17/16 23:23	EPA 3050B	1,6010C	MC
Manganese, Total	110		mg/kg	0.97	0.19	2	02/16/16 05:00	02/17/16 23:23	EPA 3050B	1,6010C	MC
Mercury, Total	0.14		mg/kg	0.08	0.02	1	02/16/16 10:07	02/16/16 18:12	EPA 7471B	1,7471B	JH
Nickel, Total	8.3		mg/kg	2.4	0.39	2	02/16/16 05:00	02/17/16 23:23	EPA 3050B	1,6010C	MC
Potassium, Total	370		mg/kg	240	39.	2	02/16/16 05:00	02/17/16 23:23	EPA 3050B	1,6010C	MC
Selenium, Total	ND		mg/kg	1.9	0.29	2	02/16/16 05:00	02/17/16 23:23	EPA 3050B	1,6010C	MC
Silver, Total	ND		mg/kg	0.97	0.19	2	02/16/16 05:00	02/17/16 23:23	EPA 3050B	1,6010C	MC
Sodium, Total	55	J	mg/kg	190	29.	2	02/16/16 05:00	02/17/16 23:23	EPA 3050B	1,6010C	MC
Thallium, Total	ND		mg/kg	1.9	0.39	2	02/16/16 05:00	02/17/16 23:23	EPA 3050B	1,6010C	MC
Vanadium, Total	10		mg/kg	0.97	0.10	2	02/16/16 05:00	02/17/16 23:23	EPA 3050B	1,6010C	MC
Zinc, Total	29		mg/kg	4.9	0.68	2	02/16/16 05:00	02/17/16 23:23	EPA 3050B	1,6010C	MC



Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-04

Date Collected: 02/12/16 09:15

Client ID: SB-101 (0-2)

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	6700		mg/kg	9.6	1.9	2	02/16/16 06:00	02/18/16 00:09	EPA 3050B	1,6010C	MC
Antimony, Total	ND		mg/kg	4.8	0.77	2	02/16/16 06:00	02/18/16 00:09	EPA 3050B	1,6010C	MC
Arsenic, Total	3.0		mg/kg	0.96	0.19	2	02/16/16 06:00	02/18/16 00:09	EPA 3050B	1,6010C	MC
Barium, Total	22		mg/kg	0.96	0.29	2	02/16/16 06:00	02/18/16 00:09	EPA 3050B	1,6010C	MC
Beryllium, Total	0.29	J	mg/kg	0.48	0.10	2	02/16/16 06:00	02/18/16 00:09	EPA 3050B	1,6010C	MC
Cadmium, Total	ND		mg/kg	0.96	0.07	2	02/16/16 06:00	02/18/16 00:09	EPA 3050B	1,6010C	MC
Calcium, Total	1900		mg/kg	9.6	2.9	2	02/16/16 06:00	02/18/16 00:09	EPA 3050B	1,6010C	MC
Chromium, Total	11		mg/kg	0.96	0.19	2	02/16/16 06:00	02/18/16 00:09	EPA 3050B	1,6010C	MC
Cobalt, Total	6.6		mg/kg	1.9	0.48	2	02/16/16 06:00	02/18/16 00:09	EPA 3050B	1,6010C	MC
Copper, Total	11		mg/kg	0.96	0.19	2	02/16/16 06:00	02/18/16 00:09	EPA 3050B	1,6010C	MC
Iron, Total	14000		mg/kg	4.8	1.9	2	02/16/16 06:00	02/18/16 00:09	EPA 3050B	1,6010C	MC
Lead, Total	4.8		mg/kg	4.8	0.19	2	02/16/16 06:00	02/18/16 00:09	EPA 3050B	1,6010C	MC
Magnesium, Total	1900		mg/kg	9.6	0.96	2	02/16/16 06:00	02/18/16 00:09	EPA 3050B	1,6010C	MC
Manganese, Total	430		mg/kg	0.96	0.19	2	02/16/16 06:00	02/18/16 00:09	EPA 3050B	1,6010C	MC
Mercury, Total	0.05	J	mg/kg	0.08	0.02	1	02/16/16 10:07	02/16/16 18:14	EPA 7471B	1,7471B	JH
Nickel, Total	10		mg/kg	2.4	0.38	2	02/16/16 06:00	02/18/16 00:09	EPA 3050B	1,6010C	MC
Potassium, Total	400		mg/kg	240	38.	2	02/16/16 06:00	02/18/16 00:09	EPA 3050B	1,6010C	MC
Selenium, Total	ND		mg/kg	1.9	0.29	2	02/16/16 06:00	02/18/16 00:09	EPA 3050B	1,6010C	MC
Silver, Total	ND		mg/kg	0.96	0.19	2	02/16/16 06:00	02/18/16 00:09	EPA 3050B	1,6010C	MC
Sodium, Total	56	J	mg/kg	190	29.	2	02/16/16 06:00	02/18/16 00:09	EPA 3050B	1,6010C	MC
Thallium, Total	ND		mg/kg	1.9	0.38	2	02/16/16 06:00	02/18/16 00:09	EPA 3050B	1,6010C	MC
Vanadium, Total	13		mg/kg	0.96	0.10	2	02/16/16 06:00	02/18/16 00:09	EPA 3050B	1,6010C	MC
Zinc, Total	39		mg/kg	4.8	0.68	2	02/16/16 06:00	02/18/16 00:09	EPA 3050B	1,6010C	MC



Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-05

Date Collected: 02/12/16 09:30

Client ID: SB-101 (5-7)

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	3500		mg/kg	9.4	1.9	2	02/16/16 06:00	02/18/16 00:28	EPA 3050B	1,6010C	MC
Antimony, Total	ND		mg/kg	4.7	0.75	2	02/16/16 06:00	02/18/16 00:28	EPA 3050B	1,6010C	MC
Arsenic, Total	2.5		mg/kg	0.94	0.19	2	02/16/16 06:00	02/18/16 00:28	EPA 3050B	1,6010C	MC
Barium, Total	13		mg/kg	0.94	0.28	2	02/16/16 06:00	02/18/16 00:28	EPA 3050B	1,6010C	MC
Beryllium, Total	0.27	J	mg/kg	0.47	0.09	2	02/16/16 06:00	02/18/16 00:28	EPA 3050B	1,6010C	MC
Cadmium, Total	ND		mg/kg	0.94	0.07	2	02/16/16 06:00	02/18/16 00:28	EPA 3050B	1,6010C	MC
Calcium, Total	3600		mg/kg	9.4	2.8	2	02/16/16 06:00	02/18/16 00:28	EPA 3050B	1,6010C	MC
Chromium, Total	7.7		mg/kg	0.94	0.19	2	02/16/16 06:00	02/18/16 00:28	EPA 3050B	1,6010C	MC
Cobalt, Total	2.9		mg/kg	1.9	0.47	2	02/16/16 06:00	02/18/16 00:28	EPA 3050B	1,6010C	MC
Copper, Total	4.7		mg/kg	0.94	0.19	2	02/16/16 06:00	02/18/16 00:28	EPA 3050B	1,6010C	MC
Iron, Total	7400		mg/kg	4.7	1.9	2	02/16/16 06:00	02/18/16 00:28	EPA 3050B	1,6010C	MC
Lead, Total	2.9	J	mg/kg	4.7	0.19	2	02/16/16 06:00	02/18/16 00:28	EPA 3050B	1,6010C	MC
Magnesium, Total	1300		mg/kg	9.4	0.94	2	02/16/16 06:00	02/18/16 00:28	EPA 3050B	1,6010C	MC
Manganese, Total	74		mg/kg	0.94	0.19	2	02/16/16 06:00	02/18/16 00:28	EPA 3050B	1,6010C	MC
Mercury, Total	0.03	J	mg/kg	0.08	0.02	1	02/16/16 10:07	02/16/16 18:16	EPA 7471B	1,7471B	JH
Nickel, Total	5.5		mg/kg	2.3	0.37	2	02/16/16 06:00	02/18/16 00:28	EPA 3050B	1,6010C	MC
Potassium, Total	460		mg/kg	230	37.	2	02/16/16 06:00	02/18/16 00:28	EPA 3050B	1,6010C	MC
Selenium, Total	ND		mg/kg	1.9	0.28	2	02/16/16 06:00	02/18/16 00:28	EPA 3050B	1,6010C	MC
Silver, Total	ND		mg/kg	0.94	0.19	2	02/16/16 06:00	02/18/16 00:28	EPA 3050B	1,6010C	MC
Sodium, Total	48	J	mg/kg	190	28.	2	02/16/16 06:00	02/18/16 00:28	EPA 3050B	1,6010C	MC
Thallium, Total	ND		mg/kg	1.9	0.37	2	02/16/16 06:00	02/18/16 00:28	EPA 3050B	1,6010C	MC
Vanadium, Total	12		mg/kg	0.94	0.09	2	02/16/16 06:00	02/18/16 00:28	EPA 3050B	1,6010C	MC
Zinc, Total	18		mg/kg	4.7	0.66	2	02/16/16 06:00	02/18/16 00:28	EPA 3050B	1,6010C	MC



Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-06  
 Client ID: SB-101 (10-12)  
 Sample Location: BROOKLYN, NY  
 Matrix: Soil  
 Percent Solids: 83%

Date Collected: 02/12/16 09:45  
 Date Received: 02/12/16  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	7300		mg/kg	9.5	1.9	2	02/16/16 06:00	02/18/16 00:47	EPA 3050B	1,6010C	MC
Antimony, Total	ND		mg/kg	4.8	0.76	2	02/16/16 06:00	02/18/16 00:47	EPA 3050B	1,6010C	MC
Arsenic, Total	2.5		mg/kg	0.95	0.19	2	02/16/16 06:00	02/18/16 00:47	EPA 3050B	1,6010C	MC
Barium, Total	34		mg/kg	0.95	0.28	2	02/16/16 06:00	02/18/16 00:47	EPA 3050B	1,6010C	MC
Beryllium, Total	0.32	J	mg/kg	0.48	0.10	2	02/16/16 06:00	02/18/16 00:47	EPA 3050B	1,6010C	MC
Cadmium, Total	ND		mg/kg	0.95	0.07	2	02/16/16 06:00	02/18/16 00:47	EPA 3050B	1,6010C	MC
Calcium, Total	620		mg/kg	9.5	2.8	2	02/16/16 06:00	02/18/16 00:47	EPA 3050B	1,6010C	MC
Chromium, Total	9.0		mg/kg	0.95	0.19	2	02/16/16 06:00	02/18/16 00:47	EPA 3050B	1,6010C	MC
Cobalt, Total	4.3		mg/kg	1.9	0.48	2	02/16/16 06:00	02/18/16 00:47	EPA 3050B	1,6010C	MC
Copper, Total	8.2		mg/kg	0.95	0.19	2	02/16/16 06:00	02/18/16 00:47	EPA 3050B	1,6010C	MC
Iron, Total	12000		mg/kg	4.8	1.9	2	02/16/16 06:00	02/18/16 00:47	EPA 3050B	1,6010C	MC
Lead, Total	14		mg/kg	4.8	0.19	2	02/16/16 06:00	02/18/16 00:47	EPA 3050B	1,6010C	MC
Magnesium, Total	2100		mg/kg	9.5	0.95	2	02/16/16 06:00	02/18/16 00:47	EPA 3050B	1,6010C	MC
Manganese, Total	240		mg/kg	0.95	0.19	2	02/16/16 06:00	02/18/16 00:47	EPA 3050B	1,6010C	MC
Mercury, Total	ND		mg/kg	0.08	0.02	1	02/16/16 10:07	02/16/16 18:17	EPA 7471B	1,7471B	JH
Nickel, Total	9.0		mg/kg	2.4	0.38	2	02/16/16 06:00	02/18/16 00:47	EPA 3050B	1,6010C	MC
Potassium, Total	490		mg/kg	240	38.	2	02/16/16 06:00	02/18/16 00:47	EPA 3050B	1,6010C	MC
Selenium, Total	ND		mg/kg	1.9	0.28	2	02/16/16 06:00	02/18/16 00:47	EPA 3050B	1,6010C	MC
Silver, Total	ND		mg/kg	0.95	0.19	2	02/16/16 06:00	02/18/16 00:47	EPA 3050B	1,6010C	MC
Sodium, Total	85	J	mg/kg	190	28.	2	02/16/16 06:00	02/18/16 00:47	EPA 3050B	1,6010C	MC
Thallium, Total	ND		mg/kg	1.9	0.38	2	02/16/16 06:00	02/18/16 00:47	EPA 3050B	1,6010C	MC
Vanadium, Total	11		mg/kg	0.95	0.10	2	02/16/16 06:00	02/18/16 00:47	EPA 3050B	1,6010C	MC
Zinc, Total	31		mg/kg	4.8	0.67	2	02/16/16 06:00	02/18/16 00:47	EPA 3050B	1,6010C	MC



Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-07

Date Collected: 02/12/16 10:00

Client ID: DUP021216

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	9400		mg/kg	9.3	1.8	2	02/19/16 05:24	02/19/16 11:17	EPA 3050B	1,6010C	PS
Antimony, Total	4.8		mg/kg	4.6	0.74	2	02/19/16 05:24	02/19/16 11:17	EPA 3050B	1,6010C	PS
Arsenic, Total	4.1		mg/kg	0.93	0.18	2	02/19/16 05:24	02/19/16 11:17	EPA 3050B	1,6010C	PS
Barium, Total	34		mg/kg	0.93	0.28	2	02/19/16 05:24	02/19/16 11:17	EPA 3050B	1,6010C	PS
Beryllium, Total	0.32	J	mg/kg	0.46	0.09	2	02/19/16 05:24	02/19/16 11:17	EPA 3050B	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.93	0.07	2	02/19/16 05:24	02/19/16 11:17	EPA 3050B	1,6010C	PS
Calcium, Total	3400		mg/kg	9.3	2.8	2	02/19/16 05:24	02/19/16 11:17	EPA 3050B	1,6010C	PS
Chromium, Total	17		mg/kg	0.93	0.18	2	02/19/16 05:24	02/19/16 11:17	EPA 3050B	1,6010C	PS
Cobalt, Total	6.9		mg/kg	1.8	0.46	2	02/19/16 05:24	02/19/16 11:17	EPA 3050B	1,6010C	PS
Copper, Total	15		mg/kg	0.93	0.18	2	02/19/16 05:24	02/19/16 11:17	EPA 3050B	1,6010C	PS
Iron, Total	14000		mg/kg	4.6	1.8	2	02/19/16 05:24	02/19/16 11:17	EPA 3050B	1,6010C	PS
Lead, Total	ND		mg/kg	4.6	0.18	2	02/19/16 05:24	02/19/16 11:17	EPA 3050B	1,6010C	PS
Magnesium, Total	2600		mg/kg	9.3	0.93	2	02/19/16 05:24	02/19/16 11:17	EPA 3050B	1,6010C	PS
Manganese, Total	210		mg/kg	0.93	0.18	2	02/19/16 05:24	02/19/16 11:17	EPA 3050B	1,6010C	PS
Mercury, Total	0.02	J	mg/kg	0.08	0.02	1	02/19/16 07:50	02/19/16 11:30	EPA 7471B	1,7471B	JH
Nickel, Total	13		mg/kg	2.3	0.37	2	02/19/16 05:24	02/19/16 11:17	EPA 3050B	1,6010C	PS
Potassium, Total	660		mg/kg	230	37.	2	02/19/16 05:24	02/19/16 11:17	EPA 3050B	1,6010C	PS
Selenium, Total	ND		mg/kg	1.8	0.28	2	02/19/16 05:24	02/19/16 11:17	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.93	0.18	2	02/19/16 05:24	02/19/16 11:17	EPA 3050B	1,6010C	PS
Sodium, Total	110	J	mg/kg	180	28.	2	02/19/16 05:24	02/19/16 11:17	EPA 3050B	1,6010C	PS
Thallium, Total	ND		mg/kg	1.8	0.37	2	02/19/16 05:24	02/19/16 11:17	EPA 3050B	1,6010C	PS
Vanadium, Total	13		mg/kg	0.93	0.09	2	02/19/16 05:24	02/19/16 11:17	EPA 3050B	1,6010C	PS
Zinc, Total	49		mg/kg	4.6	0.65	2	02/19/16 05:24	02/19/16 11:17	EPA 3050B	1,6010C	PS



Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-08

Date Collected: 02/12/16 10:30

Client ID: SB-102 (0-2)

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	6900		mg/kg	9.3	1.9	2	02/16/16 06:00	02/18/16 00:51	EPA 3050B	1,6010C	MC
Antimony, Total	ND		mg/kg	4.7	0.75	2	02/16/16 06:00	02/18/16 00:51	EPA 3050B	1,6010C	MC
Arsenic, Total	4.7		mg/kg	0.93	0.19	2	02/16/16 06:00	02/18/16 00:51	EPA 3050B	1,6010C	MC
Barium, Total	31		mg/kg	0.93	0.28	2	02/16/16 06:00	02/18/16 00:51	EPA 3050B	1,6010C	MC
Beryllium, Total	0.26	J	mg/kg	0.47	0.09	2	02/16/16 06:00	02/18/16 00:51	EPA 3050B	1,6010C	MC
Cadmium, Total	ND		mg/kg	0.93	0.07	2	02/16/16 06:00	02/18/16 00:51	EPA 3050B	1,6010C	MC
Calcium, Total	940		mg/kg	9.3	2.8	2	02/16/16 06:00	02/18/16 00:51	EPA 3050B	1,6010C	MC
Chromium, Total	9.1		mg/kg	0.93	0.19	2	02/16/16 06:00	02/18/16 00:51	EPA 3050B	1,6010C	MC
Cobalt, Total	4.9		mg/kg	1.9	0.47	2	02/16/16 06:00	02/18/16 00:51	EPA 3050B	1,6010C	MC
Copper, Total	10		mg/kg	0.93	0.19	2	02/16/16 06:00	02/18/16 00:51	EPA 3050B	1,6010C	MC
Iron, Total	14000		mg/kg	4.7	1.9	2	02/16/16 06:00	02/18/16 00:51	EPA 3050B	1,6010C	MC
Lead, Total	4.8		mg/kg	4.7	0.19	2	02/16/16 06:00	02/18/16 00:51	EPA 3050B	1,6010C	MC
Magnesium, Total	2100		mg/kg	9.3	0.93	2	02/16/16 06:00	02/18/16 00:51	EPA 3050B	1,6010C	MC
Manganese, Total	110		mg/kg	0.93	0.19	2	02/16/16 06:00	02/18/16 00:51	EPA 3050B	1,6010C	MC
Mercury, Total	0.09		mg/kg	0.08	0.02	1	02/16/16 10:07	02/16/16 18:19	EPA 7471B	1,7471B	JH
Nickel, Total	9.4		mg/kg	2.3	0.37	2	02/16/16 06:00	02/18/16 00:51	EPA 3050B	1,6010C	MC
Potassium, Total	320		mg/kg	230	37.	2	02/16/16 06:00	02/18/16 00:51	EPA 3050B	1,6010C	MC
Selenium, Total	ND		mg/kg	1.9	0.28	2	02/16/16 06:00	02/18/16 00:51	EPA 3050B	1,6010C	MC
Silver, Total	ND		mg/kg	0.93	0.19	2	02/16/16 06:00	02/18/16 00:51	EPA 3050B	1,6010C	MC
Sodium, Total	33	J	mg/kg	190	28.	2	02/16/16 06:00	02/18/16 00:51	EPA 3050B	1,6010C	MC
Thallium, Total	ND		mg/kg	1.9	0.37	2	02/16/16 06:00	02/18/16 00:51	EPA 3050B	1,6010C	MC
Vanadium, Total	12		mg/kg	0.93	0.09	2	02/16/16 06:00	02/18/16 00:51	EPA 3050B	1,6010C	MC
Zinc, Total	40		mg/kg	4.7	0.65	2	02/16/16 06:00	02/18/16 00:51	EPA 3050B	1,6010C	MC





Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-09

Date Collected: 02/12/16 10:45

Client ID: SB-102 (5-7)

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	4400		mg/kg	9.3	1.9	2	02/16/16 06:00	02/18/16 00:55	EPA 3050B	1,6010C	MC
Antimony, Total	ND		mg/kg	4.7	0.75	2	02/16/16 06:00	02/18/16 00:55	EPA 3050B	1,6010C	MC
Arsenic, Total	4.2		mg/kg	0.93	0.19	2	02/16/16 06:00	02/18/16 00:55	EPA 3050B	1,6010C	MC
Barium, Total	20		mg/kg	0.93	0.28	2	02/16/16 06:00	02/18/16 00:55	EPA 3050B	1,6010C	MC
Beryllium, Total	0.23	J	mg/kg	0.47	0.09	2	02/16/16 06:00	02/18/16 00:55	EPA 3050B	1,6010C	MC
Cadmium, Total	ND		mg/kg	0.93	0.07	2	02/16/16 06:00	02/18/16 00:55	EPA 3050B	1,6010C	MC
Calcium, Total	6100		mg/kg	9.3	2.8	2	02/16/16 06:00	02/18/16 00:55	EPA 3050B	1,6010C	MC
Chromium, Total	11		mg/kg	0.93	0.19	2	02/16/16 06:00	02/18/16 00:55	EPA 3050B	1,6010C	MC
Cobalt, Total	3.2		mg/kg	1.9	0.47	2	02/16/16 06:00	02/18/16 00:55	EPA 3050B	1,6010C	MC
Copper, Total	8.6		mg/kg	0.93	0.19	2	02/16/16 06:00	02/18/16 00:55	EPA 3050B	1,6010C	MC
Iron, Total	11000		mg/kg	4.7	1.9	2	02/16/16 06:00	02/18/16 00:55	EPA 3050B	1,6010C	MC
Lead, Total	10		mg/kg	4.7	0.19	2	02/16/16 06:00	02/18/16 00:55	EPA 3050B	1,6010C	MC
Magnesium, Total	1400		mg/kg	9.3	0.93	2	02/16/16 06:00	02/18/16 00:55	EPA 3050B	1,6010C	MC
Manganese, Total	100		mg/kg	0.93	0.19	2	02/16/16 06:00	02/18/16 00:55	EPA 3050B	1,6010C	MC
Mercury, Total	0.02	J	mg/kg	0.08	0.02	1	02/16/16 10:07	02/16/16 18:25	EPA 7471B	1,7471B	JH
Nickel, Total	6.2		mg/kg	2.3	0.37	2	02/16/16 06:00	02/18/16 00:55	EPA 3050B	1,6010C	MC
Potassium, Total	460		mg/kg	230	37.	2	02/16/16 06:00	02/18/16 00:55	EPA 3050B	1,6010C	MC
Selenium, Total	ND		mg/kg	1.9	0.28	2	02/16/16 06:00	02/18/16 00:55	EPA 3050B	1,6010C	MC
Silver, Total	ND		mg/kg	0.93	0.19	2	02/16/16 06:00	02/18/16 00:55	EPA 3050B	1,6010C	MC
Sodium, Total	90	J	mg/kg	190	28.	2	02/16/16 06:00	02/18/16 00:55	EPA 3050B	1,6010C	MC
Thallium, Total	ND		mg/kg	1.9	0.37	2	02/16/16 06:00	02/18/16 00:55	EPA 3050B	1,6010C	MC
Vanadium, Total	15		mg/kg	0.93	0.09	2	02/16/16 06:00	02/18/16 00:55	EPA 3050B	1,6010C	MC
Zinc, Total	23		mg/kg	4.7	0.65	2	02/16/16 06:00	02/18/16 00:55	EPA 3050B	1,6010C	MC



Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-10  
 Client ID: SB-102 (10-12)  
 Sample Location: BROOKLYN, NY  
 Matrix: Soil  
 Percent Solids: 79%

Date Collected: 02/12/16 11:00  
 Date Received: 02/12/16  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	15000		mg/kg	10	2.0	2	02/16/16 06:00	02/18/16 01:14	EPA 3050B	1,6010C	MC
Antimony, Total	ND		mg/kg	5.0	0.81	2	02/16/16 06:00	02/18/16 01:14	EPA 3050B	1,6010C	MC
Arsenic, Total	12		mg/kg	1.0	0.20	2	02/16/16 06:00	02/18/16 01:14	EPA 3050B	1,6010C	MC
Barium, Total	65		mg/kg	1.0	0.30	2	02/16/16 06:00	02/18/16 01:14	EPA 3050B	1,6010C	MC
Beryllium, Total	0.77		mg/kg	0.50	0.10	2	02/16/16 06:00	02/18/16 01:14	EPA 3050B	1,6010C	MC
Cadmium, Total	0.81	J	mg/kg	1.0	0.07	2	02/16/16 06:00	02/18/16 01:14	EPA 3050B	1,6010C	MC
Calcium, Total	16000		mg/kg	10	3.0	2	02/16/16 06:00	02/18/16 01:14	EPA 3050B	1,6010C	MC
Chromium, Total	27		mg/kg	1.0	0.20	2	02/16/16 06:00	02/18/16 01:14	EPA 3050B	1,6010C	MC
Cobalt, Total	7.9		mg/kg	2.0	0.50	2	02/16/16 06:00	02/18/16 01:14	EPA 3050B	1,6010C	MC
Copper, Total	67		mg/kg	1.0	0.20	2	02/16/16 06:00	02/18/16 01:14	EPA 3050B	1,6010C	MC
Iron, Total	19000		mg/kg	5.0	2.0	2	02/16/16 06:00	02/18/16 01:14	EPA 3050B	1,6010C	MC
Lead, Total	200		mg/kg	5.0	0.20	2	02/16/16 06:00	02/18/16 01:14	EPA 3050B	1,6010C	MC
Magnesium, Total	5300		mg/kg	10	1.0	2	02/16/16 06:00	02/18/16 01:14	EPA 3050B	1,6010C	MC
Manganese, Total	340		mg/kg	1.0	0.20	2	02/16/16 06:00	02/18/16 01:14	EPA 3050B	1,6010C	MC
Mercury, Total	ND		mg/kg	0.09	0.02	1	02/16/16 10:07	02/16/16 18:26	EPA 7471B	1,7471B	JH
Nickel, Total	26		mg/kg	2.5	0.40	2	02/16/16 06:00	02/18/16 01:14	EPA 3050B	1,6010C	MC
Potassium, Total	2700		mg/kg	250	40.	2	02/16/16 06:00	02/18/16 01:14	EPA 3050B	1,6010C	MC
Selenium, Total	0.38	J	mg/kg	2.0	0.30	2	02/16/16 06:00	02/18/16 01:14	EPA 3050B	1,6010C	MC
Silver, Total	ND		mg/kg	1.0	0.20	2	02/16/16 06:00	02/18/16 01:14	EPA 3050B	1,6010C	MC
Sodium, Total	220		mg/kg	200	30.	2	02/16/16 06:00	02/18/16 01:14	EPA 3050B	1,6010C	MC
Thallium, Total	ND		mg/kg	2.0	0.40	2	02/16/16 06:00	02/18/16 01:14	EPA 3050B	1,6010C	MC
Vanadium, Total	27		mg/kg	1.0	0.10	2	02/16/16 06:00	02/18/16 01:14	EPA 3050B	1,6010C	MC
Zinc, Total	230		mg/kg	5.0	0.71	2	02/16/16 06:00	02/18/16 01:14	EPA 3050B	1,6010C	MC



Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## SAMPLE RESULTS

Lab ID: L1603880-11

Date Collected: 02/12/16 11:15

Client ID: FB021216

Date Received: 02/12/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	ND		mg/l	0.10	0.020	1	02/15/16 09:50	02/18/16 15:01	EPA 3005A	1,6010C	PS
Antimony, Total	0.0110	J	mg/l	0.0500	0.0080	1	02/15/16 09:50	02/18/16 15:01	EPA 3005A	1,6010C	PS
Arsenic, Total	ND		mg/l	0.0050	0.0020	1	02/15/16 09:50	02/18/16 15:01	EPA 3005A	1,6010C	PS
Barium, Total	ND		mg/l	0.0100	0.0030	1	02/15/16 09:50	02/18/16 15:01	EPA 3005A	1,6010C	PS
Beryllium, Total	ND		mg/l	0.0050	0.0010	1	02/15/16 09:50	02/18/16 15:01	EPA 3005A	1,6010C	PS
Cadmium, Total	ND		mg/l	0.0050	0.0007	1	02/15/16 09:50	02/18/16 15:01	EPA 3005A	1,6010C	PS
Calcium, Total	ND		mg/l	0.10	0.030	1	02/15/16 09:50	02/18/16 15:01	EPA 3005A	1,6010C	PS
Chromium, Total	ND		mg/l	0.010	0.0020	1	02/15/16 09:50	02/18/16 15:01	EPA 3005A	1,6010C	PS
Cobalt, Total	ND		mg/l	0.0200	0.0050	1	02/15/16 09:50	02/18/16 15:01	EPA 3005A	1,6010C	PS
Copper, Total	ND		mg/l	0.0100	0.0020	1	02/15/16 09:50	02/18/16 15:01	EPA 3005A	1,6010C	PS
Iron, Total	0.020	J	mg/l	0.050	0.020	1	02/15/16 09:50	02/18/16 15:01	EPA 3005A	1,6010C	PS
Lead, Total	ND		mg/l	0.0100	0.0020	1	02/15/16 09:50	02/18/16 15:01	EPA 3005A	1,6010C	PS
Magnesium, Total	ND		mg/l	0.10	0.010	1	02/15/16 09:50	02/18/16 15:01	EPA 3005A	1,6010C	PS
Manganese, Total	ND		mg/l	0.0100	0.0020	1	02/15/16 09:50	02/18/16 15:01	EPA 3005A	1,6010C	PS
Mercury, Total	ND		mg/l	0.00020	0.00006	1	02/16/16 11:25	02/17/16 18:12	EPA 7470A	1,7470A	KL
Nickel, Total	ND		mg/l	0.0250	0.0040	1	02/15/16 09:50	02/18/16 15:01	EPA 3005A	1,6010C	PS
Potassium, Total	ND		mg/l	2.5	0.40	1	02/15/16 09:50	02/18/16 15:01	EPA 3005A	1,6010C	PS
Selenium, Total	0.0044	J	mg/l	0.0100	0.0030	1	02/15/16 09:50	02/18/16 15:01	EPA 3005A	1,6010C	PS
Silver, Total	ND		mg/l	0.0070	0.0020	1	02/15/16 09:50	02/18/16 15:01	EPA 3005A	1,6010C	PS
Sodium, Total	ND		mg/l	2.0	0.30	1	02/15/16 09:50	02/18/16 15:01	EPA 3005A	1,6010C	PS
Thallium, Total	ND		mg/l	0.0200	0.0040	1	02/15/16 09:50	02/18/16 15:01	EPA 3005A	1,6010C	PS
Vanadium, Total	ND		mg/l	0.0100	0.0010	1	02/15/16 09:50	02/18/16 15:01	EPA 3005A	1,6010C	PS
Zinc, Total	ND		mg/l	0.0500	0.0070	1	02/15/16 09:50	02/18/16 15:01	EPA 3005A	1,6010C	PS



Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 11 Batch: WG865245-1										
Aluminum, Total	ND		mg/l	0.10	0.020	1	02/15/16 09:50	02/18/16 14:36	1,6010C	PS
Antimony, Total	ND		mg/l	0.0500	0.0080	1	02/15/16 09:50	02/18/16 14:36	1,6010C	PS
Arsenic, Total	0.0037	J	mg/l	0.0050	0.0020	1	02/15/16 09:50	02/18/16 14:36	1,6010C	PS
Barium, Total	ND		mg/l	0.0100	0.0030	1	02/15/16 09:50	02/18/16 14:36	1,6010C	PS
Beryllium, Total	ND		mg/l	0.0050	0.0010	1	02/15/16 09:50	02/18/16 14:36	1,6010C	PS
Cadmium, Total	ND		mg/l	0.0050	0.0007	1	02/15/16 09:50	02/18/16 14:36	1,6010C	PS
Calcium, Total	0.038	J	mg/l	0.10	0.030	1	02/15/16 09:50	02/18/16 14:36	1,6010C	PS
Chromium, Total	ND		mg/l	0.010	0.0020	1	02/15/16 09:50	02/18/16 14:36	1,6010C	PS
Cobalt, Total	ND		mg/l	0.0200	0.0050	1	02/15/16 09:50	02/18/16 14:36	1,6010C	PS
Copper, Total	ND		mg/l	0.0100	0.0020	1	02/15/16 09:50	02/18/16 14:36	1,6010C	PS
Iron, Total	ND		mg/l	0.050	0.020	1	02/15/16 09:50	02/18/16 14:36	1,6010C	PS
Lead, Total	ND		mg/l	0.0100	0.0020	1	02/15/16 09:50	02/18/16 14:36	1,6010C	PS
Magnesium, Total	0.011	J	mg/l	0.10	0.010	1	02/15/16 09:50	02/18/16 14:36	1,6010C	PS
Manganese, Total	ND		mg/l	0.0100	0.0020	1	02/15/16 09:50	02/18/16 14:36	1,6010C	PS
Nickel, Total	ND		mg/l	0.0250	0.0040	1	02/15/16 09:50	02/18/16 14:36	1,6010C	PS
Potassium, Total	ND		mg/l	2.5	0.40	1	02/15/16 09:50	02/18/16 14:36	1,6010C	PS
Selenium, Total	ND		mg/l	0.0100	0.0030	1	02/15/16 09:50	02/18/16 14:36	1,6010C	PS
Silver, Total	ND		mg/l	0.0070	0.0020	1	02/15/16 09:50	02/18/16 14:36	1,6010C	PS
Sodium, Total	ND		mg/l	2.0	0.30	1	02/15/16 09:50	02/18/16 14:36	1,6010C	PS
Thallium, Total	ND		mg/l	0.0200	0.0040	1	02/15/16 09:50	02/18/16 14:36	1,6010C	PS
Vanadium, Total	ND		mg/l	0.0100	0.0010	1	02/15/16 09:50	02/18/16 14:36	1,6010C	PS
Zinc, Total	ND		mg/l	0.0500	0.0070	1	02/15/16 09:50	02/18/16 14:36	1,6010C	PS

### Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-06,08-10 Batch: WG865453-1										
Mercury, Total	ND		mg/kg	0.08	0.02	1	02/16/16 10:07	02/16/16 17:54	1,7471B	JH



Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## Method Blank Analysis Batch Quality Control

### Prep Information

Digestion Method: EPA 7471B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-03 Batch: WG865458-1										
Aluminum, Total	ND		mg/kg	4.0	0.80	1	02/16/16 05:00	02/17/16 22:10	1,6010C	MC
Antimony, Total	ND		mg/kg	2.0	0.32	1	02/16/16 05:00	02/17/16 22:10	1,6010C	MC
Arsenic, Total	ND		mg/kg	0.40	0.08	1	02/16/16 05:00	02/17/16 22:10	1,6010C	MC
Barium, Total	ND		mg/kg	0.40	0.12	1	02/16/16 05:00	02/17/16 22:10	1,6010C	MC
Beryllium, Total	ND		mg/kg	0.20	0.04	1	02/16/16 05:00	02/17/16 22:10	1,6010C	MC
Cadmium, Total	ND		mg/kg	0.40	0.03	1	02/16/16 05:00	02/17/16 22:10	1,6010C	MC
Calcium, Total	ND		mg/kg	4.0	1.2	1	02/16/16 05:00	02/17/16 22:10	1,6010C	MC
Chromium, Total	ND		mg/kg	0.40	0.08	1	02/16/16 05:00	02/17/16 22:10	1,6010C	MC
Cobalt, Total	ND		mg/kg	0.80	0.20	1	02/16/16 05:00	02/17/16 22:10	1,6010C	MC
Copper, Total	0.36	J	mg/kg	0.40	0.08	1	02/16/16 05:00	02/17/16 22:10	1,6010C	MC
Iron, Total	0.80	J	mg/kg	2.0	0.80	1	02/16/16 05:00	02/17/16 22:10	1,6010C	MC
Lead, Total	ND		mg/kg	2.0	0.08	1	02/16/16 05:00	02/17/16 22:10	1,6010C	MC
Magnesium, Total	0.42	J	mg/kg	4.0	0.40	1	02/16/16 05:00	02/17/16 22:10	1,6010C	MC
Manganese, Total	ND		mg/kg	0.40	0.08	1	02/16/16 05:00	02/17/16 22:10	1,6010C	MC
Nickel, Total	ND		mg/kg	1.0	0.16	1	02/16/16 05:00	02/17/16 22:10	1,6010C	MC
Potassium, Total	ND		mg/kg	100	16.	1	02/16/16 05:00	02/17/16 22:10	1,6010C	MC
Selenium, Total	ND		mg/kg	0.80	0.12	1	02/16/16 05:00	02/17/16 22:10	1,6010C	MC
Silver, Total	ND		mg/kg	0.40	0.08	1	02/16/16 05:00	02/17/16 22:10	1,6010C	MC
Sodium, Total	ND		mg/kg	80	12.	1	02/16/16 05:00	02/17/16 22:10	1,6010C	MC
Thallium, Total	ND		mg/kg	0.80	0.16	1	02/16/16 05:00	02/17/16 22:10	1,6010C	MC
Vanadium, Total	ND		mg/kg	0.40	0.04	1	02/16/16 05:00	02/17/16 22:10	1,6010C	MC
Zinc, Total	ND		mg/kg	2.0	0.28	1	02/16/16 05:00	02/17/16 22:10	1,6010C	MC

### Prep Information

Digestion Method: EPA 3050B



Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 04-06,08-10 Batch: WG865459-1										
Aluminum, Total	ND		mg/kg	4.0	0.80	1	02/16/16 06:00	02/17/16 22:56	1,6010C	MC
Antimony, Total	ND		mg/kg	2.0	0.32	1	02/16/16 06:00	02/17/16 22:56	1,6010C	MC
Arsenic, Total	ND		mg/kg	0.40	0.08	1	02/16/16 06:00	02/17/16 22:56	1,6010C	MC
Barium, Total	ND		mg/kg	0.40	0.12	1	02/16/16 06:00	02/17/16 22:56	1,6010C	MC
Beryllium, Total	ND		mg/kg	0.20	0.04	1	02/16/16 06:00	02/17/16 22:56	1,6010C	MC
Cadmium, Total	ND		mg/kg	0.40	0.03	1	02/16/16 06:00	02/17/16 22:56	1,6010C	MC
Calcium, Total	ND		mg/kg	4.0	1.2	1	02/16/16 06:00	02/17/16 22:56	1,6010C	MC
Chromium, Total	ND		mg/kg	0.40	0.08	1	02/16/16 06:00	02/17/16 22:56	1,6010C	MC
Cobalt, Total	ND		mg/kg	0.80	0.20	1	02/16/16 06:00	02/17/16 22:56	1,6010C	MC
Copper, Total	0.18	J	mg/kg	0.40	0.08	1	02/16/16 06:00	02/17/16 22:56	1,6010C	MC
Iron, Total	0.83	J	mg/kg	2.0	0.80	1	02/16/16 06:00	02/17/16 22:56	1,6010C	MC
Lead, Total	ND		mg/kg	2.0	0.08	1	02/16/16 06:00	02/17/16 22:56	1,6010C	MC
Magnesium, Total	ND		mg/kg	4.0	0.40	1	02/16/16 06:00	02/17/16 22:56	1,6010C	MC
Manganese, Total	ND		mg/kg	0.40	0.08	1	02/16/16 06:00	02/17/16 22:56	1,6010C	MC
Nickel, Total	ND		mg/kg	1.0	0.16	1	02/16/16 06:00	02/17/16 22:56	1,6010C	MC
Potassium, Total	ND		mg/kg	100	16.	1	02/16/16 06:00	02/17/16 22:56	1,6010C	MC
Selenium, Total	ND		mg/kg	0.80	0.12	1	02/16/16 06:00	02/17/16 22:56	1,6010C	MC
Silver, Total	ND		mg/kg	0.40	0.08	1	02/16/16 06:00	02/17/16 22:56	1,6010C	MC
Sodium, Total	ND		mg/kg	80	12.	1	02/16/16 06:00	02/17/16 22:56	1,6010C	MC
Thallium, Total	ND		mg/kg	0.80	0.16	1	02/16/16 06:00	02/17/16 22:56	1,6010C	MC
Vanadium, Total	0.05	J	mg/kg	0.40	0.04	1	02/16/16 06:00	02/17/16 22:56	1,6010C	MC
Zinc, Total	ND		mg/kg	2.0	0.28	1	02/16/16 06:00	02/17/16 22:56	1,6010C	MC

### Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 11 Batch: WG865587-1										
Mercury, Total	ND		mg/l	0.00020	0.00006	1	02/16/16 11:25	02/17/16 18:02	1,7470A	KL



Project Name: DUPONT STREET

Lab Number: L1603880

Project Number: 2587.0001Y000

Report Date: 02/24/16

## Method Blank Analysis Batch Quality Control

### Prep Information

Digestion Method: EPA 7470A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 07 Batch: WG866541-1										
Mercury, Total	ND		mg/kg	0.08	0.02	1	02/19/16 07:50	02/19/16 10:05	1,7471B	JH

### Prep Information

Digestion Method: EPA 7471B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 07 Batch: WG866560-1										
Aluminum, Total	2.0	J	mg/kg	4.0	0.80	1	02/19/16 05:10	02/19/16 10:38	1,6010C	PS
Antimony, Total	0.41	J	mg/kg	2.0	0.32	1	02/19/16 05:10	02/19/16 10:38	1,6010C	PS
Arsenic, Total	ND		mg/kg	0.40	0.08	1	02/19/16 05:10	02/19/16 10:38	1,6010C	PS
Barium, Total	ND		mg/kg	0.40	0.12	1	02/19/16 05:10	02/19/16 10:38	1,6010C	PS
Beryllium, Total	ND		mg/kg	0.20	0.04	1	02/19/16 05:10	02/19/16 10:38	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.40	0.03	1	02/19/16 05:10	02/19/16 10:38	1,6010C	PS
Calcium, Total	ND		mg/kg	4.0	1.2	1	02/19/16 05:10	02/19/16 10:38	1,6010C	PS
Chromium, Total	ND		mg/kg	0.40	0.08	1	02/19/16 05:10	02/19/16 10:38	1,6010C	PS
Cobalt, Total	ND		mg/kg	0.80	0.20	1	02/19/16 05:10	02/19/16 10:38	1,6010C	PS
Copper, Total	ND		mg/kg	0.40	0.08	1	02/19/16 05:10	02/19/16 10:38	1,6010C	PS
Iron, Total	3.2		mg/kg	2.0	0.80	1	02/19/16 05:10	02/19/16 10:38	1,6010C	PS
Lead, Total	ND		mg/kg	2.0	0.08	1	02/19/16 05:10	02/19/16 10:38	1,6010C	PS
Magnesium, Total	0.47	J	mg/kg	4.0	0.40	1	02/19/16 05:10	02/19/16 10:38	1,6010C	PS
Manganese, Total	ND		mg/kg	0.40	0.08	1	02/19/16 05:10	02/19/16 10:38	1,6010C	PS
Nickel, Total	ND		mg/kg	1.0	0.16	1	02/19/16 05:10	02/19/16 10:38	1,6010C	PS
Potassium, Total	ND		mg/kg	100	16.	1	02/19/16 05:10	02/19/16 10:38	1,6010C	PS
Selenium, Total	ND		mg/kg	0.80	0.12	1	02/19/16 05:10	02/19/16 10:38	1,6010C	PS
Silver, Total	ND		mg/kg	0.40	0.08	1	02/19/16 05:10	02/19/16 10:38	1,6010C	PS
Sodium, Total	ND		mg/kg	80	12.	1	02/19/16 05:10	02/19/16 10:38	1,6010C	PS
Thallium, Total	ND		mg/kg	0.80	0.16	1	02/19/16 05:10	02/19/16 10:38	1,6010C	PS
Vanadium, Total	ND		mg/kg	0.40	0.04	1	02/19/16 05:10	02/19/16 10:38	1,6010C	PS



**Project Name:** DUPONT STREET**Lab Number:** L1603880**Project Number:** 2587.0001Y000**Report Date:** 02/24/16

## Method Blank Analysis Batch Quality Control

Zinc, Total	ND	mg/kg	2.0	0.28	1	02/19/16 05:10	02/19/16 10:38	1,6010C	PS
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### Prep Information

Digestion Method: EPA 3050B



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 11 Batch: WG865245-2								
Aluminum, Total	100		-		80-120	-		
Antimony, Total	81		-		80-120	-		
Arsenic, Total	108		-		80-120	-		
Barium, Total	96		-		80-120	-		
Beryllium, Total	96		-		80-120	-		
Cadmium, Total	104		-		80-120	-		
Calcium, Total	100		-		80-120	-		
Chromium, Total	95		-		80-120	-		
Cobalt, Total	95		-		80-120	-		
Copper, Total	96		-		80-120	-		
Iron, Total	93		-		80-120	-		
Lead, Total	101		-		80-120	-		
Magnesium, Total	100		-		80-120	-		
Manganese, Total	96		-		80-120	-		
Nickel, Total	97		-		80-120	-		
Potassium, Total	100		-		80-120	-		
Selenium, Total	108		-		80-120	-		
Silver, Total	97		-		80-120	-		
Sodium, Total	100		-		80-120	-		
Thallium, Total	98		-		80-120	-		
Vanadium, Total	100		-		80-120	-		

**Lab Control Sample Analysis****Batch Quality Control****Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603880**Report Date:** 02/24/16

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 11 Batch: WG865245-2					
Zinc, Total	98	-	80-120	-	
Total Metals - Westborough Lab Associated sample(s): 01-06,08-10 Batch: WG865453-2 SRM Lot Number: D088-540					
Mercury, Total	95	-	72-128	-	

# Lab Control Sample Analysis

## Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603880

Report Date: 02/24/16

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-03 Batch: WG865458-2 SRM Lot Number: D088-540					
Aluminum, Total	86	-	48-151	-	
Antimony, Total	159	-	1-208	-	
Arsenic, Total	96	-	79-121	-	
Barium, Total	94	-	83-117	-	
Beryllium, Total	94	-	83-117	-	
Cadmium, Total	90	-	83-117	-	
Calcium, Total	96	-	81-119	-	
Chromium, Total	101	-	80-120	-	
Cobalt, Total	92	-	84-115	-	
Copper, Total	90	-	81-118	-	
Iron, Total	103	-	45-155	-	
Lead, Total	89	-	81-117	-	
Magnesium, Total	91	-	76-124	-	
Manganese, Total	93	-	81-118	-	
Nickel, Total	92	-	83-117	-	
Potassium, Total	93	-	71-129	-	
Selenium, Total	86	-	78-122	-	
Silver, Total	93	-	75-124	-	
Sodium, Total	94	-	72-127	-	
Thallium, Total	95	-	80-120	-	
Vanadium, Total	94	-	78-122	-	

**Lab Control Sample Analysis****Batch Quality Control****Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603880**Report Date:** 02/24/16

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-03 Batch: WG865458-2 SRM Lot Number: D088-540					
Zinc, Total	92	-	82-118	-	

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 04-06,08-10 Batch: WG865459-2 SRM Lot Number: D088-540					
Aluminum, Total	91	-	48-151	-	
Antimony, Total	159	-	1-208	-	
Arsenic, Total	96	-	79-121	-	
Barium, Total	99	-	83-117	-	
Beryllium, Total	95	-	83-117	-	
Cadmium, Total	94	-	83-117	-	
Calcium, Total	96	-	81-119	-	
Chromium, Total	101	-	80-120	-	
Cobalt, Total	92	-	84-115	-	
Copper, Total	98	-	81-118	-	
Iron, Total	123	-	45-155	-	
Lead, Total	94	-	81-117	-	
Magnesium, Total	94	-	76-124	-	
Manganese, Total	101	-	81-118	-	
Nickel, Total	98	-	83-117	-	
Potassium, Total	96	-	71-129	-	
Selenium, Total	91	-	78-122	-	
Silver, Total	100	-	75-124	-	
Sodium, Total	97	-	72-127	-	
Thallium, Total	100	-	80-120	-	
Vanadium, Total	97	-	78-122	-	

**Lab Control Sample Analysis****Batch Quality Control****Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603880**Report Date:** 02/24/16

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 04-06,08-10 Batch: WG865459-2 SRM Lot Number: D088-540					
Zinc, Total	97	-	82-118	-	
Total Metals - Westborough Lab Associated sample(s): 11 Batch: WG865587-2					
Mercury, Total	106	-	80-120	-	
Total Metals - Westborough Lab Associated sample(s): 07 Batch: WG866541-2 SRM Lot Number: D088-540					
Mercury, Total	85	-	72-128	-	

# Lab Control Sample Analysis

## Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603880

Report Date: 02/24/16

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 07 Batch: WG866560-2 SRM Lot Number: D088-540					
Aluminum, Total	87	-	48-151	-	
Antimony, Total	187	-	1-208	-	
Arsenic, Total	105	-	79-121	-	
Barium, Total	94	-	83-117	-	
Beryllium, Total	96	-	83-117	-	
Cadmium, Total	100	-	83-117	-	
Calcium, Total	96	-	81-119	-	
Chromium, Total	101	-	80-120	-	
Cobalt, Total	102	-	84-115	-	
Copper, Total	98	-	81-118	-	
Iron, Total	110	-	45-155	-	
Lead, Total	86	-	81-117	-	
Magnesium, Total	94	-	76-124	-	
Manganese, Total	93	-	81-118	-	
Nickel, Total	100	-	83-117	-	
Potassium, Total	96	-	71-129	-	
Selenium, Total	97	-	78-122	-	
Silver, Total	103	-	75-124	-	
Sodium, Total	101	-	72-127	-	
Thallium, Total	100	-	80-120	-	
Vanadium, Total	97	-	78-122	-	

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 07 Batch: WG866560-2 SRM Lot Number: D088-540					
Zinc, Total	101	-	82-118	-	



# **Matrix Spike Analysis** **Batch Quality Control**

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 11    QC Batch ID: WG865245-4    QC Sample: L1603880-11    Client ID: FB021216												
Aluminum, Total	ND	2	2.1	105		-	-		75-125	-		20
Antimony, Total	0.0110J	0.5	0.397	79		-	-		75-125	-		20
Arsenic, Total	ND	0.12	0.127	106		-	-		75-125	-		20
Barium, Total	ND	2	1.93	96		-	-		75-125	-		20
Beryllium, Total	ND	0.05	0.0484	97		-	-		75-125	-		20
Cadmium, Total	ND	0.051	0.0535	105		-	-		75-125	-		20
Calcium, Total	ND	10	10	100		-	-		75-125	-		20
Chromium, Total	ND	0.2	0.19	95		-	-		75-125	-		20
Cobalt, Total	ND	0.5	0.479	96		-	-		75-125	-		20
Copper, Total	ND	0.25	0.245	98		-	-		75-125	-		20
Iron, Total	0.020J	1	0.98	98		-	-		75-125	-		20
Lead, Total	ND	0.51	0.518	102		-	-		75-125	-		20
Magnesium, Total	ND	10	11	110		-	-		75-125	-		20
Manganese, Total	ND	0.5	0.490	98		-	-		75-125	-		20
Nickel, Total	ND	0.5	0.489	98		-	-		75-125	-		20
Potassium, Total	ND	10	10	100		-	-		75-125	-		20
Selenium, Total	0.0044J	0.12	0.127	106		-	-		75-125	-		20
Silver, Total	ND	0.05	0.0499	100		-	-		75-125	-		20
Sodium, Total	ND	10	10	100		-	-		75-125	-		20
Thallium, Total	ND	0.12	0.119	99		-	-		75-125	-		20
Vanadium, Total	ND	0.5	0.505	101		-	-		75-125	-		20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 11 QC Batch ID: WG865245-4 QC Sample: L1603880-11 Client ID: FB021216									
Zinc, Total	ND	0.5	0.487	97	-	-	75-125	-	20
Total Metals - Westborough Lab Associated sample(s): 01-06,08-10 QC Batch ID: WG865453-4 QC Sample: L1603880-01 Client ID: SB-103 (0-2)									
Mercury, Total	0.27	0.16	0.32	31	Q	-	80-120	-	20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG865458-4 QC Sample: L1602770-01 Client ID: MS Sample									
Aluminum, Total	3100	178	5200	1180	Q	-	75-125	-	20
Antimony, Total	ND	44.6	33	74	Q	-	75-125	-	20
Arsenic, Total	0.83	10.7	10	86		-	75-125	-	20
Barium, Total	5.2	178	150	81		-	75-125	-	20
Beryllium, Total	ND	4.46	3.5	78		-	75-125	-	20
Cadmium, Total	ND	4.55	3.7	81		-	75-125	-	20
Calcium, Total	210	892	1000	88		-	75-125	-	20
Chromium, Total	4.7	17.8	20	86		-	75-125	-	20
Cobalt, Total	0.26J	44.6	33	74	Q	-	75-125	-	20
Copper, Total	1.8	22.3	19	77		-	75-125	-	20
Iron, Total	2700	89.2	3000	336	Q	-	75-125	-	20
Lead, Total	5.4	45.5	46	89		-	75-125	-	20
Magnesium, Total	87.	892	930	94		-	75-125	-	20
Manganese, Total	4.4	44.6	39	78		-	75-125	-	20
Nickel, Total	1.1	44.6	34	76		-	75-125	-	20
Potassium, Total	100J	892	970	109		-	75-125	-	20
Selenium, Total	ND	10.7	9.3	87		-	75-125	-	20
Silver, Total	ND	26.8	23	86		-	75-125	-	20
Sodium, Total	34.J	892	870	98		-	75-125	-	20
Thallium, Total	ND	10.7	9.1	85		-	75-125	-	20
Vanadium, Total	5.2	44.6	40	78		-	75-125	-	20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG865458-4 QC Sample: L1602770-01 Client ID: MS Sample									
Zinc, Total	8.7	44.6	44	79	-	-	75-125	-	20

# Matrix Spike Analysis

## Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603880

Report Date: 02/24/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 04-06,08-10 QC Batch ID: WG865459-4 QC Sample: L1603880-04 Client ID: SB-101 (0-2)									
Aluminum, Total	6700	194	12000	2720	Q	-	75-125	-	20
Antimony, Total	ND	48.6	32	66	Q	-	75-125	-	20
Arsenic, Total	3.0	11.7	11	68	Q	-	75-125	-	20
Barium, Total	22.	194	180	81		-	75-125	-	20
Beryllium, Total	0.29J	4.86	4.1	84		-	75-125	-	20
Cadmium, Total	ND	4.96	3.6	73	Q	-	75-125	-	20
Calcium, Total	1900	972	1600	0	Q	-	75-125	-	20
Chromium, Total	11.	19.4	31	103		-	75-125	-	20
Cobalt, Total	6.6	48.6	39	67	Q	-	75-125	-	20
Copper, Total	11.	24.3	30	78		-	75-125	-	20
Iron, Total	14000	97.2	18000	4110	Q	-	75-125	-	20
Lead, Total	4.8	49.6	43	87		-	75-125	-	20
Magnesium, Total	1900	972	3200	134	Q	-	75-125	-	20
Manganese, Total	430	48.6	350	0	Q	-	75-125	-	20
Nickel, Total	10.	48.6	44	70	Q	-	75-125	-	20
Potassium, Total	400	972	1200	82		-	75-125	-	20
Selenium, Total	ND	11.7	8.9	76		-	75-125	-	20
Silver, Total	ND	29.2	21	72	Q	-	75-125	-	20
Sodium, Total	56.J	972	840	86		-	75-125	-	20
Thallium, Total	ND	11.7	8.0	68	Q	-	75-125	-	20
Vanadium, Total	13.	48.6	55	86		-	75-125	-	20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits		
Total Metals - Westborough Lab Associated sample(s): 04-06,08-10				QC Batch ID: WG865459-4		QC Sample: L1603880-04		Client ID: SB-101 (0-2)			
Zinc, Total	39.	48.6	82	88	-	-	75-125	-	20		
Total Metals - Westborough Lab Associated sample(s): 11				QC Batch ID: WG865587-3 WG865587-4		QC Sample: L1603922-03		Client ID: MS Sample			
Mercury, Total	ND	0.005	0.00475	95	0.00469	94	75-125	1	20		
Total Metals - Westborough Lab Associated sample(s): 07				QC Batch ID: WG866541-3 WG866541-4		QC Sample: L1604288-07		Client ID: MS Sample			
Mercury, Total	ND	0.15	0.22	146	Q	0.21	144	Q	80-120	5	20

# **Matrix Spike Analysis** **Batch Quality Control**

**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery		MSD Found	MSD %Recovery		Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 07 QC Batch ID: WG866560-3 WG866560-4 QC Sample: L1604288-07 Client ID: MS Sample											
Aluminum, Total	3900	180	3800	0	Q	4500	332	Q	75-125	17	20
Antimony, Total	1.5J	44.9	50	111		46	102		75-125	8	20
Arsenic, Total	0.48J	10.8	10	93		12	111		75-125	18	20
Barium, Total	15.	180	180	92		200	102		75-125	11	20
Beryllium, Total	0.12J	4.49	4.2	93		4.8	106		75-125	13	20
Cadmium, Total	ND	4.58	4.1	89		4.7	102		75-125	14	20
Calcium, Total	790	898	3000	246	Q	1900	123		75-125	45	Q 20
Chromium, Total	12.	18	26	78		31	105		75-125	18	20
Cobalt, Total	2.0	44.9	40	84		45	95		75-125	12	20
Copper, Total	9.0	22.5	28	84		33	106		75-125	16	20
Iron, Total	5300	89.8	4700	0	Q	5600	332	Q	75-125	17	20
Lead, Total	ND	45.8	40	87		46	100		75-125	14	20
Magnesium, Total	1000	898	2500	167	Q	2200	133	Q	75-125	13	20
Manganese, Total	27.	44.9	68	91		76	108		75-125	11	20
Nickel, Total	6.5	44.9	44	83		51	98		75-125	15	20
Potassium, Total	260	898	1000	82		1200	104		75-125	18	20
Selenium, Total	ND	10.8	9.6	89		11	101		75-125	14	20
Silver, Total	ND	27	25	93		29	107		75-125	15	20
Sodium, Total	160J	898	1000	111		1200	133	Q	75-125	18	20
Thallium, Total	ND	10.8	8.8	82		10	92		75-125	13	20
Vanadium, Total	9.1	44.9	49	89		58	108		75-125	17	20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 07 QC Batch ID: WG866560-3 WG866560-4 QC Sample: L1604288-07 Client ID: MS Sample									
Zinc, Total	26.	44.9	60	76	70	97	75-125	15	20



# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 11 QC Batch ID: WG865245-3 QC Sample: L1603880-11 Client ID: FB021216						
Aluminum, Total	ND	ND	mg/l	NC		20
Antimony, Total	0.0110J	ND	mg/l	NC		20
Arsenic, Total	ND	0.0044J	mg/l	NC		20
Barium, Total	ND	ND	mg/l	NC		20
Beryllium, Total	ND	ND	mg/l	NC		20
Cadmium, Total	ND	ND	mg/l	NC		20
Calcium, Total	ND	ND	mg/l	NC		20
Chromium, Total	ND	ND	mg/l	NC		20
Cobalt, Total	ND	ND	mg/l	NC		20
Copper, Total	ND	ND	mg/l	NC		20
Iron, Total	0.020J	ND	mg/l	NC		20
Lead, Total	ND	ND	mg/l	NC		20
Magnesium, Total	ND	ND	mg/l	NC		20
Manganese, Total	ND	ND	mg/l	NC		20
Nickel, Total	ND	ND	mg/l	NC		20
Potassium, Total	ND	ND	mg/l	NC		20
Selenium, Total	0.0044J	0.0033J	mg/l	NC		20
Silver, Total	ND	ND	mg/l	NC		20
Sodium, Total	ND	ND	mg/l	NC		20

# Lab Duplicate Analysis

## Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603880

Report Date: 02/24/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 11 QC Batch ID: WG865245-3 QC Sample: L1603880-11 Client ID: FB021216					
Thallium, Total	ND	ND	mg/l	NC	20
Vanadium, Total	ND	ND	mg/l	NC	20
Zinc, Total	ND	ND	mg/l	NC	20
Total Metals - Westborough Lab Associated sample(s): 01-06,08-10 QC Batch ID: WG865453-3 QC Sample: L1603880-01 Client ID: SB-103 (0-2)					
Mercury, Total	0.27	0.22	mg/kg	20	20
Total Metals - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG865458-3 QC Sample: L1602770-01 Client ID: DUP Sample					
Lead, Total	5.4	4.6	mg/kg	16	20

# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 04-06,08-10 QC Batch ID: WG865459-3 QC Sample: L1603880-04 Client ID: SB-101 (0-2)					
Aluminum, Total	6700	8500	mg/kg	24	Q 20
Antimony, Total	ND	ND	mg/kg	NC	20
Arsenic, Total	3.0	2.5	mg/kg	18	20
Barium, Total	22.	23	mg/kg	4	20
Beryllium, Total	0.29J	0.30J	mg/kg	NC	20
Cadmium, Total	ND	ND	mg/kg	NC	20
Calcium, Total	1900	790	mg/kg	83	Q 20
Chromium, Total	11.	12	mg/kg	9	20
Cobalt, Total	6.6	4.8	mg/kg	32	Q 20
Copper, Total	11.	9.8	mg/kg	12	20
Iron, Total	14000	13000	mg/kg	7	20
Lead, Total	4.8	11	mg/kg	78	Q 20
Magnesium, Total	1900	1900	mg/kg	0	20
Manganese, Total	430	200	mg/kg	73	Q 20
Nickel, Total	10.	9.1	mg/kg	9	20
Potassium, Total	400	340	mg/kg	16	20
Selenium, Total	ND	0.49J	mg/kg	NC	20
Silver, Total	ND	ND	mg/kg	NC	20
Sodium, Total	56.J	49J	mg/kg	NC	20

# Lab Duplicate Analysis

Batch Quality Control

**Project Name:** DUPONT STREET

**Project Number:** 2587.0001Y000

**Lab Number:** L1603880

**Report Date:** 02/24/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 04-06,08-10 QC Batch ID: WG865459-3 QC Sample: L1603880-04 Client ID: SB-101 (0-2)					
Thallium, Total	ND	ND	mg/kg	NC	20
Vanadium, Total	13.	14	mg/kg	7	20
Zinc, Total	39.	39	mg/kg	0	20

# **INORGANICS & MISCELLANEOUS**

**Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603880**Report Date:** 02/24/16**SAMPLE RESULTS****Lab ID:** L1603880-01**Client ID:** SB-103 (0-2)**Sample Location:** BROOKLYN, NY**Matrix:** Soil**Date Collected:** 02/12/16 08:00**Date Received:** 02/12/16**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	78.7		%	0.100	NA	1	-	02/15/16 16:31	30,2540G	RI



**Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603880**Report Date:** 02/24/16**SAMPLE RESULTS****Lab ID:** L1603880-02**Client ID:** SB-103 (4-6)**Sample Location:** BROOKLYN, NY**Matrix:** Soil**Date Collected:** 02/12/16 08:15**Date Received:** 02/12/16**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.0		%	0.100	NA	1	-	02/15/16 16:31	30,2540G	RI



**Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603880**Report Date:** 02/24/16**SAMPLE RESULTS****Lab ID:** L1603880-03**Client ID:** SB-103 (10-12)**Sample Location:** BROOKLYN, NY**Matrix:** Soil**Date Collected:** 02/12/16 08:30**Date Received:** 02/12/16**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.5		%	0.100	NA	1	-	02/15/16 16:31	30,2540G	RI





**Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603880**Report Date:** 02/24/16**SAMPLE RESULTS****Lab ID:** L1603880-04**Client ID:** SB-101 (0-2)**Sample Location:** BROOKLYN, NY**Matrix:** Soil**Date Collected:** 02/12/16 09:15**Date Received:** 02/12/16**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.5		%	0.100	NA	1	-	02/15/16 16:31	30,2540G	RI



**Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603880**Report Date:** 02/24/16**SAMPLE RESULTS****Lab ID:** L1603880-05**Client ID:** SB-101 (5-7)**Sample Location:** BROOKLYN, NY**Matrix:** Soil**Date Collected:** 02/12/16 09:30**Date Received:** 02/12/16**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.4		%	0.100	NA	1	-	02/15/16 16:31	30,2540G	RI



**Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603880**Report Date:** 02/24/16**SAMPLE RESULTS****Lab ID:** L1603880-06**Client ID:** SB-101 (10-12)**Sample Location:** BROOKLYN, NY**Matrix:** Soil**Date Collected:** 02/12/16 09:45**Date Received:** 02/12/16**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.0		%	0.100	NA	1	-	02/15/16 16:31	30,2540G	RI



**Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603880**Report Date:** 02/24/16**SAMPLE RESULTS****Lab ID:** L1603880-07**Client ID:** DUP021216**Sample Location:** BROOKLYN, NY**Matrix:** Soil**Date Collected:** 02/12/16 10:00**Date Received:** 02/12/16**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.3		%	0.100	NA	1	-	02/19/16 01:22	30,2540G	RT



**Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603880**Report Date:** 02/24/16**SAMPLE RESULTS****Lab ID:** L1603880-08**Client ID:** SB-102 (0-2)**Sample Location:** BROOKLYN, NY**Matrix:** Soil**Date Collected:** 02/12/16 10:30**Date Received:** 02/12/16**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.9		%	0.100	NA	1	-	02/15/16 16:31	30,2540G	RI



**Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603880**Report Date:** 02/24/16**SAMPLE RESULTS****Lab ID:** L1603880-09**Client ID:** SB-102 (5-7)**Sample Location:** BROOKLYN, NY**Matrix:** Soil**Date Collected:** 02/12/16 10:45**Date Received:** 02/12/16**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	84.0		%	0.100	NA	1	-	02/15/16 16:31	30,2540G	RI



**Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603880**Report Date:** 02/24/16**SAMPLE RESULTS****Lab ID:** L1603880-10**Client ID:** SB-102 (10-12)**Sample Location:** BROOKLYN, NY**Matrix:** Soil**Date Collected:** 02/12/16 11:00**Date Received:** 02/12/16**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	79.0		%	0.100	NA	1	-	02/15/16 16:31	30,2540G	RI



# Lab Duplicate Analysis

## Batch Quality Control

Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603880

Report Date: 02/24/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-06,08-10 QC Batch ID: WG865375-1 QC Sample: L1603886-01 Client ID: DUP Sample						
Solids, Total	91.5	90.9	%	1		20
General Chemistry - Westborough Lab Associated sample(s): 07 QC Batch ID: WG866529-1 QC Sample: L1604241-01 Client ID: DUP Sample						
Solids, Total	83.5	82.8	%	1		20



Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603880

Report Date: 02/24/16

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: 14-FEB-16 07:55

## Cooler Information Custody Seal

## Cooler

A Absent

## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1603880-01A	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-01B	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-01C	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-01D	Plastic 2oz unpreserved for TS	A	N/A	2.5	Y	Absent	TS(7)
L1603880-01E	Glass 250ml/8oz unpreserved	A	N/A	2.5	Y	Absent	BE-Ti(180),NYTCL-8270(14),AS-Ti(180),BA-Ti(180),AG-Ti(180),AL-Ti(180),CR-Ti(180),NI-Ti(180),TL-Ti(180),CU-Ti(180),PB-Ti(180),SB-Ti(180),SE-Ti(180),ZN-Ti(180),CO-Ti(180),NYTCL-8081(14),V-Ti(180),FE-Ti(180),HG-T(28),MG-Ti(180),MN-Ti(180),NYTCL-8082(14),CA-Ti(180),CD-Ti(180),K-Ti(180),NA-Ti(180)
L1603880-01X	Vial MeOH preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-01Y	Vial Water preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-01Z	Vial Water preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-02A	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-02B	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-02C	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-02D	Plastic 2oz unpreserved for TS	A	N/A	2.5	Y	Absent	TS(7)
L1603880-02E	Glass 250ml/8oz unpreserved	A	N/A	2.5	Y	Absent	BE-Ti(180),NYTCL-8270(14),AS-Ti(180),BA-Ti(180),AG-Ti(180),AL-Ti(180),CR-Ti(180),NI-Ti(180),TL-Ti(180),CU-Ti(180),PB-Ti(180),SB-Ti(180),SE-Ti(180),ZN-Ti(180),CO-Ti(180),NYTCL-8081(14),V-Ti(180),FE-Ti(180),HG-T(28),MG-Ti(180),MN-Ti(180),NYTCL-8082(14),CA-Ti(180),CD-Ti(180),K-Ti(180),NA-Ti(180)

\*Values in parentheses indicate holding time in days



Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603880

Report Date: 02/24/16

## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1603880-02X	Vial MeOH preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-02Y	Vial Water preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-02Z	Vial Water preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-03A	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-03B	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-03C	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-03D	Plastic 2oz unpreserved for TS	A	N/A	2.5	Y	Absent	TS(7)
L1603880-03E	Glass 250ml/8oz unpreserved	A	N/A	2.5	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),NYTCL-8081(14),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),NYTCL-8082(14),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1603880-03X	Vial MeOH preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-03Y	Vial Water preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-03Z	Vial Water preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-04A	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-04B	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-04C	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-04D	Plastic 2oz unpreserved for TS	A	N/A	2.5	Y	Absent	TS(7)
L1603880-04E	Glass 250ml/8oz unpreserved	A	N/A	2.5	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),NYTCL-8081(14),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),NYTCL-8082(14),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1603880-04X	Vial MeOH preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-04Y	Vial Water preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-04Z	Vial Water preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-05A	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-05B	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-05C	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)

\*Values in parentheses indicate holding time in days



Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603880

Report Date: 02/24/16

## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1603880-05D	Plastic 2oz unpreserved for TS	A	N/A	2.5	Y	Absent	TS(7)
L1603880-05E	Glass 250ml/8oz unpreserved	A	N/A	2.5	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),NYTCL-8081(14),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),NYTCL-8082(14),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1603880-05X	Vial MeOH preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-05Y	Vial Water preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-05Z	Vial Water preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-06A	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-06B	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-06C	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-06D	Plastic 2oz unpreserved for TS	A	N/A	2.5	Y	Absent	TS(7)
L1603880-06E	Glass 250ml/8oz unpreserved	A	N/A	2.5	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),NYTCL-8081(14),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),NYTCL-8082(14),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1603880-06X	Vial MeOH preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-06Y	Vial Water preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-06Z	Vial Water preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-07A	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-07B	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-07C	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-07D	Plastic 2oz unpreserved for TS	A	N/A	2.5	Y	Absent	TS(7)

\*Values in parentheses indicate holding time in days



Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603880

Report Date: 02/24/16

## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1603880-07E	Glass 250ml/8oz unpreserved	A	N/A	2.5	Y	Absent	BE-Ti(180),NYTCL-8270(14),AS-Ti(180),BA-Ti(180),AG-Ti(180),AL-Ti(180),CR-Ti(180),NI-Ti(180),TL-Ti(180),CU-Ti(180),PB-Ti(180),SB-Ti(180),SE-Ti(180),ZN-Ti(180),CO-Ti(180),NYTCL-8081(14),V-Ti(180),FE-Ti(180),HG-T(28),MG-Ti(180),MN-Ti(180),NYTCL-8082(14),CA-Ti(180),CD-Ti(180),K-Ti(180),NA-Ti(180)
L1603880-07X	Vial MeOH preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-07Y	Vial Water preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-07Z	Vial Water preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-08A	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-08B	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-08C	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-08D	Plastic 2oz unpreserved for TS	A	N/A	2.5	Y	Absent	TS(7)
L1603880-08E	Glass 250ml/8oz unpreserved	A	N/A	2.5	Y	Absent	BE-Ti(180),NYTCL-8270(14),AS-Ti(180),BA-Ti(180),AG-Ti(180),AL-Ti(180),CR-Ti(180),NI-Ti(180),TL-Ti(180),CU-Ti(180),PB-Ti(180),SB-Ti(180),SE-Ti(180),ZN-Ti(180),CO-Ti(180),NYTCL-8081(14),V-Ti(180),FE-Ti(180),HG-T(28),MG-Ti(180),MN-Ti(180),NYTCL-8082(14),CA-Ti(180),CD-Ti(180),K-Ti(180),NA-Ti(180)
L1603880-08X	Vial MeOH preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-08Y	Vial Water preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-08Z	Vial Water preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-09A	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-09B	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-09C	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-09D	Plastic 2oz unpreserved for TS	A	N/A	2.5	Y	Absent	TS(7)

\*Values in parentheses indicate holding time in days



Project Name: DUPONT STREET

Project Number: 2587.0001Y000

Lab Number: L1603880

Report Date: 02/24/16

## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1603880-09E	Glass 250ml/8oz unpreserved	A	N/A	2.5	Y	Absent	BE-Ti(180),NYTCL-8270(14),AS-Ti(180),BA-Ti(180),AG-Ti(180),AL-Ti(180),CR-Ti(180),NI-Ti(180),TL-Ti(180),CU-Ti(180),PB-Ti(180),SB-Ti(180),SE-Ti(180),ZN-Ti(180),CO-Ti(180),NYTCL-8081(14),V-Ti(180),FE-Ti(180),HG-T(28),MG-Ti(180),MN-Ti(180),NYTCL-8082(14),CA-Ti(180),CD-Ti(180),K-Ti(180),NA-Ti(180)
L1603880-09X	Vial MeOH preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-09Y	Vial Water preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-09Z	Vial Water preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-10A	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-10B	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-10C	5 gram Encore Sampler	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(2)
L1603880-10D	Plastic 2oz unpreserved for TS	A	N/A	2.5	Y	Absent	TS(7)
L1603880-10E	Glass 250ml/8oz unpreserved	A	N/A	2.5	Y	Absent	BE-Ti(180),NYTCL-8270(14),AS-Ti(180),BA-Ti(180),AG-Ti(180),AL-Ti(180),CR-Ti(180),NI-Ti(180),TL-Ti(180),CU-Ti(180),PB-Ti(180),SB-Ti(180),SE-Ti(180),ZN-Ti(180),CO-Ti(180),NYTCL-8081(14),V-Ti(180),FE-Ti(180),HG-T(28),MG-Ti(180),MN-Ti(180),NYTCL-8082(14),CA-Ti(180),CD-Ti(180),K-Ti(180),NA-Ti(180)
L1603880-10X	Vial MeOH preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-10Y	Vial Water preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-10Z	Vial Water preserved split	A	N/A	2.5	Y	Absent	NYTCL-8260HLW(14)
L1603880-11A	Vial HCl preserved	A	N/A	2.5	Y	Absent	NYTCL-8260(14)
L1603880-11B	Vial HCl preserved	A	N/A	2.5	Y	Absent	NYTCL-8260(14)
L1603880-11C	Vial HCl preserved	A	N/A	2.5	Y	Absent	NYTCL-8260(14)
L1603880-11D	Plastic 250ml HNO3 preserved	A	<2	2.5	Y	Absent	BE-Ti(180),AS-Ti(180),BA-Ti(180),AG-Ti(180),AL-Ti(180),CR-Ti(180),NI-Ti(180),TL-Ti(180),CU-Ti(180),PB-Ti(180),SB-Ti(180),SE-Ti(180),ZN-Ti(180),CO-Ti(180),V-Ti(180),FE-Ti(180),HG-T(28),MG-Ti(180),MN-Ti(180),CA-Ti(180),CD-Ti(180),K-Ti(180),NA-Ti(180)
L1603880-11E	Amber 500ml unpreserved	A	7	2.5	Y	Absent	NYTCL-8081(7)

\*Values in parentheses indicate holding time in days



**Project Name:** DUPONT STREET**Project Number:** 2587.0001Y000**Lab Number:** L1603880**Report Date:** 02/24/16**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1603880-11F	Amber 500ml unpreserved	A	7	2.5	Y	Absent	NYTCL-8081(7)
L1603880-11G	Amber 1000ml unpreserved	A	7	2.5	Y	Absent	NYTCL-8270(7)
L1603880-11H	Amber 1000ml unpreserved	A	7	2.5	Y	Absent	NYTCL-8270(7)
L1603880-11I	Amber 1000ml unpreserved	A	7	2.5	Y	Absent	NYTCL-8082-1200ML(7)
L1603880-11J	Amber 1000ml unpreserved	A	7	2.5	Y	Absent	NYTCL-8082-1200ML(7)
L1603880-12A	Vial HCl preserved	A	N/A	2.5	Y	Absent	NYTCL-8260(14)
L1603880-12B	Vial HCl preserved	A	N/A	2.5	Y	Absent	NYTCL-8260(14)

**Container Comments**

L1603880-01Y

L1603880-02Y

L1603880-03Y

L1603880-07E

L1603880-09E

\*Values in parentheses indicate holding time in days

**Project Name:** DUPONT STREET  
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## GLOSSARY

### Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

### Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### Terms

**Total:** With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

**Report Format:** DU Report with 'J' Qualifiers



**Project Name:** DUPONT STREET  
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**Data Qualifiers**

- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers





**Project Name:** DUPONT STREET  
**Project Number:** 2587.0001Y000

**Lab Number:** L1603880  
**Report Date:** 02/24/16

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



## Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

### Westborough Facility

**EPA 524.2:** 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene

**EPA 624:** 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene

**EPA 625:** Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.

**EPA 1010A:** NPW: Ignitability

**EPA 6010C:** NPW: Strontium; SCM: Strontium

**EPA 8151A:** NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP

**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D:** NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 9010:** NPW: Amenable Cyanide Distillation, Total Cyanide Distillation

**EPA 9038:** NPW: Sulfate

**EPA 9050A:** NPW: Specific Conductance

**EPA 9056:** NPW: Chloride, Nitrate, Sulfate

**EPA 9065:** NPW: Phenols

**EPA 9251:** NPW: Chloride

**SM3500:** NPW: Ferrous Iron

**SM4500:** NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**SM5310C:** DW: Dissolved Organic Carbon

### Mansfield Facility

**EPA 8270D:** NPW: Biphenyl; SCM: Biphenyl, Caprolactam

**EPA 8270D-SIM Isotope Dilution:** SCM: 1,4-Dioxane

**SM 2540D:** TSS

**SM2540G:** SCM: Percent Solids

**EPA 1631E:** SCM: Mercury

**EPA 7474:** SCM: Mercury

**EPA 8081B:** NPW and SCM: Mirex, Hexachlorobenzene.

**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

**EPA 8270-SIM:** NPW and SCM: Alkylated PAHs.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.

**Biological Tissue Matrix:** **8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:** Lead; **8270D:** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

### Drinking Water

**EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Ti; **EPA 200.7:** Ba, Be, Ca, Cd, Cr, Cu, Na; **EPA 245.1:** Mercury;

**EPA 300.0:** Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1,**

**SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

### Non-Potable Water

**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, Ti, Zn;

**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Ti, Tl, V, Zn;

**EPA 245.1, SM4500H-B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA**

**350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F,**

**EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D,**

**EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**


**EPA 624:** Volatile Halocarbons & Aromatics,

**EPA 608:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs


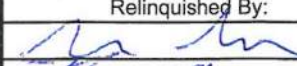
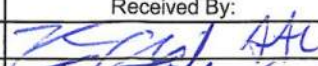


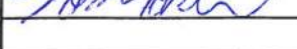
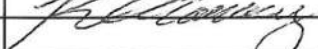
**EPA 625:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 <b>ALPHA</b> <small>LABORATORY</small>	<b>NEW YORK</b> <b>CHAIN OF</b> <b>CUSTODY</b>	<b>Service Centers</b> Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page <u>1</u> of <u>2</u>		Date Rec'd in Lab <u>2/12/16</u>	ALPHA Job # <u>L1603880</u>	
Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	<b>Project Information</b> Project Name: <u>Dupont Street</u> Project Location: <u>Brooklyn, NY</u> Project # <u>2557-0001000</u> (Use Project name as Project #) <input type="checkbox"/>		<b>Deliverables</b> <input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQuIS (1 File) <input type="checkbox"/> EQuIS (4 File) <input type="checkbox"/> Other		<b>Billing Information</b> <input checked="" type="checkbox"/> Same as Client Info PO #	
<b>Client Information</b> Client: <u>Rax Associates Inc</u> Address: <u>209 Shafter Street</u> <u>ISlander, NY 11749</u> Phone: <u>631-232-2600</u> Fax: <u>631-232-9508</u> Email: <u>rlumbino@raxinc.com</u>		Project Manager: <u>Ron Lumbino</u> ALPHAQuote #:		<b>Regulatory Requirement</b> <input type="checkbox"/> NY TOGS <input checked="" type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		<b>Disposal Site Information</b> Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:	
These samples have been previously analyzed by Alpha <input type="checkbox"/>		<b>Turn-Around Time</b> Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		<b>ANALYSIS</b>		<b>Sample Filtration</b> <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <b>Preservation</b> <input type="checkbox"/> Lab to do (Please Specify below)	
Other project specific requirements/comments: <u>Please Hold Sample "Dupont 1216"</u>				Please specify Metals or TAL.		Total Bottles	
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date Time	Sample Matrix	Sampler's Initials	VOC SVOC TAL Metals TCL Pest TCL PCBs Total Solids	Sample Specific Comments	
03880-01	SB-103(0-2)	2/12/16 0800	Soil	RL	X X X X X X		
02	SB-103(4-6)	0815	Soil	RL	X X X X X X		
03	SB-103(10-12)	0830	Soil	RL	X X X X X X		
04	SB-101(0-2)	0915	Soil	RL	X X X X X X		
05	SB-101(5-7)	0930	Soil	RL	X X X X X X		
06	SB-101(10-12)	0945	Soil	RL	X X X X X X		
07	Dupont 1216	1000	Soil	RL	X X X X X X	Hold Sample	
08	SB-102(0-2)	1030	Soil	RL	X X X X X X		
09	SB-102(5-7)	1045	Soil	RL	X X X X X X		
10	SB-102(10-12)	1100	Soil	RL	X X X X X X		
Preservative Code: A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type Preservative	
				Relinquished By: <u>[Signature]</u> Date/Time: <u>2/12/16 1150</u> <u>[Signature]</u> <u>2/12/16 1830</u> <u>[Signature]</u> <u>2/12/16 2355</u>		Received By: <u>[Signature]</u> Date/Time: <u>2-12-16 1150</u> <u>[Signature]</u> <u>2-12-16 1830</u> <u>[Signature]</u> <u>2/12/16 2355</u>	
Form No: 01-25 HC (rev. 30-Sept-2013)						Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)	



 <b>NEW YORK CHAIN OF CUSTODY</b> Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193		<b>Service Centers</b> Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page <u>2</u> of <u>2</u>		Date Rec'd in Lab <u>2/12/16</u>		ALPHA Job # <u>L1603880</u>					
Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		<b>Project Information</b> Project Name: <u>DuPont Street</u> Project Location: <u>Brooklyn, NY</u> Project # <u>2587 00014000</u> (Use Project name as Project #) <input type="checkbox"/>				<b>Deliverables</b> <input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other				<b>Billing Information</b> <input checked="" type="checkbox"/> Same as Client Info PO #			
<b>Client Information</b> Client: <u>Law Associates</u> Address: <u>209 Shutter Street</u> <u>Islandia, NY 11749</u> Phone: <u>631-232-2600</u> Fax: <u>631-232-9598</u> Email: <u>lombino@lawinc.com</u>		Project Manager: <u>Ron Lombino</u> ALPHAQuote #:				<b>Regulatory Requirement</b> <input type="checkbox"/> NY TOGS <input checked="" type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge				<b>Disposal Site Information</b> Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:			
These samples have been previously analyzed by Alpha <input type="checkbox"/>		<b>Other project specific requirements/comments:</b>				<b>ANALYSIS</b> <div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">             VOC S &amp; G              SVOC S &amp; G              TCL Post G              TCL Post G              TAL Metals G           </div> <div> <input checked="" type="checkbox"/> Done  <input type="checkbox"/> Lab to do  <b>Preservation</b>  <input type="checkbox"/> Lab to do              (Please Specify below)           </div> </div>				<b>Sample Filtration</b> <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <b>Preservation</b> <input type="checkbox"/> Lab to do (Please Specify below)			
<b>Please specify Metals or TAL.</b>		<b>Sample Specific Comments</b>											
<b>ALPHA Lab ID (Lab Use Only)</b>		<b>Sample ID</b>		<b>Collection</b> Date Time		<b>Sample Matrix</b>		<b>Sampler's Initials</b>		<b>ANALYSIS</b> VOC S & G SVOC S & G TCL Post G TCL Post G TAL Metals G		<b>Sample Specific Comments</b>	
05880-11		FIS0212/16		2/12/16 1115		F13		DL		X X X X X		10	
12		TRIP Blank		-		TB		-		X		2	
Preservative Code: A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type Preservative		A A A A P B A A A C		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)			
Relinquished By:		Date/Time		Received By:		Date/Time							
		2/12/16 1150				2-12-16 1150							
		2-12-16 1830				2-12-16 1830							
		2/12/16 23:35				2/12/16 23:35							



## ANALYTICAL REPORT

Lab Number:	L1604581
Client:	Roux Associates, Inc. 209 Shafter Street Islandia, NY 11749-5074
ATTN:	Ronald Lombino
Phone:	(631) 630-2372
Project Name:	DUPONT ST.
Project Number:	2587.0001Y000
Report Date:	02/29/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1604581-01	MW-104	WATER	BROOKLYN, NY	02/18/16 14:35	02/19/16
L1604581-02	MW-103	WATER	BROOKLYN, NY	02/19/16 08:30	02/19/16
L1604581-03	MW-101	WATER	BROOKLYN, NY	02/19/16 09:10	02/19/16
L1604581-04	MW-105	WATER	BROOKLYN, NY	02/19/16 12:30	02/19/16
L1604581-05	MW-102	WATER	BROOKLYN, NY	02/19/16 12:55	02/19/16
L1604581-06	DUP021916	WATER	BROOKLYN, NY	02/19/16 11:00	02/19/16
L1604581-07	FB021916	WATER	BROOKLYN, NY	02/19/16 13:00	02/19/16
L1604581-08	TRIP BLANK	WATER	BROOKLYN, NY	02/19/16 00:00	02/19/16

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

### Case Narrative

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

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

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

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

#### HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

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**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

### Case Narrative (continued)

#### Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

#### PCBs


L1604581-05: The sample has elevated detection limits due to limited sample volume available for analysis.

#### Dissolved Metals

The WG867583-3 Laboratory Duplicate RPDs, performed on L1604581-01, are outside the acceptance criteria for antimony (41%), arsenic (26%), chromium (69%), and nickel (34%). The elevated RPDs have been attributed to the non-homogeneous nature of the native sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 02/29/16



# ORGANICS

# VOLATILES

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-01  
**Client ID:** MW-104  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/26/16 18:38  
**Analyst:** PD

**Date Collected:** 02/18/16 14:35  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-01  
**Client ID:** MW-104  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/18/16 14:35  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	4.2	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-01  
**Client ID:** MW-104  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/18/16 14:35  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	41.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	99		70-130

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-02  
**Client ID:** MW-103  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/26/16 19:06  
**Analyst:** PD

**Date Collected:** 02/19/16 08:30  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	0.19	J	ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DUPONT ST.

Lab Number: L1604581

Project Number: 2587.0001Y000

Report Date: 02/29/16

## SAMPLE RESULTS

Lab ID: L1604581-02

Date Collected: 02/19/16 08:30

Client ID: MW-103

Date Received: 02/19/16

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-02  
**Client ID:** MW-103  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/19/16 08:30  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	41.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	100		70-130



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-03  
**Client ID:** MW-101  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/26/16 19:34  
**Analyst:** PD

**Date Collected:** 02/19/16 09:10  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-03  
**Client ID:** MW-101  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/19/16 09:10  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-03  
**Client ID:** MW-101  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/19/16 09:10  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	41.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	98		70-130

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-04  
**Client ID:** MW-105  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/26/16 20:02  
**Analyst:** PD

**Date Collected:** 02/19/16 12:30  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-04  
**Client ID:** MW-105  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/19/16 12:30  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-04  
**Client ID:** MW-105  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/19/16 12:30  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	41.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	100		70-130

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-05  
**Client ID:** MW-102  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/27/16 19:18  
**Analyst:** PD

**Date Collected:** 02/19/16 12:55  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	0.72	J	ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	2.2		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-05  
**Client ID:** MW-102  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/19/16 12:55  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-05  
**Client ID:** MW-102  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/19/16 12:55  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	41.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	99		70-130

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-06  
**Client ID:** DUP021916  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/26/16 20:30  
**Analyst:** PD

**Date Collected:** 02/19/16 11:00  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-06  
**Client ID:** DUP021916  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/19/16 11:00  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-06  
**Client ID:** DUP021916  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/19/16 11:00  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	41.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	97		70-130

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-07  
**Client ID:** FB021916  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/27/16 19:46  
**Analyst:** PD

**Date Collected:** 02/19/16 13:00  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-07  
**Client ID:** FB021916  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/19/16 13:00  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-07  
**Client ID:** FB021916  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/19/16 13:00  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	41.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	97		70-130

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-08  
**Client ID:** TRIP BLANK  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/27/16 20:14  
**Analyst:** PD

**Date Collected:** 02/19/16 00:00  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-08  
**Client ID:** TRIP BLANK  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/19/16 00:00  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-08  
**Client ID:** TRIP BLANK  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/19/16 00:00  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	41.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	115		70-130
Dibromofluoromethane	99		70-130

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8260C  
**Analytical Date:** 02/26/16 11:05  
**Analyst:** PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04,06 Batch: WG868717-3					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.13
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.14
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8260C  
**Analytical Date:** 02/26/16 11:05  
**Analyst:** PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04,06 Batch: WG868717-3					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8260C  
**Analytical Date:** 02/26/16 11:05  
**Analyst:** PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04,06 Batch: WG868717-3					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	41.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	98		70-130

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8260C  
**Analytical Date:** 02/27/16 16:00  
**Analyst:** PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05,07-08 Batch: WG869011-3					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.13
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.14
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8260C  
**Analytical Date:** 02/27/16 16:00  
**Analyst:** PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05,07-08 Batch: WG869011-3					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8260C  
**Analytical Date:** 02/27/16 16:00  
**Analyst:** PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05,07-08 Batch: WG869011-3					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	41.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	99		70-130



# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06 Batch: WG868717-1 WG868717-2								
Methylene chloride	104		103		70-130	1		20
1,1-Dichloroethane	102		101		70-130	1		20
Chloroform	99		101		70-130	2		20
2-Chloroethylvinyl ether	100		103		70-130	3		20
Carbon tetrachloride	103		99		63-132	4		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	97		97		63-130	0		20
1,1,2-Trichloroethane	100		102		70-130	2		20
Tetrachloroethene	105		104		70-130	1		20
Chlorobenzene	100		98		75-130	2		20
Trichlorofluoromethane	102		102		62-150	0		20
1,2-Dichloroethane	97		101		70-130	4		20
1,1,1-Trichloroethane	99		103		67-130	4		20
Bromodichloromethane	100		99		67-130	1		20
trans-1,3-Dichloropropene	99		98		70-130	1		20
cis-1,3-Dichloropropene	99		99		70-130	0		20
1,1-Dichloropropene	103		101		70-130	2		20
Bromoform	95		95		54-136	0		20
1,1,2,2-Tetrachloroethane	93		100		67-130	7		20
Benzene	98		99		70-130	1		20
Toluene	99		99		70-130	0		20

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06 Batch: WG868717-1 WG868717-2								
Ethylbenzene	98		98		70-130	0		20
Chloromethane	104		104		64-130	0		20
Bromomethane	87		82		39-139	6		20
Vinyl chloride	106		105		55-140	1		20
Chloroethane	95		97		55-138	2		20
1,1-Dichloroethene	96		97		61-145	1		20
trans-1,2-Dichloroethene	103		101		70-130	2		20
Trichloroethene	100		99		70-130	1		20
1,2-Dichlorobenzene	97		96		70-130	1		20
1,3-Dichlorobenzene	94		97		70-130	3		20
1,4-Dichlorobenzene	96		96		70-130	0		20
Methyl tert butyl ether	94		99		63-130	5		20
p/m-Xylene	96		94		70-130	2		20
o-Xylene	94		93		70-130	1		20
cis-1,2-Dichloroethene	101		100		70-130	1		20
Dibromomethane	94		96		70-130	2		20
1,2,3-Trichloropropane	100		99		64-130	1		20
Acrylonitrile	97		94		70-130	3		20
Isopropyl Ether	100		101		70-130	1		20
tert-Butyl Alcohol	85		90		70-130	6		20
Styrene	93		92		70-130	1		20

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06 Batch: WG868717-1 WG868717-2								
Dichlorodifluoromethane	99		101		36-147	2		20
Acetone	90		89		58-148	1		20
Carbon disulfide	90		91		51-130	1		20
2-Butanone	98		102		63-138	4		20
Vinyl acetate	92		93		70-130	1		20
4-Methyl-2-pentanone	77		81		59-130	5		20
2-Hexanone	85		86		57-130	1		20
Acrolein	97		93		40-160	4		20
Bromochloromethane	100		96		70-130	4		20
2,2-Dichloropropane	104		106		63-133	2		20
1,2-Dibromoethane	96		99		70-130	3		20
1,3-Dichloropropane	100		103		70-130	3		20
1,1,1,2-Tetrachloroethane	99		102		64-130	3		20
Bromobenzene	96		98		70-130	2		20
n-Butylbenzene	81		79		53-136	3		20
sec-Butylbenzene	98		96		70-130	2		20
tert-Butylbenzene	99		98		70-130	1		20
o-Chlorotoluene	100		101		70-130	1		20
p-Chlorotoluene	100		102		70-130	2		20
1,2-Dibromo-3-chloropropane	96		92		41-144	4		20
Hexachlorobutadiene	97		92		63-130	5		20

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06 Batch: WG868717-1 WG868717-2								
Isopropylbenzene	99		100		70-130	1		20
p-Isopropyltoluene	84		82		70-130	2		20
Naphthalene	95		96		70-130	1		20
n-Propylbenzene	99		99		69-130	0		20
1,2,3-Trichlorobenzene	98		94		70-130	4		20
1,2,4-Trichlorobenzene	93		97		70-130	4		20
1,3,5-Trimethylbenzene	100		99		64-130	1		20
1,2,4-Trimethylbenzene	98		98		70-130	0		20
Methyl Acetate	103		103		70-130	0		20
Ethyl Acetate	85		86		70-130	1		20
Cyclohexane	106		105		70-130	1		20
Ethyl-Tert-Butyl-Ether	98		100		70-130	2		20
Tertiary-Amyl Methyl Ether	95		97		66-130	2		20
1,4-Dioxane	99		96		56-162	3		20
Freon-113	100		104		70-130	4		20
1,4-Diethylbenzene	81		80		70-130	1		20
4-Ethyltoluene	97		99		70-130	2		20
1,2,4,5-Tetramethylbenzene	105		103		70-130	2		20
Ethyl ether	91		97		59-134	6		20
trans-1,4-Dichloro-2-butene	94		98		70-130	4		20
Iodomethane	72		82		70-130	13		20

**Lab Control Sample Analysis****Batch Quality Control****Project Name:** DUPONT ST.**Lab Number:** L1604581**Project Number:** 2587.0001Y000**Report Date:** 02/29/16

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06 Batch: WG868717-1 WG868717-2								
Methyl cyclohexane	104		102		70-130	2		20

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	97		97		70-130
Toluene-d8	103		103		70-130
4-Bromofluorobenzene	104		103		70-130
Dibromofluoromethane	100		97		70-130

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05,07-08 Batch: WG869011-1 WG869011-2								
Methylene chloride	96		95		70-130	1		20
1,1-Dichloroethane	96		96		70-130	0		20
Chloroform	94		96		70-130	2		20
2-Chloroethylvinyl ether	95		93		70-130	2		20
Carbon tetrachloride	92		90		63-132	2		20
1,2-Dichloropropane	94		96		70-130	2		20
Dibromochloromethane	90		89		63-130	1		20
1,1,2-Trichloroethane	93		91		70-130	2		20
Tetrachloroethene	97		95		70-130	2		20
Chlorobenzene	92		91		75-130	1		20
Trichlorofluoromethane	90		91		62-150	1		20
1,2-Dichloroethane	94		95		70-130	1		20
1,1,1-Trichloroethane	91		93		67-130	2		20
Bromodichloromethane	93		92		67-130	1		20
trans-1,3-Dichloropropene	93		92		70-130	1		20
cis-1,3-Dichloropropene	94		92		70-130	2		20
1,1-Dichloropropene	94		93		70-130	1		20
Bromoform	81		86		54-136	6		20
1,1,2,2-Tetrachloroethane	87		92		67-130	6		20
Benzene	92		95		70-130	3		20
Toluene	92		92		70-130	0		20

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05,07-08 Batch: WG869011-1 WG869011-2								
Ethylbenzene	92		90		70-130	2		20
Chloromethane	99		101		64-130	2		20
Bromomethane	81		82		39-139	1		20
Vinyl chloride	97		97		55-140	0		20
Chloroethane	91		93		55-138	2		20
1,1-Dichloroethene	87		92		61-145	6		20
trans-1,2-Dichloroethene	95		95		70-130	0		20
Trichloroethene	90		94		70-130	4		20
1,2-Dichlorobenzene	90		90		70-130	0		20
1,3-Dichlorobenzene	92		91		70-130	1		20
1,4-Dichlorobenzene	89		90		70-130	1		20
Methyl tert butyl ether	92		95		63-130	3		20
p/m-Xylene	91		88		70-130	3		20
o-Xylene	89		86		70-130	3		20
cis-1,2-Dichloroethene	92		96		70-130	4		20
Dibromomethane	85		92		70-130	8		20
1,2,3-Trichloropropane	88		89		64-130	1		20
Acrylonitrile	89		92		70-130	3		20
Isopropyl Ether	93		95		70-130	2		20
tert-Butyl Alcohol	80		84		70-130	5		20
Styrene	89		84		70-130	6		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05,07-08 Batch: WG869011-1 WG869011-2								
Dichlorodifluoromethane	87		87		36-147	0		20
Acetone	82		87		58-148	6		20
Carbon disulfide	83		85		51-130	2		20
2-Butanone	94		94		63-138	0		20
Vinyl acetate	88		90		70-130	2		20
4-Methyl-2-pentanone	76		76		59-130	0		20
2-Hexanone	82		80		57-130	2		20
Acrolein	96		90		40-160	6		20
Bromochloromethane	92		96		70-130	4		20
2,2-Dichloropropane	98		101		63-133	3		20
1,2-Dibromoethane	90		89		70-130	1		20
1,3-Dichloropropane	94		94		70-130	0		20
1,1,1,2-Tetrachloroethane	95		95		64-130	0		20
Bromobenzene	90		91		70-130	1		20
n-Butylbenzene	78		75		53-136	4		20
sec-Butylbenzene	92		90		70-130	2		20
tert-Butylbenzene	91		91		70-130	0		20
o-Chlorotoluene	93		87		70-130	7		20
p-Chlorotoluene	94		94		70-130	0		20
1,2-Dibromo-3-chloropropane	86		87		41-144	1		20
Hexachlorobutadiene	98		97		63-130	1		20



# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05,07-08 Batch: WG869011-1 WG869011-2								
Isopropylbenzene	91		91		70-130	0		20
p-Isopropyltoluene	78		75		70-130	4		20
Naphthalene	86		87		70-130	1		20
n-Propylbenzene	92		91		69-130	1		20
1,2,3-Trichlorobenzene	88		93		70-130	6		20
1,2,4-Trichlorobenzene	89		88		70-130	1		20
1,3,5-Trimethylbenzene	94		94		64-130	0		20
1,2,4-Trimethylbenzene	93		91		70-130	2		20
Methyl Acetate	90		98		70-130	9		20
Ethyl Acetate	82		85		70-130	4		20
Cyclohexane	89		90		70-130	1		20
Ethyl-Tert-Butyl-Ether	92		93		70-130	1		20
Tertiary-Amyl Methyl Ether	89		91		66-130	2		20
1,4-Dioxane	102		93		56-162	9		20
Freon-113	89		88		70-130	1		20
1,4-Diethylbenzene	77		73		70-130	5		20
4-Ethyltoluene	91		90		70-130	1		20
1,2,4,5-Tetramethylbenzene	99		96		70-130	3		20
Ethyl ether	90		91		59-134	1		20
trans-1,4-Dichloro-2-butene	90		95		70-130	5		20
Iodomethane	76		84		70-130	10		20

**Lab Control Sample Analysis****Batch Quality Control****Project Name:** DUPONT ST.**Lab Number:** L1604581**Project Number:** 2587.0001Y000**Report Date:** 02/29/16

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05,07-08 Batch: WG869011-1 WG869011-2								
Methyl cyclohexane	91		91		70-130	0		20

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	99		98		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	97		99		70-130
Dibromofluoromethane	98		99		70-130

# SEMIVOLATILES

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-01  
**Client ID:** MW-104  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/27/16 04:55  
**Analyst:** JB

**Date Collected:** 02/18/16 14:35  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 16:01

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.73	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.73	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.71	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-Ethylhexyl)phthalate	4.7		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
Biphenyl	ND		ug/l	2.0	0.76	1
4-Chloroaniline	ND		ug/l	5.0	0.63	1
2-Nitroaniline	ND		ug/l	5.0	1.1	1
3-Nitroaniline	ND		ug/l	5.0	1.1	1
4-Nitroaniline	ND		ug/l	5.0	1.3	1
Dibenzofuran	ND		ug/l	2.0	0.66	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.67	1

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-01  
**Client ID:** MW-104  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/18/16 14:35  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acetophenone	ND		ug/l	5.0	0.85	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
P-Chloro-M-Cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1
4-Nitrophenol	4.2	J	ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	3.5	J	ug/l	5.0	1.9	1
2-Methylphenol	ND		ug/l	5.0	1.0	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	1.1	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.72	1
Benzoic Acid	17	J	ug/l	50	13.	1
Benzyl Alcohol	ND		ug/l	2.0	0.72	1
Carbazole	ND		ug/l	2.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	47		21-120
Phenol-d6	31		10-120
Nitrobenzene-d5	85		23-120
2-Fluorobiphenyl	75		15-120
2,4,6-Tribromophenol	66		10-120
4-Terphenyl-d14	83		41-149

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-01  
**Client ID:** MW-104  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 02/26/16 10:00  
**Analyst:** KV

**Date Collected:** 02/18/16 14:35  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 16:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	ND		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	0.04	1
Pyrene	ND		ug/l	0.20	0.04	1
2-Methylnaphthalene	ND		ug/l	0.20	0.05	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-01  
**Client ID:** MW-104  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/18/16 14:35  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	52		21-120
Phenol-d6	36		10-120
Nitrobenzene-d5	91		23-120
2-Fluorobiphenyl	88		15-120
2,4,6-Tribromophenol	97		10-120
4-Terphenyl-d14	92		41-149

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-02  
**Client ID:** MW-103  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/27/16 05:23  
**Analyst:** JB

**Date Collected:** 02/19/16 08:30  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 16:01

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.73	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.73	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.71	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-Ethylhexyl)phthalate	3.9		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
Biphenyl	ND		ug/l	2.0	0.76	1
4-Chloroaniline	ND		ug/l	5.0	0.63	1
2-Nitroaniline	ND		ug/l	5.0	1.1	1
3-Nitroaniline	ND		ug/l	5.0	1.1	1
4-Nitroaniline	ND		ug/l	5.0	1.3	1
Dibenzofuran	ND		ug/l	2.0	0.66	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.67	1



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-02  
**Client ID:** MW-103  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/19/16 08:30  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acetophenone	ND		ug/l	5.0	0.85	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
P-Chloro-M-Cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1
2-Methylphenol	ND		ug/l	5.0	1.0	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	1.1	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.72	1
Benzoic Acid	ND		ug/l	50	13.	1
Benzyl Alcohol	ND		ug/l	2.0	0.72	1
Carbazole	ND		ug/l	2.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	31		21-120
Phenol-d6	22		10-120
Nitrobenzene-d5	63		23-120
2-Fluorobiphenyl	61		15-120
2,4,6-Tribromophenol	57		10-120
4-Terphenyl-d14	75		41-149

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-02  
**Client ID:** MW-103  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 02/26/16 11:23  
**Analyst:** KV

**Date Collected:** 02/19/16 08:30  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 16:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	ND		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	0.04	1
Pyrene	ND		ug/l	0.20	0.04	1
2-Methylnaphthalene	ND		ug/l	0.20	0.05	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-02  
**Client ID:** MW-103  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/19/16 08:30  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	41		21-120
Phenol-d6	28		10-120
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	77		15-120
2,4,6-Tribromophenol	92		10-120
4-Terphenyl-d14	91		41-149

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-03  
**Client ID:** MW-101  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/27/16 19:58  
**Analyst:** JB

**Date Collected:** 02/19/16 09:10  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 16:01

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.73	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.73	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.71	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-Ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
Biphenyl	ND		ug/l	2.0	0.76	1
4-Chloroaniline	ND		ug/l	5.0	0.63	1
2-Nitroaniline	ND		ug/l	5.0	1.1	1
3-Nitroaniline	ND		ug/l	5.0	1.1	1
4-Nitroaniline	ND		ug/l	5.0	1.3	1
Dibenzofuran	ND		ug/l	2.0	0.66	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.67	1

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-03  
**Client ID:** MW-101  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/19/16 09:10  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acetophenone	ND		ug/l	5.0	0.85	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
P-Chloro-M-Cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1
2-Methylphenol	ND		ug/l	5.0	1.0	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	1.1	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.72	1
Benzoic Acid	ND		ug/l	50	13.	1
Benzyl Alcohol	ND		ug/l	2.0	0.72	1
Carbazole	ND		ug/l	2.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	36		21-120
Phenol-d6	28		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	61		15-120
2,4,6-Tribromophenol	64		10-120
4-Terphenyl-d14	60		41-149

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-03  
**Client ID:** MW-101  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 02/26/16 11:54  
**Analyst:** KV

**Date Collected:** 02/19/16 09:10  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 16:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	ND		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	0.04	1
Pyrene	ND		ug/l	0.20	0.04	1
2-Methylnaphthalene	ND		ug/l	0.20	0.05	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-03  
**Client ID:** MW-101  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/19/16 09:10  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	41		21-120
Phenol-d6	30		10-120
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	75		15-120
2,4,6-Tribromophenol	85		10-120
4-Terphenyl-d14	83		41-149

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-04  
**Client ID:** MW-105  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/27/16 20:25  
**Analyst:** JB

**Date Collected:** 02/19/16 12:30  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 16:01

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.73	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.73	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.71	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-Ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
Biphenyl	ND		ug/l	2.0	0.76	1
4-Chloroaniline	ND		ug/l	5.0	0.63	1
2-Nitroaniline	ND		ug/l	5.0	1.1	1
3-Nitroaniline	ND		ug/l	5.0	1.1	1
4-Nitroaniline	ND		ug/l	5.0	1.3	1
Dibenzofuran	ND		ug/l	2.0	0.66	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.67	1



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-04  
**Client ID:** MW-105  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/19/16 12:30  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acetophenone	ND		ug/l	5.0	0.85	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
P-Chloro-M-Cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1
2-Methylphenol	ND		ug/l	5.0	1.0	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	1.1	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.72	1
Benzoic Acid	ND		ug/l	50	13.	1
Benzyl Alcohol	ND		ug/l	2.0	0.72	1
Carbazole	ND		ug/l	2.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	36		21-120
Phenol-d6	29		10-120
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	67		15-120
2,4,6-Tribromophenol	58		10-120
4-Terphenyl-d14	62		41-149

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-04  
**Client ID:** MW-105  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 02/26/16 07:49  
**Analyst:** KV

**Date Collected:** 02/19/16 12:30  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 16:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	ND		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	0.04	1
Pyrene	ND		ug/l	0.20	0.04	1
2-Methylnaphthalene	ND		ug/l	0.20	0.05	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-04  
**Client ID:** MW-105  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/19/16 12:30  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	43		21-120
Phenol-d6	31		10-120
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	85		15-120
2,4,6-Tribromophenol	81		10-120
4-Terphenyl-d14	89		41-149

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-05  
**Client ID:** MW-102  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/29/16 15:57  
**Analyst:** JB

**Date Collected:** 02/19/16 12:55  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 16:01

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.73	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.73	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.71	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-Ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
Biphenyl	ND		ug/l	2.0	0.76	1
4-Chloroaniline	ND		ug/l	5.0	0.63	1
2-Nitroaniline	ND		ug/l	5.0	1.1	1
3-Nitroaniline	ND		ug/l	5.0	1.1	1
4-Nitroaniline	ND		ug/l	5.0	1.3	1
Dibenzofuran	ND		ug/l	2.0	0.66	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.67	1

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-05  
**Client ID:** MW-102  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/19/16 12:55  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acetophenone	ND		ug/l	5.0	0.85	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
P-Chloro-M-Cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1
2-Methylphenol	ND		ug/l	5.0	1.0	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	1.1	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.72	1
Benzoic Acid	ND		ug/l	50	13.	1
Benzyl Alcohol	ND		ug/l	2.0	0.72	1
Carbazole	ND		ug/l	2.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	35		21-120
Phenol-d6	24		10-120
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	69		15-120
2,4,6-Tribromophenol	73		10-120
4-Terphenyl-d14	77		41-149

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-05  
**Client ID:** MW-102  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 02/26/16 08:19  
**Analyst:** KV

**Date Collected:** 02/19/16 12:55  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 16:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	0.17	J	ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	0.06	J	ug/l	0.20	0.04	1
Benzo(a)anthracene	0.11	J	ug/l	0.20	0.02	1
Benzo(a)pyrene	0.11	J	ug/l	0.20	0.04	1
Benzo(b)fluoranthene	0.15	J	ug/l	0.20	0.02	1
Benzo(k)fluoranthene	0.06	J	ug/l	0.20	0.04	1
Chrysene	0.10	J	ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	ND		ug/l	0.20	0.04	1
Benzo(ghi)perylene	0.07	J	ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	0.08	J	ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)Pyrene	0.08	J	ug/l	0.20	0.04	1
Pyrene	0.16	J	ug/l	0.20	0.04	1
2-Methylnaphthalene	ND		ug/l	0.20	0.05	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-05  
**Client ID:** MW-102  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/19/16 12:55  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	39		21-120
Phenol-d6	27		10-120
Nitrobenzene-d5	80		23-120
2-Fluorobiphenyl	88		15-120
2,4,6-Tribromophenol	89		10-120
4-Terphenyl-d14	91		41-149

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-06  
**Client ID:** DUP021916  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/28/16 21:15  
**Analyst:** JB

**Date Collected:** 02/19/16 11:00  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 16:01

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.73	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.73	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.71	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-Ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
Biphenyl	ND		ug/l	2.0	0.76	1
4-Chloroaniline	ND		ug/l	5.0	0.63	1
2-Nitroaniline	ND		ug/l	5.0	1.1	1
3-Nitroaniline	ND		ug/l	5.0	1.1	1
4-Nitroaniline	ND		ug/l	5.0	1.3	1
Dibenzofuran	ND		ug/l	2.0	0.66	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.67	1



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-06  
**Client ID:** DUP021916  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/19/16 11:00  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acetophenone	ND		ug/l	5.0	0.85	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
P-Chloro-M-Cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1
2-Methylphenol	ND		ug/l	5.0	1.0	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	1.1	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.72	1
Benzoic Acid	ND		ug/l	50	13.	1
Benzyl Alcohol	ND		ug/l	2.0	0.72	1
Carbazole	ND		ug/l	2.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	29		21-120
Phenol-d6	20		10-120
Nitrobenzene-d5	61		23-120
2-Fluorobiphenyl	61		15-120
2,4,6-Tribromophenol	56		10-120
4-Terphenyl-d14	61		41-149

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-06  
**Client ID:** DUP021916  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 02/26/16 08:50  
**Analyst:** KV

**Date Collected:** 02/19/16 11:00  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 16:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	ND		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	0.04	1
Pyrene	ND		ug/l	0.20	0.04	1
2-Methylnaphthalene	ND		ug/l	0.20	0.05	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-06  
**Client ID:** DUP021916  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/19/16 11:00  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	36		21-120
Phenol-d6	26		10-120
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	73		15-120
2,4,6-Tribromophenol	81		10-120
4-Terphenyl-d14	78		41-149

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-07  
**Client ID:** FB021916  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/28/16 21:41  
**Analyst:** JB

**Date Collected:** 02/19/16 13:00  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 16:01

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.73	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.73	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.71	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-Ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
Biphenyl	ND		ug/l	2.0	0.76	1
4-Chloroaniline	ND		ug/l	5.0	0.63	1
2-Nitroaniline	ND		ug/l	5.0	1.1	1
3-Nitroaniline	ND		ug/l	5.0	1.1	1
4-Nitroaniline	ND		ug/l	5.0	1.3	1
Dibenzofuran	ND		ug/l	2.0	0.66	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.67	1

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-07  
**Client ID:** FB021916  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/19/16 13:00  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acetophenone	ND		ug/l	5.0	0.85	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
P-Chloro-M-Cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1
2-Methylphenol	ND		ug/l	5.0	1.0	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	1.1	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.72	1
Benzoic Acid	ND		ug/l	50	13.	1
Benzyl Alcohol	ND		ug/l	2.0	0.72	1
Carbazole	ND		ug/l	2.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	40		21-120
Phenol-d6	27		10-120
Nitrobenzene-d5	79		23-120
2-Fluorobiphenyl	77		15-120
2,4,6-Tribromophenol	83		10-120
4-Terphenyl-d14	83		41-149

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-07  
**Client ID:** FB021916  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 02/26/16 09:20  
**Analyst:** KV

**Date Collected:** 02/19/16 13:00  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 16:16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	ND		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	0.04	1
Pyrene	ND		ug/l	0.20	0.04	1
2-Methylnaphthalene	ND		ug/l	0.20	0.05	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-07  
**Client ID:** FB021916  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/19/16 13:00  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	43		21-120
Phenol-d6	29		10-120
Nitrobenzene-d5	85		23-120
2-Fluorobiphenyl	87		15-120
2,4,6-Tribromophenol	87		10-120
4-Terphenyl-d14	93		41-149

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 02/26/16 21:34  
**Analyst:** JB

**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 16:01

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG868026-1					
Acenaphthene	ND		ug/l	2.0	0.59
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66
Hexachlorobenzene	ND		ug/l	2.0	0.58
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67
2-Chloronaphthalene	ND		ug/l	2.0	0.64
1,2-Dichlorobenzene	ND		ug/l	2.0	0.73
1,3-Dichlorobenzene	ND		ug/l	2.0	0.73
1,4-Dichlorobenzene	ND		ug/l	2.0	0.71
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1
Fluoranthene	ND		ug/l	2.0	0.57
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Hexachlorocyclopentadiene	ND		ug/l	20	7.8
Hexachloroethane	ND		ug/l	2.0	0.68
Isophorone	ND		ug/l	5.0	0.60
Naphthalene	ND		ug/l	2.0	0.68
Nitrobenzene	0.84	J	ug/l	2.0	0.75
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/l	2.0	0.64
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70
Bis(2-Ethylhexyl)phthalate	ND		ug/l	3.0	0.91
Butyl benzyl phthalate	ND		ug/l	5.0	1.3
Di-n-butylphthalate	ND		ug/l	5.0	0.69
Di-n-octylphthalate	ND		ug/l	5.0	1.1
Diethyl phthalate	ND		ug/l	5.0	0.63



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 02/26/16 21:34  
**Analyst:** JB

**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 16:01

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG868026-1					
Dimethyl phthalate	ND		ug/l	5.0	0.65
Benzo(a)anthracene	ND		ug/l	2.0	0.61
Benzo(a)pyrene	ND		ug/l	2.0	0.54
Benzo(b)fluoranthene	ND		ug/l	2.0	0.64
Benzo(k)fluoranthene	ND		ug/l	2.0	0.60
Chrysene	ND		ug/l	2.0	0.54
Acenaphthylene	ND		ug/l	2.0	0.66
Anthracene	ND		ug/l	2.0	0.64
Benzo(ghi)perylene	ND		ug/l	2.0	0.61
Fluorene	ND		ug/l	2.0	0.62
Phenanthrene	ND		ug/l	2.0	0.61
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.55
Indeno(1,2,3-cd)Pyrene	ND		ug/l	2.0	0.71
Pyrene	ND		ug/l	2.0	0.57
Biphenyl	ND		ug/l	2.0	0.76
4-Chloroaniline	ND		ug/l	5.0	0.63
2-Nitroaniline	ND		ug/l	5.0	1.1
3-Nitroaniline	ND		ug/l	5.0	1.1
4-Nitroaniline	ND		ug/l	5.0	1.3
Dibenzofuran	ND		ug/l	2.0	0.66
2-Methylnaphthalene	ND		ug/l	2.0	0.72
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.67
Acetophenone	ND		ug/l	5.0	0.85
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68
P-Chloro-M-Cresol	ND		ug/l	2.0	0.62
2-Chlorophenol	ND		ug/l	2.0	0.63
2,4-Dichlorophenol	ND		ug/l	5.0	0.77
2,4-Dimethylphenol	ND		ug/l	5.0	1.6
2-Nitrophenol	ND		ug/l	10	1.5

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 02/26/16 21:34  
**Analyst:** JB

**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 16:01

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG868026-1					
4-Nitrophenol	ND		ug/l	10	1.8
2,4-Dinitrophenol	ND		ug/l	20	5.5
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1
Pentachlorophenol	ND		ug/l	10	3.4
Phenol	ND		ug/l	5.0	1.9
2-Methylphenol	ND		ug/l	5.0	1.0
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	1.1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.72
Benzoic Acid	ND		ug/l	50	13.
Benzyl Alcohol	ND		ug/l	2.0	0.72
Carbazole	ND		ug/l	2.0	0.63

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	44		21-120
Phenol-d6	29		10-120
Nitrobenzene-d5	81		23-120
2-Fluorobiphenyl	75		15-120
2,4,6-Tribromophenol	70		10-120
4-Terphenyl-d14	84		41-149

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 02/26/16 08:26  
**Analyst:** KV

**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 16:15

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-07 Batch: WG868027-1					
Acenaphthene	ND		ug/l	0.20	0.04
2-Chloronaphthalene	ND		ug/l	0.20	0.04
Fluoranthene	ND		ug/l	0.20	0.04
Hexachlorobutadiene	ND		ug/l	0.50	0.04
Naphthalene	0.11	J	ug/l	0.20	0.04
Benzo(a)anthracene	ND		ug/l	0.20	0.02
Benzo(a)pyrene	ND		ug/l	0.20	0.04
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04
Chrysene	ND		ug/l	0.20	0.04
Acenaphthylene	ND		ug/l	0.20	0.04
Anthracene	ND		ug/l	0.20	0.04
Benzo(ghi)perylene	ND		ug/l	0.20	0.04
Fluorene	ND		ug/l	0.20	0.04
Phenanthrene	ND		ug/l	0.20	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	0.04
Pyrene	ND		ug/l	0.20	0.04
2-Methylnaphthalene	0.08	J	ug/l	0.20	0.05
Pentachlorophenol	ND		ug/l	0.80	0.22
Hexachlorobenzene	ND		ug/l	0.80	0.03
Hexachloroethane	ND		ug/l	0.80	0.03

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 02/26/16 08:26  
**Analyst:** KV

**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 16:15

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-07 Batch: WG868027-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	51		21-120
Phenol-d6	36		10-120
Nitrobenzene-d5	89		23-120
2-Fluorobiphenyl	85		15-120
2,4,6-Tribromophenol	95		10-120
4-Terphenyl-d14	93		41-149

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG868026-2 WG868026-3								
Acenaphthene	78		84		37-111	7		30
1,2,4-Trichlorobenzene	77		83		39-98	8		30
Hexachlorobenzene	81		87		40-140	7		30
Bis(2-chloroethyl)ether	75		82		40-140	9		30
2-Chloronaphthalene	80		88		40-140	10		30
1,2-Dichlorobenzene	72		78		40-140	8		30
1,3-Dichlorobenzene	71		75		40-140	5		30
1,4-Dichlorobenzene	71		76		36-97	7		30
3,3'-Dichlorobenzidine	57		59		40-140	3		30
2,4-Dinitrotoluene	80		86		24-96	7		30
2,6-Dinitrotoluene	91		97		40-140	6		30
Fluoranthene	96		102		40-140	6		30
4-Chlorophenyl phenyl ether	83		88		40-140	6		30
4-Bromophenyl phenyl ether	90		94		40-140	4		30
Bis(2-chloroisopropyl)ether	80		86		40-140	7		30
Bis(2-chloroethoxy)methane	82		88		40-140	7		30
Hexachlorobutadiene	77		82		40-140	6		30
Hexachlorocyclopentadiene	70		73		40-140	4		30
Hexachloroethane	76		80		40-140	5		30
Isophorone	95		103		40-140	8		30
Naphthalene	77		83		40-140	8		30

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG868026-2 WG868026-3								
Nitrobenzene	94		104		40-140	10		30
NitrosoDiPhenylAmine(NDPA)/DPA	81		87		40-140	7		30
n-Nitrosodi-n-propylamine	84		90		29-132	7		30
Bis(2-Ethylhexyl)phthalate	96		98		40-140	2		30
Butyl benzyl phthalate	94		99		40-140	5		30
Di-n-butylphthalate	78		82		40-140	5		30
Di-n-octylphthalate	103		108		40-140	5		30
Diethyl phthalate	96		100		40-140	4		30
Dimethyl phthalate	92		98		40-140	6		30
Benzo(a)anthracene	96		102		40-140	6		30
Benzo(a)pyrene	80		87		40-140	8		30
Benzo(b)fluoranthene	89		94		40-140	5		30
Benzo(k)fluoranthene	77		82		40-140	6		30
Chrysene	84		89		40-140	6		30
Acenaphthylene	88		94		45-123	7		30
Anthracene	90		95		40-140	5		30
Benzo(ghi)perylene	81		90		40-140	11		30
Fluorene	86		92		40-140	7		30
Phenanthrene	83		88		40-140	6		30
Dibenzo(a,h)anthracene	83		91		40-140	9		30
Indeno(1,2,3-cd)Pyrene	89		101		40-140	13		30

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG868026-2 WG868026-3								
Pyrene	90		97		26-127	7		30
Biphenyl	81		86		54-104	6		30
4-Chloroaniline	67		73		40-140	9		30
2-Nitroaniline	94		101		52-143	7		30
3-Nitroaniline	66		71		25-145	7		30
4-Nitroaniline	71		77		51-143	8		30
Dibenzofuran	81		86		40-140	6		30
2-Methylnaphthalene	83		89		40-140	7		30
1,2,4,5-Tetrachlorobenzene	77		83		2-134	8		30
Acetophenone	95		103		39-129	8		30
2,4,6-Trichlorophenol	83		89		30-130	7		30
P-Chloro-M-Cresol	85		92		23-97	8		30
2-Chlorophenol	77		85		27-123	10		30
2,4-Dichlorophenol	92		100		30-130	8		30
2,4-Dimethylphenol	25	Q	33		30-130	28		30
2-Nitrophenol	93		101		30-130	8		30
4-Nitrophenol	54		59		10-80	9		30
2,4-Dinitrophenol	89		92		20-130	3		30
4,6-Dinitro-o-cresol	89		94		20-164	5		30
Pentachlorophenol	76		78		9-103	3		30
Phenol	38		44		12-110	15		30

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG868026-2 WG868026-3								
2-Methylphenol	57		66		30-130	15		30
3-Methylphenol/4-Methylphenol	66		76		30-130	14		30
2,4,5-Trichlorophenol	90		96		30-130	6		30
Benzoic Acid	32		31		10-110	3		30
Benzyl Alcohol	78		89		15-110	13		30
Carbazole	91		98		55-144	7		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	48		54		21-120
Phenol-d6	35		39		10-120
Nitrobenzene-d5	91		99		23-120
2-Fluorobiphenyl	83		86		15-120
2,4,6-Tribromophenol	72		73		10-120
4-Terphenyl-d14	91		94		41-149



# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-07 Batch: WG868027-2 WG868027-3								
Acenaphthene	83		94		37-111	12		40
2-Chloronaphthalene	80		91		40-140	13		40
Fluoranthene	96		108		40-140	12		40
Hexachlorobutadiene	73		83		40-140	13		40
Naphthalene	76		88		40-140	15		40
Benzo(a)anthracene	92		102		40-140	10		40
Benzo(a)pyrene	98		108		40-140	10		40
Benzo(b)fluoranthene	99		112		40-140	12		40
Benzo(k)fluoranthene	90		104		40-140	14		40
Chrysene	90		100		40-140	11		40
Acenaphthylene	81		87		40-140	7		40
Anthracene	88		99		40-140	12		40
Benzo(ghi)perylene	90		102		40-140	13		40
Fluorene	92		104		40-140	12		40
Phenanthrene	87		98		40-140	12		40
Dibenzo(a,h)anthracene	92		105		40-140	13		40
Indeno(1,2,3-cd)Pyrene	93		106		40-140	13		40
Pyrene	88		99		26-127	12		40
2-Methylnaphthalene	81		92		40-140	13		40
Pentachlorophenol	78		98		9-103	23		40
Hexachlorobenzene	85		96		40-140	12		40

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-07 Batch: WG868027-2 WG868027-3								
Hexachloroethane	75		88		40-140	16		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	46		52		21-120
Phenol-d6	34		38		10-120
Nitrobenzene-d5	77		89		23-120
2-Fluorobiphenyl	78		88		15-120
2,4,6-Tribromophenol	90		98		10-120
4-Terphenyl-d14	88		97		41-149

# PCBS

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-01  
**Client ID:** MW-104  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/26/16 01:36  
**Analyst:** JW

**Date Collected:** 02/18/16 14:35  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 01:26  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/26/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/26/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	72		30-150	A
2,4,5,6-Tetrachloro-m-xylene	54		30-150	B
Decachlorobiphenyl	72		30-150	B

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-02  
**Client ID:** MW-103  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/26/16 01:48  
**Analyst:** JW

**Date Collected:** 02/19/16 08:30  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 01:26  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/26/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/26/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		30-150	A
Decachlorobiphenyl	61		30-150	A
2,4,5,6-Tetrachloro-m-xylene	51		30-150	B
Decachlorobiphenyl	63		30-150	B

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-03  
**Client ID:** MW-101  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/26/16 02:01  
**Analyst:** JW

**Date Collected:** 02/19/16 09:10  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 01:26  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/26/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/26/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	58		30-150	A
Decachlorobiphenyl	68		30-150	A
2,4,5,6-Tetrachloro-m-xylene	50		30-150	B
Decachlorobiphenyl	67		30-150	B

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-04  
**Client ID:** MW-105  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/26/16 02:13  
**Analyst:** JW

**Date Collected:** 02/19/16 12:30  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 01:26  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/26/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/26/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	51		30-150	A
2,4,5,6-Tetrachloro-m-xylene	53		30-150	B
Decachlorobiphenyl	51		30-150	B

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-05  
**Client ID:** MW-102  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/26/16 02:26  
**Analyst:** JW

**Date Collected:** 02/19/16 12:55  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 01:26  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/26/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/26/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.115	0.076	1	A
Aroclor 1221	ND		ug/l	0.115	0.074	1	A
Aroclor 1232	ND		ug/l	0.115	0.043	1	A
Aroclor 1242	ND		ug/l	0.115	0.083	1	A
Aroclor 1248	ND		ug/l	0.115	0.070	1	A
Aroclor 1254	ND		ug/l	0.115	0.047	1	A
Aroclor 1260	ND		ug/l	0.115	0.044	1	A
Aroclor 1262	ND		ug/l	0.115	0.040	1	A
Aroclor 1268	ND		ug/l	0.115	0.052	1	A
PCBs, Total	ND		ug/l	0.115	0.040	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		30-150	A
Decachlorobiphenyl	54		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	57		30-150	B



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-06  
**Client ID:** DUP021916  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/26/16 02:38  
**Analyst:** JW

**Date Collected:** 02/19/16 11:00  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 01:26  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/26/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/26/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	56		30-150	A
2,4,5,6-Tetrachloro-m-xylene	54		30-150	B
Decachlorobiphenyl	58		30-150	B

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-07  
**Client ID:** FB021916  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/26/16 02:51  
**Analyst:** JW

**Date Collected:** 02/19/16 13:00  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 01:26  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/26/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/26/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		30-150	A
Decachlorobiphenyl	56		30-150	A
2,4,5,6-Tetrachloro-m-xylene	58		30-150	B
Decachlorobiphenyl	55		30-150	B

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8082A  
**Analytical Date:** 02/26/16 00:46  
**Analyst:** JW

**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/24/16 01:46  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/26/16  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/26/16

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-07 Batch: WG867765-1						
Aroclor 1016	ND		ug/l	0.083	0.055	A
Aroclor 1221	ND		ug/l	0.083	0.053	A
Aroclor 1232	ND		ug/l	0.083	0.031	A
Aroclor 1242	ND		ug/l	0.083	0.060	A
Aroclor 1248	ND		ug/l	0.083	0.051	A
Aroclor 1254	ND		ug/l	0.083	0.034	A
Aroclor 1260	ND		ug/l	0.083	0.032	A
Aroclor 1262	ND		ug/l	0.083	0.029	A
Aroclor 1268	ND		ug/l	0.083	0.038	A
PCBs, Total	ND		ug/l	0.083	0.029	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	50		30-150	A
Decachlorobiphenyl	71		30-150	A
2,4,5,6-Tetrachloro-m-xylene	43		30-150	B
Decachlorobiphenyl	74		30-150	B

**Lab Control Sample Analysis****Batch Quality Control**

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>	<b>Column</b>
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-07 Batch: WG867765-2 WG867765-3									
Aroclor 1016	62		58		40-140	6		50	A
Aroclor 1260	62		56		40-140	11		50	A

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>	<b>Column</b>
2,4,5,6-Tetrachloro-m-xylene	53		48		30-150	A
Decachlorobiphenyl	72		64		30-150	A
2,4,5,6-Tetrachloro-m-xylene	45		40		30-150	B
Decachlorobiphenyl	71		65		30-150	B

# PESTICIDES

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-01  
**Client ID:** MW-104  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/23/16 11:37  
**Analyst:** AM

**Date Collected:** 02/18/16 14:35  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/22/16 20:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.020	0.005	1	A
Lindane	ND		ug/l	0.020	0.004	1	A
Alpha-BHC	ND		ug/l	0.020	0.004	1	A
Beta-BHC	ND		ug/l	0.020	0.006	1	A
Heptachlor	ND		ug/l	0.020	0.003	1	A
Aldrin	ND		ug/l	0.020	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.020	0.004	1	A
Endrin	ND		ug/l	0.040	0.004	1	A
Endrin aldehyde	ND		ug/l	0.040	0.008	1	A
Endrin ketone	ND		ug/l	0.040	0.005	1	A
Dieldrin	ND		ug/l	0.040	0.004	1	A
4,4'-DDE	ND		ug/l	0.040	0.004	1	A
4,4'-DDD	ND		ug/l	0.040	0.005	1	A
4,4'-DDT	ND		ug/l	0.040	0.004	1	A
Endosulfan I	ND		ug/l	0.020	0.003	1	A
Endosulfan II	ND		ug/l	0.040	0.005	1	A
Endosulfan sulfate	ND		ug/l	0.040	0.005	1	A
Methoxychlor	ND		ug/l	0.200	0.007	1	A
Toxaphene	ND		ug/l	0.200	0.063	1	A
cis-Chlordane	ND		ug/l	0.020	0.007	1	A
trans-Chlordane	ND		ug/l	0.020	0.006	1	A
Chlordane	ND		ug/l	0.200	0.046	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	92		30-150	A
Decachlorobiphenyl	137		30-150	A
2,4,5,6-Tetrachloro-m-xylene	107		30-150	B
Decachlorobiphenyl	153	Q	30-150	B

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-02  
**Client ID:** MW-103  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/25/16 20:51  
**Analyst:** AM

**Date Collected:** 02/19/16 08:30  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/25/16 04:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.020	0.005	1	A
Lindane	ND		ug/l	0.020	0.004	1	A
Alpha-BHC	ND		ug/l	0.020	0.004	1	A
Beta-BHC	ND		ug/l	0.020	0.006	1	A
Heptachlor	ND		ug/l	0.020	0.003	1	A
Aldrin	ND		ug/l	0.020	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.020	0.004	1	A
Endrin	ND		ug/l	0.040	0.004	1	A
Endrin aldehyde	ND		ug/l	0.040	0.008	1	A
Endrin ketone	ND		ug/l	0.040	0.005	1	A
Dieldrin	ND		ug/l	0.040	0.004	1	A
4,4'-DDE	ND		ug/l	0.040	0.004	1	A
4,4'-DDD	ND		ug/l	0.040	0.005	1	A
4,4'-DDT	ND		ug/l	0.040	0.004	1	A
Endosulfan I	ND		ug/l	0.020	0.003	1	A
Endosulfan II	ND		ug/l	0.040	0.005	1	A
Endosulfan sulfate	ND		ug/l	0.040	0.005	1	A
Methoxychlor	ND		ug/l	0.200	0.007	1	A
Toxaphene	ND		ug/l	0.200	0.063	1	A
cis-Chlordane	ND		ug/l	0.020	0.007	1	A
trans-Chlordane	ND		ug/l	0.020	0.006	1	A
Chlordane	ND		ug/l	0.200	0.046	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	108		30-150	A
Decachlorobiphenyl	132		30-150	A
2,4,5,6-Tetrachloro-m-xylene	115		30-150	B
Decachlorobiphenyl	138		30-150	B

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-03  
**Client ID:** MW-101  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/25/16 21:04  
**Analyst:** AM

**Date Collected:** 02/19/16 09:10  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/25/16 04:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.020	0.005	1	A
Lindane	ND		ug/l	0.020	0.004	1	A
Alpha-BHC	ND		ug/l	0.020	0.004	1	A
Beta-BHC	ND		ug/l	0.020	0.006	1	A
Heptachlor	ND		ug/l	0.020	0.003	1	A
Aldrin	ND		ug/l	0.020	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.020	0.004	1	A
Endrin	ND		ug/l	0.040	0.004	1	A
Endrin aldehyde	ND		ug/l	0.040	0.008	1	A
Endrin ketone	ND		ug/l	0.040	0.005	1	A
Dieldrin	ND		ug/l	0.040	0.004	1	A
4,4'-DDE	ND		ug/l	0.040	0.004	1	A
4,4'-DDD	ND		ug/l	0.040	0.005	1	A
4,4'-DDT	ND		ug/l	0.040	0.004	1	A
Endosulfan I	ND		ug/l	0.020	0.003	1	A
Endosulfan II	ND		ug/l	0.040	0.005	1	A
Endosulfan sulfate	ND		ug/l	0.040	0.005	1	A
Methoxychlor	ND		ug/l	0.200	0.007	1	A
Toxaphene	ND		ug/l	0.200	0.063	1	A
cis-Chlordane	ND		ug/l	0.020	0.007	1	A
trans-Chlordane	ND		ug/l	0.020	0.006	1	A
Chlordane	ND		ug/l	0.200	0.046	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	118		30-150	A
Decachlorobiphenyl	168	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	128		30-150	B
Decachlorobiphenyl	179	Q	30-150	B



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-04  
**Client ID:** MW-105  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/25/16 21:17  
**Analyst:** AM

**Date Collected:** 02/19/16 12:30  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/25/16 04:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.020	0.005	1	A
Lindane	ND		ug/l	0.020	0.004	1	A
Alpha-BHC	ND		ug/l	0.020	0.004	1	A
Beta-BHC	ND		ug/l	0.020	0.006	1	A
Heptachlor	ND		ug/l	0.020	0.003	1	A
Aldrin	ND		ug/l	0.020	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.020	0.004	1	A
Endrin	ND		ug/l	0.040	0.004	1	A
Endrin aldehyde	ND		ug/l	0.040	0.008	1	A
Endrin ketone	ND		ug/l	0.040	0.005	1	A
Dieldrin	ND		ug/l	0.040	0.004	1	A
4,4'-DDE	ND		ug/l	0.040	0.004	1	A
4,4'-DDD	ND		ug/l	0.040	0.005	1	A
4,4'-DDT	ND		ug/l	0.040	0.004	1	A
Endosulfan I	ND		ug/l	0.020	0.003	1	A
Endosulfan II	ND		ug/l	0.040	0.005	1	A
Endosulfan sulfate	ND		ug/l	0.040	0.005	1	A
Methoxychlor	ND		ug/l	0.200	0.007	1	A
Toxaphene	ND		ug/l	0.200	0.063	1	A
cis-Chlordane	ND		ug/l	0.020	0.007	1	A
trans-Chlordane	ND		ug/l	0.020	0.006	1	A
Chlordane	ND		ug/l	0.200	0.046	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	124		30-150	A
Decachlorobiphenyl	130		30-150	A
2,4,5,6-Tetrachloro-m-xylene	135		30-150	B
Decachlorobiphenyl	137		30-150	B

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-05  
**Client ID:** MW-102  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/25/16 21:30  
**Analyst:** AM

**Date Collected:** 02/19/16 12:55  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/25/16 04:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.020	0.005	1	A
Lindane	ND		ug/l	0.020	0.004	1	A
Alpha-BHC	ND		ug/l	0.020	0.004	1	A
Beta-BHC	ND		ug/l	0.020	0.006	1	A
Heptachlor	ND		ug/l	0.020	0.003	1	A
Aldrin	ND		ug/l	0.020	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.020	0.004	1	A
Endrin	ND		ug/l	0.040	0.004	1	A
Endrin aldehyde	ND		ug/l	0.040	0.008	1	A
Endrin ketone	ND		ug/l	0.040	0.005	1	A
Dieldrin	ND		ug/l	0.040	0.004	1	A
4,4'-DDE	ND		ug/l	0.040	0.004	1	A
4,4'-DDD	ND		ug/l	0.040	0.005	1	A
4,4'-DDT	0.018	J	ug/l	0.040	0.004	1	A
Endosulfan I	ND		ug/l	0.020	0.003	1	A
Endosulfan II	ND		ug/l	0.040	0.005	1	A
Endosulfan sulfate	ND		ug/l	0.040	0.005	1	A
Methoxychlor	ND		ug/l	0.200	0.007	1	A
Toxaphene	ND		ug/l	0.200	0.063	1	A
cis-Chlordane	ND		ug/l	0.020	0.007	1	A
trans-Chlordane	ND		ug/l	0.020	0.006	1	A
Chlordane	ND		ug/l	0.200	0.046	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	120		30-150	A
Decachlorobiphenyl	106		30-150	A
2,4,5,6-Tetrachloro-m-xylene	130		30-150	B
Decachlorobiphenyl	110		30-150	B

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-06  
**Client ID:** DUP021916  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/25/16 21:43  
**Analyst:** AM

**Date Collected:** 02/19/16 11:00  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/25/16 04:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.020	0.005	1	A
Lindane	ND		ug/l	0.020	0.004	1	A
Alpha-BHC	ND		ug/l	0.020	0.004	1	A
Beta-BHC	ND		ug/l	0.020	0.006	1	A
Heptachlor	ND		ug/l	0.020	0.003	1	A
Aldrin	ND		ug/l	0.020	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.020	0.004	1	A
Endrin	ND		ug/l	0.040	0.004	1	A
Endrin aldehyde	ND		ug/l	0.040	0.008	1	A
Endrin ketone	ND		ug/l	0.040	0.005	1	A
Dieldrin	ND		ug/l	0.040	0.004	1	A
4,4'-DDE	ND		ug/l	0.040	0.004	1	A
4,4'-DDD	ND		ug/l	0.040	0.005	1	A
4,4'-DDT	ND		ug/l	0.040	0.004	1	A
Endosulfan I	ND		ug/l	0.020	0.003	1	A
Endosulfan II	ND		ug/l	0.040	0.005	1	A
Endosulfan sulfate	ND		ug/l	0.040	0.005	1	A
Methoxychlor	ND		ug/l	0.200	0.007	1	A
Toxaphene	ND		ug/l	0.200	0.063	1	A
cis-Chlordane	ND		ug/l	0.020	0.007	1	A
trans-Chlordane	ND		ug/l	0.020	0.006	1	A
Chlordane	ND		ug/l	0.200	0.046	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	117		30-150	A
Decachlorobiphenyl	161	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	125		30-150	B
Decachlorobiphenyl	167	Q	30-150	B

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-07  
**Client ID:** FB021916  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/25/16 21:56  
**Analyst:** AM

**Date Collected:** 02/19/16 13:00  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/25/16 04:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.020	0.005	1	A
Lindane	ND		ug/l	0.020	0.004	1	A
Alpha-BHC	ND		ug/l	0.020	0.004	1	A
Beta-BHC	ND		ug/l	0.020	0.006	1	A
Heptachlor	ND		ug/l	0.020	0.003	1	A
Aldrin	ND		ug/l	0.020	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.020	0.004	1	A
Endrin	ND		ug/l	0.040	0.004	1	A
Endrin aldehyde	ND		ug/l	0.040	0.008	1	A
Endrin ketone	ND		ug/l	0.040	0.005	1	A
Dieldrin	ND		ug/l	0.040	0.004	1	A
4,4'-DDE	ND		ug/l	0.040	0.004	1	A
4,4'-DDD	ND		ug/l	0.040	0.005	1	A
4,4'-DDT	ND		ug/l	0.040	0.004	1	A
Endosulfan I	ND		ug/l	0.020	0.003	1	A
Endosulfan II	ND		ug/l	0.040	0.005	1	A
Endosulfan sulfate	ND		ug/l	0.040	0.005	1	A
Methoxychlor	ND		ug/l	0.200	0.007	1	A
Toxaphene	ND		ug/l	0.200	0.063	1	A
cis-Chlordane	ND		ug/l	0.020	0.007	1	A
trans-Chlordane	ND		ug/l	0.020	0.006	1	A
Chlordane	ND		ug/l	0.200	0.046	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	127		30-150	A
Decachlorobiphenyl	147		30-150	A
2,4,5,6-Tetrachloro-m-xylene	139		30-150	B
Decachlorobiphenyl	160	Q	30-150	B

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8081B  
**Analytical Date:** 02/23/16 09:01  
**Analyst:** AM

**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/22/16 20:24

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01 Batch: WG867381-1						
Delta-BHC	ND		ug/l	0.020	0.005	A
Lindane	ND		ug/l	0.020	0.004	A
Alpha-BHC	ND		ug/l	0.020	0.004	A
Beta-BHC	ND		ug/l	0.020	0.006	A
Heptachlor	ND		ug/l	0.020	0.003	A
Aldrin	ND		ug/l	0.020	0.002	A
Heptachlor epoxide	ND		ug/l	0.020	0.004	A
Endrin	ND		ug/l	0.040	0.004	A
Endrin aldehyde	ND		ug/l	0.040	0.008	A
Endrin ketone	ND		ug/l	0.040	0.005	A
Dieldrin	ND		ug/l	0.040	0.004	A
4,4'-DDE	ND		ug/l	0.040	0.004	A
4,4'-DDD	ND		ug/l	0.040	0.005	A
4,4'-DDT	ND		ug/l	0.040	0.004	A
Endosulfan I	ND		ug/l	0.020	0.003	A
Endosulfan II	ND		ug/l	0.040	0.005	A
Endosulfan sulfate	ND		ug/l	0.040	0.005	A
Methoxychlor	ND		ug/l	0.200	0.007	A
Toxaphene	ND		ug/l	0.200	0.063	A
cis-Chlordane	ND		ug/l	0.020	0.007	A
trans-Chlordane	ND		ug/l	0.020	0.006	A
Chlordane	ND		ug/l	0.200	0.046	A

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8081B  
**Analytical Date:** 02/23/16 09:01  
**Analyst:** AM

**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/22/16 20:24

Parameter	Result	Qualifier	Units	RL	MDL
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01 Batch: WG867381-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	105		30-150	A
Decachlorobiphenyl	143		30-150	A
2,4,5,6-Tetrachloro-m-xylene	111		30-150	B
Decachlorobiphenyl	152	Q	30-150	B

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8081B  
**Analytical Date:** 02/25/16 20:11  
**Analyst:** AM

**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/25/16 04:10

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 02-07 Batch: WG868143-1						
Delta-BHC	ND		ug/l	0.020	0.005	A
Lindane	ND		ug/l	0.020	0.004	A
Alpha-BHC	ND		ug/l	0.020	0.004	A
Beta-BHC	ND		ug/l	0.020	0.006	A
Heptachlor	ND		ug/l	0.020	0.003	A
Aldrin	ND		ug/l	0.020	0.002	A
Heptachlor epoxide	ND		ug/l	0.020	0.004	A
Endrin	ND		ug/l	0.040	0.004	A
Endrin aldehyde	ND		ug/l	0.040	0.008	A
Endrin ketone	ND		ug/l	0.040	0.005	A
Dieldrin	ND		ug/l	0.040	0.004	A
4,4'-DDE	ND		ug/l	0.040	0.004	A
4,4'-DDD	ND		ug/l	0.040	0.005	A
4,4'-DDT	ND		ug/l	0.040	0.004	A
Endosulfan I	ND		ug/l	0.020	0.003	A
Endosulfan II	ND		ug/l	0.040	0.005	A
Endosulfan sulfate	ND		ug/l	0.040	0.005	A
Methoxychlor	ND		ug/l	0.200	0.007	A
Toxaphene	ND		ug/l	0.200	0.063	A
cis-Chlordane	ND		ug/l	0.020	0.007	A
trans-Chlordane	ND		ug/l	0.020	0.006	A
Chlordane	ND		ug/l	0.200	0.046	A

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8081B  
**Analytical Date:** 02/25/16 20:11  
**Analyst:** AM

**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/25/16 04:10

Parameter	Result	Qualifier	Units	RL	MDL
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 02-07 Batch: WG868143-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	104		30-150	A
Decachlorobiphenyl	149		30-150	A
2,4,5,6-Tetrachloro-m-xylene	112		30-150	B
Decachlorobiphenyl	<b>158</b>	Q	30-150	B



# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01 Batch: WG867381-2 WG867381-3									
Delta-BHC	100		103		30-150	3		20	A
Lindane	101		104		30-150	3		20	A
Alpha-BHC	106		110		30-150	4		20	A
Beta-BHC	98		101		30-150	3		20	A
Heptachlor	87		89		30-150	3		20	A
Aldrin	89		93		30-150	4		20	A
Heptachlor epoxide	106		108		30-150	2		20	A
Endrin	105		109		30-150	4		20	A
Endrin aldehyde	116		119		30-150	3		20	A
Endrin ketone	125		127		30-150	2		20	A
Dieldrin	103		106		30-150	3		20	A
4,4'-DDE	105		111		30-150	6		20	A
4,4'-DDD	112		116		30-150	4		20	A
4,4'-DDT	114		118		30-150	3		20	A
Endosulfan I	102		105		30-150	3		20	A
Endosulfan II	116		117		30-150	1		20	A
Endosulfan sulfate	120		122		30-150	2		20	A
Methoxychlor	129		131		30-150	2		20	A
cis-Chlordane	103		107		30-150	4		20	A
trans-Chlordane	101		103		30-150	2		20	A

**Lab Control Sample Analysis****Batch Quality Control**

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01 Batch: WG867381-2 WG867381-3								

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>	<b>Column</b>
2,4,5,6-Tetrachloro-m-xylene	94		93		30-150	A
Decachlorobiphenyl	149		150		30-150	A
2,4,5,6-Tetrachloro-m-xylene	106		104		30-150	B
Decachlorobiphenyl	<b>161</b>	Q	<b>162</b>	Q	30-150	B

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 02-07 Batch: WG868143-2 WG868143-3									
Delta-BHC	91		87		30-150	5		20	A
Lindane	92		86		30-150	6		20	A
Alpha-BHC	97		92		30-150	5		20	A
Beta-BHC	92		85		30-150	8		20	A
Heptachlor	86		83		30-150	4		20	A
Aldrin	93		89		30-150	4		20	A
Heptachlor epoxide	96		90		30-150	6		20	A
Endrin	95		90		30-150	6		20	A
Endrin aldehyde	106		99		30-150	6		20	A
Endrin ketone	108		99		30-150	8		20	A
Dieldrin	93		88		30-150	6		20	A
4,4'-DDE	97		93		30-150	5		20	A
4,4'-DDD	101		94		30-150	7		20	A
4,4'-DDT	99		92		30-150	7		20	A
Endosulfan I	94		91		30-150	2		20	A
Endosulfan II	103		94		30-150	9		20	A
Endosulfan sulfate	106		99		30-150	7		20	A
Methoxychlor	107		103		30-150	4		20	A
cis-Chlordane	95		90		30-150	5		20	A
trans-Chlordane	93		88		30-150	6		20	A

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 02-07 Batch: WG868143-2 WG868143-3

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>	<b>Column</b>
2,4,5,6-Tetrachloro-m-xylene	110		107		30-150	A
Decachlorobiphenyl	<b>161</b>	Q	150		30-150	A
2,4,5,6-Tetrachloro-m-xylene	118		116		30-150	B
Decachlorobiphenyl	<b>166</b>	Q	<b>156</b>	Q	30-150	B

## METALS

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-01  
**Client ID:** MW-104  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water

**Date Collected:** 02/18/16 14:35  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Aluminum, Total	0.116		mg/l	0.0100	0.00169	1	02/22/16 09:05	02/23/16 18:53	EPA 3005A	1,6020A	BM
Antimony, Total	0.00197	J	mg/l	0.00300	0.00006	1	02/22/16 09:05	02/23/16 18:53	EPA 3005A	1,6020A	BM
Arsenic, Total	0.00085		mg/l	0.00050	0.00012	1	02/22/16 09:05	02/23/16 18:53	EPA 3005A	1,6020A	BM
Barium, Total	0.01147		mg/l	0.00050	0.00006	1	02/22/16 09:05	02/23/16 18:53	EPA 3005A	1,6020A	BM
Beryllium, Total	ND		mg/l	0.00050	0.00015	1	02/22/16 09:05	02/23/16 18:53	EPA 3005A	1,6020A	BM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	02/22/16 09:05	02/23/16 18:53	EPA 3005A	1,6020A	BM
Calcium, Total	86.6		mg/l	2.00	0.640	20	02/22/16 09:05	02/23/16 19:08	EPA 3005A	1,6020A	BM
Chromium, Total	0.00155		mg/l	0.00100	0.00025	1	02/22/16 09:05	02/23/16 18:53	EPA 3005A	1,6020A	BM
Cobalt, Total	0.00047		mg/l	0.00020	0.00006	1	02/22/16 09:05	02/23/16 18:53	EPA 3005A	1,6020A	BM
Copper, Total	0.00130		mg/l	0.00100	0.00026	1	02/22/16 09:05	02/23/16 18:53	EPA 3005A	1,6020A	BM
Iron, Total	0.181		mg/l	0.0500	0.0120	1	02/22/16 09:05	02/23/16 18:53	EPA 3005A	1,6020A	BM
Lead, Total	ND		mg/l	0.00100	0.00012	1	02/22/16 09:05	02/23/16 18:53	EPA 3005A	1,6020A	BM
Magnesium, Total	7.68		mg/l	0.0700	0.0223	1	02/22/16 09:05	02/23/16 18:53	EPA 3005A	1,6020A	BM
Manganese, Total	0.08462		mg/l	0.00100	0.00030	1	02/22/16 09:05	02/23/16 18:53	EPA 3005A	1,6020A	BM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	02/23/16 14:43	02/25/16 01:42	EPA 7470A	1,7470A	EA
Nickel, Total	0.00271		mg/l	0.00200	0.00008	1	02/22/16 09:05	02/23/16 18:53	EPA 3005A	1,6020A	BM
Potassium, Total	11.7		mg/l	0.100	0.0193	1	02/22/16 09:05	02/23/16 18:53	EPA 3005A	1,6020A	BM
Selenium, Total	0.00669		mg/l	0.00500	0.00100	1	02/22/16 09:05	02/23/16 18:53	EPA 3005A	1,6020A	BM
Silver, Total	ND		mg/l	0.00040	0.00007	1	02/22/16 09:05	02/23/16 18:53	EPA 3005A	1,6020A	BM
Sodium, Total	24.0		mg/l	0.250	0.0161	1	02/22/16 09:05	02/23/16 18:53	EPA 3005A	1,6020A	BM
Thallium, Total	ND		mg/l	0.00050	0.00005	1	02/22/16 09:05	02/23/16 18:53	EPA 3005A	1,6020A	BM
Vanadium, Total	0.00157	J	mg/l	0.00500	0.00055	1	02/22/16 09:05	02/23/16 18:53	EPA 3005A	1,6020A	BM
Zinc, Total	0.00289	J	mg/l	0.01000	0.00256	1	02/22/16 09:05	02/23/16 18:53	EPA 3005A	1,6020A	BM
<b>Dissolved Metals - Westborough Lab</b>											
Aluminum, Dissolved	0.013		mg/l	0.010	0.002	1	02/23/16 12:20	02/24/16 13:41	EPA 3005A	1,6020A	TT
Antimony, Dissolved	0.0031		mg/l	0.0020	0.0001	1	02/23/16 12:20	02/24/16 13:41	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0009		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 13:41	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0108		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 13:41	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0005	0.0002	1	02/23/16 12:20	02/24/16 13:41	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0002	0.0001	1	02/23/16 12:20	02/24/16 13:41	EPA 3005A	1,6020A	TT



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-01  
**Client ID:** MW-104  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water

**Date Collected:** 02/18/16 14:35  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Calcium, Dissolved	64.6		mg/l	2.00	0.640	20	02/23/16 12:20	02/24/16 14:19	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0015		mg/l	0.0010	0.0003	1	02/23/16 12:20	02/24/16 13:41	EPA 3005A	1,6020A	TT
Cobalt, Dissolved	0.0004	J	mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 13:41	EPA 3005A	1,6020A	TT
Copper, Dissolved	0.001		mg/l	0.0010	0.0003	1	02/23/16 12:20	02/24/16 13:41	EPA 3005A	1,6020A	TT
Iron, Dissolved	ND		mg/l	0.050	0.012	1	02/23/16 12:20	02/24/16 13:41	EPA 3005A	1,6020A	TT
Lead, Dissolved	ND		mg/l	0.0020	0.0001	1	02/23/16 12:20	02/24/16 13:41	EPA 3005A	1,6020A	TT
Magnesium, Dissolved	7.64		mg/l	0.070	0.022	1	02/23/16 12:20	02/24/16 13:41	EPA 3005A	1,6020A	TT
Manganese, Dissolved	0.0830		mg/l	0.0010	0.0003	1	02/23/16 12:20	02/24/16 13:41	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	02/23/16 13:42	02/25/16 02:03	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0026		mg/l	0.0020	0.0001	1	02/23/16 12:20	02/24/16 13:41	EPA 3005A	1,6020A	TT
Potassium, Dissolved	11.0		mg/l	0.100	0.019	1	02/23/16 12:20	02/24/16 13:41	EPA 3005A	1,6020A	TT
Selenium, Dissolved	0.006		mg/l	0.005	0.001	1	02/23/16 12:20	02/24/16 13:41	EPA 3005A	1,6020A	TT
Silver, Dissolved	ND		mg/l	0.0004	0.0001	1	02/23/16 12:20	02/24/16 13:41	EPA 3005A	1,6020A	TT
Sodium, Dissolved	23.8		mg/l	0.100	0.016	1	02/23/16 12:20	02/24/16 13:41	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 13:41	EPA 3005A	1,6020A	TT
Vanadium, Dissolved	0.0009	J	mg/l	0.0050	0.0006	1	02/23/16 12:20	02/24/16 13:41	EPA 3005A	1,6020A	TT
Zinc, Dissolved	0.0142		mg/l	0.0100	0.0026	1	02/23/16 12:20	02/24/16 13:41	EPA 3005A	1,6020A	TT



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-02  
**Client ID:** MW-103  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water

**Date Collected:** 02/19/16 08:30  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Aluminum, Total	2.50		mg/l	0.200	0.0338	20	02/22/16 09:05	02/23/16 19:16	EPA 3005A	1,6020A	BM
Antimony, Total	0.00378		mg/l	0.00300	0.00006	1	02/22/16 09:05	02/23/16 19:12	EPA 3005A	1,6020A	BM
Arsenic, Total	0.00195		mg/l	0.00050	0.00012	1	02/22/16 09:05	02/23/16 19:12	EPA 3005A	1,6020A	BM
Barium, Total	0.03904		mg/l	0.00050	0.00006	1	02/22/16 09:05	02/23/16 19:12	EPA 3005A	1,6020A	BM
Beryllium, Total	ND		mg/l	0.00050	0.00015	1	02/22/16 09:05	02/23/16 19:12	EPA 3005A	1,6020A	BM
Cadmium, Total	0.00023		mg/l	0.00020	0.00005	1	02/22/16 09:05	02/23/16 19:12	EPA 3005A	1,6020A	BM
Calcium, Total	185.		mg/l	2.00	0.640	20	02/22/16 09:05	02/23/16 19:16	EPA 3005A	1,6020A	BM
Chromium, Total	0.00501		mg/l	0.00100	0.00025	1	02/22/16 09:05	02/23/16 19:12	EPA 3005A	1,6020A	BM
Cobalt, Total	0.00418		mg/l	0.00020	0.00006	1	02/22/16 09:05	02/23/16 19:12	EPA 3005A	1,6020A	BM
Copper, Total	0.00958		mg/l	0.00100	0.00026	1	02/22/16 09:05	02/23/16 19:12	EPA 3005A	1,6020A	BM
Iron, Total	3.34		mg/l	0.0500	0.0120	1	02/22/16 09:05	02/23/16 19:12	EPA 3005A	1,6020A	BM
Lead, Total	0.00348		mg/l	0.00100	0.00012	1	02/22/16 09:05	02/23/16 19:12	EPA 3005A	1,6020A	BM
Magnesium, Total	32.3		mg/l	0.0700	0.0223	1	02/22/16 09:05	02/23/16 19:12	EPA 3005A	1,6020A	BM
Manganese, Total	0.1512		mg/l	0.00100	0.00030	1	02/22/16 09:05	02/23/16 19:12	EPA 3005A	1,6020A	BM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	02/23/16 14:43	02/25/16 01:44	EPA 7470A	1,7470A	EA
Nickel, Total	0.01278		mg/l	0.00200	0.00008	1	02/22/16 09:05	02/23/16 19:12	EPA 3005A	1,6020A	BM
Potassium, Total	10.7		mg/l	0.100	0.0193	1	02/22/16 09:05	02/23/16 19:12	EPA 3005A	1,6020A	BM
Selenium, Total	0.0437		mg/l	0.00500	0.00100	1	02/22/16 09:05	02/23/16 19:12	EPA 3005A	1,6020A	BM
Silver, Total	ND		mg/l	0.00040	0.00007	1	02/22/16 09:05	02/23/16 19:12	EPA 3005A	1,6020A	BM
Sodium, Total	64.0		mg/l	5.00	0.322	20	02/22/16 09:05	02/23/16 19:16	EPA 3005A	1,6020A	BM
Thallium, Total	ND		mg/l	0.00050	0.00005	1	02/22/16 09:05	02/23/16 19:12	EPA 3005A	1,6020A	BM
Vanadium, Total	0.00614		mg/l	0.00500	0.00055	1	02/22/16 09:05	02/23/16 19:12	EPA 3005A	1,6020A	BM
Zinc, Total	0.05378		mg/l	0.01000	0.00256	1	02/22/16 09:05	02/24/16 11:27	EPA 3005A	1,6020A	KL
<b>Dissolved Metals - Westborough Lab</b>											
Aluminum, Dissolved	ND		mg/l	0.010	0.002	1	02/23/16 12:20	02/24/16 14:28	EPA 3005A	1,6020A	TT
Antimony, Dissolved	0.0036		mg/l	0.0020	0.0001	1	02/23/16 12:20	02/24/16 14:28	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0012		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 14:28	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0241		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 14:28	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0005	0.0002	1	02/23/16 12:20	02/24/16 14:28	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	0.00017	J	mg/l	0.00020	0.00005	1	02/23/16 12:20	02/24/16 14:28	EPA 3005A	1,6020A	TT





**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-02  
**Client ID:** MW-103  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water

**Date Collected:** 02/19/16 08:30  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Calcium, Dissolved	163		mg/l	2.00	0.640	20	02/23/16 12:20	02/24/16 16:50	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0018		mg/l	0.0010	0.0003	1	02/23/16 12:20	02/24/16 14:28	EPA 3005A	1,6020A	TT
Cobalt, Dissolved	0.0026		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 14:28	EPA 3005A	1,6020A	TT
Copper, Dissolved	0.00190		mg/l	0.0010	0.0003	1	02/23/16 12:20	02/24/16 14:28	EPA 3005A	1,6020A	TT
Iron, Dissolved	ND		mg/l	0.050	0.012	1	02/23/16 12:20	02/24/16 14:28	EPA 3005A	1,6020A	TT
Lead, Dissolved	ND		mg/l	0.0020	0.0001	1	02/23/16 12:20	02/24/16 14:28	EPA 3005A	1,6020A	TT
Magnesium, Dissolved	32.1		mg/l	0.070	0.022	1	02/23/16 12:20	02/24/16 14:28	EPA 3005A	1,6020A	TT
Manganese, Dissolved	0.1115		mg/l	0.0010	0.0003	1	02/23/16 12:20	02/24/16 14:28	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	02/23/16 13:42	02/25/16 02:09	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0087		mg/l	0.0020	0.0001	1	02/23/16 12:20	02/24/16 14:28	EPA 3005A	1,6020A	TT
Potassium, Dissolved	11.1		mg/l	0.100	0.019	1	02/23/16 12:20	02/24/16 14:28	EPA 3005A	1,6020A	TT
Selenium, Dissolved	0.043		mg/l	0.005	0.001	1	02/23/16 12:20	02/24/16 14:28	EPA 3005A	1,6020A	TT
Silver, Dissolved	ND		mg/l	0.0004	0.0001	1	02/23/16 12:20	02/24/16 14:28	EPA 3005A	1,6020A	TT
Sodium, Dissolved	56.6		mg/l	2.00	0.322	20	02/23/16 12:20	02/24/16 16:50	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 14:28	EPA 3005A	1,6020A	TT
Vanadium, Dissolved	0.0016	J	mg/l	0.0050	0.0006	1	02/23/16 12:20	02/24/16 14:28	EPA 3005A	1,6020A	TT
Zinc, Dissolved	0.0292		mg/l	0.0100	0.0026	1	02/23/16 12:20	02/24/16 14:28	EPA 3005A	1,6020A	TT



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-03  
**Client ID:** MW-101  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water

**Date Collected:** 02/19/16 09:10  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Aluminum, Total	6.87		mg/l	0.200	0.0338	20	02/22/16 09:05	02/23/16 19:23	EPA 3005A	1,6020A	BM
Antimony, Total	0.00172	J	mg/l	0.00300	0.00006	1	02/22/16 09:05	02/23/16 19:19	EPA 3005A	1,6020A	BM
Arsenic, Total	0.01191		mg/l	0.00050	0.00012	1	02/22/16 09:05	02/23/16 19:19	EPA 3005A	1,6020A	BM
Barium, Total	0.07804		mg/l	0.00050	0.00006	1	02/22/16 09:05	02/23/16 19:19	EPA 3005A	1,6020A	BM
Beryllium, Total	0.00079		mg/l	0.00050	0.00015	1	02/22/16 09:05	02/23/16 19:19	EPA 3005A	1,6020A	BM
Cadmium, Total	0.00021		mg/l	0.00020	0.00005	1	02/22/16 09:05	02/23/16 19:19	EPA 3005A	1,6020A	BM
Calcium, Total	80.4		mg/l	2.00	0.640	20	02/22/16 09:05	02/23/16 19:23	EPA 3005A	1,6020A	BM
Chromium, Total	0.01849		mg/l	0.00100	0.00025	1	02/22/16 09:05	02/23/16 19:19	EPA 3005A	1,6020A	BM
Cobalt, Total	0.00979		mg/l	0.00020	0.00006	1	02/22/16 09:05	02/23/16 19:19	EPA 3005A	1,6020A	BM
Copper, Total	0.01909		mg/l	0.00100	0.00026	1	02/22/16 09:05	02/23/16 19:19	EPA 3005A	1,6020A	BM
Iron, Total	15.0		mg/l	0.0500	0.0120	1	02/22/16 09:05	02/23/16 19:19	EPA 3005A	1,6020A	BM
Lead, Total	0.01395		mg/l	0.00100	0.00012	1	02/22/16 09:05	02/23/16 19:19	EPA 3005A	1,6020A	BM
Magnesium, Total	9.80		mg/l	0.0700	0.0223	1	02/22/16 09:05	02/23/16 19:19	EPA 3005A	1,6020A	BM
Manganese, Total	0.3354		mg/l	0.00100	0.00030	1	02/22/16 09:05	02/23/16 19:19	EPA 3005A	1,6020A	BM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	02/23/16 14:43	02/25/16 01:46	EPA 7470A	1,7470A	EA
Nickel, Total	0.01470		mg/l	0.00200	0.00008	1	02/22/16 09:05	02/23/16 19:19	EPA 3005A	1,6020A	BM
Potassium, Total	15.1		mg/l	0.100	0.0193	1	02/22/16 09:05	02/23/16 19:19	EPA 3005A	1,6020A	BM
Selenium, Total	0.0306		mg/l	0.00500	0.00100	1	02/22/16 09:05	02/23/16 19:19	EPA 3005A	1,6020A	BM
Silver, Total	ND		mg/l	0.00040	0.00007	1	02/22/16 09:05	02/23/16 19:19	EPA 3005A	1,6020A	BM
Sodium, Total	57.5		mg/l	5.00	0.322	20	02/22/16 09:05	02/23/16 19:23	EPA 3005A	1,6020A	BM
Thallium, Total	0.00006	J	mg/l	0.00050	0.00005	1	02/22/16 09:05	02/23/16 19:19	EPA 3005A	1,6020A	BM
Vanadium, Total	0.03199		mg/l	0.00500	0.00055	1	02/22/16 09:05	02/23/16 19:19	EPA 3005A	1,6020A	BM
Zinc, Total	0.06507		mg/l	0.01000	0.00256	1	02/22/16 09:05	02/24/16 11:31	EPA 3005A	1,6020A	KL
<b>Dissolved Metals - Westborough Lab</b>											
Aluminum, Dissolved	0.005	J	mg/l	0.010	0.002	1	02/23/16 12:20	02/24/16 14:31	EPA 3005A	1,6020A	TT
Antimony, Dissolved	0.0014	J	mg/l	0.0020	0.0001	1	02/23/16 12:20	02/24/16 14:31	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0015		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 14:31	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0298		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 14:31	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0005	0.0002	1	02/23/16 12:20	02/24/16 14:31	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0002	0.0001	1	02/23/16 12:20	02/24/16 14:31	EPA 3005A	1,6020A	TT



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-03  
**Client ID:** MW-101  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water

**Date Collected:** 02/19/16 09:10  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Calcium, Dissolved	73.5		mg/l	2.00	0.640	20	02/23/16 12:20	02/24/16 16:53	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0009	J	mg/l	0.0010	0.0003	1	02/23/16 12:20	02/24/16 14:31	EPA 3005A	1,6020A	TT
Cobalt, Dissolved	0.0018		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 14:31	EPA 3005A	1,6020A	TT
Copper, Dissolved	0.0017		mg/l	0.0010	0.0003	1	02/23/16 12:20	02/24/16 14:31	EPA 3005A	1,6020A	TT
Iron, Dissolved	ND		mg/l	0.050	0.012	1	02/23/16 12:20	02/24/16 14:31	EPA 3005A	1,6020A	TT
Lead, Dissolved	0.0002	J	mg/l	0.0020	0.0001	1	02/23/16 12:20	02/24/16 14:31	EPA 3005A	1,6020A	TT
Magnesium, Dissolved	7.92		mg/l	0.070	0.022	1	02/23/16 12:20	02/24/16 14:31	EPA 3005A	1,6020A	TT
Manganese, Dissolved	0.2002		mg/l	0.0010	0.0003	1	02/23/16 12:20	02/24/16 14:31	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	02/23/16 13:42	02/25/16 02:10	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0021		mg/l	0.0020	0.0001	1	02/23/16 12:20	02/24/16 14:31	EPA 3005A	1,6020A	TT
Potassium, Dissolved	15.4		mg/l	0.100	0.019	1	02/23/16 12:20	02/24/16 14:31	EPA 3005A	1,6020A	TT
Selenium, Dissolved	0.029		mg/l	0.005	0.001	1	02/23/16 12:20	02/24/16 14:31	EPA 3005A	1,6020A	TT
Silver, Dissolved	ND		mg/l	0.0004	0.0001	1	02/23/16 12:20	02/24/16 14:31	EPA 3005A	1,6020A	TT
Sodium, Dissolved	56.1		mg/l	2.00	0.322	20	02/23/16 12:20	02/24/16 16:53	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 14:31	EPA 3005A	1,6020A	TT
Vanadium, Dissolved	0.0006	J	mg/l	0.0050	0.0006	1	02/23/16 12:20	02/24/16 14:31	EPA 3005A	1,6020A	TT
Zinc, Dissolved	0.0079	J	mg/l	0.0100	0.0026	1	02/23/16 12:20	02/24/16 14:31	EPA 3005A	1,6020A	TT



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-04  
**Client ID:** MW-105  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water

**Date Collected:** 02/19/16 12:30  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Aluminum, Total	6.56		mg/l	0.200	0.0338	20	02/22/16 09:05	02/23/16 19:30	EPA 3005A	1,6020A	BM
Antimony, Total	0.00210	J	mg/l	0.00300	0.00006	1	02/22/16 09:05	02/23/16 19:27	EPA 3005A	1,6020A	BM
Arsenic, Total	0.00493		mg/l	0.00050	0.00012	1	02/22/16 09:05	02/23/16 19:27	EPA 3005A	1,6020A	BM
Barium, Total	0.09051		mg/l	0.00050	0.00006	1	02/22/16 09:05	02/23/16 19:27	EPA 3005A	1,6020A	BM
Beryllium, Total	0.00042	J	mg/l	0.00050	0.00015	1	02/22/16 09:05	02/23/16 19:27	EPA 3005A	1,6020A	BM
Cadmium, Total	0.00017	J	mg/l	0.00020	0.00005	1	02/22/16 09:05	02/23/16 19:27	EPA 3005A	1,6020A	BM
Calcium, Total	214.		mg/l	2.00	0.640	20	02/22/16 09:05	02/23/16 19:30	EPA 3005A	1,6020A	BM
Chromium, Total	0.01469		mg/l	0.00100	0.00025	1	02/22/16 09:05	02/23/16 19:27	EPA 3005A	1,6020A	BM
Cobalt, Total	0.00820		mg/l	0.00020	0.00006	1	02/22/16 09:05	02/23/16 19:27	EPA 3005A	1,6020A	BM
Copper, Total	0.01752		mg/l	0.00100	0.00026	1	02/22/16 09:05	02/23/16 19:27	EPA 3005A	1,6020A	BM
Iron, Total	11.0		mg/l	0.0500	0.0120	1	02/22/16 09:05	02/23/16 19:27	EPA 3005A	1,6020A	BM
Lead, Total	0.01454		mg/l	0.00100	0.00012	1	02/22/16 09:05	02/23/16 19:27	EPA 3005A	1,6020A	BM
Magnesium, Total	37.9		mg/l	0.0700	0.0223	1	02/22/16 09:05	02/23/16 19:27	EPA 3005A	1,6020A	BM
Manganese, Total	0.6146		mg/l	0.02000	0.00604	20	02/22/16 09:05	02/23/16 19:30	EPA 3005A	1,6020A	BM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	02/23/16 14:43	02/25/16 01:48	EPA 7470A	1,7470A	EA
Nickel, Total	0.01717		mg/l	0.00200	0.00008	1	02/22/16 09:05	02/23/16 19:27	EPA 3005A	1,6020A	BM
Potassium, Total	13.4		mg/l	0.100	0.0193	1	02/22/16 09:05	02/23/16 19:27	EPA 3005A	1,6020A	BM
Selenium, Total	0.0226		mg/l	0.00500	0.00100	1	02/22/16 09:05	02/23/16 19:27	EPA 3005A	1,6020A	BM
Silver, Total	ND		mg/l	0.00040	0.00007	1	02/22/16 09:05	02/23/16 19:27	EPA 3005A	1,6020A	BM
Sodium, Total	26.8		mg/l	0.250	0.0161	1	02/22/16 09:05	02/23/16 19:27	EPA 3005A	1,6020A	BM
Thallium, Total	ND		mg/l	0.00050	0.00005	1	02/22/16 09:05	02/23/16 19:27	EPA 3005A	1,6020A	BM
Vanadium, Total	0.01871		mg/l	0.00500	0.00055	1	02/22/16 09:05	02/23/16 19:27	EPA 3005A	1,6020A	BM
Zinc, Total	0.07757		mg/l	0.01000	0.00256	1	02/22/16 09:05	02/24/16 11:35	EPA 3005A	1,6020A	KL
<b>Dissolved Metals - Westborough Lab</b>											
Aluminum, Dissolved	0.004	J	mg/l	0.010	0.002	1	02/23/16 12:20	02/24/16 14:34	EPA 3005A	1,6020A	TT
Antimony, Dissolved	0.0019	J	mg/l	0.0020	0.0001	1	02/23/16 12:20	02/24/16 14:34	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0014		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 14:34	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0361		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 14:34	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0005	0.0002	1	02/23/16 12:20	02/24/16 14:34	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0002	0.0001	1	02/23/16 12:20	02/24/16 14:34	EPA 3005A	1,6020A	TT



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-04  
**Client ID:** MW-105  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water

**Date Collected:** 02/19/16 12:30  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Calcium, Dissolved	180		mg/l	2.00	0.640	20	02/23/16 12:20	02/24/16 16:56	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0020		mg/l	0.0010	0.0003	1	02/23/16 12:20	02/24/16 14:34	EPA 3005A	1,6020A	TT
Cobalt, Dissolved	0.0005		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 14:34	EPA 3005A	1,6020A	TT
Copper, Dissolved	0.0039		mg/l	0.0010	0.0003	1	02/23/16 12:20	02/24/16 14:34	EPA 3005A	1,6020A	TT
Iron, Dissolved	ND		mg/l	0.050	0.012	1	02/23/16 12:20	02/24/16 14:34	EPA 3005A	1,6020A	TT
Lead, Dissolved	ND		mg/l	0.0020	0.0001	1	02/23/16 12:20	02/24/16 14:34	EPA 3005A	1,6020A	TT
Magnesium, Dissolved	36.5		mg/l	0.070	0.022	1	02/23/16 12:20	02/24/16 14:34	EPA 3005A	1,6020A	TT
Manganese, Dissolved	0.1350		mg/l	0.0010	0.0003	1	02/23/16 12:20	02/24/16 14:34	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	02/23/16 13:42	02/25/16 02:12	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0030		mg/l	0.0020	0.0001	1	02/23/16 12:20	02/24/16 14:34	EPA 3005A	1,6020A	TT
Potassium, Dissolved	13.6		mg/l	0.100	0.019	1	02/23/16 12:20	02/24/16 14:34	EPA 3005A	1,6020A	TT
Selenium, Dissolved	0.020		mg/l	0.005	0.001	1	02/23/16 12:20	02/24/16 14:34	EPA 3005A	1,6020A	TT
Silver, Dissolved	ND		mg/l	0.0004	0.0001	1	02/23/16 12:20	02/24/16 14:34	EPA 3005A	1,6020A	TT
Sodium, Dissolved	27.0		mg/l	0.100	0.016	1	02/23/16 12:20	02/24/16 14:34	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 14:34	EPA 3005A	1,6020A	TT
Vanadium, Dissolved	0.0010	J	mg/l	0.0050	0.0006	1	02/23/16 12:20	02/24/16 14:34	EPA 3005A	1,6020A	TT
Zinc, Dissolved	0.0140		mg/l	0.0100	0.0026	1	02/23/16 12:20	02/24/16 14:34	EPA 3005A	1,6020A	TT



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-05  
**Client ID:** MW-102  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water

**Date Collected:** 02/19/16 12:55  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Aluminum, Total	25.2		mg/l	2.00	0.338	200	02/22/16 09:05	02/24/16 11:12	EPA 3005A	1,6020A	KL
Antimony, Total	0.00229	J	mg/l	0.00300	0.00006	1	02/22/16 09:05	02/23/16 19:34	EPA 3005A	1,6020A	BM
Arsenic, Total	0.05676		mg/l	0.00050	0.00012	1	02/22/16 09:05	02/23/16 19:34	EPA 3005A	1,6020A	BM
Barium, Total	0.7764		mg/l	0.01000	0.00125	20	02/22/16 09:05	02/23/16 19:41	EPA 3005A	1,6020A	BM
Beryllium, Total	0.00253		mg/l	0.00050	0.00015	1	02/22/16 09:05	02/23/16 19:34	EPA 3005A	1,6020A	BM
Cadmium, Total	0.00185		mg/l	0.00020	0.00005	1	02/22/16 09:05	02/23/16 19:34	EPA 3005A	1,6020A	BM
Calcium, Total	204.		mg/l	2.00	0.640	20	02/22/16 09:05	02/23/16 19:41	EPA 3005A	1,6020A	BM
Chromium, Total	0.07270		mg/l	0.00100	0.00025	1	02/22/16 09:05	02/23/16 19:34	EPA 3005A	1,6020A	BM
Cobalt, Total	0.03115		mg/l	0.00020	0.00006	1	02/22/16 09:05	02/23/16 19:34	EPA 3005A	1,6020A	BM
Copper, Total	0.1008		mg/l	0.00100	0.00026	1	02/22/16 09:05	02/23/16 19:34	EPA 3005A	1,6020A	BM
Iron, Total	43.9		mg/l	0.0500	0.0120	1	02/22/16 09:05	02/23/16 19:34	EPA 3005A	1,6020A	BM
Lead, Total	1.901		mg/l	0.02000	0.00258	20	02/22/16 09:05	02/23/16 19:41	EPA 3005A	1,6020A	BM
Magnesium, Total	41.9		mg/l	0.0700	0.0223	1	02/22/16 09:05	02/23/16 19:34	EPA 3005A	1,6020A	BM
Manganese, Total	1.084		mg/l	0.02000	0.00604	20	02/22/16 09:05	02/23/16 19:41	EPA 3005A	1,6020A	BM
Mercury, Total	0.00175		mg/l	0.00020	0.00006	1	02/23/16 14:43	02/25/16 01:50	EPA 7470A	1,7470A	EA
Nickel, Total	0.05251		mg/l	0.00200	0.00008	1	02/22/16 09:05	02/23/16 19:34	EPA 3005A	1,6020A	BM
Potassium, Total	12.6		mg/l	0.100	0.0193	1	02/22/16 09:05	02/23/16 19:34	EPA 3005A	1,6020A	BM
Selenium, Total	0.0103		mg/l	0.00500	0.00100	1	02/22/16 09:05	02/23/16 19:34	EPA 3005A	1,6020A	BM
Silver, Total	0.00033	J	mg/l	0.00040	0.00007	1	02/22/16 09:05	02/23/16 19:34	EPA 3005A	1,6020A	BM
Sodium, Total	43.7		mg/l	0.250	0.0161	1	02/22/16 09:05	02/23/16 19:34	EPA 3005A	1,6020A	BM
Thallium, Total	0.00056		mg/l	0.00050	0.00005	1	02/22/16 09:05	02/23/16 19:34	EPA 3005A	1,6020A	BM
Vanadium, Total	0.1167		mg/l	0.00500	0.00055	1	02/22/16 09:05	02/23/16 19:34	EPA 3005A	1,6020A	BM
Zinc, Total	0.6424		mg/l	0.2000	0.05120	20	02/22/16 09:05	02/24/16 11:08	EPA 3005A	1,6020A	KL
<b>Dissolved Metals - Westborough Lab</b>											
Aluminum, Dissolved	0.003	J	mg/l	0.010	0.002	1	02/23/16 12:20	02/24/16 14:37	EPA 3005A	1,6020A	TT
Antimony, Dissolved	0.0009	J	mg/l	0.0020	0.0001	1	02/23/16 12:20	02/24/16 14:37	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0021		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 14:37	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0327		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 14:37	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0005	0.0002	1	02/23/16 12:20	02/24/16 14:37	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	0.0005		mg/l	0.0002	0.0001	1	02/23/16 12:20	02/24/16 14:37	EPA 3005A	1,6020A	TT



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-05  
**Client ID:** MW-102  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water

**Date Collected:** 02/19/16 12:55  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Calcium, Dissolved	156		mg/l	2.00	0.640	20	02/23/16 12:20	02/24/16 16:59	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0019		mg/l	0.0010	0.0003	1	02/23/16 12:20	02/24/16 14:37	EPA 3005A	1,6020A	TT
Cobalt, Dissolved	0.0018		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 14:37	EPA 3005A	1,6020A	TT
Copper, Dissolved	0.0030		mg/l	0.0010	0.0003	1	02/23/16 12:20	02/24/16 14:37	EPA 3005A	1,6020A	TT
Iron, Dissolved	ND		mg/l	0.050	0.012	1	02/23/16 12:20	02/24/16 14:37	EPA 3005A	1,6020A	TT
Lead, Dissolved	0.0255		mg/l	0.0020	0.0001	1	02/23/16 12:20	02/24/16 14:37	EPA 3005A	1,6020A	TT
Magnesium, Dissolved	37.5		mg/l	0.070	0.022	1	02/23/16 12:20	02/24/16 14:37	EPA 3005A	1,6020A	TT
Manganese, Dissolved	0.3949		mg/l	0.0010	0.0003	1	02/23/16 12:20	02/24/16 14:37	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	02/23/16 13:42	02/25/16 02:18	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0039		mg/l	0.0020	0.0001	1	02/23/16 12:20	02/24/16 14:37	EPA 3005A	1,6020A	TT
Potassium, Dissolved	11.8		mg/l	0.100	0.019	1	02/23/16 12:20	02/24/16 14:37	EPA 3005A	1,6020A	TT
Selenium, Dissolved	0.008		mg/l	0.005	0.001	1	02/23/16 12:20	02/24/16 14:37	EPA 3005A	1,6020A	TT
Silver, Dissolved	ND		mg/l	0.0004	0.0001	1	02/23/16 12:20	02/24/16 14:37	EPA 3005A	1,6020A	TT
Sodium, Dissolved	46.9		mg/l	2.00	0.322	20	02/23/16 12:20	02/24/16 16:59	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 14:37	EPA 3005A	1,6020A	TT
Vanadium, Dissolved	0.0026	J	mg/l	0.0050	0.0006	1	02/23/16 12:20	02/24/16 14:37	EPA 3005A	1,6020A	TT
Zinc, Dissolved	0.0267		mg/l	0.0100	0.0026	1	02/23/16 12:20	02/24/16 14:37	EPA 3005A	1,6020A	TT



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-06  
**Client ID:** DUP021916  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water

**Date Collected:** 02/19/16 11:00  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Aluminum, Total	0.232		mg/l	0.0100	0.00169	1	02/22/16 09:05	02/23/16 19:38	EPA 3005A	1,6020A	BM
Antimony, Total	0.00111	J	mg/l	0.00300	0.00006	1	02/22/16 09:05	02/23/16 19:38	EPA 3005A	1,6020A	BM
Arsenic, Total	0.00308		mg/l	0.00050	0.00012	1	02/22/16 09:05	02/23/16 19:38	EPA 3005A	1,6020A	BM
Barium, Total	0.02886		mg/l	0.00050	0.00006	1	02/22/16 09:05	02/23/16 19:38	EPA 3005A	1,6020A	BM
Beryllium, Total	ND		mg/l	0.00050	0.00015	1	02/22/16 09:05	02/23/16 19:38	EPA 3005A	1,6020A	BM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	02/22/16 09:05	02/23/16 19:38	EPA 3005A	1,6020A	BM
Calcium, Total	80.1		mg/l	2.00	0.640	20	02/22/16 09:05	02/23/16 19:53	EPA 3005A	1,6020A	BM
Chromium, Total	0.00181		mg/l	0.00100	0.00025	1	02/22/16 09:05	02/23/16 19:38	EPA 3005A	1,6020A	BM
Cobalt, Total	0.00156		mg/l	0.00020	0.00006	1	02/22/16 09:05	02/23/16 19:38	EPA 3005A	1,6020A	BM
Copper, Total	0.00277		mg/l	0.00100	0.00026	1	02/22/16 09:05	02/23/16 19:38	EPA 3005A	1,6020A	BM
Iron, Total	1.26		mg/l	0.0500	0.0120	1	02/22/16 09:05	02/23/16 19:38	EPA 3005A	1,6020A	BM
Lead, Total	0.00099	J	mg/l	0.00100	0.00012	1	02/22/16 09:05	02/23/16 19:38	EPA 3005A	1,6020A	BM
Magnesium, Total	7.71		mg/l	0.0700	0.0223	1	02/22/16 09:05	02/23/16 19:38	EPA 3005A	1,6020A	BM
Manganese, Total	0.2383		mg/l	0.00100	0.00030	1	02/22/16 09:05	02/23/16 19:38	EPA 3005A	1,6020A	BM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	02/23/16 14:43	02/25/16 01:56	EPA 7470A	1,7470A	EA
Nickel, Total	0.00313		mg/l	0.00200	0.00008	1	02/22/16 09:05	02/23/16 19:38	EPA 3005A	1,6020A	BM
Potassium, Total	14.4		mg/l	0.100	0.0193	1	02/22/16 09:05	02/23/16 19:38	EPA 3005A	1,6020A	BM
Selenium, Total	0.0219		mg/l	0.00500	0.00100	1	02/22/16 09:05	02/23/16 19:38	EPA 3005A	1,6020A	BM
Silver, Total	ND		mg/l	0.00040	0.00007	1	02/22/16 09:05	02/23/16 19:38	EPA 3005A	1,6020A	BM
Sodium, Total	55.5		mg/l	5.00	0.322	20	02/22/16 09:05	02/23/16 19:53	EPA 3005A	1,6020A	BM
Thallium, Total	ND		mg/l	0.00050	0.00005	1	02/22/16 09:05	02/23/16 19:38	EPA 3005A	1,6020A	BM
Vanadium, Total	0.00175	J	mg/l	0.00500	0.00055	1	02/22/16 09:05	02/23/16 19:38	EPA 3005A	1,6020A	BM
Zinc, Total	0.00466	J	mg/l	0.01000	0.00256	1	02/22/16 09:05	02/23/16 19:38	EPA 3005A	1,6020A	BM
<b>Dissolved Metals - Westborough Lab</b>											
Aluminum, Dissolved	0.002	J	mg/l	0.010	0.002	1	02/23/16 12:20	02/24/16 15:00	EPA 3005A	1,6020A	TT
Antimony, Dissolved	0.0016	J	mg/l	0.0020	0.0001	1	02/23/16 12:20	02/24/16 15:00	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0020		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 15:00	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0256		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 15:00	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0005	0.0002	1	02/23/16 12:20	02/24/16 15:00	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0002	0.0001	1	02/23/16 12:20	02/24/16 15:00	EPA 3005A	1,6020A	TT





**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-06  
**Client ID:** DUP021916  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water

**Date Collected:** 02/19/16 11:00  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Calcium, Dissolved	64.4		mg/l	2.00	0.640	20	02/23/16 12:20	02/24/16 17:03	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0009	J	mg/l	0.0010	0.0003	1	02/23/16 12:20	02/24/16 15:00	EPA 3005A	1,6020A	TT
Cobalt, Dissolved	0.0013		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 15:00	EPA 3005A	1,6020A	TT
Copper, Dissolved	0.0014		mg/l	0.0010	0.0003	1	02/23/16 12:20	02/24/16 15:00	EPA 3005A	1,6020A	TT
Iron, Dissolved	0.338		mg/l	0.050	0.012	1	02/23/16 12:20	02/24/16 15:00	EPA 3005A	1,6020A	TT
Lead, Dissolved	0.0002	J	mg/l	0.0020	0.0001	1	02/23/16 12:20	02/24/16 15:00	EPA 3005A	1,6020A	TT
Magnesium, Dissolved	6.45		mg/l	0.070	0.022	1	02/23/16 12:20	02/24/16 15:00	EPA 3005A	1,6020A	TT
Manganese, Dissolved	0.2132		mg/l	0.0010	0.0003	1	02/23/16 12:20	02/24/16 15:00	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	02/23/16 13:42	02/25/16 02:20	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0015	J	mg/l	0.0020	0.0001	1	02/23/16 12:20	02/24/16 15:00	EPA 3005A	1,6020A	TT
Potassium, Dissolved	12.8		mg/l	0.100	0.019	1	02/23/16 12:20	02/24/16 15:00	EPA 3005A	1,6020A	TT
Selenium, Dissolved	0.017		mg/l	0.005	0.001	1	02/23/16 12:20	02/24/16 15:00	EPA 3005A	1,6020A	TT
Silver, Dissolved	ND		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 15:00	EPA 3005A	1,6020A	TT
Sodium, Dissolved	45.0		mg/l	0.100	0.016	1	02/23/16 12:20	02/24/16 15:00	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0004	0.0001	1	02/23/16 12:20	02/24/16 15:00	EPA 3005A	1,6020A	TT
Vanadium, Dissolved	ND		mg/l	0.0050	0.0006	1	02/23/16 12:20	02/24/16 15:00	EPA 3005A	1,6020A	TT
Zinc, Dissolved	0.0095	J	mg/l	0.0100	0.0026	1	02/23/16 12:20	02/24/16 15:00	EPA 3005A	1,6020A	TT



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-07  
**Client ID:** FB021916  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water

**Date Collected:** 02/19/16 13:00  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Aluminum, Total	0.00265	J	mg/l	0.0100	0.00169	1	02/22/16 09:05	02/23/16 18:28	EPA 3005A	1,6020A	BM
Antimony, Total	0.00033	J	mg/l	0.00300	0.00006	1	02/22/16 09:05	02/23/16 18:28	EPA 3005A	1,6020A	BM
Arsenic, Total	0.00017	J	mg/l	0.00050	0.00012	1	02/22/16 09:05	02/23/16 18:28	EPA 3005A	1,6020A	BM
Barium, Total	0.00030	J	mg/l	0.00050	0.00006	1	02/22/16 09:05	02/23/16 18:28	EPA 3005A	1,6020A	BM
Beryllium, Total	ND		mg/l	0.00050	0.00015	1	02/22/16 09:05	02/23/16 18:28	EPA 3005A	1,6020A	BM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	02/22/16 09:05	02/23/16 18:28	EPA 3005A	1,6020A	BM
Calcium, Total	ND		mg/l	0.100	0.0320	1	02/22/16 09:05	02/23/16 18:28	EPA 3005A	1,6020A	BM
Chromium, Total	0.00072	J	mg/l	0.00100	0.00025	1	02/22/16 09:05	02/23/16 18:28	EPA 3005A	1,6020A	BM
Cobalt, Total	ND		mg/l	0.00020	0.00006	1	02/22/16 09:05	02/23/16 18:28	EPA 3005A	1,6020A	BM
Copper, Total	ND		mg/l	0.00100	0.00026	1	02/22/16 09:05	02/23/16 18:28	EPA 3005A	1,6020A	BM
Iron, Total	ND		mg/l	0.0500	0.0120	1	02/22/16 09:05	02/23/16 18:28	EPA 3005A	1,6020A	BM
Lead, Total	ND		mg/l	0.00100	0.00012	1	02/22/16 09:05	02/23/16 18:28	EPA 3005A	1,6020A	BM
Magnesium, Total	ND		mg/l	0.0700	0.0223	1	02/22/16 09:05	02/23/16 18:28	EPA 3005A	1,6020A	BM
Manganese, Total	ND		mg/l	0.00100	0.00030	1	02/22/16 09:05	02/23/16 18:28	EPA 3005A	1,6020A	BM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	02/23/16 14:43	02/25/16 01:57	EPA 7470A	1,7470A	EA
Nickel, Total	0.00135	J	mg/l	0.00200	0.00008	1	02/22/16 09:05	02/23/16 18:28	EPA 3005A	1,6020A	BM
Potassium, Total	ND		mg/l	0.100	0.0193	1	02/22/16 09:05	02/23/16 18:28	EPA 3005A	1,6020A	BM
Selenium, Total	ND		mg/l	0.00500	0.00100	1	02/22/16 09:05	02/23/16 18:28	EPA 3005A	1,6020A	BM
Silver, Total	ND		mg/l	0.00040	0.00007	1	02/22/16 09:05	02/23/16 18:28	EPA 3005A	1,6020A	BM
Sodium, Total	ND		mg/l	0.250	0.0161	1	02/22/16 09:05	02/23/16 18:28	EPA 3005A	1,6020A	BM
Thallium, Total	ND		mg/l	0.00050	0.00005	1	02/22/16 09:05	02/23/16 18:28	EPA 3005A	1,6020A	BM
Vanadium, Total	ND		mg/l	0.00500	0.00055	1	02/22/16 09:05	02/23/16 18:28	EPA 3005A	1,6020A	BM
Zinc, Total	ND		mg/l	0.01000	0.00256	1	02/22/16 09:05	02/23/16 18:28	EPA 3005A	1,6020A	BM
<b>Dissolved Metals - Westborough Lab</b>											
Aluminum, Dissolved	0.003	J	mg/l	0.010	0.002	1	02/23/16 12:20	02/24/16 16:47	EPA 3005A	1,6020A	TT
Antimony, Dissolved	0.0004	J	mg/l	0.0020	0.0001	1	02/23/16 12:20	02/24/16 16:47	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	ND		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 16:47	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0004	J	mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 16:47	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0005	0.0002	1	02/23/16 12:20	02/24/16 16:47	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0002	0.0001	1	02/23/16 12:20	02/24/16 16:47	EPA 3005A	1,6020A	TT



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**SAMPLE RESULTS**

**Lab ID:** L1604581-07  
**Client ID:** FB021916  
**Sample Location:** BROOKLYN, NY  
**Matrix:** Water

**Date Collected:** 02/19/16 13:00  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Calcium, Dissolved	ND		mg/l	0.100	0.032	1	02/23/16 12:20	02/24/16 16:47	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0008	J	mg/l	0.0010	0.0003	1	02/23/16 12:20	02/24/16 16:47	EPA 3005A	1,6020A	TT
Cobalt, Dissolved	ND		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 16:47	EPA 3005A	1,6020A	TT
Copper, Dissolved	ND		mg/l	0.0010	0.0003	1	02/23/16 12:20	02/24/16 16:47	EPA 3005A	1,6020A	TT
Iron, Dissolved	ND		mg/l	0.050	0.012	1	02/23/16 12:20	02/24/16 16:47	EPA 3005A	1,6020A	TT
Lead, Dissolved	0.0012	J	mg/l	0.0020	0.0001	1	02/23/16 12:20	02/24/16 16:47	EPA 3005A	1,6020A	TT
Magnesium, Dissolved	ND		mg/l	0.070	0.022	1	02/23/16 12:20	02/24/16 16:47	EPA 3005A	1,6020A	TT
Manganese, Dissolved	ND		mg/l	0.0010	0.0003	1	02/23/16 12:20	02/24/16 16:47	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	02/23/16 13:42	02/25/16 02:22	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0011	J	mg/l	0.0020	0.0001	1	02/23/16 12:20	02/24/16 16:47	EPA 3005A	1,6020A	TT
Potassium, Dissolved	ND		mg/l	0.100	0.019	1	02/23/16 12:20	02/24/16 16:47	EPA 3005A	1,6020A	TT
Selenium, Dissolved	ND		mg/l	0.005	0.001	1	02/23/16 12:20	02/24/16 16:47	EPA 3005A	1,6020A	TT
Silver, Dissolved	ND		mg/l	0.0004	0.0001	1	02/23/16 12:20	02/24/16 16:47	EPA 3005A	1,6020A	TT
Sodium, Dissolved	0.079	J	mg/l	0.100	0.016	1	02/23/16 12:20	02/24/16 16:47	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 16:47	EPA 3005A	1,6020A	TT
Vanadium, Dissolved	ND		mg/l	0.0050	0.0006	1	02/23/16 12:20	02/24/16 16:47	EPA 3005A	1,6020A	TT
Zinc, Dissolved	0.0035	J	mg/l	0.0100	0.0026	1	02/23/16 12:20	02/24/16 16:47	EPA 3005A	1,6020A	TT



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

## Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-07 Batch: WG867201-1										
Aluminum, Total	0.00185	J	mg/l	0.0100	0.00169	1	02/22/16 09:05	02/23/16 18:24	1,6020A	BM
Antimony, Total	0.00042	J	mg/l	0.00300	0.00006	1	02/22/16 09:05	02/23/16 18:24	1,6020A	BM
Arsenic, Total	ND		mg/l	0.00050	0.00012	1	02/22/16 09:05	02/23/16 18:24	1,6020A	BM
Barium, Total	0.00025	J	mg/l	0.00050	0.00006	1	02/22/16 09:05	02/23/16 18:24	1,6020A	BM
Beryllium, Total	ND		mg/l	0.00050	0.00015	1	02/22/16 09:05	02/23/16 18:24	1,6020A	BM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	02/22/16 09:05	02/23/16 18:24	1,6020A	BM
Calcium, Total	ND		mg/l	0.100	0.0320	1	02/22/16 09:05	02/23/16 18:24	1,6020A	BM
Chromium, Total	0.00046	J	mg/l	0.00100	0.00025	1	02/22/16 09:05	02/23/16 18:24	1,6020A	BM
Cobalt, Total	ND		mg/l	0.00020	0.00006	1	02/22/16 09:05	02/23/16 18:24	1,6020A	BM
Copper, Total	ND		mg/l	0.00100	0.00026	1	02/22/16 09:05	02/23/16 18:24	1,6020A	BM
Iron, Total	ND		mg/l	0.0500	0.0120	1	02/22/16 09:05	02/23/16 18:24	1,6020A	BM
Lead, Total	ND		mg/l	0.00050	0.00012	1	02/22/16 09:05	02/23/16 18:24	1,6020A	BM
Magnesium, Total	ND		mg/l	0.0700	0.0223	1	02/22/16 09:05	02/23/16 18:24	1,6020A	BM
Manganese, Total	ND		mg/l	0.00100	0.00030	1	02/22/16 09:05	02/23/16 18:24	1,6020A	BM
Nickel, Total	0.00160	J	mg/l	0.00200	0.00008	1	02/22/16 09:05	02/23/16 18:24	1,6020A	BM
Potassium, Total	ND		mg/l	0.100	0.0193	1	02/22/16 09:05	02/23/16 18:24	1,6020A	BM
Selenium, Total	ND		mg/l	0.00500	0.00100	1	02/22/16 09:05	02/23/16 18:24	1,6020A	BM
Silver, Total	ND		mg/l	0.00040	0.00007	1	02/22/16 09:05	02/23/16 18:24	1,6020A	BM
Sodium, Total	ND		mg/l	0.250	0.0161	1	02/22/16 09:05	02/23/16 18:24	1,6020A	BM
Thallium, Total	ND		mg/l	0.00050	0.00005	1	02/22/16 09:05	02/23/16 18:24	1,6020A	BM
Vanadium, Total	ND		mg/l	0.00500	0.00055	1	02/22/16 09:05	02/23/16 18:24	1,6020A	BM
Zinc, Total	ND		mg/l	0.01000	0.00256	1	02/22/16 09:05	02/23/16 18:24	1,6020A	BM

### Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Westborough Lab for sample(s): 01-07 Batch: WG867583-1										
Aluminum, Dissolved	ND		mg/l	0.010	0.002	1	02/23/16 12:20	02/24/16 13:35	1,6020A	TT
Antimony, Dissolved	0.0003	J	mg/l	0.0020	0.0001	1	02/23/16 12:20	02/24/16 13:35	1,6020A	TT
Arsenic, Dissolved	ND		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 13:35	1,6020A	TT
Barium, Dissolved	ND		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 13:35	1,6020A	TT



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

### Method Blank Analysis Batch Quality Control

Beryllium, Dissolved	ND		mg/l	0.0005	0.0002	1	02/23/16 12:20	02/24/16 13:35	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0002	0.0001	1	02/23/16 12:20	02/24/16 13:35	1,6020A	TT
Calcium, Dissolved	ND		mg/l	0.100	0.032	1	02/23/16 12:20	02/24/16 13:35	1,6020A	TT
Chromium, Dissolved	0.00096	J	mg/l	0.00100	0.00025	1	02/23/16 12:20	02/24/16 13:35	1,6020A	TT
Cobalt, Dissolved	ND		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 13:35	1,6020A	TT
Copper, Dissolved	ND		mg/l	0.0010	0.0003	1	02/23/16 12:20	02/24/16 13:35	1,6020A	TT
Iron, Dissolved	ND		mg/l	0.050	0.012	1	02/23/16 12:20	02/24/16 13:35	1,6020A	TT
Lead, Dissolved	ND		mg/l	0.0020	0.0001	1	02/23/16 12:20	02/24/16 13:35	1,6020A	TT
Magnesium, Dissolved	ND		mg/l	0.070	0.022	1	02/23/16 12:20	02/24/16 13:35	1,6020A	TT
Manganese, Dissolved	ND		mg/l	0.0010	0.0003	1	02/23/16 12:20	02/24/16 13:35	1,6020A	TT
Nickel, Dissolved	0.0012	J	mg/l	0.0020	0.0001	1	02/23/16 12:20	02/24/16 13:35	1,6020A	TT
Potassium, Dissolved	ND		mg/l	0.100	0.019	1	02/23/16 12:20	02/24/16 13:35	1,6020A	TT
Selenium, Dissolved	ND		mg/l	0.005	0.001	1	02/23/16 12:20	02/24/16 13:35	1,6020A	TT
Silver, Dissolved	ND		mg/l	0.0004	0.0001	1	02/23/16 12:20	02/24/16 13:35	1,6020A	TT
Sodium, Dissolved	0.026	J	mg/l	0.100	0.016	1	02/23/16 12:20	02/24/16 13:35	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0005	0.0001	1	02/23/16 12:20	02/24/16 13:35	1,6020A	TT
Vanadium, Dissolved	ND		mg/l	0.0050	0.0006	1	02/23/16 12:20	02/24/16 13:35	1,6020A	TT
Zinc, Dissolved	ND		mg/l	0.0100	0.0026	1	02/23/16 12:20	02/24/16 13:35	1,6020A	TT

#### Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Westborough Lab for sample(s): 01-07 Batch: WG867621-1										
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	02/23/16 13:42	02/25/16 01:59	1,7470A	EA

#### Prep Information

Digestion Method: EPA 7470A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-07 Batch: WG867648-1										
Mercury, Total	ND		mg/l	0.00020	0.00006	1	02/23/16 14:43	02/25/16 01:33	1,7470A	EA



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

## Method Blank Analysis Batch Quality Control

### Prep Information

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Digestion Method: EPA 7470A

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-07 Batch: WG867201-2								
Aluminum, Total	102		-		80-120	-		
Antimony, Total	86		-		80-120	-		
Arsenic, Total	95		-		80-120	-		
Barium, Total	96		-		80-120	-		
Beryllium, Total	92		-		80-120	-		
Cadmium, Total	99		-		80-120	-		
Calcium, Total	92		-		80-120	-		
Chromium, Total	96		-		80-120	-		
Cobalt, Total	97		-		80-120	-		
Copper, Total	97		-		80-120	-		
Iron, Total	93		-		80-120	-		
Lead, Total	106		-		80-120	-		
Magnesium, Total	99		-		80-120	-		
Manganese, Total	94		-		80-120	-		
Nickel, Total	98		-		80-120	-		
Potassium, Total	94		-		80-120	-		
Selenium, Total	104		-		80-120	-		
Silver, Total	96		-		80-120	-		
Sodium, Total	109		-		80-120	-		
Thallium, Total	103		-		80-120	-		
Vanadium, Total	101		-		80-120	-		

**Lab Control Sample Analysis**  
Batch Quality Control

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-07 Batch: WG867201-2					
Zinc, Total	98	-	80-120	-	



# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Dissolved Metals - Westborough Lab Associated sample(s): 01-07 Batch: WG867583-2					
Aluminum, Dissolved	94	-	80-120	-	
Antimony, Dissolved	82	-	80-120	-	
Arsenic, Dissolved	92	-	80-120	-	
Barium, Dissolved	90	-	80-120	-	
Beryllium, Dissolved	94	-	80-120	-	
Cadmium, Dissolved	92	-	80-120	-	
Calcium, Dissolved	92	-	80-120	-	
Chromium, Dissolved	93	-	80-120	-	
Cobalt, Dissolved	91	-	80-120	-	
Copper, Dissolved	94	-	80-120	-	
Iron, Dissolved	85	-	80-120	-	
Lead, Dissolved	94	-	80-120	-	
Magnesium, Dissolved	95	-	80-120	-	
Manganese, Dissolved	89	-	80-120	-	
Nickel, Dissolved	95	-	80-120	-	
Potassium, Dissolved	91	-	80-120	-	
Selenium, Dissolved	85	-	80-120	-	
Silver, Dissolved	95	-	80-120	-	
Sodium, Dissolved	95	-	80-120	-	
Thallium, Dissolved	91	-	80-120	-	
Vanadium, Dissolved	93	-	80-120	-	

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Dissolved Metals - Westborough Lab Associated sample(s): 01-07 Batch: WG867583-2					
Zinc, Dissolved	86	-	80-120	-	
Dissolved Metals - Westborough Lab Associated sample(s): 01-07 Batch: WG867621-2					
Mercury, Dissolved	97	-	80-120	-	
Total Metals - Westborough Lab Associated sample(s): 01-07 Batch: WG867648-2					
Mercury, Total	107	-	80-120	-	

# **Matrix Spike Analysis** **Batch Quality Control**

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG867201-4 QC Sample: L1604620-02 Client ID: MS Sample												
Aluminum, Total	1.13	2	3.89	138	Q	-	-		75-125	-		20
Antimony, Total	0.0024J	0.5	0.6354	127	Q	-	-		75-125	-		20
Arsenic, Total	0.00488	0.12	0.1559	126	Q	-	-		75-125	-		20
Barium, Total	0.0247	2	2.454	121		-	-		75-125	-		20
Beryllium, Total	0.0003J	0.05	0.05722	114		-	-		75-125	-		20
Cadmium, Total	0.0001J	0.051	0.06344	124		-	-		75-125	-		20
Calcium, Total	124.	10	162	380	Q	-	-		75-125	-		20
Chromium, Total	0.00539	0.2	0.2534	124		-	-		75-125	-		20
Cobalt, Total	0.0085	0.5	0.6310	124		-	-		75-125	-		20
Copper, Total	0.01295	0.25	0.3262	125		-	-		75-125	-		20
Iron, Total	3.39	1	5.35	196	Q	-	-		75-125	-		20
Lead, Total	0.00060J	0.51	0.6776	133	Q	-	-		75-125	-		20
Magnesium, Total	114.	10	151	370	Q	-	-		75-125	-		20
Manganese, Total	0.3176	0.5	1.006	138	Q	-	-		75-125	-		20
Nickel, Total	0.01013	0.5	0.6246	123		-	-		75-125	-		20
Potassium, Total	63.9	10	92.9	290	Q	-	-		75-125	-		20
Selenium, Total	ND	0.12	0.158	132	Q	-	-		75-125	-		20
Silver, Total	ND	0.05	0.06046	121		-	-		75-125	-		20
Sodium, Total	1190	10	1630	4400	Q	-	-		75-125	-		20
Thallium, Total	ND	0.12	0.1551	129	Q	-	-		75-125	-		20
Vanadium, Total	0.0125	0.5	0.6724	132	Q	-	-		75-125	-		20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG867201-4 QC Sample: L1604620-02 Client ID: MS Sample									
Zinc, Total	0.0352	0.5	0.6346	120	-	-	75-125	-	20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Dissolved Metals - Westborough Lab Associated sample(s): 01-07				QC Batch ID: WG867583-4		QC Sample: L1604581-01		Client ID: MW-104	
Aluminum, Dissolved	0.013	2	1.88	93	-	-	75-125	-	20
Antimony, Dissolved	0.0031	0.5	0.4669	93	-	-	75-125	-	20
Arsenic, Dissolved	0.0009	0.12	0.1096	90	-	-	75-125	-	20
Barium, Dissolved	0.0108	2	1.962	98	-	-	75-125	-	20
Beryllium, Dissolved	ND	0.05	0.0457	91	-	-	75-125	-	20
Cadmium, Dissolved	ND	0.051	0.0522	102	-	-	75-125	-	20
Calcium, Dissolved	64.6	10	73.1	85	-	-	75-125	-	20
Chromium, Dissolved	0.0015	0.2	0.1877	93	-	-	75-125	-	20
Cobalt, Dissolved	0.0004J	0.5	0.4864	97	-	-	75-125	-	20
Copper, Dissolved	0.001	0.25	0.2476	99	-	-	75-125	-	20
Iron, Dissolved	ND	0.08	0.940	94	-	-	75-125	-	20
Lead, Dissolved	ND	0.51	0.5299	104	-	-	75-125	-	20
Magnesium, Dissolved	7.64	10	17.9	103	-	-	75-125	-	20
Manganese, Dissolved	0.0830	0.5	0.5674	97	-	-	75-125	-	20
Nickel, Dissolved	0.0026	0.5	0.5162	103	-	-	75-125	-	20
Potassium, Dissolved	11.0	10	20.4	94	-	-	75-125	-	20
Selenium, Dissolved	0.006	0.12	0.138	110	-	-	75-125	-	20
Silver, Dissolved	ND	0.05	0.0506	101	-	-	75-125	-	20
Sodium, Dissolved	23.8	10	32.3	85	-	-	75-125	-	20
Thallium, Dissolved	ND	0.12	0.1181	98	-	-	75-125	-	20
Vanadium, Dissolved	0.0009J	0.5	0.4840	97	-	-	75-125	-	20

# **Matrix Spike Analysis** Batch Quality Control

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Dissolved Metals - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG867583-4 QC Sample: L1604581-01 Client ID: MW-104									
Zinc, Dissolved	0.0142	0.5	0.4578	89	-	-	75-125	-	20
Dissolved Metals - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG867621-4 QC Sample: L1604581-01 Client ID: MW-104									
Mercury, Dissolved	ND	0.005	0.00460	92	-	-	75-125	-	20
Total Metals - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG867648-4 QC Sample: L1604640-05 Client ID: MS Sample									
Mercury, Total	ND	0.005	0.00478	96	-	-	75-125	-	20

# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG867201-3 QC Sample: L1604620-02 Client ID: DUP Sample						
Arsenic, Total	0.00488	0.00484	mg/l	1		20
Chromium, Total	0.00539	0.00548	mg/l	2		20
Copper, Total	0.01295	0.01187	mg/l	9		20
Lead, Total	0.00060J	0.00063J	mg/l	NC		20
Nickel, Total	0.01013	0.00921	mg/l	9		20

# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Dissolved Metals - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG867583-3 QC Sample: L1604581-01 Client ID: MW-104					
Aluminum, Dissolved	0.013	0.015	mg/l	15	20
Antimony, Dissolved	0.0031	0.0021	mg/l	41	Q 20
Arsenic, Dissolved	0.0009	0.0007	mg/l	26	Q 20
Barium, Dissolved	0.0108	0.0107	mg/l	2	20
Beryllium, Dissolved	ND	ND	mg/l	NC	20
Cadmium, Dissolved	ND	ND	mg/l	NC	20
Chromium, Dissolved	0.0015	0.0032	mg/l	69	Q 20
Cobalt, Dissolved	0.0004J	0.00046J	mg/l	NC	20
Copper, Dissolved	0.001	0.00098J	mg/l	NC	20
Iron, Dissolved	ND	ND	mg/l	NC	20
Lead, Dissolved	ND	ND	mg/l	NC	20
Magnesium, Dissolved	7.64	7.69	mg/l	1	20
Manganese, Dissolved	0.0830	0.0827	mg/l	0	20
Nickel, Dissolved	0.0026	0.0037	mg/l	34	Q 20
Potassium, Dissolved	11.0	10.7	mg/l	3	20
Selenium, Dissolved	0.006	0.006	mg/l	1	20
Silver, Dissolved	ND	ND	mg/l	NC	20
Sodium, Dissolved	23.8	23.8	mg/l	0	20
Thallium, Dissolved	ND	ND	mg/l	NC	20



# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Dissolved Metals - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG867583-3 QC Sample: L1604581-01 Client ID: MW-104					
Vanadium, Dissolved	0.0009J	0.0011J	mg/l	NC	20
Zinc, Dissolved	0.0142	0.0136	mg/l	4	20
Dissolved Metals - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG867583-3 QC Sample: L1604581-01 Client ID: MW-104					
Calcium, Dissolved	64.6	63.8	mg/l	1	20
Dissolved Metals - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG867621-3 QC Sample: L1604581-01 Client ID: MW-104					
Mercury, Dissolved	ND	ND	mg/l	NC	20
Total Metals - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG867648-3 QC Sample: L1604640-05 Client ID: DUP Sample					
Mercury, Total	ND	ND	mg/l	NC	20

**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

### Sample Receipt and Container Information

Were project specific reporting limits specified? YES

#### Cooler Information Custody Seal

##### Cooler

A Absent  
 B Absent  
 C Absent

#### Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1604581-01A	Vial HCl preserved	A	N/A	3.8	Y	Absent	NYTCL-8260(14)
L1604581-01B	Vial HCl preserved	A	N/A	3.8	Y	Absent	NYTCL-8260(14)
L1604581-01C	Vial HCl preserved	A	N/A	3.8	Y	Absent	NYTCL-8260(14)
L1604581-01D	Plastic 250ml HNO3 preserved	A	<2	3.8	Y	Absent	BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1604581-01E	Plastic 250ml unpreserved	A	7	3.8	Y	Absent	-
L1604581-01F	Amber 500ml unpreserved	A	7	3.8	Y	Absent	NYTCL-8081(7)
L1604581-01G	Amber 500ml unpreserved	A	7	3.8	Y	Absent	NYTCL-8081(7)
L1604581-01H	Amber 1000ml unpreserved	A	7	3.8	Y	Absent	NYTCL-8082-1200ML(7)
L1604581-01I	Amber 1000ml unpreserved	A	7	3.8	Y	Absent	NYTCL-8082-1200ML(7)
L1604581-01J	Amber 1000ml unpreserved	A	7	3.8	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1604581-01K	Amber 1000ml unpreserved	A	7	3.8	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1604581-01X	Plastic 120ml HNO3 preserved spl	A	<2	3.8	Y	Absent	CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1604581-02A	Vial HCl preserved	C	N/A	3.5	Y	Absent	NYTCL-8260(14)
L1604581-02B	Vial HCl preserved	C	N/A	3.5	Y	Absent	NYTCL-8260(14)

\*Values in parentheses indicate holding time in days



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1604581-02C	Vial HCl preserved	C	N/A	3.5	Y	Absent	NYTCL-8260(14)
L1604581-02D	Plastic 250ml HNO3 preserved	C	<2	3.5	Y	Absent	BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1604581-02E	Plastic 250ml unpreserved	C	7	3.5	Y	Absent	-
L1604581-02F	Amber 500ml unpreserved	C	7	3.5	Y	Absent	NYTCL-8081(7)
L1604581-02G	Amber 500ml unpreserved	C	7	3.5	Y	Absent	NYTCL-8081(7)
L1604581-02H	Amber 1000ml unpreserved	C	7	3.5	Y	Absent	NYTCL-8082-1200ML(7)
L1604581-02I	Amber 1000ml unpreserved	C	7	3.5	Y	Absent	NYTCL-8082-1200ML(7)
L1604581-02J	Amber 1000ml unpreserved	C	7	3.5	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1604581-02K	Amber 1000ml unpreserved	C	7	3.5	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1604581-02X	Plastic 120ml HNO3 preserved spl	C	<2	3.5	Y	Absent	CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1604581-03A	Vial HCl preserved	B	N/A	2.5	Y	Absent	NYTCL-8260(14)
L1604581-03B	Vial HCl preserved	B	N/A	2.5	Y	Absent	NYTCL-8260(14)
L1604581-03C	Vial HCl preserved	B	N/A	2.5	Y	Absent	NYTCL-8260(14)
L1604581-03D	Plastic 250ml HNO3 preserved	B	<2	2.5	Y	Absent	BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1604581-03E	Plastic 250ml unpreserved	B	7	2.5	Y	Absent	-
L1604581-03F	Amber 500ml unpreserved	B	7	2.5	Y	Absent	NYTCL-8081(7)

\*Values in parentheses indicate holding time in days



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1604581-03G	Amber 500ml unpreserved	B	7	2.5	Y	Absent	NYTCL-8081(7)
L1604581-03H	Amber 1000ml unpreserved	B	7	2.5	Y	Absent	NYTCL-8082-1200ML(7)
L1604581-03I	Amber 1000ml unpreserved	B	7	2.5	Y	Absent	NYTCL-8082-1200ML(7)
L1604581-03J	Amber 1000ml unpreserved	B	7	2.5	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1604581-03K	Amber 1000ml unpreserved	B	7	2.5	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1604581-03X	Plastic 120ml HNO3 preserved spl	B	<2	2.5	Y	Absent	CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1604581-04A	Vial HCl preserved	C	N/A	3.5	Y	Absent	NYTCL-8260(14)
L1604581-04B	Vial HCl preserved	C	N/A	3.5	Y	Absent	NYTCL-8260(14)
L1604581-04C	Vial HCl preserved	C	N/A	3.5	Y	Absent	NYTCL-8260(14)
L1604581-04D	Plastic 250ml HNO3 preserved	C	<2	3.5	Y	Absent	BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1604581-04E	Plastic 250ml unpreserved	C	7	3.5	Y	Absent	-
L1604581-04F	Amber 500ml unpreserved	C	7	3.5	Y	Absent	NYTCL-8081(7)
L1604581-04G	Amber 500ml unpreserved	C	7	3.5	Y	Absent	NYTCL-8081(7)
L1604581-04H	Amber 1000ml unpreserved	C	7	3.5	Y	Absent	NYTCL-8082-1200ML(7)
L1604581-04I	Amber 1000ml unpreserved	C	7	3.5	Y	Absent	NYTCL-8082-1200ML(7)
L1604581-04J	Amber 1000ml unpreserved	C	7	3.5	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1604581-04K	Amber 1000ml unpreserved	C	7	3.5	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)

\*Values in parentheses indicate holding time in days



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1604581-04X	Plastic 120ml HNO3 preserved spl	C	<2	3.5	Y	Absent	CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1604581-05A	Vial HCl preserved	C	N/A	3.5	Y	Absent	NYTCL-8260(14)
L1604581-05B	Vial HCl preserved	C	N/A	3.5	Y	Absent	NYTCL-8260(14)
L1604581-05C	Vial HCl preserved	C	N/A	3.5	Y	Absent	NYTCL-8260(14)
L1604581-05D	Plastic 250ml HNO3 preserved	C	<2	3.5	Y	Absent	BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1604581-05E	Plastic 250ml unpreserved	C	7	3.5	Y	Absent	-
L1604581-05F	Amber 500ml unpreserved	C	7	3.5	Y	Absent	NYTCL-8081(7)
L1604581-05I	Amber 1000ml unpreserved	C	7	3.5	Y	Absent	NYTCL-8082-1200ML(7)
L1604581-05J	Amber 1000ml unpreserved	C	7	3.5	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1604581-05X	Plastic 120ml HNO3 preserved spl	C	<2	3.5	Y	Absent	CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1604581-06A	Vial HCl preserved	B	N/A	2.5	Y	Absent	NYTCL-8260(14)
L1604581-06B	Vial HCl preserved	B	N/A	2.5	Y	Absent	NYTCL-8260(14)
L1604581-06C	Vial HCl preserved	B	N/A	2.5	Y	Absent	NYTCL-8260(14)

\*Values in parentheses indicate holding time in days



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1604581-06D	Plastic 250ml HNO3 preserved	B	<2	2.5	Y	Absent	BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1604581-06E	Plastic 250ml unpreserved	B	7	2.5	Y	Absent	-
L1604581-06F	Amber 500ml unpreserved	B	7	2.5	Y	Absent	NYTCL-8081(7)
L1604581-06G	Amber 500ml unpreserved	B	7	2.5	Y	Absent	NYTCL-8081(7)
L1604581-06H	Amber 1000ml unpreserved	B	7	2.5	Y	Absent	NYTCL-8082-1200ML(7)
L1604581-06I	Amber 1000ml unpreserved	B	7	2.5	Y	Absent	NYTCL-8082-1200ML(7)
L1604581-06J	Amber 1000ml unpreserved	B	7	2.5	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1604581-06K	Amber 1000ml unpreserved	B	7	2.5	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1604581-06X	Plastic 120ml HNO3 preserved spl	B	<2	2.5	Y	Absent	CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1604581-07A	Vial HCl preserved	A	N/A	3.8	Y	Absent	NYTCL-8260(14)
L1604581-07B	Vial HCl preserved	A	N/A	3.8	Y	Absent	NYTCL-8260(14)
L1604581-07C	Vial HCl preserved	A	N/A	3.8	Y	Absent	NYTCL-8260(14)
L1604581-07D	Plastic 250ml HNO3 preserved	A	<2	3.8	Y	Absent	BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1604581-07E	Plastic 250ml unpreserved	A	7	3.8	Y	Absent	-
L1604581-07F	Amber 500ml unpreserved	A	7	3.8	Y	Absent	NYTCL-8081(7)
L1604581-07G	Amber 500ml unpreserved	A	7	3.8	Y	Absent	NYTCL-8081(7)

\*Values in parentheses indicate holding time in days



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1604581-07H	Amber 1000ml unpreserved	A	7	3.8	Y	Absent	NYTCL-8082-1200ML(7)
L1604581-07I	Amber 1000ml unpreserved	A	7	3.8	Y	Absent	NYTCL-8082-1200ML(7)
L1604581-07J	Amber 1000ml unpreserved	A	7	3.8	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1604581-07K	Amber 1000ml unpreserved	A	7	3.8	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1604581-07X	Plastic 120ml HNO3 preserved spl	A	<2	3.8	Y	Absent	CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1604581-08A	Vial HCl preserved	C	N/A	3.5	Y	Absent	NYTCL-8260(14)
L1604581-08B	Vial HCl preserved	C	N/A	3.5	Y	Absent	NYTCL-8260(14)

\*Values in parentheses indicate holding time in days



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

## GLOSSARY

### Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

### Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### Terms

**Total:** With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

**Report Format:** DU Report with 'J' Qualifiers





**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

#### Data Qualifiers

- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



**Project Name:** DUPONT ST.  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604581  
**Report Date:** 02/29/16

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



**Alpha Analytical, Inc.**

ID No.:17873

Facility: **Company-wide**

Revision 6

Department: **Quality Assurance**

Published Date: 2/3/2016 10:23:10 AM

Title: **Certificate/Approval Program Summary**


Page 1 of 1

**Certification Information****The following analytes are not included in our Primary NELAP Scope of Accreditation:****Westborough Facility****EPA 524.2:** 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene**EPA 624:** 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene**EPA 625:** Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.**EPA 1010A:** NPW: Ignitability**EPA 6010C:** NPW: Strontium; SCM: Strontium**EPA 8151A:** NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.**EPA 9010:** NPW: Amenable Cyanide Distillation, Total Cyanide Distillation**EPA 9038:** NPW: Sulfate**EPA 9050A:** NPW: Specific Conductance**EPA 9056:** NPW: Chloride, Nitrate, Sulfate**EPA 9065:** NPW: Phenols**EPA 9251:** NPW: Chloride**SM3500:** NPW: Ferrous Iron**SM4500:** NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.**SM5310C:** DW: Dissolved Organic Carbon**Mansfield Facility****EPA 8270D:** NPW: Biphenyl; SCM: Biphenyl, Caprolactam**EPA 8270D-SIM Isotope Dilution:** SCM: 1,4-Dioxane**SM 2540D:** TSS**SM2540G:** SCM: Percent Solids**EPA 1631E:** SCM: Mercury**EPA 7474:** SCM: Mercury**EPA 8081B:** NPW and SCM: Mirex, Hexachlorobenzene.**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA 8270-SIM:** NPW and SCM: Alkylated PAHs.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.

**Biological Tissue Matrix:** **8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:** Lead; **8270D:** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.**The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:****Drinking Water****EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Ti; **EPA 200.7:** Ba, Be, Ca, Cd, Cr, Cu, Na; **EPA 245.1:** Mercury;**EPA 300.0:** Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO<sub>3</sub>-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1,****SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B****EPA 332:** Perchlorate.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.****Non-Potable Water****EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, Ti, Zn;**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Ti, Tl, V, Zn;**EPA 245.1, SM4500H-B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH<sub>3</sub>-BH, EPA****350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO<sub>3</sub>-F,****EPA 353.2:** Nitrate-N, **SM4500NH<sub>3</sub>-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D,****EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.****EPA 624:** Volatile Halocarbons & Aromatics,**EPA 608:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 <b>NEW YORK CHAIN OF CUSTODY</b>		<b>Service Centers</b> Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page <u>2</u> of <u>2</u>		Date Rec'd in Lab <u>2-19-16</u>		ALPHA Job # <u>1604581</u>																																																																																																																										
		Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193		Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		<b>Project Information</b> Project Name: <u>DuPont St</u> Project Location: <u>Brooklyn, NY</u> Project # <u>2587.0001Y000</u> (Use Project name as Project #) <input type="checkbox"/>		<b>Deliverables</b> <input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other		<b>Billing Information</b> <input checked="" type="checkbox"/> Same as Client Info PO #																																																																																																																								
<b>Client Information</b> Client: <u>Roux Associates</u> Address: <u>202 Shafter St</u> <u>Islandia, NY 11749</u> Phone: <u>(631) 232-2600</u> Fax: <u>(631) 232-9898</u> Email: <u>rlombino@rouxinc.com</u>		Project Manager: <u>Ron Lombino</u> ALPHAQuote #:		<b>Regulatory Requirement</b> <input type="checkbox"/> NY TOGS <input checked="" type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		<b>Disposal Site Information</b> Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:																																																																																																																												
These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments:		<b>Turn-Around Time</b> Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		<b>ANALYSIS</b>		<b>Sample Filtration</b> <input type="checkbox"/> Done <input checked="" type="checkbox"/> Lab to do <b>Preservation</b> <input checked="" type="checkbox"/> Lab to do (Please Specify below)		Total Bottles																																																																																																																										
Please specify Metals or TAL.																																																																																																																																		
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">ALPHA Lab ID (Lab Use Only)</th> <th rowspan="2">Sample ID</th> <th colspan="2">Collection</th> <th rowspan="2">Sample Matrix</th> <th rowspan="2">Sampler's Initials</th> <th rowspan="2">VOC 8260</th> <th rowspan="2">SVOC 8270</th> <th rowspan="2">PEST TCL</th> <th rowspan="2">PCB TCL</th> <th rowspan="2">TAL METALS</th> <th rowspan="2">TAL METALS LAB PRESERVE AND FILTER</th> <th rowspan="2">Sample Specific Comments</th> </tr> <tr> <th>Date</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>04581-01</td> <td>MW-104</td> <td>2/18/16</td> <td>14:35</td> <td>GW</td> <td>VS</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>1</td> <td>1</td> <td></td> </tr> <tr> <td>02</td> <td>MW-103</td> <td>2/19/16</td> <td>08:30</td> <td>GW</td> <td>VS</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>03</td> <td>MW-101</td> <td></td> <td>09:10</td> <td>GW</td> <td>CS</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>04</td> <td>MW-105</td> <td></td> <td>12:30</td> <td>GW</td> <td>VS</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>05</td> <td>MW-102</td> <td></td> <td>12:55</td> <td>GW</td> <td>CS</td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> </tr> <tr> <td>06</td> <td>DUPO21916</td> <td></td> <td>11:00</td> <td>GW</td> <td>CS</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>07</td> <td>FB021916</td> <td></td> <td>13:00</td> <td>FB</td> <td>VS</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>08</td> <td>Trip Blank</td> <td></td> <td></td> <td>TB</td> <td></td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	VOC 8260	SVOC 8270	PEST TCL	PCB TCL	TAL METALS	TAL METALS LAB PRESERVE AND FILTER	Sample Specific Comments	Date	Time	04581-01	MW-104	2/18/16	14:35	GW	VS	3	2	2	2	1	1		02	MW-103	2/19/16	08:30	GW	VS								03	MW-101		09:10	GW	CS								04	MW-105		12:30	GW	VS								05	MW-102		12:55	GW	CS		X	X	X				06	DUPO21916		11:00	GW	CS								07	FB021916		13:00	FB	VS								08	Trip Blank			TB		1							Preservative Code: A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type: <u>V A A A P P</u> Preservative: <u>B A A A C A</u>		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)	
ALPHA Lab ID (Lab Use Only)	Sample ID			Collection											Sample Matrix	Sampler's Initials	VOC 8260	SVOC 8270	PEST TCL	PCB TCL	TAL METALS	TAL METALS LAB PRESERVE AND FILTER	Sample Specific Comments																																																																																																											
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05	MW-102		12:55	GW	CS		X	X	X																																																																																																																									
06	DUPO21916		11:00	GW	CS																																																																																																																													
07	FB021916		13:00	FB	VS																																																																																																																													
08	Trip Blank			TB		1																																																																																																																												
Form No: 01-25 HC (rev. 30-Sept-2013)		Relinquished By: <u>Crystal Stowell</u> <u>Tam Tabin</u>		Date/Time: <u>2-19-16 1345</u> <u>2-19-16 1820</u> <u>2-19-16 2315</u>		Received By: <u>Ken NAC</u> <u>Tam Tabin</u> <u>Graham Philley</u>		Date/Time: <u>2-19-16 1345</u> <u>2-19-16 1820</u> <u>2-19-16 2315</u>																																																																																																																										



## ANALYTICAL REPORT

Lab Number:	L1604654
Client:	Roux Associates, Inc. 209 Shafter Street Islandia, NY 11749-5074
ATTN:	Ronald Lombino
Phone:	(631) 630-2372
Project Name:	DUPONT, ST
Project Number:	2587.0001Y000
Report Date:	02/26/16

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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320 Forbes Boulevard, Mansfield, MA 02048-1806  
508-822-9300 (Fax) 508-822-3288 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1604654-01	SV-201	SOIL_VAPOR	BROOKLYN, NY	02/18/16 13:21	02/19/16
L1604654-02	SV-202	SOIL_VAPOR	BROOKLYN, NY	02/18/16 13:44	02/19/16
L1604654-03	SV-203	SOIL_VAPOR	BROOKLYN, NY	02/18/16 13:04	02/19/16
L1604654-04	SV-204	SOIL_VAPOR	BROOKLYN, NY	02/18/16 15:14	02/19/16
L1604654-05	SV-205	SOIL_VAPOR	BROOKLYN, NY	02/18/16 13:48	02/19/16
L1604654-06	SV-206	SOIL_VAPOR	BROOKLYN, NY	02/18/16 13:16	02/19/16
L1604654-07	SV-207	SOIL_VAPOR	BROOKLYN, NY	02/18/16 13:28	02/19/16
L1604654-08	IA-301	AIR	BROOKLYN, NY	02/18/16 13:23	02/19/16
L1604654-09	OA-302	AIR	BROOKLYN, NY	02/18/16 13:21	02/19/16
L1604654-10	OA-303	AIR	BROOKLYN, NY	02/18/16 13:46	02/19/16



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### Case Narrative

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

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

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

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

#### HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

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**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### Case Narrative (continued)

#### Volatile Organics in Air

Canisters were released from the laboratory on February 18, 2016. The canister certification results are provided as an addendum.

#### Sample Receipt

The sample designated SV-201 (L1604654-01) had a RPD for the pre- and post-flow controller calibration check (22% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 17.5 mL/minute; the final flow rate was 21.8 mL/minute. The final pressure recorded by the laboratory of the associated canister was -1.7 inches of mercury. No further action was required.

The sample designated SV-203 (L1604654-03) had a RPD for the pre- and post-flow controller calibration check (37% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 18.0 mL/minute; the final flow rate was 26.3mL/minute. The final pressure recorded by the laboratory of the associated canister was -1.0 inches of mercury. No further action was required.

The sample designated SV-206 (L1604654-06) had a RPD for the pre- and post-flow controller calibration check (27% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 17.7 mL/minute; the final flow rate was 23.2mL/minute. The final pressure recorded by the laboratory of the associated canister was 0.5 inches of mercury. No further action was required.

L1604654-06: Results for Acetone should be considered estimated due to co-elution with a non-target peak.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Elizabeth Porta

Title: Technical Director/Representative

Date: 02/26/16



**AIR**

**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-01  
 Client ID: SV-201  
 Sample Location: BROOKLYN, NY  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/25/16 20:12  
 Analyst: RY

Date Collected: 02/18/16 13:21  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.230	0.200	--	1.14	0.989	--		1
Chloromethane	0.289	0.200	--	0.597	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	6.44	1.00	--	15.3	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	0.809	0.500	--	2.45	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	1.66	0.200	--	5.17	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	0.944	0.500	--	2.78	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-01  
 Client ID: SV-201  
 Sample Location: BROOKLYN, NY

Date Collected: 02/18/16 13:21  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	3.10	0.200	--	15.1	0.977	--		1
Tetrahydrofuran	0.556	0.500	--	1.64	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	0.260	0.200	--	1.42	1.09	--		1
Benzene	0.264	0.200	--	0.843	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.247	0.200	--	0.850	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	0.256	0.200	--	1.05	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	0.522	0.500	--	2.14	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.820	0.200	--	3.09	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.202	0.200	--	0.877	0.869	--		1
p/m-Xylene	0.808	0.400	--	3.51	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-01  
 Client ID: SV-201  
 Sample Location: BROOKLYN, NY

Date Collected: 02/18/16 13:21  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.401	0.200	--	1.74	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	95		60-140



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-02  
 Client ID: SV-202  
 Sample Location: BROOKLYN, NY  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/25/16 21:16  
 Analyst: RY

Date Collected: 02/18/16 13:44  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	0.548	0.200	--	1.21	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	2.08	1.00	--	4.94	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	4.21	0.200	--	13.1	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	0.813	0.500	--	2.40	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-02  
 Client ID: SV-202  
 Sample Location: BROOKLYN, NY

Date Collected: 02/18/16 13:44  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	0.535	0.200	--	2.61	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	1.38	0.200	--	4.86	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.618	0.200	--	1.97	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	0.461	0.200	--	1.89	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	0.864	0.500	--	3.54	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.417	0.200	--	1.57	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.636	0.200	--	2.76	0.869	--		1
p/m-Xylene	2.04	0.400	--	8.86	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-02  
 Client ID: SV-202  
 Sample Location: BROOKLYN, NY

Date Collected: 02/18/16 13:44  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.938	0.200	--	4.07	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	0.483	0.200	--	2.90	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	93		60-140



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-03  
 Client ID: SV-203  
 Sample Location: BROOKLYN, NY  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/25/16 21:48  
 Analyst: RY

Date Collected: 02/18/16 13:04  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.315	0.200	--	1.56	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	2.44	1.00	--	5.80	2.38	--		1
Trichlorofluoromethane	0.220	0.200	--	1.24	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	0.256	0.200	--	0.797	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	0.619	0.500	--	1.83	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1





**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-03  
 Client ID: SV-203  
 Sample Location: BROOKLYN, NY

Date Collected: 02/18/16 13:04  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	2.21	0.200	--	10.8	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	0.446	0.400	--	1.94	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-03  
 Client ID: SV-203  
 Sample Location: BROOKLYN, NY

Date Collected: 02/18/16 13:04  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.223	0.200	--	0.969	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	0.423	0.200	--	2.54	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	92		60-140



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-04  
 Client ID: SV-204  
 Sample Location: BROOKLYN, NY  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/25/16 22:23  
 Analyst: RY

Date Collected: 02/18/16 15:14  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	0.202	0.200	--	0.417	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	10.8	5.00	--	20.3	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	10.0	1.00	--	23.8	2.38	--		1
Trichlorofluoromethane	0.220	0.200	--	1.24	1.12	--		1
Isopropanol	0.555	0.500	--	1.36	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	2.12	0.500	--	6.43	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	17.5	0.200	--	54.5	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	1.16	0.500	--	3.42	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	0.613	0.500	--	2.21	1.80	--		1



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-04  
 Client ID: SV-204  
 Sample Location: BROOKLYN, NY

Date Collected: 02/18/16 15:14  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.246	0.200	--	0.867	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	0.654	0.500	--	2.68	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.613	0.200	--	2.31	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.307	0.200	--	1.33	0.869	--		1
p/m-Xylene	1.45	0.400	--	6.30	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-04  
 Client ID: SV-204  
 Sample Location: BROOKLYN, NY

Date Collected: 02/18/16 15:14  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.569	0.200	--	2.47	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	0.263	0.200	--	1.29	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	88		60-140



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-05  
 Client ID: SV-205  
 Sample Location: BROOKLYN, NY  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/25/16 22:55  
 Analyst: RY

Date Collected: 02/18/16 13:48  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.270	0.200	--	1.34	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	9.60	5.00	--	18.1	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	10.4	1.00	--	24.7	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	1.24	0.500	--	3.76	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	1.03	0.200	--	3.21	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	0.701	0.500	--	2.07	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-05  
 Client ID: SV-205  
 Sample Location: BROOKLYN, NY

Date Collected: 02/18/16 13:48  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.271	0.200	--	0.955	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.837	0.200	--	2.67	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	1.07	0.200	--	4.03	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.447	0.200	--	1.94	0.869	--		1
p/m-Xylene	1.74	0.400	--	7.56	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-05  
 Client ID: SV-205  
 Sample Location: BROOKLYN, NY

Date Collected: 02/18/16 13:48  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.718	0.200	--	3.12	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	0.262	0.200	--	1.29	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	92		60-140





**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-06  
 Client ID: SV-206  
 Sample Location: BROOKLYN, NY  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/25/16 23:27  
 Analyst: RY

Date Collected: 02/18/16 13:16  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.235	0.200	--	1.16	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	5.85	1.00	--	13.9	2.38	--		1
Trichlorofluoromethane	0.223	0.200	--	1.25	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	1.03	0.500	--	3.58	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	2.35	0.200	--	7.32	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	0.927	0.500	--	2.73	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

**Lab ID:** L1604654-06  
**Client ID:** SV-206  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/18/16 13:16  
**Date Received:** 02/19/16  
**Field Prep:** Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	1.67	0.200	--	5.89	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.284	0.200	--	0.907	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	0.433	0.200	--	1.77	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.279	0.200	--	1.05	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.215	0.200	--	0.934	0.869	--		1
p/m-Xylene	0.651	0.400	--	2.83	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-06  
 Client ID: SV-206  
 Sample Location: BROOKLYN, NY

Date Collected: 02/18/16 13:16  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.359	0.200	--	1.56	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	0.476	0.200	--	2.86	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	93		60-140



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-07  
 Client ID: SV-207  
 Sample Location: BROOKLYN, NY  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/25/16 23:59  
 Analyst: RY

Date Collected: 02/18/16 13:28  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.230	0.200	--	1.14	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	3.37	1.00	--	8.01	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	3.11	0.200	--	9.68	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-07  
 Client ID: SV-207  
 Sample Location: BROOKLYN, NY

Date Collected: 02/18/16 13:28  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.682	0.200	--	2.40	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.245	0.200	--	0.783	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	0.237	0.200	--	0.971	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.336	0.200	--	1.27	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.314	0.200	--	1.36	0.869	--		1
p/m-Xylene	1.17	0.400	--	5.08	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-07  
 Client ID: SV-207  
 Sample Location: BROOKLYN, NY

Date Collected: 02/18/16 13:28  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.666	0.200	--	2.89	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	0.529	0.200	--	3.18	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	91		60-140



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-08  
 Client ID: IA-301  
 Sample Location: BROOKLYN, NY  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/26/16 00:21  
 Analyst: RY

Date Collected: 02/18/16 13:23  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.456	0.200	--	2.25	0.989	--		1
Chloromethane	0.495	0.200	--	1.02	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	1.81	1.00	--	4.30	2.38	--		1
Trichlorofluoromethane	0.221	0.200	--	1.24	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-08  
 Client ID: IA-301  
 Sample Location: BROOKLYN, NY

Date Collected: 02/18/16 13:23  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Benzene	ND	0.200	--	ND	0.639	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1





**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-08  
 Client ID: IA-301  
 Sample Location: BROOKLYN, NY

Date Collected: 02/18/16 13:23  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	91		60-140



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-08  
 Client ID: IA-301  
 Sample Location: BROOKLYN, NY  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 02/26/16 00:21  
 Analyst: RY

Date Collected: 02/18/16 13:23  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Ethyl Alcohol	ND	5.00	--	ND	9.42	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.060	0.020	--	0.377	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.029	0.020	--	0.197	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	92		60-140



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-09  
 Client ID: OA-302  
 Sample Location: BROOKLYN, NY  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/26/16 01:29  
 Analyst: RY

Date Collected: 02/18/16 13:21  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.501	0.200	--	2.48	0.989	--		1
Chloromethane	0.449	0.200	--	0.927	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	1.52	1.00	--	3.61	2.38	--		1
Trichlorofluoromethane	0.215	0.200	--	1.21	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-09  
 Client ID: OA-302  
 Sample Location: BROOKLYN, NY

Date Collected: 02/18/16 13:21  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Benzene	ND	0.200	--	ND	0.639	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-09  
 Client ID: OA-302  
 Sample Location: BROOKLYN, NY

Date Collected: 02/18/16 13:21  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	91		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	91		60-140



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-09  
 Client ID: OA-302  
 Sample Location: BROOKLYN, NY  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 02/26/16 01:29  
 Analyst: RY

Date Collected: 02/18/16 13:21  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Ethyl Alcohol	ND	5.00	--	ND	9.42	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.060	0.020	--	0.377	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.021	0.020	--	0.142	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	91		60-140



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-10  
 Client ID: OA-303  
 Sample Location: BROOKLYN, NY  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/26/16 02:03  
 Analyst: RY

Date Collected: 02/18/16 13:46  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.445	0.200	--	2.20	0.989	--		1
Chloromethane	0.467	0.200	--	0.964	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	1.33	1.00	--	3.16	2.38	--		1
Trichlorofluoromethane	0.220	0.200	--	1.24	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-10  
 Client ID: OA-303  
 Sample Location: BROOKLYN, NY

Date Collected: 02/18/16 13:46  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Benzene	ND	0.200	--	ND	0.639	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1





**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-10  
 Client ID: OA-303  
 Sample Location: BROOKLYN, NY

Date Collected: 02/18/16 13:46  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	90		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	90		60-140



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### SAMPLE RESULTS

Lab ID: L1604654-10  
 Client ID: OA-303  
 Sample Location: BROOKLYN, NY  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 02/26/16 02:03  
 Analyst: RY

Date Collected: 02/18/16 13:46  
 Date Received: 02/19/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Ethyl Alcohol	ND	5.00	--	ND	9.42	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.060	0.020	--	0.377	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.033	0.020	--	0.224	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	90		60-140



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### Method Blank Analysis Batch Quality Control

**Analytical Method:** 48,TO-15  
**Analytical Date:** 02/25/16 14:04

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-07 Batch: WG868383-4								
Propylene	ND	0.500	--	ND	0.861	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### Method Blank Analysis Batch Quality Control

**Analytical Method:** 48,TO-15  
**Analytical Date:** 02/25/16 14:04

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-07 Batch: WG868383-4								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### Method Blank Analysis Batch Quality Control

**Analytical Method:** 48,TO-15  
**Analytical Date:** 02/25/16 14:04

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-07 Batch: WG868383-4								
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### Method Blank Analysis Batch Quality Control

**Analytical Method:** 48,TO-15  
**Analytical Date:** 02/25/16 14:22

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 08-10 Batch: WG868392-4								
Propylene	ND	0.500	--	ND	0.861	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### Method Blank Analysis Batch Quality Control

**Analytical Method:** 48,TO-15  
**Analytical Date:** 02/25/16 14:22

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 08-10 Batch: WG868392-4								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### Method Blank Analysis Batch Quality Control

**Analytical Method:** 48,TO-15  
**Analytical Date:** 02/25/16 14:22

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 08-10 Batch: WG868392-4								
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1



**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### Method Blank Analysis Batch Quality Control

**Analytical Method:** 48,TO-15-SIM  
**Analytical Date:** 02/25/16 14:57

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 08-10 Batch: WG868393-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Ethyl Alcohol	ND	5.00	--	ND	9.42	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG868383-3								
Chlorodifluoromethane	86		-		70-130	-		
Propylene	100		-		70-130	-		
Propane	80		-		70-130	-		
Dichlorodifluoromethane	73		-		70-130	-		
Chloromethane	96		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	95		-		70-130	-		
Methanol	81		-		70-130	-		
Vinyl chloride	99		-		70-130	-		
1,3-Butadiene	104		-		70-130	-		
Butane	86		-		70-130	-		
Bromomethane	100		-		70-130	-		
Chloroethane	97		-		70-130	-		
Ethyl Alcohol	86		-		70-130	-		
Dichlorofluoromethane	90		-		70-130	-		
Vinyl bromide	99		-		70-130	-		
Acrolein	93		-		70-130	-		
Acetone	92		-		70-130	-		
Acetonitrile	89		-		70-130	-		
Trichlorofluoromethane	100		-		70-130	-		
iso-Propyl Alcohol	91		-		70-130	-		
Acrylonitrile	94		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG868383-3								
Pentane	90		-		70-130	-		
Ethyl ether	88		-		70-130	-		
1,1-Dichloroethene	99		-		70-130	-		
tert-Butyl Alcohol	89		-		70-130	-		
Methylene chloride	101		-		70-130	-		
3-Chloropropene	101		-		70-130	-		
Carbon disulfide	99		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	103		-		70-130	-		
trans-1,2-Dichloroethene	90		-		70-130	-		
1,1-Dichloroethane	99		-		70-130	-		
Methyl tert butyl ether	96		-		70-130	-		
Vinyl acetate	72		-		70-130	-		
2-Butanone	95		-		70-130	-		
cis-1,2-Dichloroethene	107		-		70-130	-		
Ethyl Acetate	98		-		70-130	-		
Chloroform	101		-		70-130	-		
Tetrahydrofuran	97		-		70-130	-		
2,2-Dichloropropane	90		-		70-130	-		
1,2-Dichloroethane	96		-		70-130	-		
n-Hexane	94		-		70-130	-		
Isopropyl Ether	88		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG868383-3								
Ethyl-Tert-Butyl-Ether	86		-		70-130	-		
1,1,1-Trichloroethane	97		-		70-130	-		
1,1-Dichloropropene	94		-		70-130	-		
Benzene	92		-		70-130	-		
Carbon tetrachloride	100		-		70-130	-		
Cyclohexane	94		-		70-130	-		
Tertiary-Amyl Methyl Ether	87		-		70-130	-		
Dibromomethane	88		-		70-130	-		
1,2-Dichloropropane	96		-		70-130	-		
Bromodichloromethane	96		-		70-130	-		
1,4-Dioxane	88		-		70-130	-		
Trichloroethene	106		-		70-130	-		
2,2,4-Trimethylpentane	97		-		70-130	-		
Methyl Methacrylate	86		-		70-130	-		
Heptane	93		-		70-130	-		
cis-1,3-Dichloropropene	102		-		70-130	-		
4-Methyl-2-pentanone	93		-		70-130	-		
trans-1,3-Dichloropropene	88		-		70-130	-		
1,1,2-Trichloroethane	98		-		70-130	-		
Toluene	93		-		70-130	-		
1,3-Dichloropropane	89		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG868383-3								
2-Hexanone	100		-		70-130	-		
Dibromochloromethane	104		-		70-130	-		
1,2-Dibromoethane	100		-		70-130	-		
Butyl Acetate	90		-		70-130	-		
Octane	89		-		70-130	-		
Tetrachloroethene	100		-		70-130	-		
1,1,1,2-Tetrachloroethane	96		-		70-130	-		
Chlorobenzene	100		-		70-130	-		
Ethylbenzene	100		-		70-130	-		
p/m-Xylene	102		-		70-130	-		
Bromoform	106		-		70-130	-		
Styrene	102		-		70-130	-		
1,1,2,2-Tetrachloroethane	98		-		70-130	-		
o-Xylene	106		-		70-130	-		
1,2,3-Trichloropropane	93		-		70-130	-		
Nonane (C9)	94		-		70-130	-		
Isopropylbenzene	98		-		70-130	-		
Bromobenzene	96		-		70-130	-		
o-Chlorotoluene	96		-		70-130	-		
n-Propylbenzene	97		-		70-130	-		
p-Chlorotoluene	95		-		70-130	-		

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG868383-3								
4-Ethyltoluene	98		-		70-130	-		
1,3,5-Trimethylbenzene	102		-		70-130	-		
tert-Butylbenzene	103		-		70-130	-		
1,2,4-Trimethylbenzene	112		-		70-130	-		
Decane (C10)	98		-		70-130	-		
Benzyl chloride	106		-		70-130	-		
1,3-Dichlorobenzene	106		-		70-130	-		
1,4-Dichlorobenzene	106		-		70-130	-		
sec-Butylbenzene	100		-		70-130	-		
p-Isopropyltoluene	95		-		70-130	-		
1,2-Dichlorobenzene	105		-		70-130	-		
n-Butylbenzene	102		-		70-130	-		
1,2-Dibromo-3-chloropropane	97		-		70-130	-		
Undecane	102		-		70-130	-		
Dodecane (C12)	110		-		70-130	-		
1,2,4-Trichlorobenzene	111		-		70-130	-		
Naphthalene	101		-		70-130	-		
1,2,3-Trichlorobenzene	100		-		70-130	-		
Hexachlorobutadiene	107		-		70-130	-		

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 08-10 Batch: WG868392-3								
Chlorodifluoromethane	79		-		70-130	-		
Propylene	86		-		70-130	-		
Propane	72		-		70-130	-		
Dichlorodifluoromethane	100		-		70-130	-		
Chloromethane	84		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	96		-		70-130	-		
Vinyl chloride	92		-		70-130	-		
1,3-Butadiene	91		-		70-130	-		
Butane	75		-		70-130	-		
Bromomethane	97		-		70-130	-		
Chloroethane	94		-		70-130	-		
Dichlorofluoromethane	82		-		70-130	-		
Vinyl bromide	100		-		70-130	-		
Acrolein	72		-		70-130	-		
Acetone	80		-		70-130	-		
Acetonitrile	70		-		70-130	-		
Trichlorofluoromethane	98		-		70-130	-		
iso-Propyl Alcohol	80		-		70-130	-		
Acrylonitrile	74		-		70-130	-		
Pentane	71		-		70-130	-		
1,1-Dichloroethene	92		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 08-10 Batch: WG868392-3								
tert-Butyl Alcohol	84		-		70-130	-		
Methylene chloride	92		-		70-130	-		
3-Chloropropene	91		-		70-130	-		
Carbon disulfide	96		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	102		-		70-130	-		
trans-1,2-Dichloroethene	87		-		70-130	-		
1,1-Dichloroethane	95		-		70-130	-		
Methyl tert butyl ether	94		-		70-130	-		
Vinyl acetate	100		-		70-130	-		
2-Butanone	89		-		70-130	-		
cis-1,2-Dichloroethene	102		-		70-130	-		
Ethyl Acetate	102		-		70-130	-		
Chloroform	99		-		70-130	-		
Tetrahydrofuran	78		-		70-130	-		
2,2-Dichloropropane	85		-		70-130	-		
1,2-Dichloroethane	93		-		70-130	-		
n-Hexane	80		-		70-130	-		
Isopropyl Ether	77		-		70-130	-		
Ethyl-Tert-Butyl-Ether	75		-		70-130	-		
1,1,1-Trichloroethane	83		-		70-130	-		
1,1-Dichloropropene	81		-		70-130	-		



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 08-10 Batch: WG868392-3								
Benzene	84		-		70-130	-		
Carbon tetrachloride	86		-		70-130	-		
Cyclohexane	80		-		70-130	-		
Tertiary-Amyl Methyl Ether	78		-		70-130	-		
Dibromomethane	84		-		70-130	-		
1,2-Dichloropropane	84		-		70-130	-		
Bromodichloromethane	89		-		70-130	-		
1,4-Dioxane	87		-		70-130	-		
Trichloroethene	96		-		70-130	-		
2,2,4-Trimethylpentane	82		-		70-130	-		
Methyl Methacrylate	71		-		70-130	-		
Heptane	78		-		70-130	-		
cis-1,3-Dichloropropene	91		-		70-130	-		
4-Methyl-2-pentanone	80		-		70-130	-		
trans-1,3-Dichloropropene	73		-		70-130	-		
1,1,2-Trichloroethane	90		-		70-130	-		
Toluene	99		-		70-130	-		
1,3-Dichloropropane	94		-		70-130	-		
2-Hexanone	98		-		70-130	-		
Dibromochloromethane	107		-		70-130	-		
1,2-Dibromoethane	104		-		70-130	-		

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 08-10 Batch: WG868392-3								
Butyl Acetate	90		-		70-130	-		
Octane	93		-		70-130	-		
Tetrachloroethene	112		-		70-130	-		
1,1,1,2-Tetrachloroethane	100		-		70-130	-		
Chlorobenzene	107		-		70-130	-		
Ethylbenzene	104		-		70-130	-		
p/m-Xylene	104		-		70-130	-		
Bromoform	111		-		70-130	-		
Styrene	108		-		70-130	-		
1,1,2,2-Tetrachloroethane	106		-		70-130	-		
o-Xylene	106		-		70-130	-		
1,2,3-Trichloropropane	93		-		70-130	-		
Nonane (C9)	86		-		70-130	-		
Isopropylbenzene	102		-		70-130	-		
Bromobenzene	94		-		70-130	-		
o-Chlorotoluene	104		-		70-130	-		
n-Propylbenzene	104		-		70-130	-		
p-Chlorotoluene	96		-		70-130	-		
4-Ethyltoluene	104		-		70-130	-		
1,3,5-Trimethylbenzene	104		-		70-130	-		
tert-Butylbenzene	102		-		70-130	-		

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 08-10 Batch: WG868392-3								
1,2,4-Trimethylbenzene	110		-		70-130	-		
Decane (C10)	92		-		70-130	-		
Benzyl chloride	103		-		70-130	-		
1,3-Dichlorobenzene	113		-		70-130	-		
1,4-Dichlorobenzene	111		-		70-130	-		
sec-Butylbenzene	102		-		70-130	-		
p-Isopropyltoluene	95		-		70-130	-		
1,2-Dichlorobenzene	111		-		70-130	-		
n-Butylbenzene	103		-		70-130	-		
1,2-Dibromo-3-chloropropane	93		-		70-130	-		
Undecane	96		-		70-130	-		
Dodecane (C12)	95		-		70-130	-		
1,2,4-Trichlorobenzene	117		-		70-130	-		
Naphthalene	106		-		70-130	-		
1,2,3-Trichlorobenzene	107		-		70-130	-		
Hexachlorobutadiene	111		-		70-130	-		

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 08-10 Batch: WG868393-3								
Vinyl chloride	89		-		70-130	-		25
Ethyl Alcohol	72		-		70-130	-		25
1,1-Dichloroethene	91		-		70-130	-		25
cis-1,2-Dichloroethene	102		-		70-130	-		25
1,1,1-Trichloroethane	86		-		70-130	-		25
Carbon tetrachloride	87		-		70-130	-		25
Trichloroethene	96		-		70-130	-		25
Tetrachloroethene	106		-		70-130	-		25

# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG868383-5 QC Sample: L1604654-01 Client ID: SV-201						
Dichlorodifluoromethane	0.230	ND	ppbV	NC		25
Chloromethane	0.289	0.292	ppbV	1		25
Freon-114	ND	ND	ppbV	NC		25
Vinyl chloride	ND	ND	ppbV	NC		25
1,3-Butadiene	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethanol	ND	ND	ppbV	NC		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	6.44	6.58	ppbV	2		25
Trichlorofluoromethane	ND	ND	ppbV	NC		25
Isopropanol	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
Tertiary butyl Alcohol	0.809	0.832	ppbV	3		25
Methylene chloride	ND	ND	ppbV	NC		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	1.66	1.69	ppbV	2		25
Freon-113	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25

# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG868383-5 QC Sample: L1604654-01 Client ID: SV-201					
1,1-Dichloroethane	ND	ND	ppbV	NC	25
Methyl tert butyl ether	ND	ND	ppbV	NC	25
2-Butanone	0.944	0.957	ppbV	1	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
Ethyl Acetate	ND	ND	ppbV	NC	25
Chloroform	3.10	3.24	ppbV	4	25
Tetrahydrofuran	0.556	0.576	ppbV	4	25
1,2-Dichloroethane	ND	ND	ppbV	NC	25
n-Hexane	ND	ND	ppbV	NC	25
1,1,1-Trichloroethane	0.260	0.250	ppbV	4	25
Benzene	0.264	0.266	ppbV	1	25
Carbon tetrachloride	ND	ND	ppbV	NC	25
Cyclohexane	0.247	0.241	ppbV	2	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
Bromodichloromethane	ND	ND	ppbV	NC	25
1,4-Dioxane	ND	ND	ppbV	NC	25
Trichloroethene	ND	ND	ppbV	NC	25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC	25
Heptane	0.256	0.222	ppbV	14	25

# Lab Duplicate Analysis

## Batch Quality Control

**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG868383-5 QC Sample: L1604654-01 Client ID: SV-201					
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	0.522	0.519	ppbV	1	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
Toluene	0.820	0.797	ppbV	3	25
2-Hexanone	ND	ND	ppbV	NC	25
Dibromochloromethane	ND	ND	ppbV	NC	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Tetrachloroethene	ND	ND	ppbV	NC	25
Chlorobenzene	ND	ND	ppbV	NC	25
Ethylbenzene	0.202	0.202	ppbV	0	25
p/m-Xylene	0.808	0.801	ppbV	1	25
Bromoform	ND	ND	ppbV	NC	25
Styrene	ND	ND	ppbV	NC	25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC	25
o-Xylene	0.401	0.405	ppbV	1	25
4-Ethyltoluene	ND	ND	ppbV	NC	25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC	25
1,2,4-Trimethylbenzene	ND	ND	ppbV	NC	25

# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG868383-5 QC Sample: L1604654-01 Client ID: SV-201					
Benzyl chloride	ND	ND	ppbV	NC	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC	25
Hexachlorobutadiene	ND	ND	ppbV	NC	25



# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 08-10 QC Batch ID: WG868392-5 QC Sample: L1604654-08 Client ID: IA-301					
Dichlorodifluoromethane	0.456	0.520	ppbV	13	25
Chloromethane	0.495	0.473	ppbV	5	25
Freon-114	ND	ND	ppbV	NC	25
1,3-Butadiene	ND	ND	ppbV	NC	25
Bromomethane	ND	ND	ppbV	NC	25
Chloroethane	ND	ND	ppbV	NC	25
Vinyl bromide	ND	ND	ppbV	NC	25
Acetone	1.81	1.75	ppbV	3	25
Trichlorofluoromethane	0.221	0.202	ppbV	9	25
Isopropanol	ND	ND	ppbV	NC	25
Tertiary butyl Alcohol	ND	ND	ppbV	NC	25
Methylene chloride	ND	ND	ppbV	NC	25
3-Chloropropene	ND	ND	ppbV	NC	25
Carbon disulfide	ND	ND	ppbV	NC	25
Freon-113	ND	ND	ppbV	NC	25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC	25
1,1-Dichloroethane	ND	ND	ppbV	NC	25
Methyl tert butyl ether	ND	ND	ppbV	NC	25
2-Butanone	ND	ND	ppbV	NC	25

# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 08-10 QC Batch ID: WG868392-5 QC Sample: L1604654-08 Client ID: IA-301					
Ethyl Acetate	ND	ND	ppbV	NC	25
Chloroform	ND	ND	ppbV	NC	25
Tetrahydrofuran	ND	ND	ppbV	NC	25
1,2-Dichloroethane	ND	ND	ppbV	NC	25
n-Hexane	ND	ND	ppbV	NC	25
Benzene	ND	ND	ppbV	NC	25
Cyclohexane	ND	ND	ppbV	NC	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
Bromodichloromethane	ND	ND	ppbV	NC	25
1,4-Dioxane	ND	ND	ppbV	NC	25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC	25
Heptane	ND	ND	ppbV	NC	25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
Toluene	ND	ND	ppbV	NC	25
2-Hexanone	ND	ND	ppbV	NC	25
Dibromochloromethane	ND	ND	ppbV	NC	25

# Lab Duplicate Analysis

## Batch Quality Control

**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 08-10 QC Batch ID: WG868392-5 QC Sample: L1604654-08 Client ID: IA-301					
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Chlorobenzene	ND	ND	ppbV	NC	25
Ethylbenzene	ND	ND	ppbV	NC	25
p/m-Xylene	ND	ND	ppbV	NC	25
Bromoform	ND	ND	ppbV	NC	25
Styrene	ND	ND	ppbV	NC	25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC	25
o-Xylene	ND	ND	ppbV	NC	25
4-Ethyltoluene	ND	ND	ppbV	NC	25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC	25
1,2,4-Trimethylbenzene	ND	ND	ppbV	NC	25
Benzyl chloride	ND	ND	ppbV	NC	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC	25
Hexachlorobutadiene	ND	ND	ppbV	NC	25

# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 08-10 QC Batch ID: WG868393-5 QC Sample: L1604654-08 Client ID: IA-301					
Vinyl chloride	ND	ND	ppbV	NC	25
Ethyl Alcohol	ND	ND	ppbV	NC	25
1,1-Dichloroethene	ND	ND	ppbV	NC	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
1,1,1-Trichloroethane	ND	ND	ppbV	NC	25
Carbon tetrachloride	0.060	0.063	ppbV	5	25
Trichloroethene	ND	ND	ppbV	NC	25
Tetrachloroethene	0.029	0.029	ppbV	0	25

**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1604654-01	SV-201	0648	#30 SV	02/18/16	216969		-	-	-	Pass	17.5	21.8	22
L1604654-01	SV-201	150B	2.7L Can	02/18/16	216969	L1604071-01	Pass	-29.6	-1.7	-	-	-	-
L1604654-02	SV-202	0166	#30 SV	02/18/16	216969		-	-	-	Pass	18.0	18.1	1
L1604654-02	SV-202	541	2.7L Can	02/18/16	216969	L1604071-01	Pass	-29.0	-1.4	-	-	-	-
L1604654-03	SV-203	0720	#30 SV	02/18/16	216969		-	-	-	Pass	18.0	26.3	37
L1604654-03	SV-203	2177	2.7L Can	02/18/16	216969	L1604071-01	Pass	-28.9	-1.0	-	-	-	-
L1604654-04	SV-204	0035	#16 AMB	02/18/16	216969		-	-	-	Pass	17.5	16.7	5
L1604654-04	SV-204	132	2.7L Can	02/18/16	216969	L1604071-01	Pass	-29.0	-17.3	-	-	-	-
L1604654-05	SV-205	0288	#30 SV	02/18/16	216969		-	-	-	Pass	18.0	18.9	5
L1604654-05	SV-205	2202	2.7L Can	02/18/16	216969	L1604071-01	Pass	-28.8	-0.8	-	-	-	-
L1604654-06	SV-206	0290	#16 AMB	02/18/16	216969		-	-	-	Pass	17.7	23.2	27
L1604654-06	SV-206	424	2.7L Can	02/18/16	216969	L1604071-01	Pass	-28.5	0.5	-	-	-	-
L1604654-07	SV-207	0067	#20 SV	02/18/16	216969		-	-	-	Pass	17.7	19.3	9
L1604654-07	SV-207	456	2.7L Can	02/18/16	216969	L1604071-01	Pass	-29.1	-1.2	-	-	-	-
L1604654-08	IA-301	0931	#2 SV	02/18/16	216969		-	-	-	Pass	17.5	17.6	1

**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

Serial\_No:02261614:35  
**Lab Number:** L1604654  
**Report Date:** 02/26/16

### Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1604654-08	IA-301	2210	2.7L Can	02/18/16	216969	L1604071-01	Pass	-28.8	-1.2	-	-	-	-
L1604654-09	OA-302	0003	#16 AMB	02/18/16	216969		-	-	-	Pass	18.0	19.4	7
L1604654-09	OA-302	216	2.7L Can	02/18/16	216969	L1604071-01	Pass	-29.1	-0.2	-	-	-	-
L1604654-10	OA-303	0637	#20 AMB	02/18/16	216969		-	-	-	Pass	17.6	17.7	1
L1604654-10	OA-303	322	2.7L Can	02/18/16	216969	L1604071-01	Pass	-29.1	-1.6	-	-	-	-

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1604071**Project Number:** CANISTER QC BAT**Report Date:** 02/26/16**Air Canister Certification Results**

Lab ID: L1604071-01  
 Client ID: CAN 327 SHELF 1  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/16/16 23:01  
 Analyst: RY

Date Collected: 02/15/16 16:00  
 Date Received: 02/16/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1604071  
**Report Date:** 02/26/16

### Air Canister Certification Results

**Lab ID:** L1604071-01  
**Client ID:** CAN 327 SHELF 1  
**Sample Location:**

**Date Collected:** 02/15/16 16:00  
**Date Received:** 02/16/16  
**Field Prep:** Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1





**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1604071**Project Number:** CANISTER QC BAT**Report Date:** 02/26/16**Air Canister Certification Results**

Lab ID: L1604071-01

Date Collected: 02/15/16 16:00

Client ID: CAN 327 SHELF 1

Date Received: 02/16/16

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1604071**Project Number:** CANISTER QC BAT**Report Date:** 02/26/16**Air Canister Certification Results**

Lab ID: L1604071-01

Date Collected: 02/15/16 16:00

Client ID: CAN 327 SHELF 1

Date Received: 02/16/16

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1604071**Project Number:** CANISTER QC BAT**Report Date:** 02/26/16**Air Canister Certification Results**

Lab ID: L1604071-01

Date Collected: 02/15/16 16:00

Client ID: CAN 327 SHELF 1

Date Received: 02/16/16

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	96		60-140

**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1604071  
**Report Date:** 02/26/16

### Air Canister Certification Results

**Lab ID:** L1604071-01  
**Client ID:** CAN 327 SHELF 1  
**Sample Location:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15-SIM  
**Analytical Date:** 02/16/16 23:01  
**Analyst:** RY

**Date Collected:** 02/15/16 16:00  
**Date Received:** 02/16/16  
**Field Prep:** Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1604071  
**Report Date:** 02/26/16

### Air Canister Certification Results

**Lab ID:** L1604071-01  
**Client ID:** CAN 327 SHELF 1  
**Sample Location:**

**Date Collected:** 02/15/16 16:00  
**Date Received:** 02/16/16  
**Field Prep:** Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1604071**Project Number:** CANISTER QC BAT**Report Date:** 02/26/16**Air Canister Certification Results**

Lab ID: L1604071-01

Date Collected: 02/15/16 16:00

Client ID: CAN 327 SHELF 1

Date Received: 02/16/16

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	98		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	99		60-140

**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

### Sample Receipt and Container Information

Were project specific reporting limits specified? YES

#### Cooler Information Custody Seal

**Cooler**

N/A Absent

#### Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1604654-01A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)
L1604654-02A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)
L1604654-03A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)
L1604654-04A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)
L1604654-05A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)
L1604654-06A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)
L1604654-07A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)
L1604654-08A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30),TO15-SIM(30)
L1604654-09A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30),TO15-SIM(30)
L1604654-10A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30),TO15-SIM(30)

\*Values in parentheses indicate holding time in days

**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

## GLOSSARY

### Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

### Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### Terms

**Total:** With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

**Report Format:** Data Usability Report





**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

**Data Qualifiers**

- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

**Project Name:** DUPONT, ST  
**Project Number:** 2587.0001Y000

**Lab Number:** L1604654  
**Report Date:** 02/26/16

## REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



**Alpha Analytical, Inc.**

ID No.:17873

Facility: **Company-wide**

Revision 6

Department: **Quality Assurance**

Published Date: 2/3/2016 10:23:10 AM

Title: **Certificate/Approval Program Summary**

Page 1 of 1

**Certification Information****The following analytes are not included in our Primary NELAP Scope of Accreditation:****Westborough Facility****EPA 524.2:** 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene**EPA 624:** 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene**EPA 625:** Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.**EPA 1010A:** NPW: Ignitability**EPA 6010C:** NPW: Strontium; SCM: Strontium**EPA 8151A:** NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.**EPA 9010:** NPW: Amenable Cyanide Distillation, Total Cyanide Distillation**EPA 9038:** NPW: Sulfate**EPA 9050A:** NPW: Specific Conductance**EPA 9056:** NPW: Chloride, Nitrate, Sulfate**EPA 9065:** NPW: Phenols**EPA 9251:** NPW: Chloride**SM3500:** NPW: Ferrous Iron**SM4500:** NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.**SM5310C:** DW: Dissolved Organic Carbon**Mansfield Facility****EPA 8270D:** NPW: Biphenyl; SCM: Biphenyl, Caprolactam**EPA 8270D-SIM Isotope Dilution:** SCM: 1,4-Dioxane**SM 2540D:** TSS**SM2540G:** SCM: Percent Solids**EPA 1631E:** SCM: Mercury**EPA 7474:** SCM: Mercury**EPA 8081B:** NPW and SCM: Mirex, Hexachlorobenzene.**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA 8270-SIM:** NPW and SCM: Alkylated PAHs.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.

**Biological Tissue Matrix:** **8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:** Lead; **8270D:** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.**The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:****Drinking Water****EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Ti; **EPA 200.7:** Ba, Be, Ca, Cd, Cr, Cu, Na; **EPA 245.1:** Mercury;**EPA 300.0:** Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO<sub>3</sub>-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1,****SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B****EPA 332:** Perchlorate.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.****Non-Potable Water****EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, Ti, Zn;**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Ti, Tl, V, Zn;**EPA 245.1, SM4500H-B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH<sub>3</sub>-BH, EPA****350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO<sub>3</sub>-F,****EPA 353.2:** Nitrate-N, **SM4500NH<sub>3</sub>-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D,****EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.****EPA 624:** Volatile Halocarbons & Aromatics,**EPA 608:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

## AIR ANALYSIS

PAGE 1 OF 2

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048  
TEL: 508-822-9300 FAX: 508-822-3288

## Client Information

Client: Roux AssociatesAddress: 209 Shafter StIslandia, NY 11749Phone: (631) 232-2600Fax: (631) 232-9898Email: rlombino@rouxinc.com☐ These samples have been previously analyzed by Alpha

## Project Information

Project Name: DuPont StProject Location: Brooklyn, NYProject #: 2587.0001Y000Project Manager: Ron Lombino

ALPHA Quote #:

## Turn-Around Time

☒ Standard☐ RUSH (only confirmed if pre-approved!)

Date Due:

Time:

Date Rec'd in Lab: 2/20/16

## Report Information - Data Deliverables

☐ FAX☐ ADEx

Criteria Checker:

(Default based on Regulatory Criteria Indicated)

Other Formats:

☒ EMAIL (standard pdf report)☐ Additional Deliverables:

Report to: (if different than Project Manager)

ALPHA Job #: L1604654

## Billing Information

☒ Same as Client info PO #:

## Regulatory Requirements/Report Limits

State/Fed Program Res / Comm

## ANALYSIS

## All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION						Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15 S	APH S	Fixed C	Sulfides			Sample Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vacuum	Final Vacuum														
04654.01	SV-201	2/18/16	11:32	13:21	-30.34	-3.91	SV	CS	2.7L	150B	0648	1								
02	SV-202		11:34	13:44	-30.13	-3.64	SV	CS		541	0166	1								
03	SV-203		11:34	13:04	-30.94	-3.50	SV	CS		2177	0720	1								
04	SV-204		12:39	15:14	-29.83	-18.36	SV	CS		132	0035	1								* HIGH FINAL VAC
05	SV-205		11:42	13:48	-29.85	-3.05	SV	CS		2202	0288	1								
06	SV-206		11:35	13:16	-28.38	-2.04	SV	CS		424	0290	1								
07	SV-207		11:36	13:28	-30.16	-3.69	SV	CS		456	0067	1								
08	IA-301		11:35	13:33	-30.66	-3.68	AA	CS		2210	0931	1								
09	OA-302		11:28	13:21	-30.94	-2.83	AA	CS		216	0003	1								
10	OA-303		11:20	13:46	-30.53	-4.01	AA	CS		322	0637	1								

## \*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)

SV = Soil Vapor/Landfill Gas/SVE

Other = Please Specify

Container Type

CS

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:

Crystal Stowell

Date/Time

2/19/16 1345

Received By:

Al Williams

Date/Time:

2-19-16 1345Al Williams2-20-16 4:15Ron Lombino2/20/16 07:15

## Appendix F Redevelopment Plan

## DRAWING LIST

DEVELOPER

**DUPONT STREET  
DEVELOPMENTS LLC**

86-26 QUEENS BLVD.  
ELMHURST, NY 11373  
T. 718 639 8088  
experta8@gmail.com

---

ARCHITECT

Wen-Hau HSU R.A.  
EM Architectural  
Design PLLC  
Elmhurst, NY 11373  
T. 718-639-8088

STR. ENGINEER

Robert Lin  
A&T Engineering P.C.  
164-09 Northern Blvd. 2FL  
Flushing, NY 11358  
T. 917-577-0025















MEP. ENGINEER

Forrest Zhou  
CNY Engineering P.C.  
291 Broadway #704  
New York, 10007  
212-603-7784

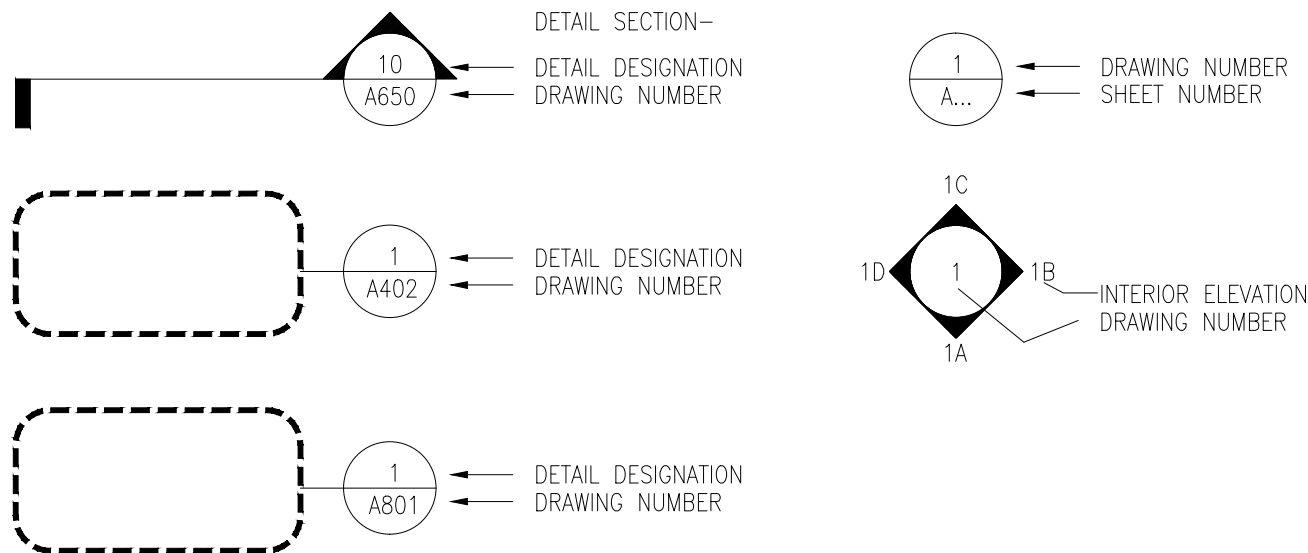
## ABBREVIATIONS

## SYMBOLS

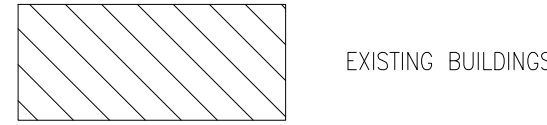
SB	SPLASH BLOCK
SCHED	SCHEDULE
SCR	SCREEN
SECT	SECTION
SEL	SELECT
SEP	SEPARATION
S.F.P.	SPRAY FIREPROOFING
SH, SHWR	SHOWER
SH, MTL	SHEET METAL
SHT	SHEET
SIM	SIMILAR
SL	SLAB
SOG	SLAB ON GRADE
SPEC	SPECIFICATION
SPKR	SPRINKLER
S/S	STAINLESS STEEL
ST, STL	STEEL
STD	STANDARD
STOR	STORAGE
STR, STRUCT'L	STRUCTURAL
SYM	SYMMETRICAL
TEL	TELEPHONE
TEMP	TEMPERATURE / TEMPERARY
THK	THICK
THR	THRESHOLD
THR	TOP OF
TOIL	TOILET
TOM	TOP OF MASONRY
TOP, TO PARAPET	TOP OF PARAPET
TOS	TOP OF STEEL
T.O.SL.	TOP OF SLAB
T.O.ST.	TOP OF STEEL
TOW	TOP OF WALL
TV	TELEVISION
TYP	TYPICAL
UNEXC	UNEXCAVATED
UNFIN	UNFINISHED
UNPD	UNPAINTED
UNL	UNLESS OTHERWISE NOTED
UTIL	UTILITY
V.B.	VAPOR BARRIER
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VIF	VERIFY IN FIELD
W	WIDTH
W(s)	WOMEN'(s)
W/	WITH
WC	WATER CLOSET
WD	WOOD
WIN, WIND	WINDOW
WD	WHERE OCCURS
WP	WORKING
WS	WEATHERSTRIPPING
WT, WGT	WEIGHT

	STEEL ( large scale )
	ALUMINUM ( large scale )
	TERRAZZO
	CERAMIC or QUARRY TILE
	FINISH WOOD
	BLOCKING or ROUGH WOOD
	PLYWOOD ( small scale )
	PLYWOOD ( large scale )
	BATT INSULATION
	INSULATION
	RIGID INSULATION
	INSULATION
	ACOUSTICAL TILE
	CARPET and PAD

## LARGE SCALE PLAN OR ELEVATION DETAIL-



## PLAN SYMBOLS



## MILLWORK SYMBOLS

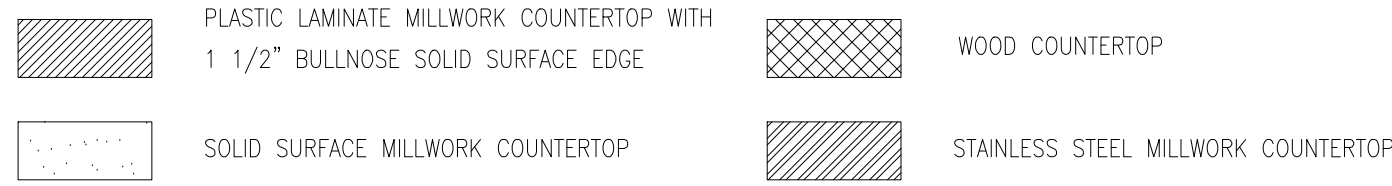


Diagram illustrating the format for Section Designation and Building Elevation Drawing Number:

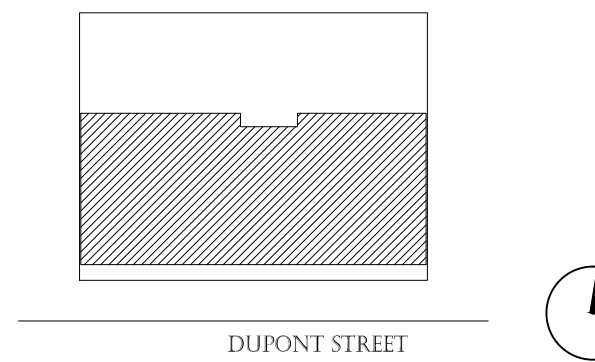
**Section Designation:** 10 (Section Designation), A650 (Drawing Number)

**Building Elevation Drawing Number:** 10 (Building Elevation Drawing Number), A500 (Drawing Number)

			SEAL
1	10/01/15	UPDATED SET	
NO.	DATE	REVISION	

**NEW YORK CITY DOB NOTE**

THIS PLAN IS APPROVED ONLY FOR WORK INDICATED ON THE APPLICATION SPECIFICATION SHEET. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON, OR TO BE CONSIDERED AS EITHER BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.



PROJECT TITLE:

93 DUPONT ST.  
REDEVELOPMENT  
PROJECT

93 DUPONT STREET  
BROOKLYN, NY 11222

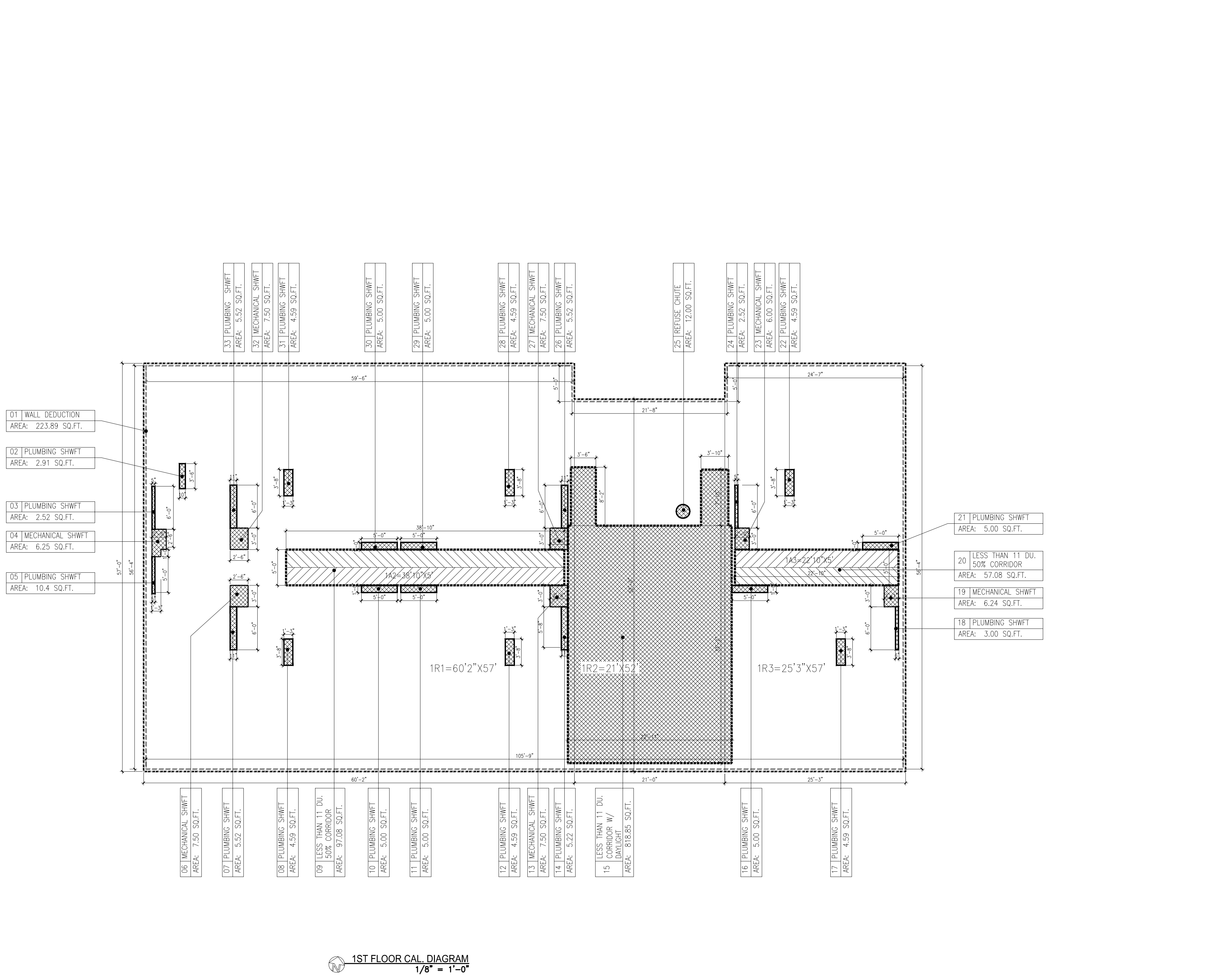
PROJECT NO.: 2015-00

DRAWING TITLE:

# COVER SHEET DRAWING LIST ABBREV. & LEGEND

A-000.00

SCALE: NTS                      DRAWN BY: JC  
DATE: 8/3/2015



1ST FLOOR GROSS AREA (SQ.FT)		
TABLE	CALCULATION	TOTAL AREA (SQ.FT.)
1R1	60'2"X5'7"	3,429.69
1R2	21'X5'2"	1,092.00
1R3	25'3"X5'7"	1,439.25
TOTAL:		5,960.94

1ST FLOOR AREA DEDUCTION (SQ.FT)		
NUMBER	CALCULATION	TOTAL AREA(SQ.FT.)
1	8"X(56'4"+105'9"+56'4"+24'7"+5'+21'8"+5'+59'6")	223.89
2	10"X3'6"	2.91
3	5"X6'	2.52
4	2'X2'6"+1'X1'3"	6.25
5	5'X5"	2.94
6	2'6"X3'	7.50
7	11"x6'	5.52
8	3'8"x1'3"	4.59
9	(38'10"x5')x50%	97.08
10	5'x1'	5.00
11	5'x1'	5.00
12	1'3"x3'8"	4.59
13	3'x2'6"	7.50
14	5'8"x11"	5.22
15	22'11"x33'2"+3'6"x8'2"+3'10"x7'10"	818.85
16	5'x1'	5.00
17	3'8"x1'3"	4.59
18	6"x6'	3.00
19	3'x2'1"	6.24
20	(5'x22'10")x50%	57.08
21	1'x5'	5.00
22	1'3"x3'8"	4.59
23	3'x2'	6.00
24	5'x6'	2.52
25	φ24"	12.00
26	11"x6'	5.52
27	3'x2'6"	7.50
28	1'3"x3'8"	4.59
29	1'x5'	5.00
30	1'x5'	5.00
31	1'3"x3'8"	4.59
32	2'6"X3'	7.50
33	11"x6'	5.52
TOTAL		1,350.60

DEVELOPER  
**DUPONT STREET  
DEVELOPMENTS LLC**

86-26 QUEENS BLVD.  
ELMHURST, NY 11373  
T. 718 639 8088  
experta8@gmail.com

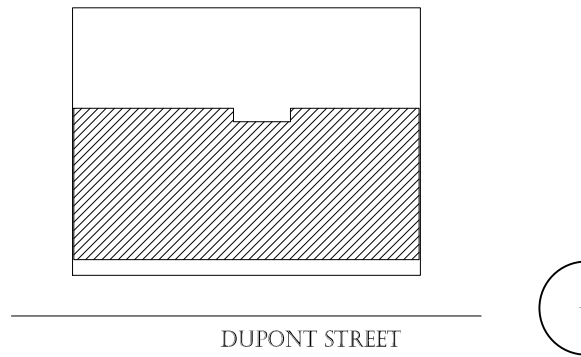
ARCHITECT  
Wen-Hau HSU R.A.  
EM Architectural  
Design PLLC  
Elmhurst, NY 11373  
T. 718-639-8088  
STR. ENGINEER  
Robert Lin  
A&T Engineering P.C.  
164-09 Northern Blvd. 2FL  
Flushing, NY 11358  
T. 917-577-0025  
MEP. ENGINEER  
Forrest Zhou  
CNY Engineering P.C.  
291 Broadway #704  
New York, 10007  
212-603-7784

SEAL

1	10/01/15	UPDATED SET
NO.	DATE	REVISION

NEW YORK CITY DOB NOTE

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PROJECT TITLE:  
**93 DUPONT ST.  
REDEVELOPMENT  
PROJECT**

93 DUPONT STREET  
BROOKLYN, NY 11222

PROJECT NO.: 2015-00

DRAWING TITLE:  
**DEDUCTIONS  
1ST FLOOR CAL.  
DIAGRAM**

**Z-002.00**

SCALE: 1/8"=1'-0" DRAWN BY: JC  
DATE: 11/10/2015



GENERAL NOTES:

1. THE CONTRACTOR SHALL INSPECT THE SITE AND THE BUILDING PRIOR TO THE SUBMISSION OF HIS/HER PROPOSAL TO FAMILIARIZE HIMSELF/HERSELF WITH THE WORK.
2. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.
3. THE CONTRACTOR SHALL SECURE ALL APPLICABLE PERMITS, ALL REQUIRED SPECIAL INSPECTIONS BY REGISTERED ARCHITECTS OR PROFESSIONAL ENGINEERS, CERTIFICATE OF OCCUPANCY AND ALL NECESSARY APPROVALS FROM THE BUILDING INSPECTORS AND ANY OTHER APPLICABLE AGENCIES. CONTRACTOR SHALL PAY FOR ALL REQUIRED TESTS AND PERMIT FEES. COPIES OF ALL PERMITS MUST BE PRESENTED TO THE BUILDING OFFICE PRIOR TO THE START OF THE APPLICABLE WORK. ALL INSPECTIONS, AFFIDAVITS, SIGN-OFFS AND SO FORTH MUST BE COMPLETED FOR THE ISSUANCE OF A CERTIFICATE OF TEMPORARY OCCUPANCY. COPIES OF THESE DOCUMENTS MUST BE PRESENTED TO THE BUILDING OFFICE. THE SPACE CANNOT BE OCCUPIED UNTIL A TEMPORARY CERTIFICATE OF OCCUPANCY HAS BEEN ISSUED AND A COPY IS PRESENTED TO THE BUILDING OFFICE.
4. THE CONTRACTOR SHALL SUPPLY AND INSTALL ALL WORK UNLESS OTHERWISE NOTED.
5. THE WORK SHALL COMPLY WITH THE APPLICABLE EDITION OF ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF NEW YORK CITY AND ALL OTHER AUTHORITIES HAVING JURISDICTION OVER THE WORK.
6. ALL MATERIALS, SUPPLIES AND EQUIPMENT SHALL BE USED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFE MAINTENANCE OF THE BUILDING AND ITS FACILITIES.
8. ALL MATERIALS, ASSEMBLES, FORMS AND METHODS OF CONSTRUCTION AND SERVICE EQUIPMENT SHALL MEET THE FOLLOWING REQUIREMENTS: (A.) IT SHALL HAVE BEEN ACCEPTABLE PRIOR TO THE EFFECTIVE DATE OF THE CODE BY THE BOARD, OR (B.) SHALL HAVE BEEN ACCEPTED FOR USE UNDER THE PRESCRIBED CODE TEST METHODS BY THE COMMISSIONER, OR (C.) APPROVED BY THE BOARD OF STANDARDS AND APPEALS.
9. DRAWINGS ARE NOT TO BE SCALED. USE DIMENSIONS ONLY. EACH CONTRACTOR WILL BE HELD RESPONSIBLE FOR HIS WORK AND DISCREPANCIES IN THE PLANS OR DETAILS SHALL BE CALLED TO THE OWNER'S OR ARCHITECT'S ATTENTION. ALL DIMENSIONS SHALL BE VERIFIED BEFORE STARTING WORK BY THE RESPECTIVE CONTRACTORS.
10. FOR ANY DISCREPANCIES BETWEEN THIS SET OF DRAWINGS AND THE SPECIFICATIONS, THE CONTRACTOR SHALL ALWAYS BID AT A HIGHER COSTS IN TERMS OF MATERIALS AND/OR METHODS OF INSTALLATION.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF UP TO ONE YEAR, EITHER FROM THE DATE OF FINAL PAYMENT OR FROM THE OWNER'S MOVE-IN DATE, WHICHEVER IS LATER. OR UNLESS NOTED OTHERWISE.
12. CONTRACTOR SHALL MAINTAIN PROPER INSURANCE COVERAGE FOR LIABILITIES AND BODILY INJURIES PER EACH OCCURRENCE THROUGHOUT THE ENTIRE CONSTRUCTION PERIOD. THE INSURANCE POLICY SHALL ALSO LIST THE OWNER AND THE ARCHITECT AS ADDITIONAL INSURED.
13. CONTRACTOR SHALL INCLUDE ALL NECESSARY FEDERAL, STATE, LOCAL AND OTHER APPLICABLE TAXES IN PROPOSAL.
14. CONTRACTOR SHALL PROVIDE ALL NECESSARY SURVEYS TO SECURE ISSUANCE OF INDIVIDUAL CERTIFICATE OF OCCUPANCY FOR EACH LOT.

MEANS OF EGRESS:

1. ALL EXITS SHALL BE KEPT READILY ACCESSIBLE AND UNOBSTRUCTED AT ALL TIMES.
2. STAIRS SHALL HAVE HANDRAILS ON EACH SIDE (EXCEPT STAIRS LESS THAN 44" IN WIDTH) HAVING FINGER CLEARANCE OF 1-1/2", PROJECTING NOT MORE THAN 3 1/2" INTO THE REQUIRED STAIR WIDTH. THE HEIGHT OF THE HANDRAIL SHALL BE BETWEEN 30" AND 34", ABOVE THE TREAD NOSING OR AS NOTED. HANDRAILS SHALL BE RETURNED TO WALLS AND POSTS AT THEIR TERMINATION. HANDRAILS SHALL BE DESIGNED TO RESIST A SIMULTANEOUS APPLICATION OF A LATERAL FORCE OF 40 P.L.F. AND A VERTICAL LOAD OF 50 O.L.F. AS PER SEC. C27-375(f)(4). TREADS AND LANDINGS SHALL BE BUILT OF, OR SURFACED WITH, NON-SKID MATERIAL.
3. ILLUMINATION OF AT LEAST 2 FOOT CANDLES MEASURED AT THE FLOOR LEVEL SHALL BE MAINTAINED CONTINUOUSLY, DURING OCCUPANCY, IN EXITS AND THEIR ACCESS FACILITIES AS PER C27-381(g).
4. EXIT LIGHTING SHALL BE ON CIRCUITS THAT ARE SEPARATE FROM ANY OTHER CIRCUITS, TAKEN OFF AHEAD OF THE MAIN SWITCH AS PER SEC. C27-384.
5. LOCATION OF EVERY EXIT ON EVERY FLOOR SHALL BE CLEARLY INDICATED BY EXIT SIGNS PLACED, IF REQUIRED, AT AN ANGLE WITH THE EXIT OPENING. INSTALL DIRECTIONAL SIGNS TO SERVE AS GUIDES FROM ALL PORTIONS OF THE CORRIDOR, OR FLOOR. SIGNS SHALL BE ON SEPARATE CIRCUITS, TAKEN OFF AHEAD OF THE MAIN SWITCH AS PER SEC. C27-383.
6. EXITS SIGNS SHALL BE INTERNALLY LIGHTED HAVING AN INITIAL BRIGHTNESS OF THE LETTERS OF AT LEAST 25 FOOT LAMBERTS. LETTERS SHALL BE RED, THE BACKGROUND SHALL BE WHITE. LETTERS SHALL BE BLOCK LETTERING, AT LEAST 6" HIGH, WITH 9/16" STROKES AS PER SEC. C27-385.

BUILDING DEPARTMENT SET NOTES:

1. ALL DRAWINGS AND SPECIFICATIONS SHOWN ARE SCHEMATICS. CONTRACTOR SHALL FURNISH ALL NECESSARY MATERIALS AND LABOR TO EXECUTE ALL IMPLICIT AND EXPLICIT WORK AS INTENDED IN THE SCHEMATIC DOCUMENTS.
2. IT IS THE CONTRACTOR'S RESPONSIBILITIES TO DISCUSS THE FOLLOWING ITEMS LISTED BELOW WITH THE OWNER PRIOR TO CONTRACT. HOWEVER, THE ITEMS SHALL NOT LIMITED TO THE FOLLOWINGS: A. METHODS OF CONSTRUCTION. B. CONSTRUCTION DETAILS. C. ALL ENCLOSED AND EXPOSED MATERIALS AND FINISHES.
3. ALL WORK SHALL BE EXECUTED ACCORDING TO ALL APPLICABLE GOVERNMENTAL REGULATIONS AND BUILDING INDUSTRY STANDARDS.
4. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ALL ASPECTS OF CONSTRUCTION WITH SUBCONTRACTORS AND TO COMPLETE ALL WORKS AS PER THE INTENT OF THIS SCHEMATIC DRAWINGS.

MULTIPLE DWELLING LAW NOTES:

1. ALL APARTMENT ENTRANCE DOOR TO BE MINIMUM 3'-0" x 7'-0" APPROVED FIRE PROOF, SELF CLOSING DOOR ASSEMBLY, MINIMUM 1 HOUR FIRE TEST.
2. ALL FIRE PROOF SOLID CORE DOORS TO BE MINIMUM OF 1 HOUR UNLESS OTHERWISE NOTED.
3. ALL PARTITIONS BETWEEN APARTMENTS SHALL BE FIRE STOPPED AS PER SECTION 24, M.D.L.
4. SOUND PROOFING BETWEEN APARTMENT SHALL COMPLY WITH SECTION 84 OF M.D.L.
5. PUBLIC HALL PARTITIONS SHALL BE FIRE STOPPED AS PER SECTION 152 AND 234 OF M.D.L.
6. GAS RANGES SHALL BE MEA-APPROVED AND/OR BSA-APPROVED AS PER SECTION 33 OF M.D.L.
7. MAINTAIN MINIMUM 2'-0" CLEARANCES ABOVE GAS RANGES.
8. ALL BATHROOMS SHALL HAVE CERAMIC TILE FLOOR AND MINIMUM 6" CERAMIC TILE SANITARY TYPE COVE BASE AT PERIMETER OF FLOOR AND "WR" GYPSUM BOARD FINISH ON WALLS (BSA NO. 486-395M), AS PER SECTION 76 OF M.D.L.
9. ALL BATHROOM WINDOWS TO HAVE TRANSLUCENT GLASS.
10. PREMISES SHALL COMPLY WITH SECTION 64 M.D.L., LIGHTING, GAS METERS AND APPLIANCES.
11. HOUSE NUMBERS SHALL BE PROPERLY DISPLAYED AS PER SECTION 886 OF THE NEW YORK CITY CHAPTER.
12. PROVIDE GOVERNMENT APPROVED TYPE MAIL BOXES AS INDICATED ON DRAWINGS, AS PER SECTION 57 M.D.L.
13. PROVIDE BELLS IN ENTRANCE LOBBY AS PER SECTION 57 M.D.L.
14. PROVIDE BELLS AT EACH APARTMENT ENTRANCE DOOR AS PER SECTION 57 OF M.D.L.
15. PROVIDE PEEPHOLES IN EACH APARTMENT ENTRANCE DOOR AS PER SECTION 51 OF M.D.L.
16. PROVIDE FRONT AND REAR YARD LIGHTING AS PER SECTION 26, SUB. 7 AND SECTION 35 OF M.D.L.
17. PROVIDE HALL LIGHTS AS PER SECTION 37 AND 21 OF M.D.L.
18. ALL STAIRS SHALL COMPLY WITH SECTION 52 OF M.D.L.
19. PROVIDE HEAVY DUTY, SELF LOCKING LATCHES AND CHAIN GUARDS ON ALL APARTMENT DOORS.
20. ALL EXTERIOR STEPS TO COMPLY WITH SECTION 52 OF M.D.L.
21. PROVIDE SKYLIGHTS IN STAIR BULKHEADS AS PER SECTION 217 OF M.D.L.

HOUSING MAINTENANCE NOTES:

1. BUILDING SHALL COMPLY WITH SECTION D26-16.03 HMC. DRAINAGE OF ROOFS.
2. BUILDING SHALL COMPLY WITH SECTION D26-17.01 HMC. CENTRAL HEATING.
3. BUILDING SHALL COMPLY WITH SECTION D26-17.08 HMC. SUPPLY HOT WATER.
4. BUILDING SHALL COMPLY WITH SECTION D26-19.07 HMC. LIGHTS NEAR ENTRANCE WAYS AND IN YARDS.
5. BUILDING SHALL COMPLY WITH SECTION D26-19.05 HMC. LIGHTING IN PUBLIC HALLWAYS AND STAIRS.
6. BUILDING SHALL COMPLY WITH SECTION D26-20.01 HMC. PEEPHOLES IN ENTRANCE DOORS TO APARTMENTS.
7. BUILDING SHALL COMPLY WITH SECTION D26-21.02 HMC. MAIL.
8. BUILDING SHALL COMPLY WITH SECTION D26-21.03 HMC. FLOOR SIGNS TO INDICATE FLOORS IN MULTIPLE DWELLING.
9. BUILDING SHALL COMPLY WITH SECTION D26-21.05 HMC. STREET NUMBERS ON THE DWELLING.
10. BUILDING SHALL COMPLY WITH SECTION D26-14.01 HMC. REGISTRATION TO THE FILE.
11. BUILDING SHALL COMPLY WITH SECTION D26-14-03 HMC. RECEPTACLES FOR REFUSE.
12. BUILDING SHALL COMPLY WITH SECTION D26-14.05 HMC. COLLECTION OF REFUSE.
13. BUILDING SHALL COMPLY WITH SECTION D26-41.15 HMC. POSTING OF SERIAL NUMBER.

CARBON MONOXIDE DETECTOR NOTE:

HARDWIRED CARBON MONOXIDE DETECTORS SHALL COMPLY WITH RS 17-13 AND INSTALLED IN ACCORDANCE WITH RS 17-14. IT SHALL BE PROVIDED IN EVERY DWELLING UNIT WITHIN FIFTEEN FEET OF THE PRIMARY ENTRANCE OF EACH BEDROOM.

ENERGY COMPLIANCE STATEMENT

TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGMENT, THESE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK CITY 2011.

DEVELOPER

DUPONT STREET  
DEVELOPMENTS LLC

86-26 QUEENS BLVD.  
ELMHURST, NY 11373  
T. 718 639 8088  
experta8@gmail.com

ARCHITECT

Wen-Hau HSU R.A.  
EM Architectural  
Design PLLC  
Elmhurst, NY 11373  
T. 718-639-8088

STR. ENGINEER

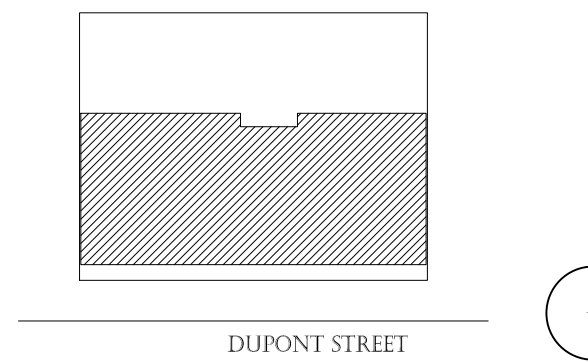
Robert Lin  
A&T Engineering P.C.  
164-09 Northern Blvd. 2FL  
Flushing, NY 11358  
T. 917-577-0025

MEP. ENGINEER

Forrest Zhou  
CNY Engineering P.C.  
291 Broadway #704  
New York, 10007  
212-603-7784

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PROJECT TITLE:

93 DUPONT ST.  
REDEVELOPMENT  
PROJECT

93 DUPONT STREET  
BROOKLYN, NY 11222

PROJECT NO.: 2015-00

DRAWING TITLE:

GENERAL NOTES

A-001.00

SCALE: NTS  
DATE: 8/3/2015

DRAWN BY: JC



BUILDING CODE ANALYSIS

93 DUPONT STREET BUILDING CODE ANALYSIS (20151210)

CODES:

2008NYC CONSTRUCTION CODE

CODE SECTION/TABLE

BUILDING CLASSIFICATION:

CONSTRUCTION TYPE

IIA (FULLY SPRINKLER)

TABLE 503

CCUPANCY CLASSIFICATION:

R-2

RESIDENTIAL

310.1.2

GRADE PLANE

GRADE PLANE(AVE+17.46'+16.34')

16.90 FT(NAVD88 DATUM)

BUILDING HEIGHT

PROPOSED

49.67 FT

TABLE 503

REQUIRED

65' (FOR R-2)

STORIES:

PROPOSED

5 STORIES

TABLE 503

REQUIRED

6 (FOR R-2)

AREA PER FLOOR:

PROPOSED

7,286.32 S.F. MAX ABOVE GRADE

TABLE 503

REQUIRED

UNLIMITED (FOR R-2)

INCIDENTAL USES:

FURNACE ROOMS(>400,000

SEE NOTE A

508

PROVIDED

FURANCE ROOMS(<400,000

SEE NOTE B

TABLE 508.2

BOILER ROOMS(>15PSI & 10 HORSEP)

SEE NOTE A

BOILER ROOMS(>15PSI & 10 HORSEP)

SEE NOTE B

MECH/ELEC EQUIP RM

SEE NOTE B

STORAGE ROOMS > 100 SF

SEE NOTE C

WASTE ROOM> 100 SF

SEE NOTE C

ROOMS USING THE ELECTRICAL

SEE NYCEC

INSTALLATION STANDARDS FOR

INFORMATION TECH ROOM

Note A: 2 hour separation or 1 hr separation + automatic fire extinguishing system

Note B: 1 hour separation or automatic sprinkler system

Note C: 1 hour separation or automatic fire extinguishing system

FIRE RESISTANCE RATING REQUIRED FOR BUILDING ELEMENTS:

TABLE 601

STRUCTURAL FRAME (COLUMNS, GIRDERS, TRUSSES)

1 HOUR

PROVIDED

BEARING WALLS - EXTERIAL

1 HOUR

PROVIDED

BEARING WALLS - INTERIOR

1 HOURS

PROVIDED

INTERIOR NONBEARING WALL

0 HOUR

PROVIDED

FLOOR CONSTRUCTION INCLUDING BEAMS & JOISTS

1 HOURS

PROVIDED

ROOF CONSTRUCTION INCLUDING BEAMS & JOISTS

1 HOUR

PROVIDED

EXTERIOR ALL FIRE SEPARATION

DISTANCE:

TABLE 602

X/=5'

1 HOUR

>/=5' TO </=10'

1 HOUR

>/=10' TO </=30'

1 HOUR

>/=30'

0 HOUR

EXTERIOR WALL OPENING

DISTANCE:

UNPROTECTED

PROTECTED

TABLE 704.8

0 TO 3'

NOT PERMITTED

NOT PERMITTED

>3' TO <5'

NOT PERMITTED

15%

>5' O <10'

10%

25%

>10' TO <15'

15%

45%

>15' TO <20'

25%

75%

>20' TO <25'

45%

NO LIMIT

>25' TO <30'

70%

NO LIMIT

>30'

NO LIMIT

NO LIMIT

VERTICAL SEPARATION OF OPENINGS

NOT REQUIRED PER EXCEPTION 2: BLDG IS FULLY SPRINKLERED PER 903.3.1.1.

704.9

PROVIDED

PARTY WALLS

USE GROUP R-2

3 HOURS

TABLE 705.4

PROVIDED

OPENING SIZE LIMITATION: SHALL NOT EXCEED 120 SQ FT, NO DIMENSION GREATER THAN 12', AGGREGATE WIDTH SHALL NOT EXCEED 25% OF THE LENGTH OF

705.8,715.3

PROVIDED

SHAFT ENCLOSURES

3 STORIES OR MORE

2 HOURS

707.4

PROVIDED

LESS THAN 3 STORIES

1 HOUR

REFUSE CHUTE

2 HOUR FIRE SEPARATION

707.13.1

PROVIDED

REFUSE CHUTE ACCESS ROOM

2 HOUR FIRE SEPARATION WITH 1 1/2 HR OPNG PROTECTIVE

707.13.3

PROVIDED

REFUSE CHUTE TERMINATION ROOM

3 HOUR FIRE SEPARATION WITH 1 1/2 HR OPNG PROTECTIVE

707.13.4

PROVIDED

TENANT SEPARATION

1 HOUR

708.1, 708.3

PROVIDED

SMOKE PARTITION

GLAZING-HEAT STRENGTHENED OR TEMPERED AND SHALL BE PROTECTED BT SPRINKLER HEADS INSTALLED MAX 6 FT ON CENTER ON EACH SIDE OF SMOKE PARTITION

710.2

OPENING PROTECTIVES

WALL RATING

FIRE DOOR / SHUTTER RATING

715

FIRE WALL - 4 & 3 HOUR

3 & 3 HRS

TABLE 715.3

PROVIDED

FIRE WALL - 2 & 1 HOUR

1.5 & 1.5 HRS

TABLE 715.3

PROVIDED

SHAFT/EXIT ENCLOSURE/EXIT

1 HR

PROVIDED

PASSAGEWAY WALLS - 1 HOUR

OTHER FIRE BARRIERS - 1 HOUR

3/4 HR

PROVIDED

CORRIDOR WALLS - 1 HOUR

3/4 HR

PROVIDED

OTHER PARTITIONS - 1 HOUR

3/4 HR

PROVIDED

EXT WALLS - 3, 2, & 1 HOUR

1.5, 1.5, 3/4HR

PROVIDED

WALLS & CEILING FINISH SMOKE

EXIT, CORRIDORS

25 OR LESS

803.1.1

PROVIDED

WALL & CEILING FINISH

REQUIREMENTS BASED ON OCCUPANCY GROUP:

TABLE 803.5

PROVIDED

VERT EXITS & EXIT PASSAGEWAY

CORRIDORS

ROOMS & ENCLOSED SPACES

R-2

B

C

INTERIOR FLOOR FINISH

R-2

MIN RADIAN FLUX

CLASS II

804.5.1

PROVIDED

DECORATIVE TRIMS

CLASS C MIN, 10% MAX OF AGGREGATE WALL OR CEILING AREA

805.3

PROVIDED

MEANS OF EGRESS

CEILING HEIGHT (EGRESS)

7'-6"; EXCPTTIONS SEE BELOW

1003.2

PROVIDE

HANDRAIL PROJECTION

4.5" FROM THE WALL

1003.3.3 EXCEPTION

OCCUPANT LOAD

SEE DRAWINGS (PLANS)

1004, TABLE 1004.1.2

ACCESSIBLE MEANS OF EGRESS

2 REQUIRED

1007.1, 1015.1

PROVIDE

2 PROVIDED STAIR

MEANS OF EGRESS ILLUMINATION

>/= 2 FOOT-CANDLE (11 LUX) EXITS, EXITS DISCHARGES, PUBLIC

1006.2

PROVIDE

>/= 1 FOOT-CANDLE (11 LUX) OTHER THAN P.

EGRESS WIDTH CALCULATION

1005.1

PROVIDED

STAIR

0.3" PER OCCUPANT

OTHER EGRESS COMPONENT

0.2" PER OCCUPANT

DOOR ENCROACHMENT

LESS THAN 7"

1005.2

PROVIDED

DOOR WIDTH

NOT LESS THAN 32"

1008.1.1.1

PROVIDED

NOT APPLY (NOT PART OF THE REQ'D MEANS OF EGRESS IN R-2)

1008.1.1.1 EXCP. 1

PROVIDED

DOOR HEIGHT

NOT LESS THAN 80"

1008.1.1.3

PROVIDED

(INSIDE R-2 UNIT)

NOT LESS 78"

1008.1.1.3 EXCP. 1

PROVIDED

STAIR WIDTH

NOT LESS THAN 44"

1009.1

PROVIDED

(< 50, <30 IN R-2)

NOT LESS THAN 36"

1009.1 EXCP. 1.1&1.2

PROVIDED

STAIR HEADROOM

NOT LESS THAN 84"

1009.2

PROVIDED

(R-2)

NOT LESS THAN 80"

1009.2 EXCP. 1.1

PROVIDED

STAIR RISER / TREAD DEPTH

4"- 7"/11"

1009.3

PROVIDED

(R-2)

7.75"/9.5"-11"

1009.3 EXCP. 5.2

PROVIDED

RISER+TREAD<25.5"

1009.3 EXCP. 5.1

PROVIDED

NOSE >3/4", <1.25"

1009.3 EXCP. 5.2

STAIR LANDINGS

=STAIR WIDTH ; <48"

1009.4

PROVIDED

HANDRAIL

34"-38" AFF

1009.11.1

PROVIDED

HANDRAIL CLEARANCE

1.5" FROM WALL

1009.11.6

GUARD HEIGHT

42" AFF

1012.2

PROVIDED

(R-2 INSIDE UNIT)

34" AFF

1012.2 EXCP.1

PROVIDED

SPACE WITH ONE EGRESS

R; < 20 (OCCUPANCY LOAD)

TABLE 1014.1

EXITS ARRANGEMENT

DIST=/ $\sqrt{2}$  DIAGONAL DIM. (SPRINKLER BLDG.)

1014.2.1

PROVIDED

DIST=/ $\sqrt{3}$  DIAGONAL DIM. (R-2)

1014.2.1 EXCP.2

PROVIDED

DIST>15' (2HR RATED ENCLD.)

1014.2.1 EXCP.3.1

PROVIDED

SCISSER STAIR ALLOWED

1014.2.1 EXCP.3.2

PROVIDED

TRAVEL DISTANCE

R-2 ; <200' (W/ SPRINKLER)

TABLE 1015.1

PROVIDED

(EXTERIOR INCREASE)

R-2; < 300' (W/ SPRINKLER)

1015.3

PROVIDED

REQUIRED TR-1 INSPECTIONS

STRUCTURAL STEEL - WELDING

BC 1704.3.1

STRUCTURAL STEEL - ERECTION & BOLTING

BC 1701.3.2,BC 704.3.3

CONCRETE - CAST-IN-PLACE

BC 1704.4

MASONRY

BC 1704.5

SOILS - SITE PREPERATION

BC 1704.7.1

SOILS - INVESTIGATIONS (BORING/TEST PITS)(TR4)

BC 1704.7.4

MECHANICAL SYSTEMS

BC 1704.15

FUEL-OIL STORAGE & FUEL-OIL PIPING SYSTEMS

BC 1704.17

EXCAVATION

BC 1704.19,BC 3304.4.1

SITE STORM GRAINAGE DISPOSAL & DETENTION SYSTEMS INSTALLATION

BC 1704.20

HEATING SYSTEMS

BC 1704.23

FIRESTOP,DRAFTSTOP AND FIREBLOCK SYSTEMS

BC 1704.25

CONCRETE TEST CYLINDERS(TR2)

BC 1905.6

CONCRETE DESIGN MIX(TR3)

BC 1905.3

REQUIRED PROGRESS INSPECTIONS:

PRELIMINARY

ADC 28-116.2.1,BC 109.2

FOOTING & FOUNDATION INSPECTION

BC 109.3.1

ENERGY CIDE COMPLIANCE

TR8

BC 109.3.5

FIRE RESISTANCE RATED CONSTRUCTION

BC 119.3.4

FINAL

ADC 28-116.2.4.2,BC 109.5,DIRECTIVE 14 OF 1975 AND RCNY 101-10

TR-9 (1RCNY 5000)

INSULATION PLACEMENT AND R-VALUE

IA2,IIA2

FENESTRATION THERMAL VALUES & RATING

IA3,IIA3

FENESTRATION RATINGS FOR AIR LEAKAGE

IA4,IIA4

FENESTRATION AREAS

IA5,IIA5

AIR SEALING AND INSULATION - VISUAL

IA6,IIA6

VESTIBULES

IIA9

DAMPERS INTEGRAL TO BUILDING ENVELOP

IB2,IIB2

HVAC AND SERVICE WATER HEATING EQUIPMENT

IB3,IIB3

HVAC AND SERVICE WATER HEATING SYSTEM CONTROLS

IB4,IIB4

DUCT PLENUM AND PIPING INSULATION AND SEALING

IB5,IIB5

ELECTRICAL ENERGY CONSUMPTION

IC1,IIIC1

LIGHTING IN DWELLING UNITS

IC2,IIIC2

INTERIOR LIGHTING POWER

IIIC3

EXTERIOR LIGHTING POWER

IIIC4

LIGHTING CONTROLS

IIIC5

EXIT SIGNS

IIIC6

ELECTRICAL MOTORS

IIIC8

MAINTENANCE INFORMATION

ID1,IID2

DEVELOPER

DUPONT STREET DEVELOPMENTS LLC

86-26 QUEENS BLVD. ELMHURST, NY 11373

T. 718 639 8088

experta8@gmail.com

ARCHITECT

Wen-Hau HSU R.A. EM Architectural Design PLLC Elmhurst, NY 11373

T. 718-639-8088

STR. ENGINEER

Robert Lin A&T Engineering P.C. 164-09 Northern Blvd. 2FL Flushing, NY 11358

T. 917-577-0025

MEP. ENGINEER

Forrest Zhou CNY Engineering P.C. 291 Broadway #704 New York, 10007

212-603-7784

SEAL

1

10/01/15

UPDATED SET

NO.

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DUPONT STREET

PROJECT TITLE:

93 DUPONT ST. REDEVELOPMENT PROJECT

93 DUPONT STREET BROOKLYN, NY 11222

PROJECT NO.: 2015-00

DRAWING TITLE:

BUILDING CODE

A-002.00

SCALE: NTS

DATE: 8/3/2015

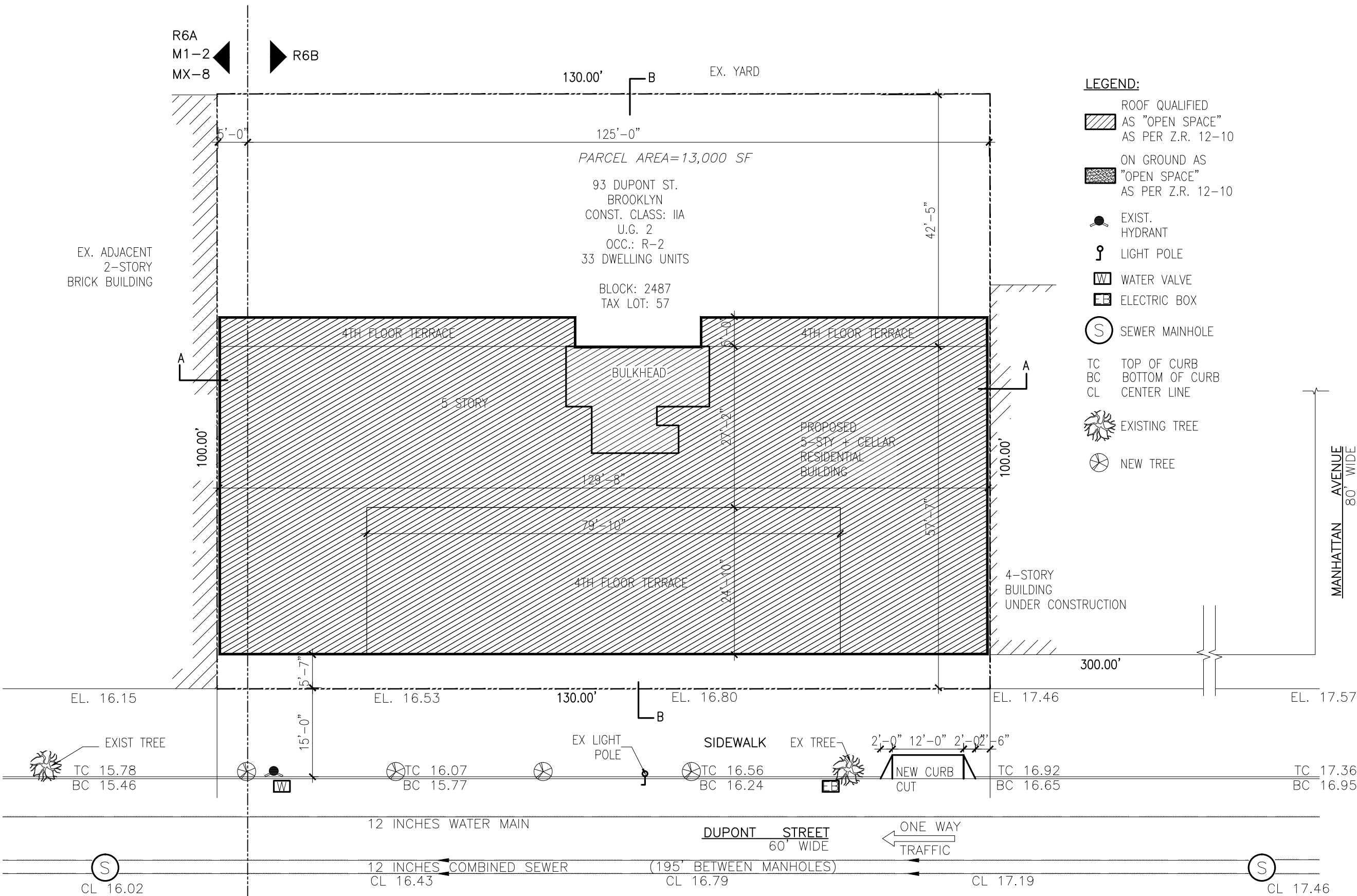
DRAWN BY: JC



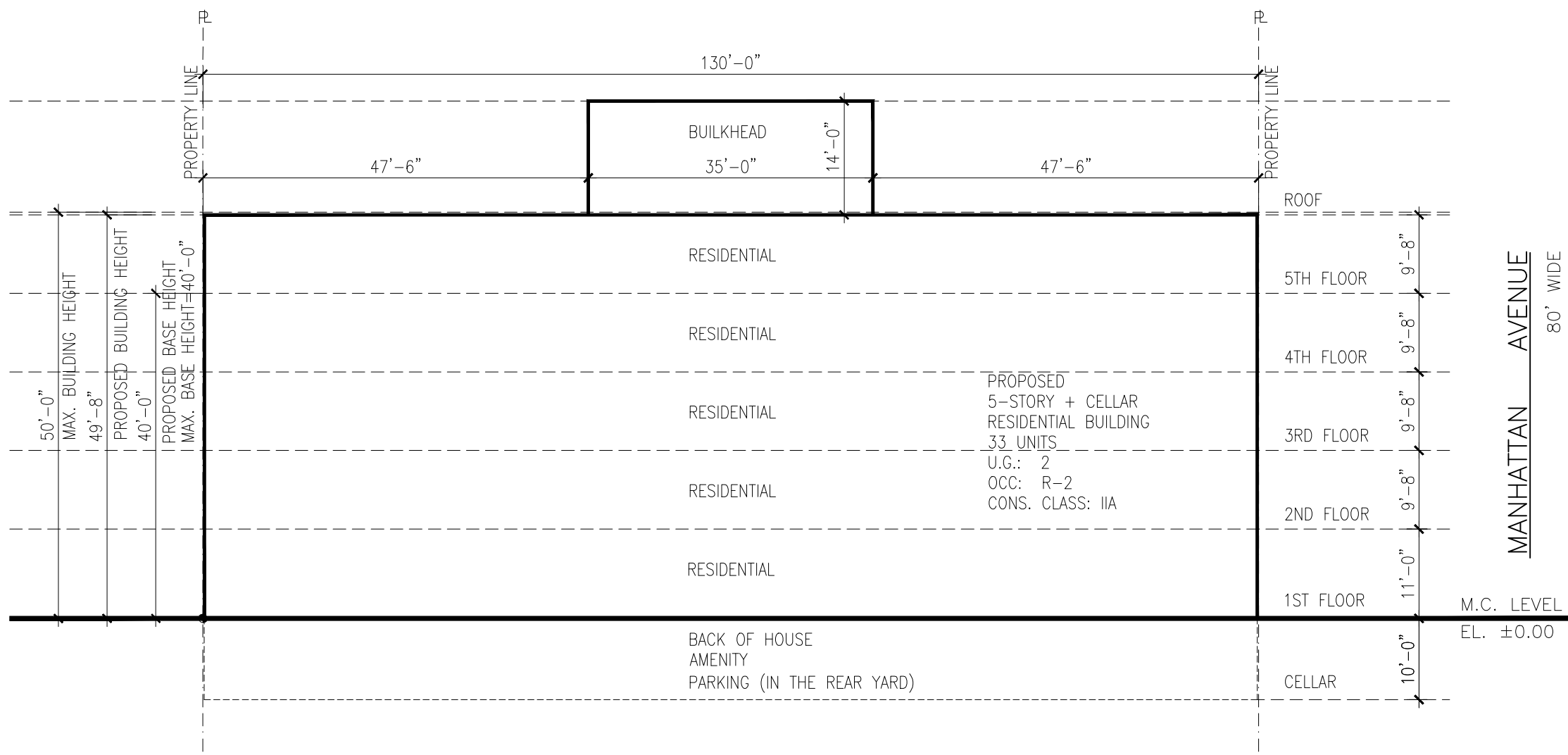
20151209				
LOCATION : 93 DUPONT STREET BROOKLYN 11222 1 TAX LOT				
BOROUGH : BROOKLYN	BLOCK: 2487	LOT:57	ZONING MAP:12C	
ZONING DISTRICT: R6B / R6A OF MX-8 GREENPOINT- WILLIAMSBURG (HDA)	USE GROUP: 2	BLDG CODE: 2008	OCC. GROUP: R-2	CONSTRUCTION CLASS: II A
QUALITY HOUSING PROGRAM				

DOB # 320913605	LOT SIZE: 130 X 100 = 13,000 SF			
ITEM	PERMIT/ REOD.	PROPOSED:	SECTION:	REMARKS:
F.A.R.:	RESIDENTIAL MAX.FAR=2.027 96.15% IN R6B (2.0) 3.85% IN R6A (2.7) 2.0X96.15%+2.7X3.85%=2.027	PROPOSED RESIDENTIAL FAR=2.027 26.351 SF/13,000=2.027 (W/O_IH_PROGRAM)	ZR23-145 ZR23-952 ZR77-22	OK
	COMMUNITY MAX.FAR=2.027 96.15% IN R6B (2.0) 3.85% IN R6A (2.7) 2.0X96.15%+2.7X3.85%=2.027	PROPOSED COMMUNITY FAR=0	ZR77-22 ZR23-145	OK
	BUILDING MAX.FAR=2.027 96.15% IN R6B (2.0) 3.85% IN R6A (2.7) 2.0X96.15%+2.7X3.85%=2.027	PROPOSED BUILDING FAR=2.027 26.351 SF/13,000=2.027	ZR77-22 ZR23-145	OK
LOT COVERAGE (R6B)	60%	7,447 SF /13,000 SF= 57.6%	ZR23-145	OK
DENSITY	26,384 SF/680=43	33 UNITS	ZR23-22	OK
SIDE YARD (FT)	N.R.	0	ZR23-462(C)	OK
REAR YARD (FT)	30	36.17'	ZR23-47	OK
HEIGHT (FT) AND SETBACK (R6B)	MAX. BASE HEIGHT=40'	PROPOSED BASE HEIGHT=40'	ZR23-633	OK
	MAX. BUILDING HEIGHT=50'	PROPOSED BUILDING HEIGHT=49'8"		OK
	MIN. SETBACK ABOVE BASE HEIGHT: 15' (NARROW STREET)	PROPOSED SETBACK= 30'5"	ZR23-633(b)(1)	OK
	PERMITTED OBSTRUCTIONS IN CERTAIN DISTRICT: DORMERS ABOVE B.H.=60%W-1'X1XW	PROPOSED DORMERS WIDTH ON 5TH: 50' (60'-10'X1X100')	ZR23-621	OK
PARKING	RESIDENTIAL 50% D.U.	33 D.U.X50%=17 1 SPACES VOLUNTARY PROPOSED TOTAL=18	ZR25-23	OK (1 CARS MORE THAN ZR REQUIRED, VOLUNTARY)
CURB CUT	3 CURB CUT, MAX. 24' WIDE; MIN. 18' APART	PROPOSED: 1 CURB CUT, 12'	ZR25-634	OK
BICYCLE PARKING	RESIDENTIAL 50% D.U.	33 D.U.X50%=17 PROPOSED TOTAL=17	ZR25-811	OK
TREE PLANTING	130/25=5.2=5	PROPOSED 5	ZR 26-41	OK
RECREATION SPACE	0.033 X 29,310=967.23 SF	PROPOSED 970 SF	ZR 28-31	OK

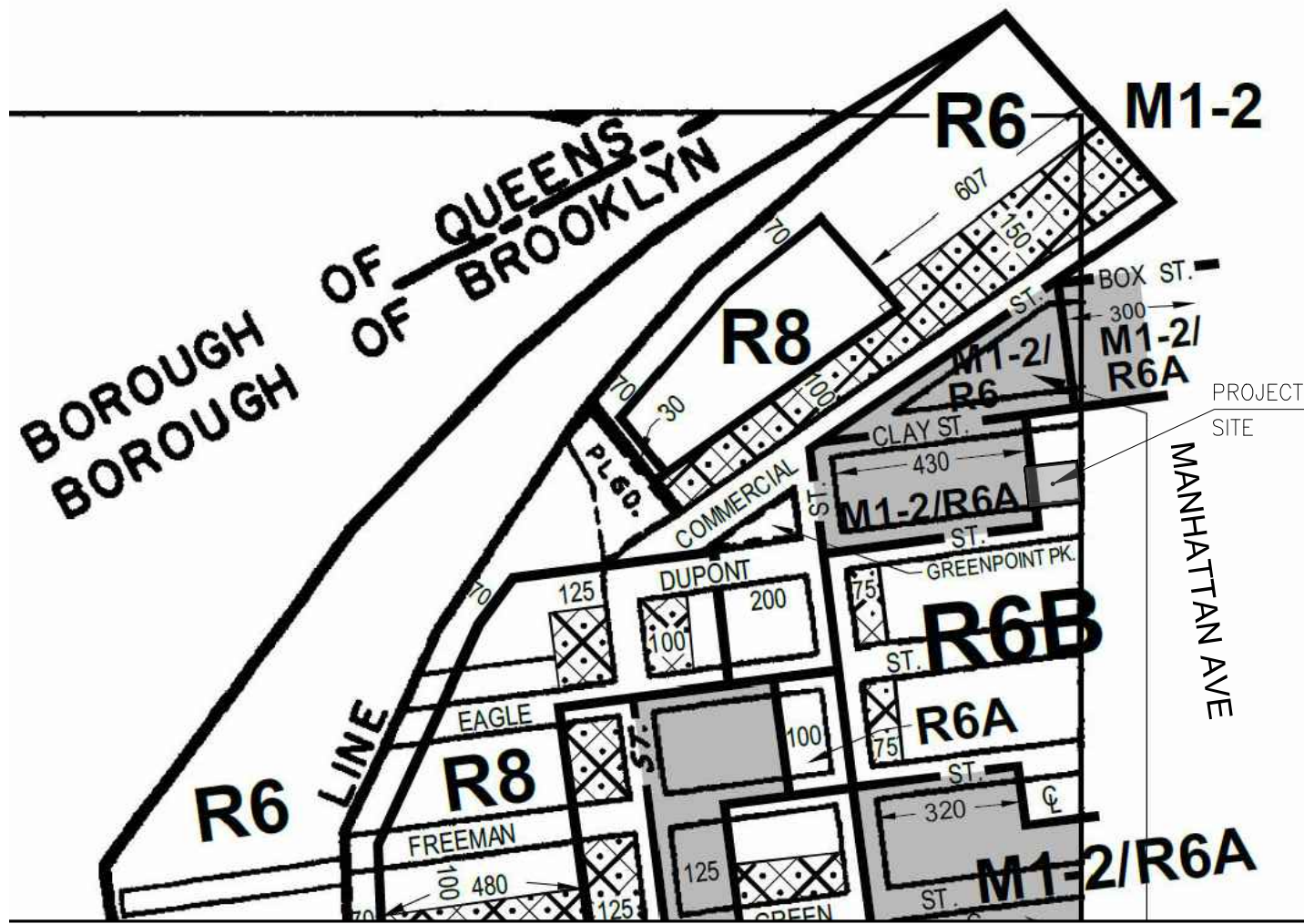
Z.R.# 28-21  
A D.U. SHALL HAVE AT LEAST 400 SF OF FLOOR AREA.  
PROPOSED SMALLEST D.U. FA = 807 SF  
Z.R.# 28-22  
ALL WINDOWS IN THE RESIDENTIAL PORTION OF A DEVELOPMENT  
Z.R.# 28-25  
50% OF F.A. OF CORRIDORE MAY BE EXCLUDED IF A GLASS AREA OF AT LEAST 20 SF IS PROVIDED.  
Z.R.# 28-41  
IF THE NUMBER OF DWELLING UNITS SERVED BY THE VERTICAL CIRCULATION CORE AND CORRIDOR ON EACH STORY DOES NOT EXCEED 11 UNITS, 50% OF THE S.F. OF THE CORRIDOR SERVING SUCH DWELLING UNITS ON SUCH STORY MAY BE EXCLUDED FROM THE DEFINITION OF FLOOR AREA  
ACTUAL MAX. D.U. ON EACH STORY = 8 D.U.  
ZR 28-23 REFUSE STORAGE AND DISPOSAL:  
2.9 CUBIC FEET PER DWELLING UNIT IS REQUIRED FOR REFUSE STORAGE.  
26 x 2.9 = 75.4 CUBIC FEET REQUIRED  
APPROXIMATELY 773 CUBIC FEET PROPOSED.  
12 SQ. FT. OF EACH REFUSE ROOM ON A FLOOR WITH DWELLING UNITS CAN BE EXCLUDED FROM THE DEFINITION OF FLOOR AREA.  
  
Z.R.# 23-633 (a)(2) STREET WALL LOCATION  
THE STREET WALL AT LEAST 50' OF FRONTAGE ALONG A STREET LINE SHALL BE LOCATED NO CLOSER TO THE STREET LINE THAN THE STREET WALL OF AN ADJACENT EXISTING BUILDING  
ADJ. BLDGS STREET WALL SETBACK = 5'-7"  
PROVIDED STREET WALL SETBACK = 5'-7"  
(b)(1)A SETBACK W/ A DEPTH OF AT LEAST 15' SHALL BE PROVIDED FROM STREET WALL FRONTING ON A NARROW STREET. 15' SETBACK PROVIDED.  
  
Z.R.# 23-663  
NO PORTION OF BLDG. THAT EXCEEDS MAX. BASE HT. SHALL BE NEARER TO THE "REAR YARD LINE" THAN 10', BUT IT CAN BE PROVIDED AT GRADE.  
  
PROPOSED BUILDING 41'-9" FROM REAR PROPERTY LINE WHEN BUILDING ABOVE MAX. BASE HT..



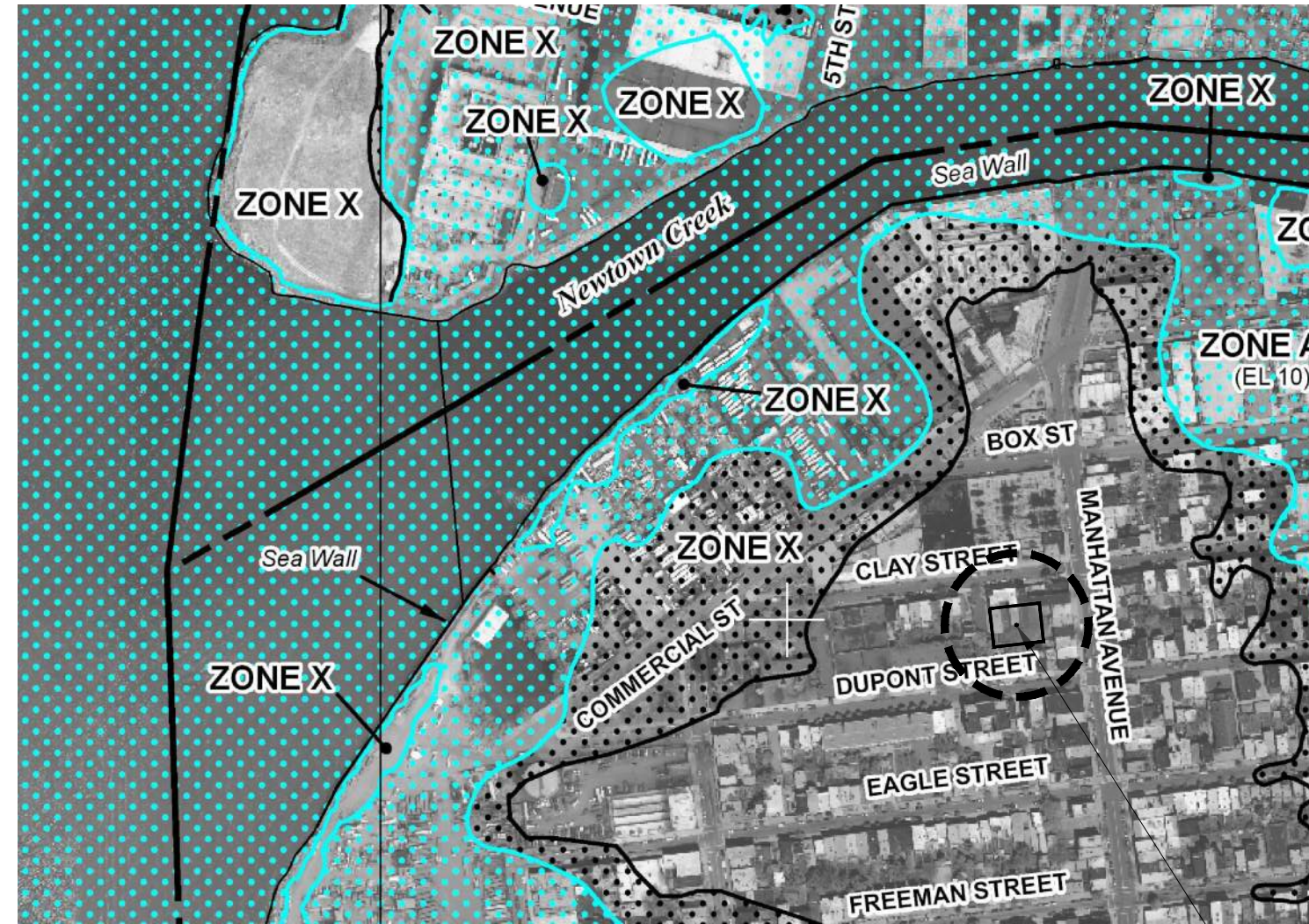
PLOT PLAN  
1/16" = 1'-0"



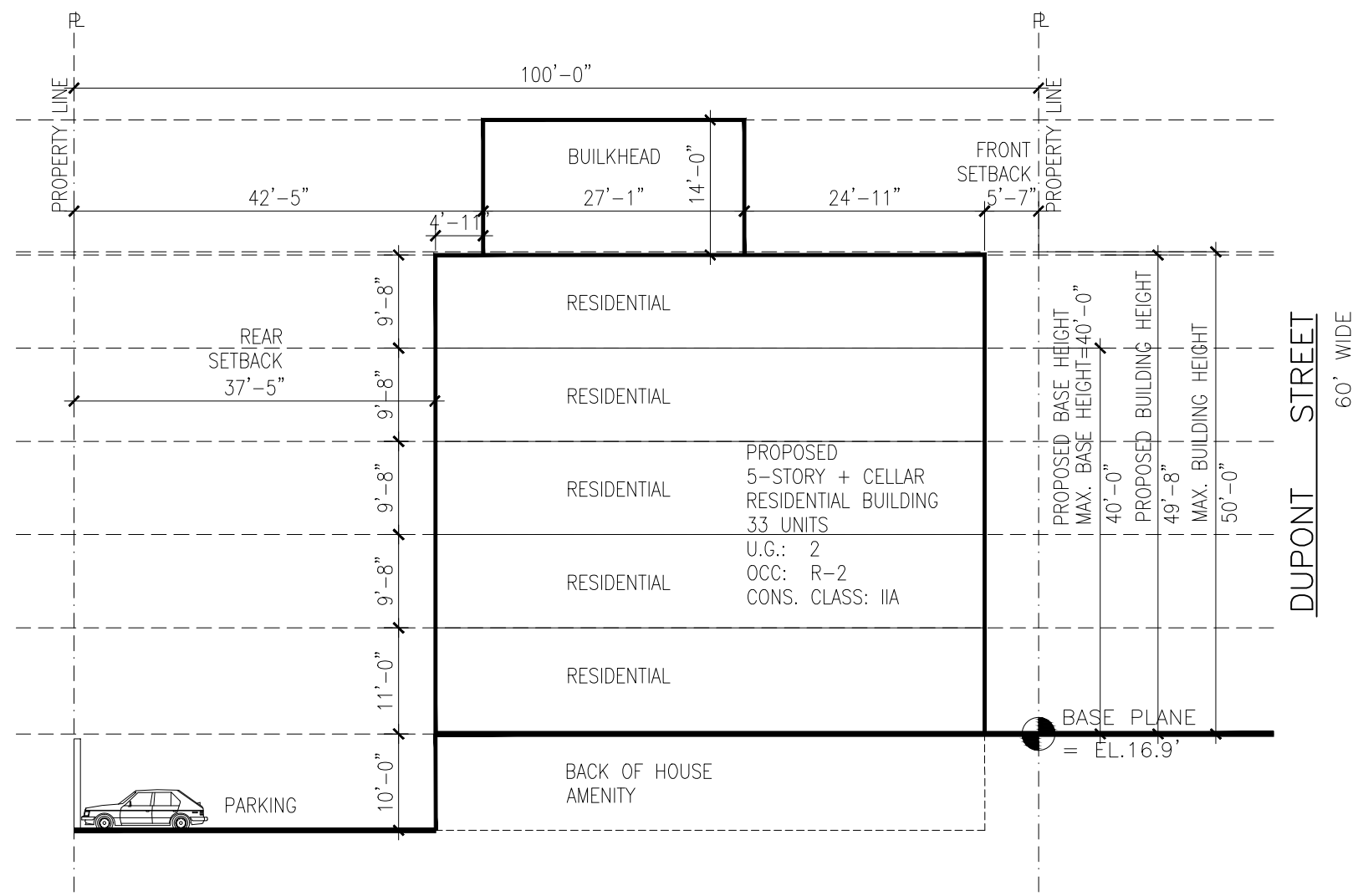
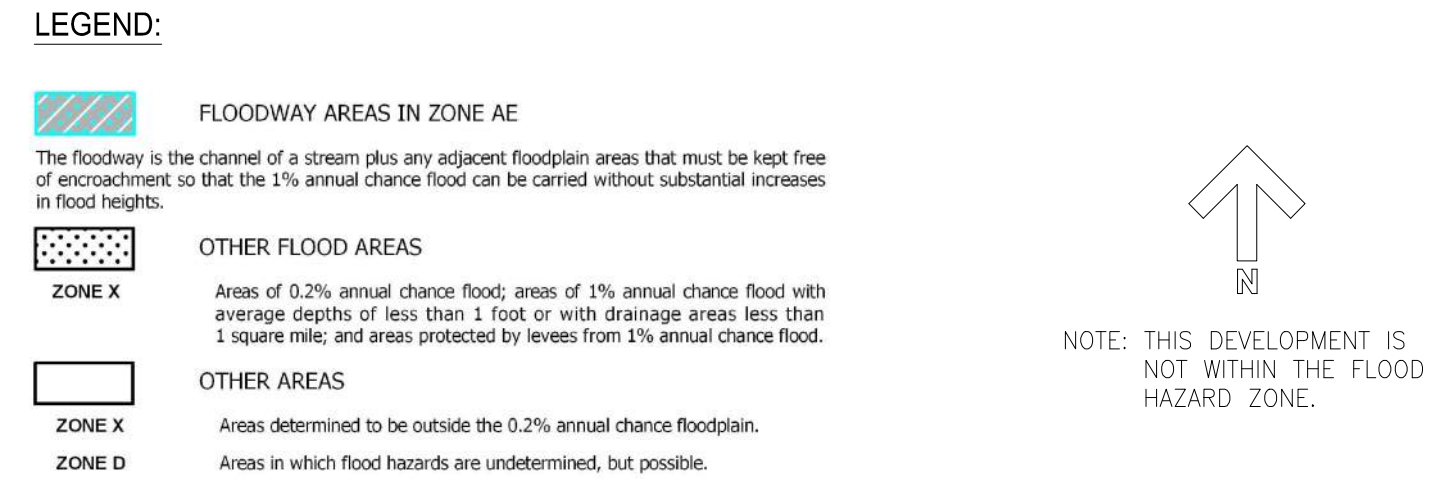
1 BUILDING ENVELOPE DIAGRAM  
1/16" = 1'-0"



ZONING MAP 12c  
N.T.S.



FIRM  
N.T.S.



2 BUILDING ENVELOPE DIAGRAM  
1/16" = 1'-0"

DEVELOPER  
**DUPONT STREET  
DEVELOPMENTS LLC**

86-26 QUEENS BLVD.  
ELMHURST, NY 11373  
T. 718 639 8088  
experta8@gmail.com

ARCHITECT  
Wen-Hau HSU R.A.  
EM Architectural  
Design PLLC  
Elmhurst, NY 11373  
T. 718-639-8088

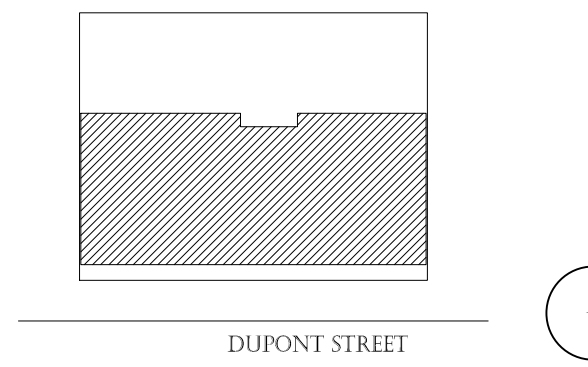
STR. ENGINEER  
Robert Lin  
A&T Engineering P.C.  
164-09 Northern Blvd. 2FL  
Flushing, NY 11358  
T. 917-577-0025

MEP. ENGINEER  
Foreest Zhou  
CNY Engineering P.C.  
291 Broadway #704  
New York, 10007  
212-603-7784

SEAL	
1	10/01/15
NO.	DATE
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	REVISION

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PROJECT TITLE:  
**93 DUPONT ST.  
REDEVELOPMENT  
PROJECT**

93 DUPONT STREET  
BROOKLYN, NY 11222

PROJECT NO.: 2015-00

DRAWING TITLE:

**ZONING ANALYSIS  
BULK DIAGRAM  
& PLOT PLAN**

**Z-001.00**

SCALE: AS SHOWN  
DATE: 8/3/2015  
DRAWN BY: JC



**DUPONT STREET  
DEVELOPMENTS LLC**

ARCHITECT

STR. ENGINEER

MEP. ENGINEER

2ND -4TH FLOOR AREA DEDUCTION (SQ.FT)		
NUMBER	CALCULATION	TOTAL AREA(SQ.FT.)
1	8"X(56'4"+129'+56'4"+47'10"+5'+21'8"+5'+59'6")	255.04
2	5"X5'	2.10
3	3'10"X1'3"	4.79
4	5"X5'	2.10
5	2'5"X6'	14.52
6	5'8"X10"	4.71
7	3'X2'7"	7.74
8	1'X4'6"	4.50
9	(39'7"x5'+18'2"x8'4"+16'2"x3'10"+27'11"X5")X50%	275.40
10	5'X1'	5.00
11	3'8"X10"	3.05

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93 DUPONT STREET  
BROOKLYN, NY 11222

DRAWING TITLE:

Z-003.00

SCALE: 1/8"=1'-0"      DRAWN BY: JC  
DATE: 11/10/2015



C

DEVELOPER  
**DUPONT STREET  
DEVELOPMENTS LLC**

86-26 QUEENS BLVD.  
ELMHURST, NY 11373  
T. 718 639 8088  
experta8@gmail.com

ARCHITECT

Wen-Hau HSU R.A.  
EM Architectural  
Design PLLC  
Elmhurst, NY 11373  
T. 718-639-8088

STR. ENGINEER

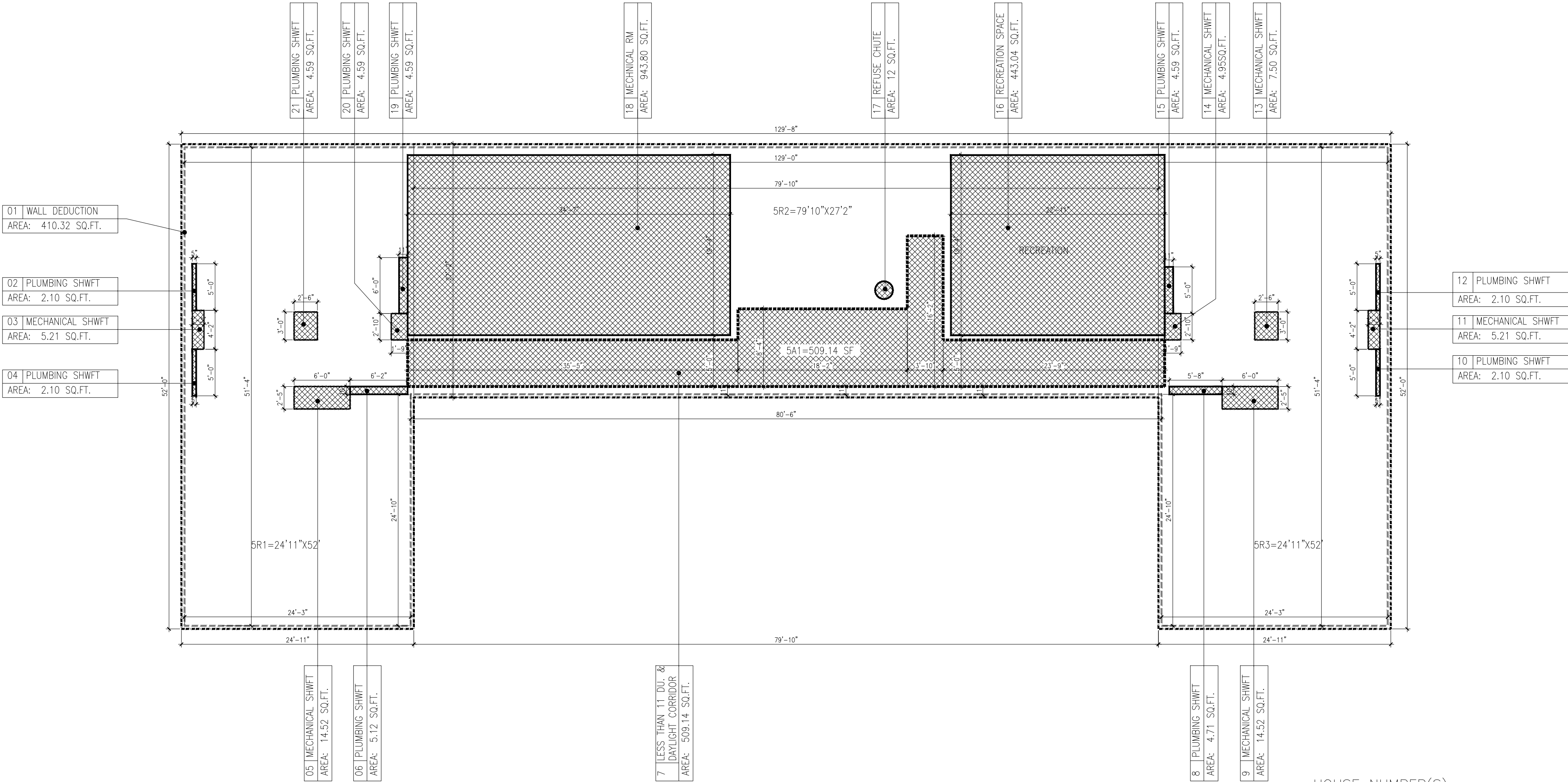
Robert Lin  
A&T Engineering P.C.  
164-09 Northern Blvd. 2FL  
Flushing, NY 11358  
T. 917-577-0025

MEP. ENGINEER

Forrest Zhou  
CNY Engineering P.C.  
291 Broadway #704  
New York, 10007  
212-603-7784

5TH FLOOR GROSS AREA (SQ.FT)		
LABLE	CALCULATION	TOTAL AREA (SQ.FT.)
5R1	24'11"X52'	1,295.84
5R2	79'10"X27'2"	2,168.98
5R3	24'11"X52'	1,295.84
TOTAL:		4,760.66

FLOOR AREA DEDUCTION (SQ.FT)		
NUMBER	CALCULATION	TOTAL AREA(SQ.FT.)
1	8"X(51'4"+24'3"+24'10"+80'6"+24'10"+24'3"+51'4"+129')	274.91
2	5"X5'	2.10
3	4'2"X1'3"	5.21
4	5"x5'	2.10
5	2'5"X6'0"	14.52
6	6'2"X10"	5.12
7	35'5"x5'+8'4"x18'2"+3'10"x16'2"+5'x23'9"	509.14
8	10'x5'8"	4.71
9	6'x2'5"	14.52
10	5'x5"	2.10
11	4'2"x1'3"	5.21
12	5'x5"	2.10
13	3'x2'6"	7.50
14	1'9"x2'10"	4.95
15	5'x11"	4.60
16	19'4"X22'11"	443.04
17		12.00
18	34'7"X27'2"	943.80
19	6'X11"	5.52
20	2'10"X1'9"	4.95
21	2'6"x3'	7.50
TOTAL		2,275.60



5TH FLOOR CAL. DIAGRAM  
1/8" = 1'-0"

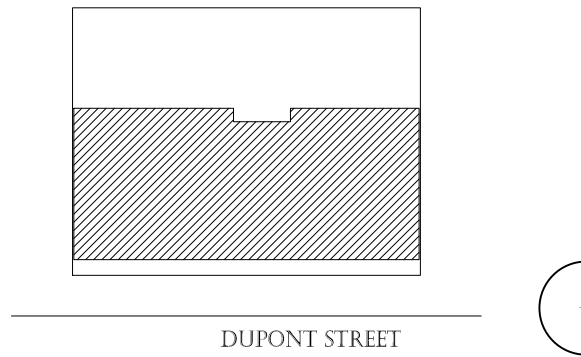
HOUSE NUMBER(S): 93 Dupont Street Brooklyn, NY 11222  
BLOCK: 2487  
LOT: 57  
ZONE: R6B/ R6A OF MX-8  
MAP#: 12c

ZONING DISTRICT:

Floor Number	Building Code Gross Floor Area (sq. ft.)	Use Group	Zoning Floor Area (sq. ft.)						FAR
			Residential		Community Facility		Commercial		
			Mech	Net	Mech	Net	Mech	Net	
CELLAR	4,984.20	2	1,046.15	3,938.05					.000
1ST	5,960.94	2	1,350.59	4,610.35					.355
2ND	7,286.19	2	759.27	6,526.92					.502
3RD	7,286.19	2	759.27	6,526.92					.502
4TH	7,286.19	2	759.27	6,526.92					.502
5TH	4,760.66	2	2,275.60	2,485.06					.191
ROOF	348.96	2	0.00	348.96					.000
Totals	32,580.17		5,904.00	26,676.17					2.052

RESIDENTIAL AREA = 26,676.17 SQ.FT.  
COMMUNITY FACILITY = 0.00 SQ.FT.  
TOTAL BUILDING AREA = 26,676.17 SQ.FT.

SEAL		
1	10/01/15	UPDATED SET
NO.	DATE	REVISION
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## 93 DUPONT ST. REDEVELOPMENT PROJECT

93 DUPONT STREET  
BROOKLYN, NY 11222

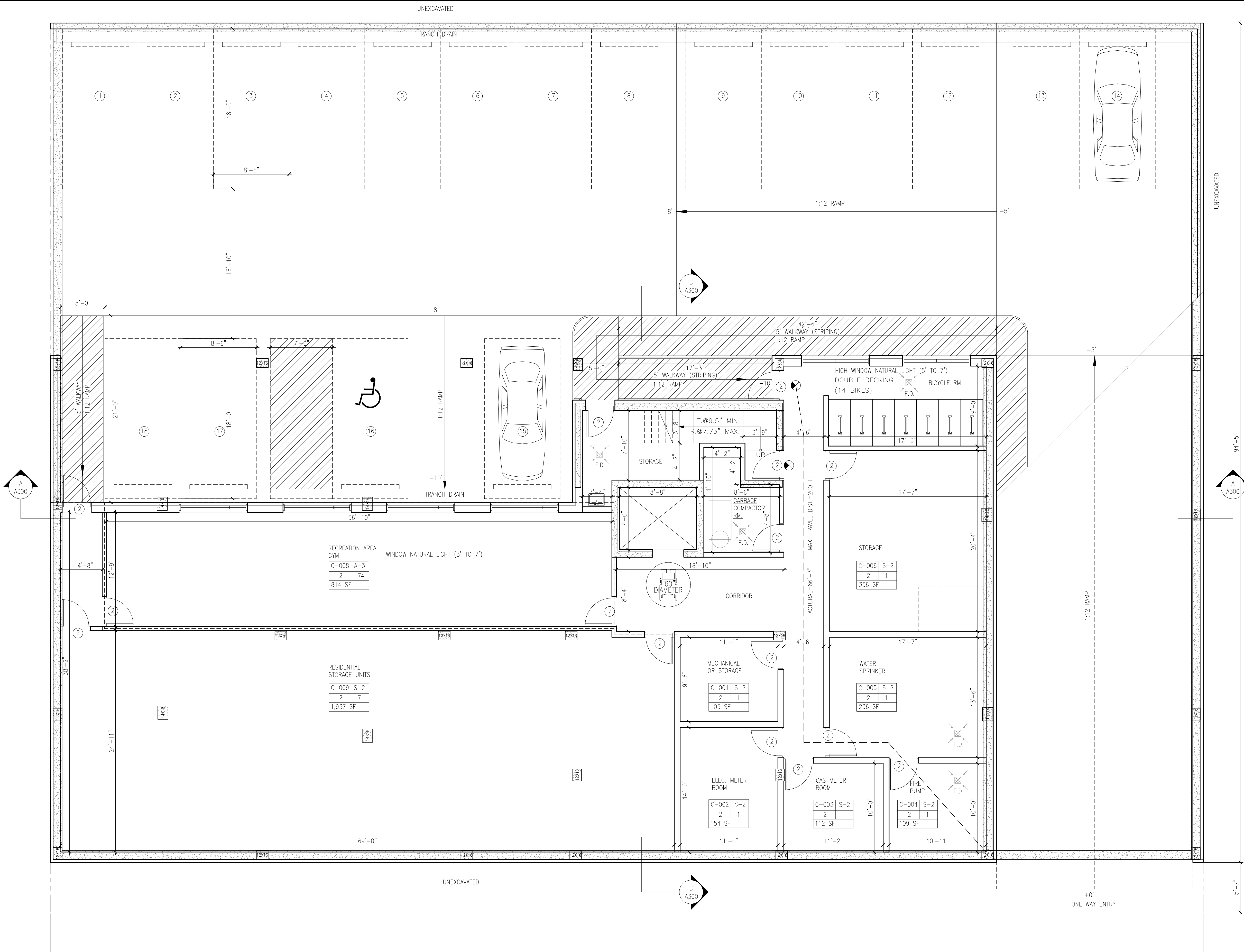
PROJECT NO.: 2015-00

DRAWING TITLE:

## DEDUCTIONS 5TH FLOOR CAL. DIAGRAM

# Z-004.00

SCALE: 1/8"=1'-0" DRAWN BY: JC  
DATE: 11/10/2015



CELLAR PLAN  
3/16" = 1'-0"

DEVELOPER  
**DUPONT STREET  
DEVELOPMENTS LLC**

86-26 QUEENS BLVD.  
ELMHURST, NY 11373  
T. 718 639 8088  
experta8@gmail.com

ARCHITECT

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Elmhurst, NY 11373  
T. 718-639-8088

STR. ENGINEER

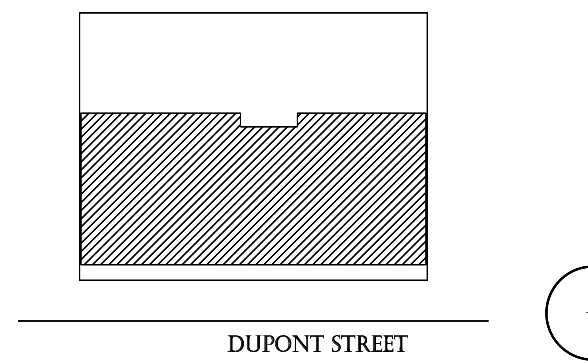
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Flushing, NY 11358  
T. 917-577-0025

MEP. ENGINEER

Forrest Zhou  
CNY Engineering P.C.  
291 Broadway #704  
New York, 10007  
212-603-7784

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93 DUPONT STREET  
BROOKLYN, NY 11222

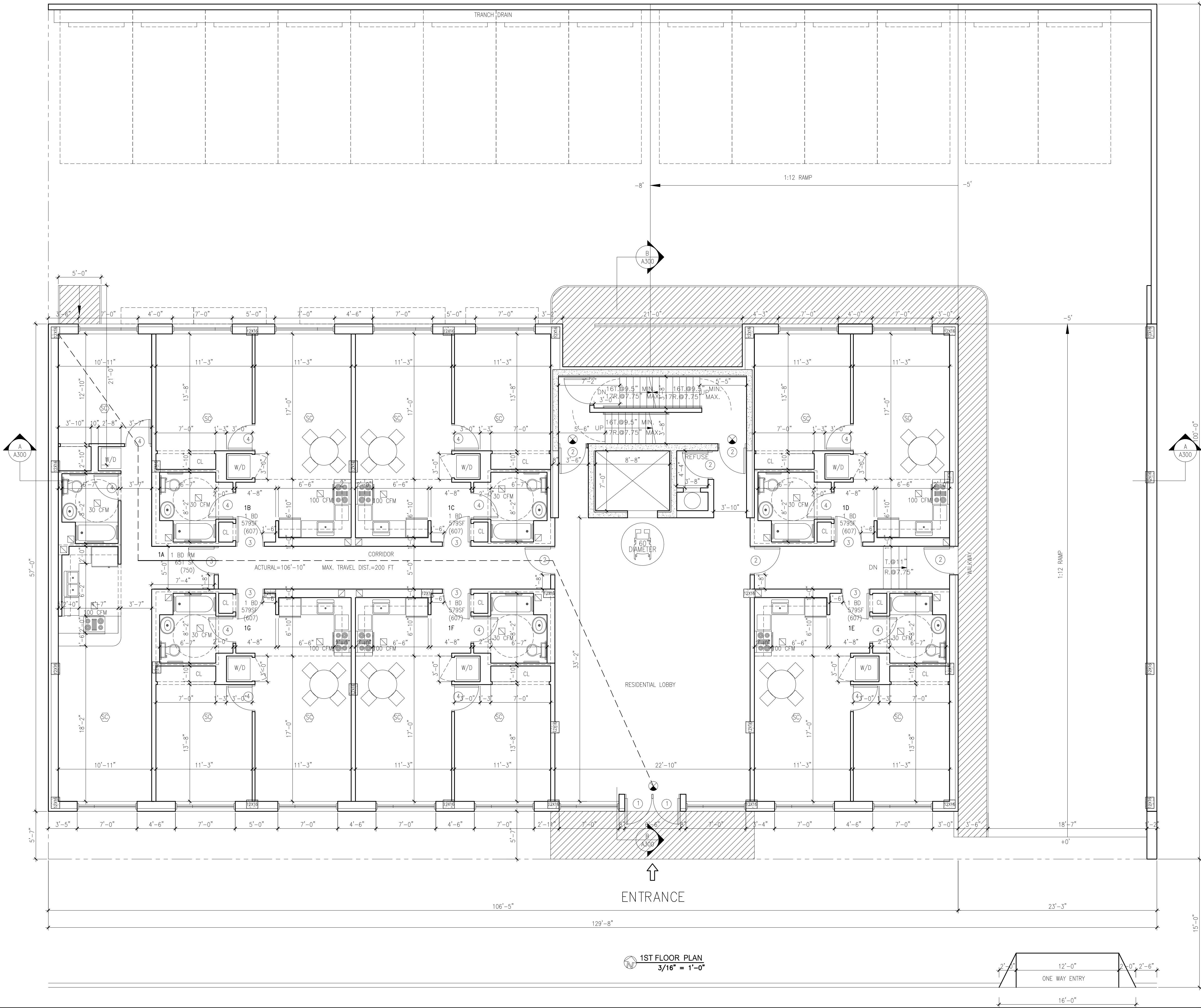
PROJECT NO.: 2015-00

DRAWING TITLE:

**CELLAR PLAN**

**A-101.00**

SCALE: 3/16"=1'-0" DRAWN BY: JC  
DATE: 8/3/2015



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T. 718 639 8088  
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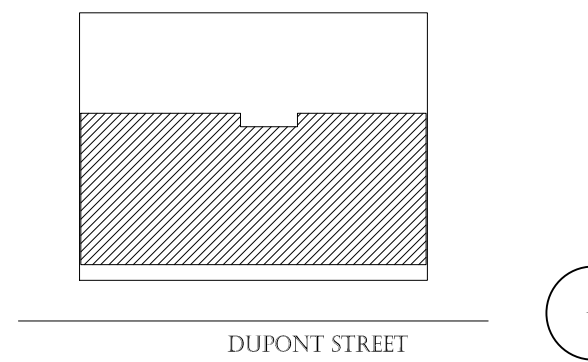
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T. 917-577-0025

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212-603-7784

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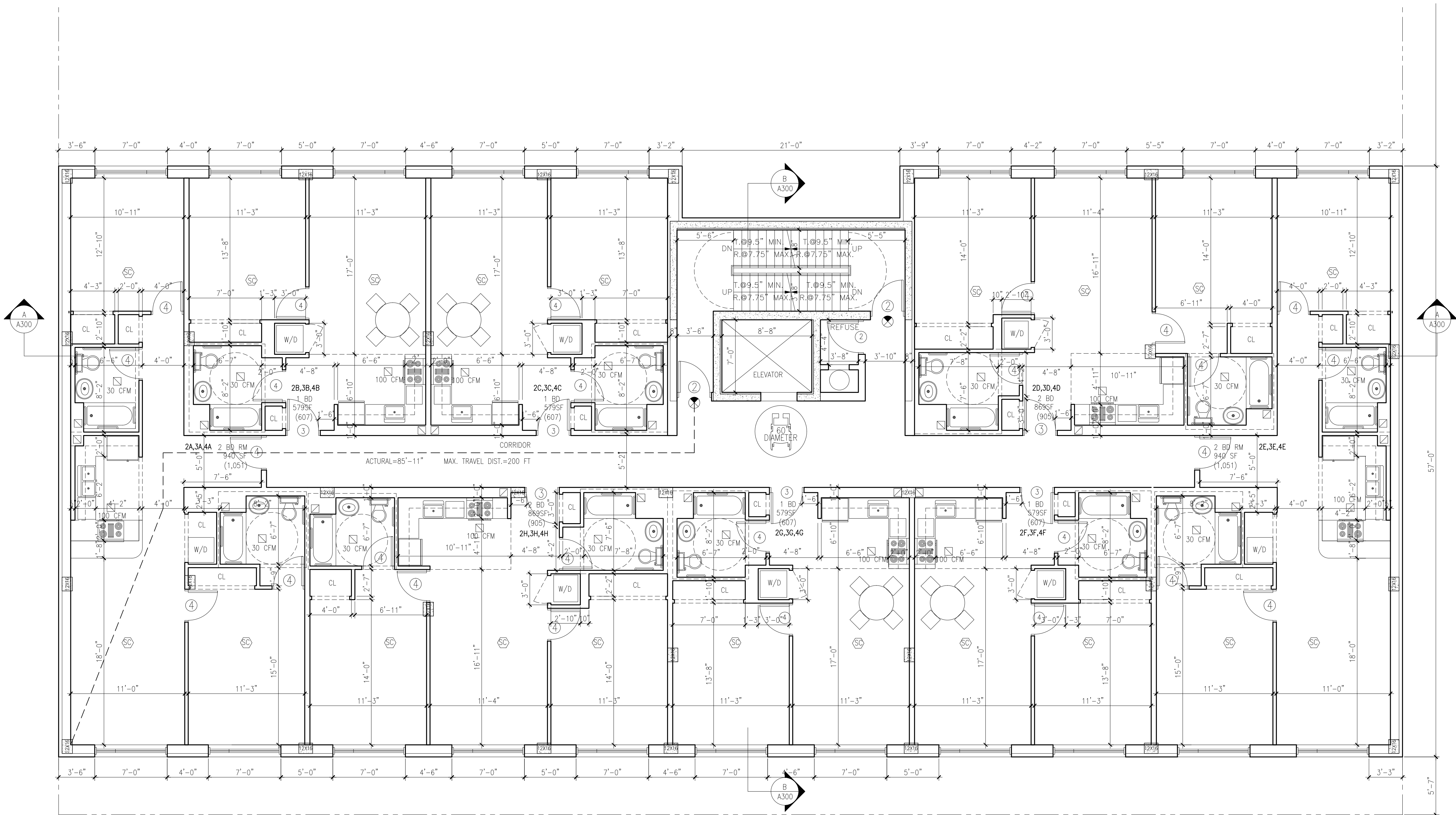
DRAWING TITLE:

**1ST FLOOR PLAN**

**A-102.00**

SCALE: 3/16"=1'-0" DRAWN BY: JC  
DATE: 8/3/2015





2ND - 4TH FLOOR PLAN  
3/16" = 1'-0"

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DEVELOPMENTS LLC**

86-26 QUEENS BLVD.  
ELMHURST, NY 11373  
T. 718 639 8088  
experta8@gmail.com

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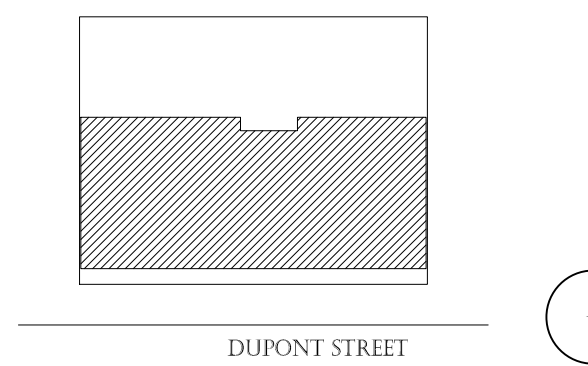
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Robert Lin  
A&T Engineering P.C.  
164-09 Northern Blvd. 2FL  
Flushing, NY 11358  
T. 917-577-0025

MEP. ENGINEER

Forrest Zhou  
CNY Engineering P.C.  
291 Broadway #704  
New York, 10007  
212-603-7784

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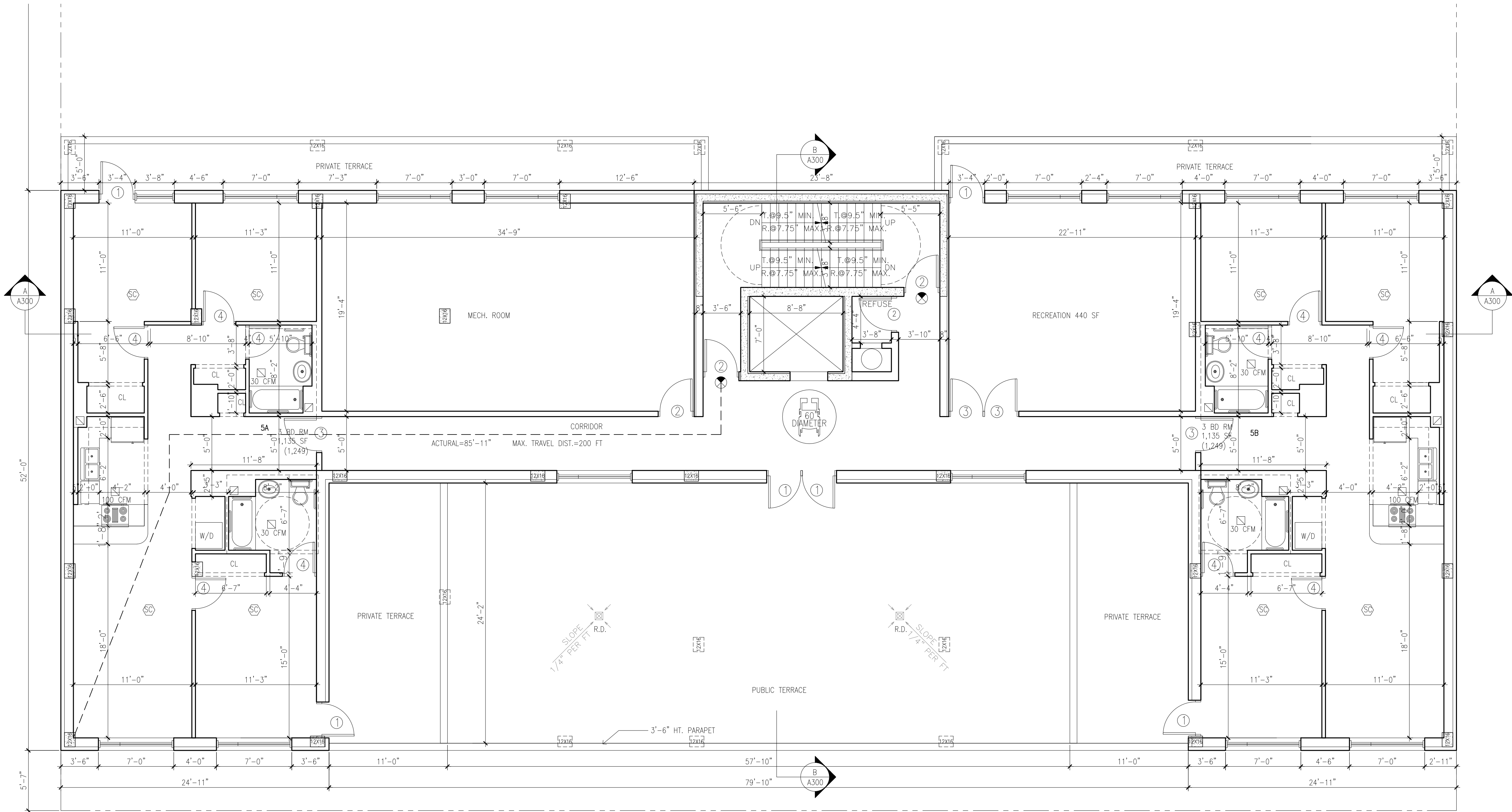
PROJECT NO.: 2015-00

DRAWING TITLE:

**2ND-4TH FLOOR PLAN**

**A-103.00**

SCALE: 3/16"=1'-0" DRAWN BY: JC  
DATE: 8/3/2015



5TH FLOOR PLAN  
3/16" = 1'-0"

DEVELOPER  
**DUPONT STREET  
DEVELOPMENTS LLC**

86-26 QUEENS BLVD.  
ELMHURST, NY 11373  
T. 718 639 8088  
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Elmhurst, NY 11373  
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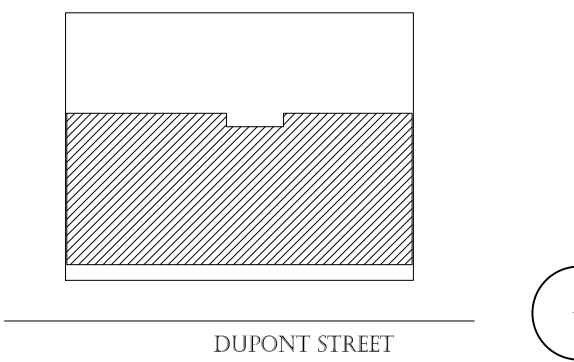
STR. ENGINEER

Robert Lin  
A&T Engineering P.C.  
164-09 Northern Blvd. 2FL  
Flushing, NY 11358  
T. 917-577-0025

MEP. ENGINEER

Forrest Zhou  
CNY Engineering P.C.  
291 Broadway #704  
New York, 10007  
212-603-7784

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PROJECT NO.: 2015-00

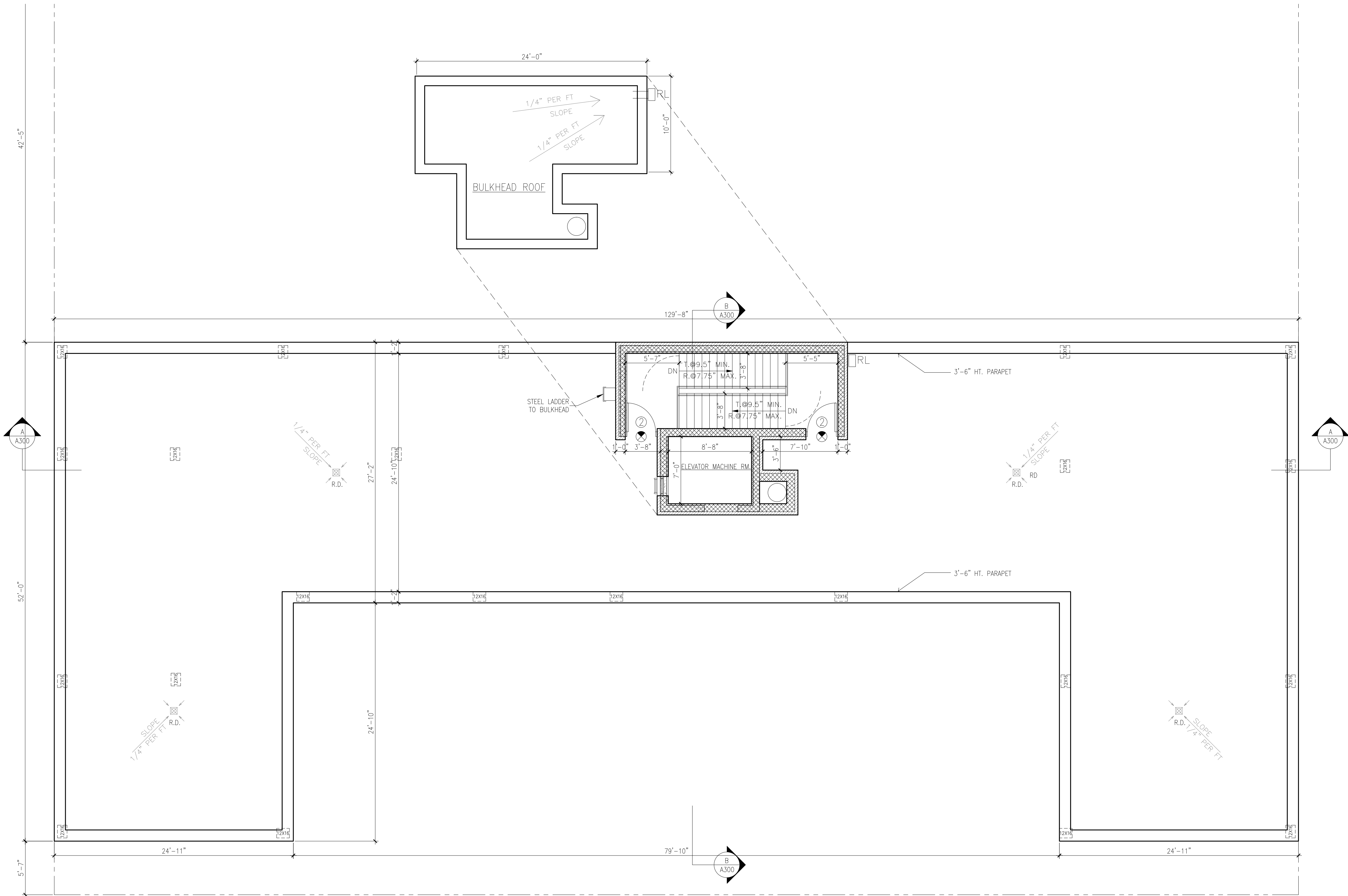
DRAWING TITLE:

**5TH FLOOR PLAN**

**A-104.00**

SCALE: 3/16"=1'-0" DRAWN BY: JC  
DATE: 8/3/2015





ROOF PLAN  
3/16" = 1'-0"

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**DUPONT STREET  
DEVELOPMENTS LLC**

86-26 QUEENS BLVD.  
ELMHURST, NY 11373  
T. 718 639 8088  
experta8@gmail.com

ARCHITECT

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EM Architectural  
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Elmhurst, NY 11373  
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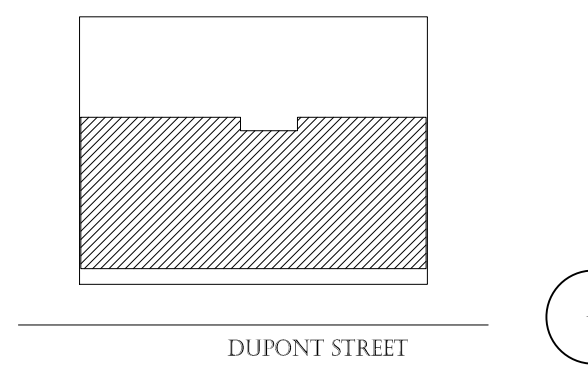
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DRAWING TITLE:

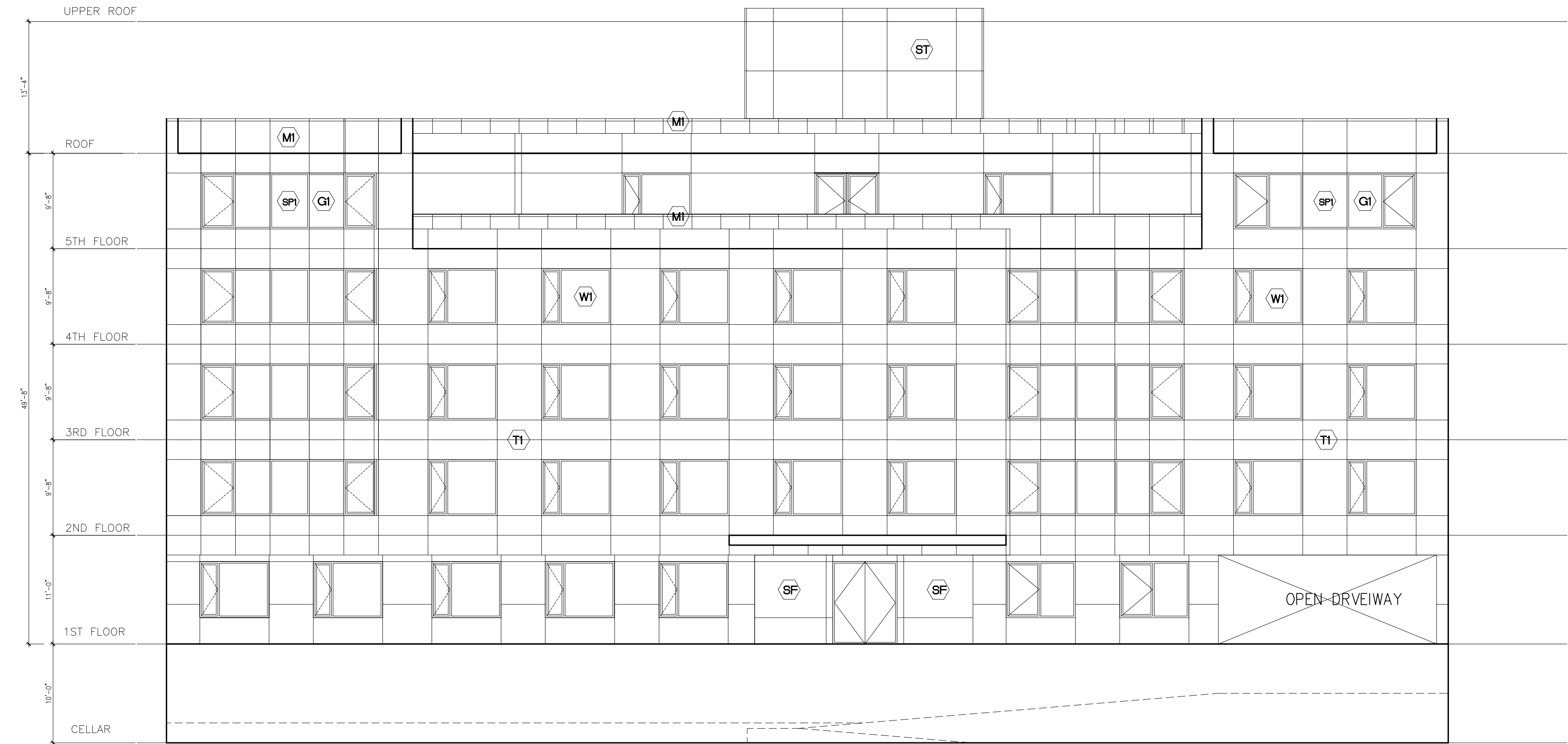
**ROOF PLAN**

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SCALE: 3/16"=1'-0" DRAWN BY: JC  
DATE: 8/3/2015



REAR (NORTH) ELEVATION  
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FRONT (SOUTH) ELEVATION  
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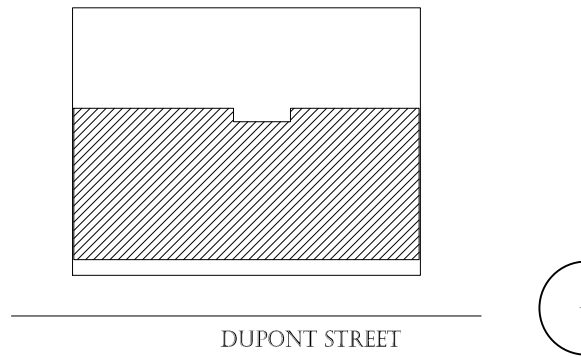
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- (T1) ARCHITECTURAL TERRA COTTA CLAD PANEL.
  - (M1) WINDOW WALL SPANDREL PANEL AT PARAPET-TYP.
  - (W1) ALUM. WINDOW SYSTEM W/ 1" LAMINATED GLAZING-TYP.
  - (SP1) WINDOW WALL - 1/4" MTL. SPANDREL PANEL-TYP.
  - (SF) FRAMELESS STOREFRONT-TYP.
  - (G1) WINDOW WALL - 1" LAMINATED GLAZING PANEL-TYP.
  - (ST) STUCCO PANEL COLOR TO MATCH ARCHITECTURAL TERRA COTTA-TYP.
  - (B1) 4" BRICK - COLOR A - TYP.
  - (B2) 4" BRICK - COLOR B - TYP.
  - (CS) 3" OR 6" CAST STONE COPING - TYP.
  - CANOPY - TYP.

DEVELOPER  
**DUPONT STREET DEVELOPMENTS LLC**

86-26 QUEENS BLVD.  
ELMHURST, NY 11373  
T. 718 639 8088  
experta8@gmail.com

ARCHITECT  
Wen-Hau HSU R.A.  
EM Architectural  
Design PLLC  
Elmhurst, NY 11373  
T. 718-639-8088  
STR. ENGINEER  
Robert Lin  
A&T Engineering P.C.  
164-09 Northern Blvd. 2FL  
Flushing, NY 11358  
T. 917-577-0025  
MEP. ENGINEER  
Forrest Zhou  
CNY Engineering P.C.  
291 Broadway #704  
New York, 10007  
212-603-7784

SEAL		
1	10/01/15	UPDATED SET
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PROJECT TITLE:  
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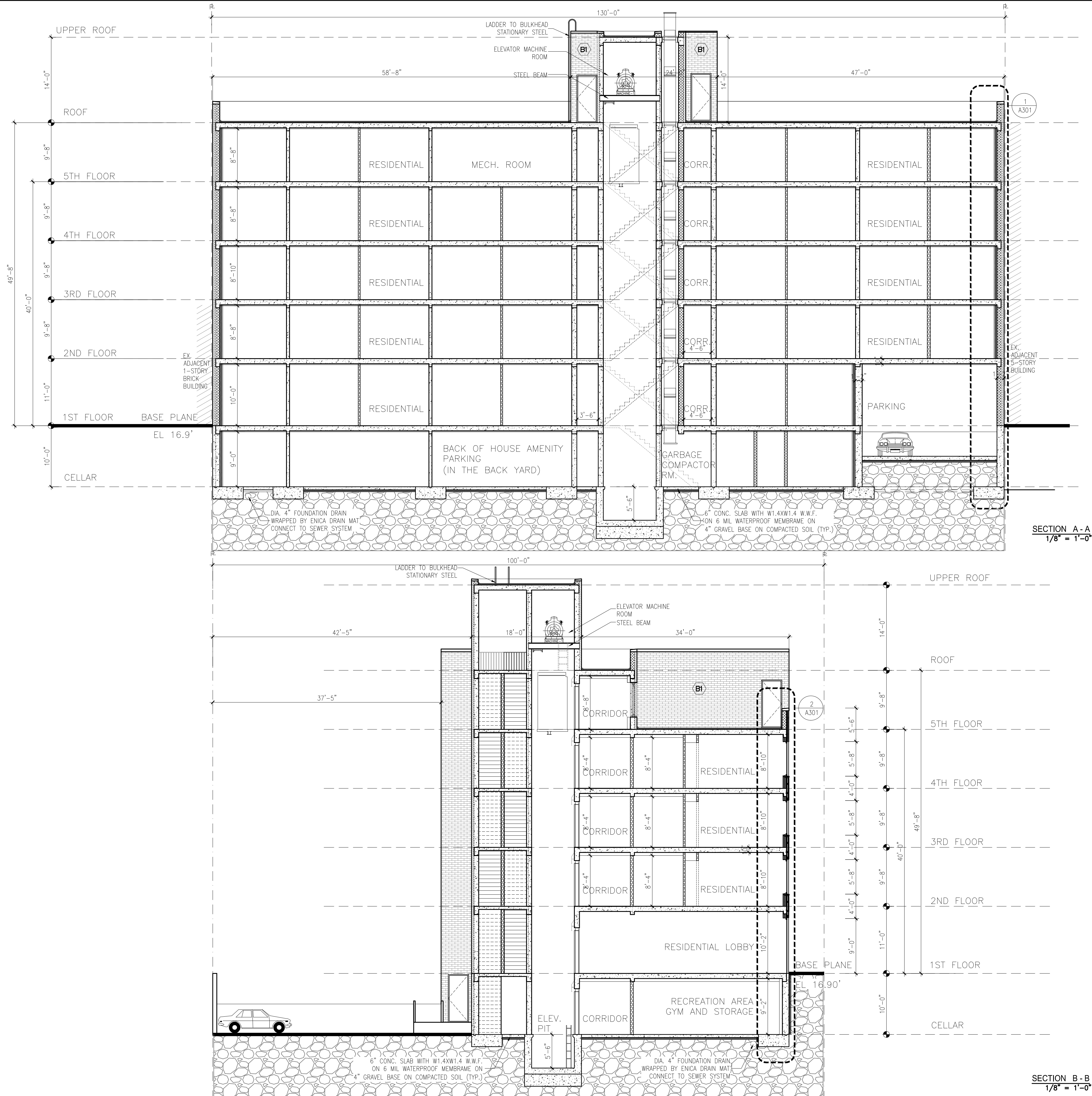
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BROOKLYN, NY 11222

PROJECT NO.: 2015-00

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**A-200.00**

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DATE: 8/3/2015



DEVELOPER  
**DUPONT STREET  
DEVELOPMENTS LLC**

86-26 QUEENS BLVD.  
ELMHURST, NY 11373  
T. 718 639 8088  
experta8@gmail.com

ARCHITECT

Wen-Hau HSU R.A.  
EM Architectural  
Design PLLC  
Elmhurst, NY 11373  
T. 718-639-8088

STR. ENGINEER

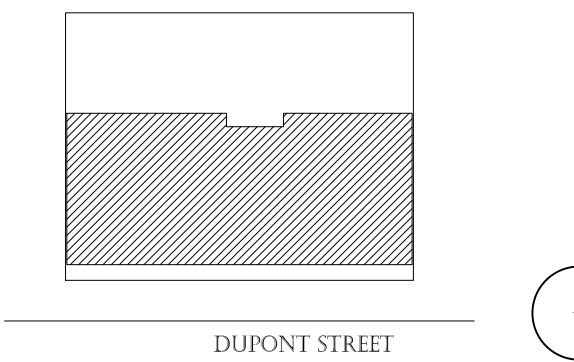
Robert Lin  
A&T Engineering P.C.  
164-09 Northern Blvd. 2FL  
Flushing, NY 11358  
T. 917-577-0025

MEP. ENGINEER

Forrest Zhou  
CNY Engineering P.C.  
291 Broadway #704  
New York, 10007  
212-603-7784

SEAL		
1	10/01/15	UPDATED SET
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REDEVELOPMENT  
PROJECT**

93 DUPONT STREET  
BROOKLYN, NY 11222

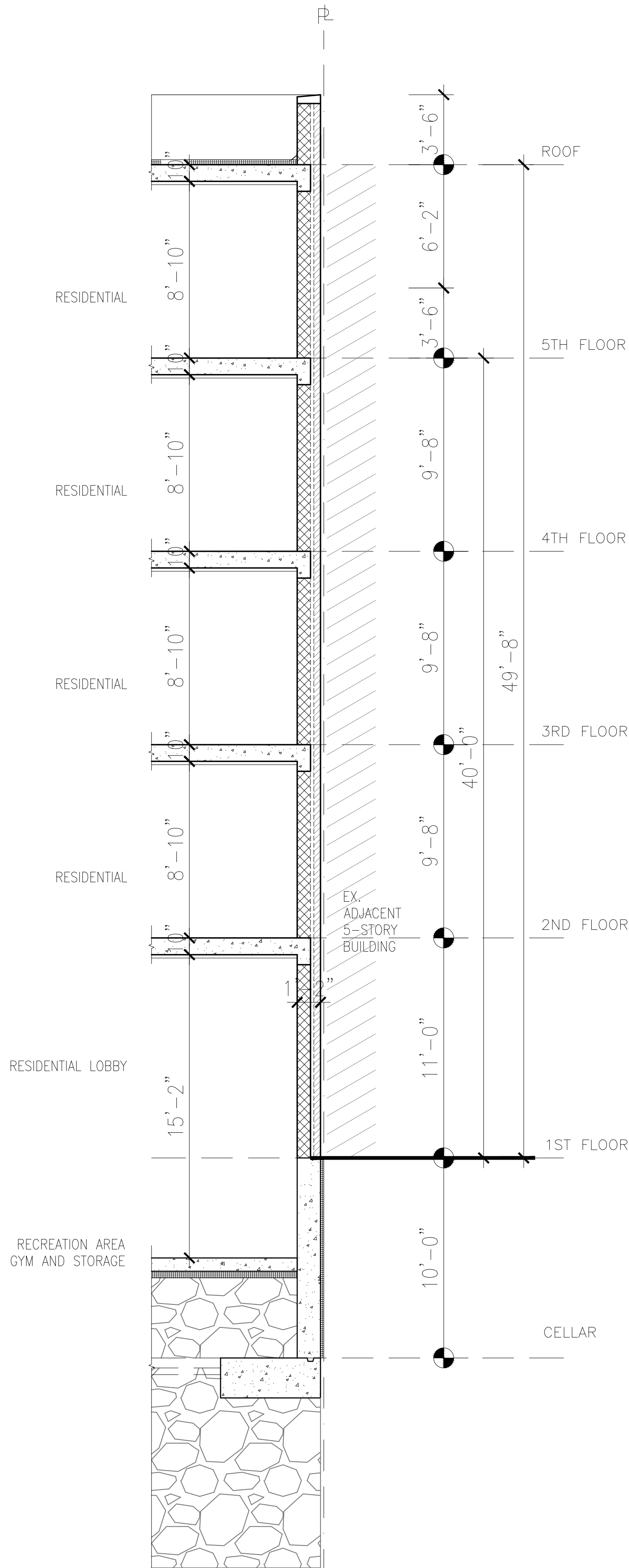
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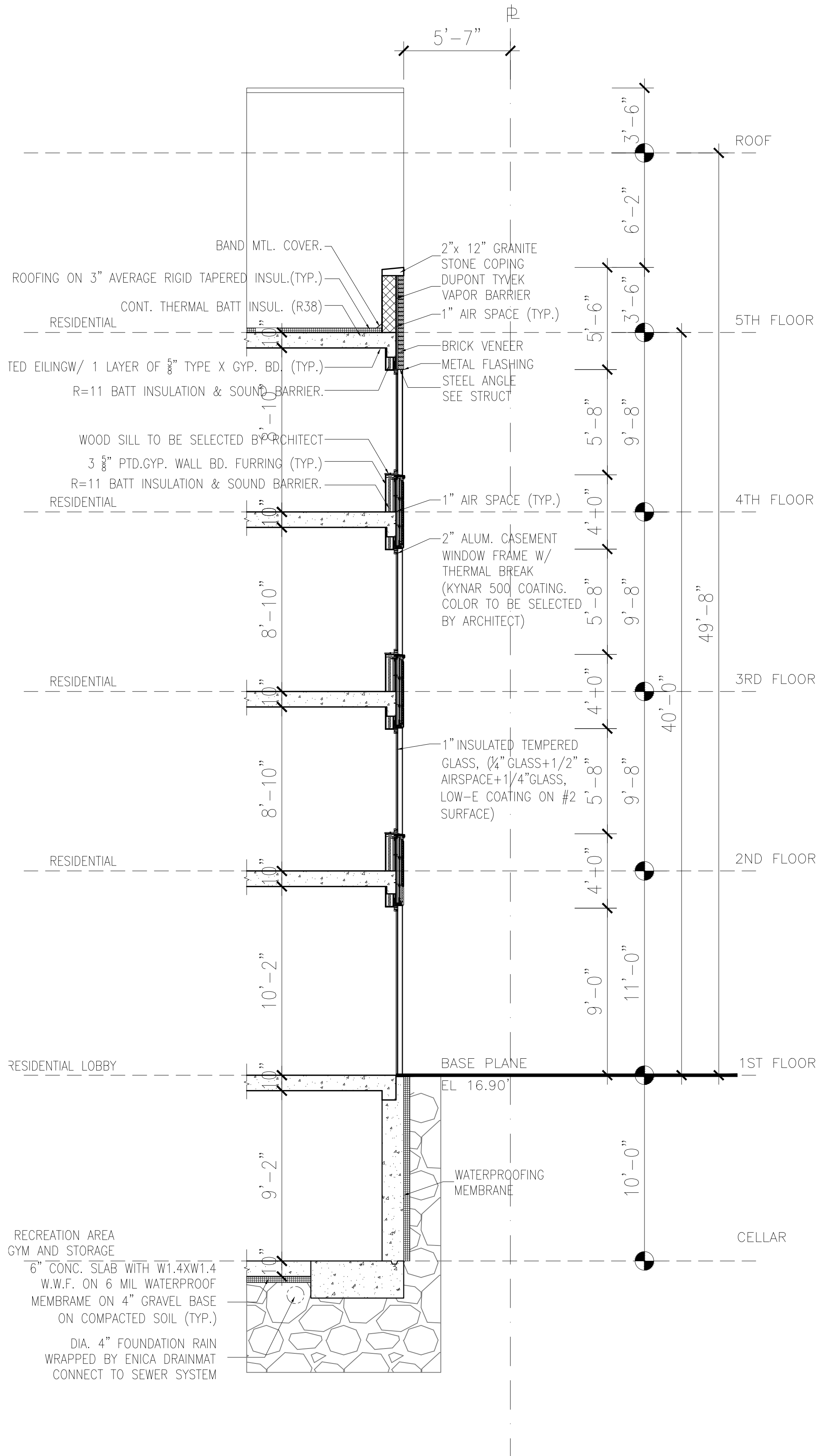
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SECTION B-B**

**A-300.00**

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DATE: 11/10/2015



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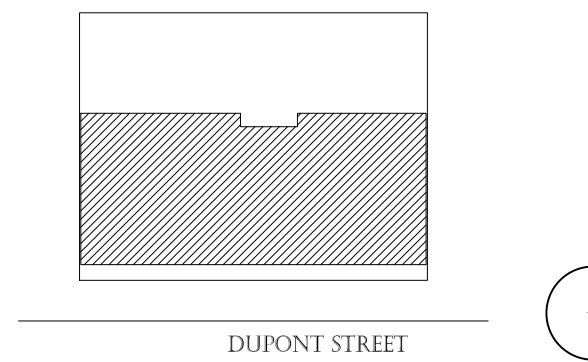
2 WALL SECTION-CELLAR TO 5TH FL.  
SCALE: 1/4"=1'-0"

DEVELOPER  
**DUPONT STREET  
DEVELOPMENTS LLC**

86-26 QUEENS BLVD.  
ELMHURST, NY 11373  
T. 718 639 8088  
experta8@gmail.com

ARCHITECT  
Wen-Hau HSU R.A.  
EM Architectural  
Design PLLC  
Elmhurst, NY 11373  
T. 718-639-8088  
STR. ENGINEER  
Robert Lin  
A&T Engineering P.C.  
164-09 Northern Blvd. 2FL  
Flushing, NY 11358  
T. 917-577-0025  
MEP. ENGINEER  
Forrest Zhou  
CNY Engineering P.C.  
291 Broadway #704  
New York, 10007  
212-603-7784

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NO.	DATE	REVISION
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PROJECT TITLE:  
**93 DUPONT ST.  
REDEVELOPMENT  
PROJECT**

93 DUPONT STREET  
BROOKLYN, NY 11222

PROJECT NO.: 2015-00

DRAWING TITLE:

**WALL SECTION  
CELLAR TO ROOF  
CELLAR TO 5TH FL.**

**A-301.00**

SCALE: 1/8"=1'-0" DRAWN BY: JC  
DATE: 11/10/2015

# **REMEDIAL INVESTIGATION REPORT**

## **Former NuHart Plastic Manufacturing Site**

**280 Franklin Street  
Brooklyn, New York**

**NYSDEC Hazardous Waste Site: 224136**

**July 30, 2015**

**ESI File: SB09110**

**Prepared By:**



**Ecosystems Strategies, Inc.**

24 Davis Avenue, Poughkeepsie, NY 12603

phone 845.452.1658 | fax 845.485.7083 | [ecosystemsstrategies.com](http://ecosystemsstrategies.com)

# REMEDIAL INVESTIGATION REPORT

**Former NuHart Plastic  
Manufacturing Site  
280 Franklin Street  
Brooklyn, New York**

**NYSDEC Hazardous Waste Site: 224136**

**July 30, 2015**

**ESI File: SB09110.52**

**Prepared By:**

**Ecosystems Strategies, Inc.  
24 Davis Avenue  
Poughkeepsie, New York 12603**

**Prepared For:**

**Dupont Street Developers LLC  
390 Berry Street, Suite 200  
Brooklyn, New York 11249**

I Paul H. Ciminello certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Remedial Investigation Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved Work Plan and any DER-approved modifications.



Paul H. Ciminello  
President

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## **1.0 INTRODUCTION**

### **1.1 Purpose**

This Remedial Investigation Report (RIR) summarizes environmental investigation services performed by Ecosystems Strategies, Inc. (ESI) at the Former NuHart Plastic Manufacturing Site, located at 280 Franklin Street, Brooklyn, New York (the “Site”).

The investigative work was performed to document the extent of known contamination resulting from former manufacturing and industrial uses of the property. All investigations were conducted consistent with the NYSDEC approved Remedial Investigation Work Plan (RIWP, November 2011), directives from NYSDEC to conduct additional groundwater investigation, Supplemental Remedial Investigation Work Plan (SRIWP, July 2013), NYSDEC-approved Scope of Work for installation of monitoring wells at the adjoining Greenpoint Playground to the west (June 2014) and TCE Delineation Work Plan (TCEWP, September 2014), collectively referenced in this report as the “Work Plan”. Any variations from the approved Work Plan are described in Section 3.1.8. This RIR summarizes data from previous environmental investigations performed by ESI and other environmental investigators (see Section 2.3), details fieldwork methodologies and sample collection procedures employed during implementation of the Work Plan (remedial investigation [RI]), documents laboratory analysis of samples collected in all media (soil, vapor and groundwater), and provides conclusions and recommendations based on the fieldwork and analytical data.

### **1.2 Limitations**

This written analysis is an assessment of the Former NuHart Plastic Manufacturing Site located at 280 Franklin Street in Brooklyn, New York and is not relevant to any other property. It is a representation of those portions of the property analyzed as of the respective dates of the fieldwork.

Services summarized in this RIR were performed in accordance with the approved Work Plan and in general conformance with NYSDEC Division of Environmental Remediation Technical Guidance for Site Investigation and Remediation (DER-10), dated May 2010. Unless specifically noted, the findings and conclusions contained herein must be considered not as scientific certainties, but as probabilities based on professional judgment.

### **1.3 Objectives**

ESI conducted an environmental investigation at the Site in order to:

- Characterize on-site and off-site soil and groundwater quality. Soil and groundwater samples directly related to the Site were analyzed for target compound list (TCL) volatile organic compounds (VOCs) plus tentatively identified compounds (TICS), semi-volatile organic compounds (SVOCs) plus TICS and Target Analyte List (TAL) metals in accordance with the Work Plan.
- Determine the impacts from historical site uses and the nature and extent of contamination in soil, groundwater and soil vapor.
- Obtain information sufficient to determine an appropriate remedial action.

## **2.0 SITE DESCRIPTION**

### **2.1 Site Location and Description**

The approximately 1-acre Site is identified on the city tax map as Block No. 2487, Lots No. 1, 10, 12, 72 and 78 (the dimensions of the Site are approximately 240 feet by 200 feet). The Site is comprised of the western portion of a vacant industrial building complex (the former NuHart Plastic Manufacturing facility) located in the Greenpoint section of Brooklyn, Kings County, New York. A Site Location Map, indicating the IHWDS boundary, is provided as Figure 1, Appendix A.

The Site is entirely covered by a complex of industrial buildings of various heights and dimensions. Historic maps indicate that the buildings were constructed at different times and agglomerated into the current “complex”. As a result, many interior walls have footings and subgrade utility networks, representing constraints to current investigative efforts and, likely, future remedial work.

The Site is bordered immediately to the north by commercial/industrial buildings across Clay Street, to the east by remaining portions of the NuHart building, to the south by multi-family residential structures across Dupont Street and to the west by a New York City Park (Newtown Barge Playground) across Franklin Street. Residential buildings are located immediately east of the NuHart facility. Figure 2 (Appendix A) illustrates area-wide land uses in the vicinity of the Site.

Former industrial operations at the Site have impacted on-site and off-site soil and groundwater through releases of phthalates and lubricating oil from holding tanks and piping networks. Phthalates and a phthalate/oil mixture are present as widespread light non-aqueous phase liquid (LNAPL) impacting soil and floating on the groundwater. Dissolved groundwater contamination is generally limited to phthalates and localized impacts from a former release of chlorinated solvents.

The Site entered the New York State Inactive Hazardous Waste Disposal Site (IHWDS) Remedial Program (also known as the State Superfund Program) in July 2010 and is identified as Site No. 224136.

A NYSDEC spill event (file No. 0601852) has been reported for the NuHart property based on a release of petroleum from former underground storage tanks (USTs); the spill area, however, is located east of the Site at the northeastern portion of the building and is the subject of a separate remedial action. Data generated during the spill investigation has been incorporated into this RIR as appropriate, in order to document environmental conditions outside the Site boundaries.

### **2.2 Physical Setting**

#### **2.2.1 Site Topography**

Information on the subject property's topography was obtained from the review of the United States Geological Survey (USGS) Topographic Map of the Brooklyn, New York Quadrangle and from observations made during the RI. The property is located in a relatively level urban area, which generally has surface elevations ranging from 10 to 15 feet above mean sea level (msl), with overall gentle downward slopes to the west-northwest, toward the confluence of the nearby East River and Newtown Creek. The Site is located within an industrial building, with a concrete floor at an elevation

generally matching grade level along Dupont and Clay Streets (eastern portion of building) and above grade level at Franklin Street (western portion of building).

### **2.2.2 Site Geology**

U.S. Geological Survey reports describe the subsurface sequence in the general vicinity of the Site as unconsolidated fill overlying salt-marsh deposits and alluvium, typically underlain by till and ground moraine of the Upper Glacial Aquifer.

Subsurface soils exposed in mechanical borings extended during the RI to approximately 20 feet below surface grade (bsg) were noted to generally consist of fine to coarse, brown and gray sands, with variable proportions of gravel, silt and clay. Likely fill materials were noted beneath the building slab throughout the Site. Sandy silt, sandy and silty clay, and clay were noted in deeper saturated intervals at several locations. A single boring (3SB-6) extended to document soil conditions from 20 to 30 feet bsg contained a dense, continuous layer of gray to red silty clay. No bedrock was encountered in any boring.

Geotechnical borings were extended on- and off-site by Soil Mechanics Drilling Corp. in November and December 2014 (outside the scope of the Work Plan), in support of future development activities. Borings documented a general subsurface sequence of sandy fill located beneath the building slab, poorly-graded sands and silty sands extending into the saturated zone, and underlying layers of low-plasticity clays and silts (the clay layers were not observed at the western edge of the Site). Hard crystalline bedrock (gneiss) was encountered at depths of approximately 50 to 60 feet bsg.

A geological cross-section of the Site is presented on Figure 4, Appendix A. Soil boring methodology and observations are described in Section 3.3, soil boring logs from the RI and a copy of the geotechnical Boring Plan are presented in Appendix C, and driller's monitoring well construction logs are provided in Appendix D.

### **2.2.3 Site Subsurface Hydrogeology**

Monthly well gauging data from September 2012 through March 2015 indicate that groundwater depth ranges from approximately 7 to 12 feet below grade (in the immediate vicinity of the well), with minimum groundwater depths generally recorded during the winter. Saturated soils observed during the extension of borings and the installation of monitoring wells generally consist of poorly-graded, variable texture sands with some silt and gravel.

Groundwater flow at the Site (as measured at 7 of 35 wells in March 2014) is in an overall westerly direction, towards the East River (located approximately 450 feet west of the property), and is somewhat tidally influenced west of the Site. Groundwater flow and tidal influences are discussed in Section 3.4.3.

## **2.3 History of Site and Previous Environmental Investigations**

ESI has reviewed previous environmental reports issued by Advanced Site Restoration, LLC (ASR), including an Underground Tank Closure Report dated July 2006 (ASR TCR), a Phase II Site Assessment dated March 2007 (ASR Phase II) and several groundwater gauging and sampling reports (November and December 2007, August 2008 and March 2009 (ASR Groundwater Reports). Copies of these reports are provided in Appendix E.

The ASR Phase II summarizes the findings of previous environmental site assessment reports for the NuHart facility issued by RTP Environmental Associates Inc. (Preliminary Phase I Site Assessment) and FPM Group (Phase I Environmental Site Assessment). Commercial uses of the property prior to 1950 included manufacturing (metalworking, light fixtures, soap and water proofing materials); after 1950 the building complex was primarily used for the production, storage, and shipping of plastic and vinyl products by several tenants (the last tenant ceased operation in 2004). These reports identified the presence of USTs containing plasticizers, lubricating oil, chemicals and fuel oil.

The ASR TCR documented the in-place closure of seventeen USTs and associated sub-grade pipe trenches. A total of 8 tanks containing plasticizers (phthalates) and 4 tanks containing “Super Hecla” oil (a heavy-weight machine lubricant) were located at the Site, and 5 tanks (3 fuel oil tanks and 2 chemical tanks [methyl tert-butyl ketone and acetone]) were located east of the Site at the northeastern corner of the Building.

The ASR Phase II documents a soil and groundwater investigation beneath the NuHart building and at nearby public sidewalks. Petroleum contamination was found in the vicinity of former fuel oil tanks at the northeastern portion of the building (NYSDEC spill site) and phthalate impacts were found at the western portion of the building complex (the Site). Observations and laboratory findings presented in the report, which apply to the Site, are discussed below.

- Liquid phthalates were observed as LNAPL in groundwater wells, and elevated levels of phthalates were detected in soil and groundwater samples. LNAPL was found in monitoring and recovery wells throughout the Site and beneath adjoining sidewalk areas.
- A total of 46 soil samples from 37 Site sampling locations were submitted for laboratory analysis of semi-volatile organic compounds (SVOCs) and volatile organic compounds (VOCs). Total phthalate compounds were detected above 1,000 parts per million (ppm) in 6 samples (generally from deep soil near the groundwater interface), between 100 and 1,000 ppm in 4 samples, and below 100 ppm in 20 samples. Other semi-volatile organic compounds were detected in 11 samples, with 5 samples containing compounds slightly above NYSDEC Remedial Program Soil Cleanup Objectives (SCOs) for Restricted-Residential Use (RRUSCOs); these SVOC detections were generally limited to soils from 0 to 5 feet bsg. VOCs were detected below SCOs for Unrestricted Use in 8 samples.
- Additional analyses for TAL metals, PCBs and pesticides were completed for 4 Site soil samples. Low-level exceedances of RRUSCOs for metals (arsenic, barium, copper, lead and/or mercury) were detected in 3 samples. Re-analysis of the sample containing elevated mercury showed no contamination. PCBs were detected in only 1 sample at trace levels. No samples contained detectable levels of pesticides.
- Groundwater from 9 Site monitoring wells (within the building and in nearby sidewalks) was submitted for laboratory analysis of VOCs (petroleum related compounds, only) and SVOCs. Phthalates were detected above NYSDEC standards in 6 wells, with 4 wells located within the LNAPL plume exhibiting levels of total phthalate compounds above 100,000 parts per billion. Low-level exceedances of VOCs were detected in 2 wells.

ASR conducted an interim remedial measure (IRM) from 2006 through 2009, consisting of the removal of LNAPL from recovery wells located within the building, using both manual bailing and automated equipment (approximately 9,000 gallons were removed). LNAPL was historically detected in Site monitoring wells MW-4 through MW-7, MW-15 and MW-16, and recovery wells RW-2 through RW-12. Concurrent quarterly groundwater sampling for petroleum compounds and phthalates documented ongoing contamination by dissolved phthalates and an absence of any significant dissolved VOCs.

ESI began overseeing IRM activities at the Site in December 2009. Product recovery belt skimmers were installed at recovery wells RW-8 and RW-12 in October 2010 to enhance the product recovery system previously installed by ASR (pumping units at RW-3 and RW-10). Product recovery activities by ESI through January 2015 account for removal of approximately 12,400 gallons from the subsurface are documented in monthly reports submitted to NYSDEC. Historical LNAPL gauging data (September 2012 to March 2014) are presented in Table 15, Appendix B.

An Interim Investigation Report issued by ESI in April 2010 documents additional site investigation completed prior to the listing of the western portion of the NuHart property as an IHWDS. A copy of the Interim Investigation Report is provided in Appendix E and observations and laboratory findings presented in the report are discussed below.

- An analysis of the LNAPL present in RW-7, located at the northeastern portion of the building near the former fuel oil USTs, documented an absence of significant levels of phthalates. This finding indicated that the free product present in the recovery well was not an admixture of industrial wastes and could continue to be managed as a petroleum release.
- LNAPL at MW-4 (eastern portion of the Site) was observed to have a light yellow color and was identified as a mixture of phthalates. Dark colored, sticky LNAPL was observed at the western portion of the property in MW-5 through MW-7, MW-15, MW-16, RW-2 through RW-6, and RW-8 through RW-12. LNAPL at RW-12 was identified as a mixture of phthalates and a high boiling point paraffinic, petroleum based oil (MW-4 did not contain a significant amount of petroleum based oil). LNAPL at MW-20 (off-site sidewalk on the southern side of Dupont Street) was identified as bis(2-ethylhexyl)phthalate (DEHP). The apparent depth of free product in monitoring wells ranged from approximately 0.2 to 4.9 feet.
- No LNAPL was detected in RW-1 and exterior wells MW-8 (located in the sidewalk directly north of the building) and MW-12, MW-13 and MW-14 (located to the northwest and west across the adjoining roadways).
- Groundwater was determined to be flowing from the east to the west across the property. Off-site monitoring wells MW-12 and MW-13 (located to the northwest of the Site) were determined to be tidally influenced; nearby monitoring well MW-14 (located west of the Site), and MW-1, MW-2 and MW-3 (located east of the Site), however, were not tidally influenced.

- Water quality samples from off-site monitoring wells without overt LNAPL contamination (MW-3, MW-10, MW-12, MW-13 and MW-14) were analyzed for VOCs and SVOCs (full list parameters). No significant levels of dissolved phthalates were detected. Trichloroethylene (TCE) was detected at 15 µg/L in off-site well MW-13. No other significant levels of analytes were found in any samples.

## **2.4 Proposed Future Use of the Site**

Future use of the former NuHart Plastics Manufacturing property, which includes the Site, is expected to be either restricted-residential or mixed use (restricted-residential and commercial). No specific redevelopment designs have been set forth by the Site Owner or other interested parties.



### **3.0 SITE INVESTIGATION**

ESI extended a total of 55 soil borings during performance of the RI, with an additional 8 borings extended solely for the collection of soil vapor. Permanent groundwater monitoring wells were installed at 22 of the soil boring locations.

The RI findings are supplemented by data collected from the extension of 7 soil borings in the adjoining spill site area, 3 of which were converted to permanent groundwater monitoring wells, and by groundwater quality and product identification data collected in 2010, documented in ESI's Interim Investigation Report.

Fieldwork activities, laboratory submission and a qualitative human health exposure analysis are presented below. Analytical results from a total of 146 samples (inclusive of supplemental data) are provided in Tables 1 through 13 and a summary of sample collection and submission to the laboratory is provided in Table 14, Appendix B. Soil boring logs are presented in Appendix C, driller's monitoring well construction logs are presented in Appendix D and results from the Community Air Monitoring Plan (CAMP) are provided in Appendix G.

#### **3.1 General Provisions**

##### **3.1.1 Utility Markout**

Prior to the initiation of fieldwork (and prior to any subsequent intrusive fieldwork), a request for a complete utility markout of the subject property was submitted by ESI as required by New York State Department of Labor regulations. Confirmation of underground utility locations was secured and a field check of the utility markout was conducted prior to the extension of soil borings and/or the installation of monitoring wells. Additional markout services were provided, as warranted, by private contractors prior to fieldwork conducted in public sidewalks.

##### **3.1.2 Agency Notification**

The NYSDEC was notified in writing and/or via email prior to the initiation of all fieldwork. Changes to fieldwork scheduling and interim updates were provided via email and/or telephone calls.

##### **3.1.3 Equipment Decontamination and Calibration**

Prior to the initiation of fieldwork, all field equipment used during the work was properly decontaminated in accordance with NYSDEC guidelines, and all field instruments were properly calibrated in accordance with procedures set forth by the equipment manufacturer(s).

A photo-ionization detector (PID) was utilized by ESI personnel to screen all encountered material for the presence of any volatile organic vapors where appropriate. Prior to the initiation of fieldwork, this PID was properly calibrated to read parts per million calibration vapor equivalents (ppm-cge) of isobutylene in accordance with protocols set forth by the equipment manufacturer.

##### **3.1.4 Investigation Derived Waste**

Waste materials generated during Site investigation were stored within the on-site structure and periodically disposed of off-site at permitted facilities. Water generated during development and sampling of wells was placed into intermediate bulk storage containers (approximately 250- to 400-

gallons) utilized for the storage of phthalates and phthalate/water mixes removed from recovery wells. Phthalates and phthalate/water mixes removed from the Site have been classified as hazardous wastes. Soil cuttings not returned to boreholes and used equipment (e.g., gloves, spent absorbent pads, bailers, etc.) were placed into labeled 55-gallon drums and disposed off-site at permitted facilities. Waste disposal manifests are provided in Appendix F.

### **3.1.5 Subcontractors**

ESI supervised the advancement of soil borings and/or the installation of monitoring wells by Todd Syska, Inc. (Syska), Soil Testing, Inc. (Soil Testing), Zebra Environmental Corporation (Zebra), Haz-Probe, Inc. (HPI) and Associated Environmental Services, Ltd (AES). The Health and Safety Plan (HASP) prepared for the Work Plan was reviewed with all on-site subcontractors. ESI personnel served as the Site Health and Safety officer during all on-site work. ESI personnel developed all monitoring wells and collected all soil, soil vapor and groundwater samples.

Laboratory services were subcontracted to New York State Department of Health (NYSDOH) certified laboratories (York Analytical Laboratories, Inc. [York, ELAP Certification Number 10602] and Alpha Analytical [Alpha, ELAP Certification Number 11148]). Data Usability Summary services were completed by EnviroAnalytics of Utica, New York and ZDataReports of Syracuse, New York.

Waste disposal services for non-hazardous soil, and hazardous liquid and solid wastes, were provided by Miller Environmental Group of Westbury, New York.

### **3.1.6 Fieldwork Observations, Sample Collection and Sample Custody**

An assessment of field conditions (e.g., soil type, indications of contamination, PID readings) was made during the collection of all samples. ESI personnel maintained field logs documenting all field observations and measurements (see soil boring logs in Appendix C).

All media samples were collected in a manner consistent with NYSDEC sample collection protocols. Dedicated, disposable gloves were worn by all personnel handling samples, and collected media was placed into laboratory-supplied containers. All sample containers were maintained at low temperature prior to, and during, transport to the laboratory for analytical testing. Appropriate chain-of-custody procedures were followed.

Non-dedicated sampling equipment was decontaminated prior to initiation of fieldwork and before each new sample location, as appropriate.

### **3.1.7 Standards, Criteria and Guidance**

Standards, Criteria and Guidance (SCGs) applicable to media investigated during the RI are specified below.

#### *Soil*

SCGs for all compounds detected in soils are based on NYSDEC Remedial Program SCOs for Restricted-Residential Use (RRUSCOs) as provided in 6 NYCRR Subpart 375, Table 375-6.8(b) "Protection of Public Health" category, and on Supplemental SCOs and Soil Cleanup Levels (for gasoline and fuel oil contaminated Soils) presented in NYSDEC CP-51 Tables 1 through 3. Data summary tables for soil also provide SCOs for Unrestricted Use (UUSCOs) for comparative purposes.



SCOs for soils are referenced in units of micrograms per kilogram (ug/kg, parts per billion [ppb]) for VOCs and SVOCs and milligrams per kilogram (mg/kg, parts per million [ppm]) for metals.

#### *Water*

SCGs for all compounds detected in water are based on Ambient Water Quality Standards and Guidance Values (AWQS) presented in NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1). SCGs for groundwater are referenced in units of micrograms per liter (µg/L).

#### *Soil Vapor*

The State of New York does not have any standards, criteria or guidance values for volatile chemicals in subsurface vapors (either soil vapor or sub-slab vapor). Relatively high levels of VOCs in subsurface soil vapor are noted in the report text and in data summary tables in order to facilitate a discussion of investigative findings. The NYSDOH Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006) identifies several Air Guideline Values to be used in evaluating indoor air quality, which may be used in conjunction with sub-slab soil vapor data when evaluating the potential for soil vapor intrusion within buildings.

### **3.1.8 Documented Variations from the Approved Work Plan**

There were no significant deviations from the Work Plan that were critical to the validity of the conclusions and recommendations presented in Section 4.0.

Variations from the approved Work Plan are discussed in relevant sections of this RIR as follows:

- Soil Investigation: Several soil borings could not be extended due to site conditions (limited physical access and repeated subsurface refusal), and additional sampling locations were utilized to provide alternative sources of data and to further delineate known contaminant conditions (see Section 3.3).
- Groundwater Investigation: Proposed sampling was not conducted at several monitoring wells, based on either the presence of LNAPL or poor well recharge/absence of sufficient water (see Section 3.4).
- Installation of Recovery Wells: Proposed recovery wells RW-13 through RW-15 were not installed based on observations of slow/inefficient removal of LNAPL at existing recovery wells.

### **3.1.9 CAMP Findings**

VOC screening was conducted during all fieldwork activities; no significant VOC readings or exceedances were observed. No dust monitoring was completed for any work conducted inside the building. Data document the absence of any exceedances of dust levels during all intrusive fieldwork for which monitoring was completed. Dust data are presented in Appendix G.

## **3.2 Soil Vapor Investigation**

Soil vapor was collected at 14 on- and off-site locations (9 within the bounds of the IHWDS, 3 off-site within the eastern portion of the building and 2 off-site at the northern side of Clay Street). All soil

vapor sampling locations are shown on Figure 3, Sampling Location Map, Appendix A and a summary of sample collection and submission to the laboratory is provided in Table 14, Appendix B.

### **3.2.1 Sample Collection Methodology – Soil Vapor**

A soil vapor survey was completed to determine the level of VOCs in the soil vadose zone beneath and near the building complex. Soil vapor samples were collected from borings SG-1 through SG-4 on February 2, 2012 (proposed in the RIWP), borings 2SB-2 through 2SB-4, 2SB-6 through 2SB-8 and 2SB-10 on July 31, 2013, and 2SB-16 on December 4, 2013 (proposed in the SRIWP), and from borings 3SB-1 and 3SB-2 on September 22, 2014 (proposed in the TCEWP). The 2SB and 3SB sampling rounds were implemented at the request of NYSDEC in order to delineate elevated levels of TCE initially detected at SG-4 (and subsequently documented in several groundwater monitoring wells). Vapor samples 2SB-7 and 2SB-8 were collected immediately east of the Site boundary (within the building), 2SB-10 was collected off-site at the far northeastern portion of the building near adjoining residential property, 2SB-16 was collected from the northern portion of the Site in close proximity to Clay Street and 3SB-1 and 3SB-2 were collected from the northern sidewalk on Clay Street. Survey points are shown on Figure 3, Sampling Location Map, Appendix A.

Sub-slab soil vapor sampling was conducted from borings that were extended directly through the building slab or sidewalk using mechanized Geoprobe equipment, consistent with the approved Work Plan. The end of the sample tubing (0.188 inch inner diameter Teflon) was attached to an “air stone” filter and inserted through the slab breach to a point approximately 1 to 2 feet above the water table, and the boring was backfilled with clean silica sand.

The top of the bore hole was sealed using a non-VOC containing caulk in order to prevent the infiltration of surface air. The space around the sampling point was enclosed and sealed (with a metal hemisphere and clay) in order to introduce a tracer gas (helium) into the area surrounding the probe point. Helium was introduced into the enclosure and a helium detector (Radiodetection Multi-vapor Leak Locator, model MDG 2002) was utilized to determine when the interior atmosphere reached a concentration of 80% (helium was not used at 2SB-16 due to a tank malfunction). A vacuum pump was then utilized to purge the standing air from the tubing and open the soil interval. At least three borehole and tubing volumes were purged prior to sample collection at a rate of 0.2 liters per minute. Following purging, sub-slab soil vapor samples were collected over a one-hour period using a six-liter stainless steel, laboratory supplied Summa canister with a one-hour calibrated flow controller. For each sampling canister, the pre- and post-sample canister pressure, start and stop times, and location of each sampling point was recorded.

### **3.2.2 Fieldwork Observations – Soil Vapor**

Building slabs observed at the Site generally consisted of 4 to 8 inches of concrete in good condition, which allowed for the proper installation of monitoring points at the planned locations. No significant PID readings, odors or other evidence of contamination were noted during soil vapor sampling.

### **3.2.3 Laboratory Results – Soil Vapor**

All soil vapor samples were analyzed for VOCs (USEPA Method TO-15) and helium. Soil vapor sampling locations and detections of TCE and related compounds are shown on Figure 5 in Appendix

A, soil vapor data are summarized in Tables 1 and 2 in Appendix B and laboratory reports are provided in Appendix J.

TCE and tetrachloroethylene (PCE) were detected at 35,000  $\mu\text{g}/\text{m}^3$  and 830  $\mu\text{g}/\text{m}^3$ , respectively, at SG-3 during the first sampling round. The second sampling round documented a peak level of 43,000  $\mu\text{g}/\text{m}^3$  at 2SB-3, and 33,000  $\mu\text{g}/\text{m}^3$  at 2SB-2 (these sampling points are located in close proximity to each other north of SG-3 in the central portion of the building). TCE levels ranged from 5,600 to 14,000  $\mu\text{g}/\text{m}^3$  in samples 2SB-4 and 2SB-6 to 2SB-8. TCE was detected at 1,100  $\mu\text{g}/\text{m}^3$  at 2SB-16 (located near Clay Street). TCE levels at 3SB-1 and 3SB-2 were 6,130  $\mu\text{g}/\text{m}^3$  and 134  $\mu\text{g}/\text{m}^3$ , respectively.

Peak levels of 1,1,1-TCA (1,000  $\mu\text{g}/\text{m}^3$  and 430  $\mu\text{g}/\text{m}^3$ ) were found in soil vapor samples 2SB-7 and 2SB-8, respectively. No significant levels of chlorinated VOCs (cVOCs) were detected in 2SG-10, collected off-site at the eastern portion of the building, near occupied residential properties.

Low levels of multiple compounds (BTEX and other petroleum constituents, solvents, etc.) were detected at all sampling points.

#### **3.2.4 Nature and Extent of Contamination – Soil Vapor**

Significant soil vapor contamination is present in a limited portion of the building immediately surrounding and to the north of SG-3, and beneath the northern sidewalk at Clay Street. TCE levels in soil (see Section 3.3) have been documented above UUSCOs (but below RRUSCOs) at the northeastern corner of the Site and at the adjoining northern sidewalk, in the vicinity of elevated TCE vapor levels (cVOCs in soil are below UUSCOs at all other sampling locations). High levels of dissolved TCE have also been detected in groundwater at MW-8, MW-34 and MW-40 (see Section 3.4). Significantly lower levels of dissolved TCE have been detected at the immediately downgradient monitoring wells MW-4, MW-7, MW-21 and MW-39, with only slightly elevated levels detected at several of the more distant downgradient wells (e.g., MW-12, MW-13, MW-29 and MW-32).

These data support the conclusion that the cause of elevated soil vapor levels at the Site may be due to a limited solvent “hot spot” in soil and/or groundwater in the vicinity of the northeastern portion of the Site (peak TCE levels in both soil and groundwater have been identified in the immediate vicinity of MW-8).

Limited sampling data indicate that cVOC impacted vapor is not present at the southwestern corner of the Site, or at the far northeastern corner of the building near adjoining eastern residential properties. Low-levels of other VOCs detected in sub-slab soil vapor throughout the building are consistent with levels typically encountered in urban settings and are likely due to the historical industrial use of this or other nearby sites. These compounds are not present at levels suggesting a threat to indoor air quality.

### **3.3 Soil Investigation**

A total of 61 borings were extended during the soil investigation (57 mechanized borings [24 locations converted to groundwater monitoring] and 4 manual borings), with 86 soil samples collected from 60 locations submitted for laboratory analysis. All boring locations are shown on Figure 3, Sampling

Location Map, Appendix A and a summary of sample collection and submission to the laboratory is provided in Table 14, Appendix B.

#### *Investigation of IHWDS*

Soil conditions were investigated in accordance with the Work Plan by advancing borings at the Site, in off-site areas both within the building (including near the area associated with the petroleum spill event) and at sidewalks adjoining and in the vicinity of the Site, and within Greenpoint Playground. Proposed soil borings SB-62 and SB-64 were not extended due to repeated refusal, and SB-70 was not extended due to a lack of physical access. An additional soil boring, SB-60B, was extended immediately south of SB-60 in order to collect extra material from shallower soils. Soil boring 3SB-3 met refusal at 15 feet bsg and was finished by stepping out the location by 2 feet (initial boring labeled 3SB-3A and the proximate deeper boring labeled 3SB-3B). A boring for a potential contingency well, MW-33, to be located at the far western end of Greenpoint Playground, was not installed. Fieldwork observations were recorded, and at least one soil sample was collected, from each boring location (no sample was collected at SB-75/MW-20).

#### *Investigation of NYSDEC Spill Site*

Monitoring wells MW-17, MW-18 (proposed boring SB-76) and MW-19 were installed, and borings SB-MW-17, SB-MW-18, SB-77A and SB-78A were extended, in the eastern portion of the building and at the adjoining sidewalk at Clay Street, as part of an approved Work Plan implemented at the NYSDEC spill site. Findings from the spill site investigation have been used to supplement data generated during the investigation at the IHWDS, to the extent that such spill site data contribute to defining the nature and extent of constituents of concern identified at the IHWDS.

### **3.3.1 Sample Collection Methodology**

Mechanized borings were extended using a truck-mounted or track-mounted Geoprobe direct-push corer, or with a hollow-stem, rotary drill using a split-spoon sampler. Borings were generally extended to a maximum depth of approximately 20 feet bsg, into saturated soils (MW-38 to MW-40 and the 3SB soil series were extended to approximately 25 feet bsg, with 3SB-6 extended to 30 feet bsg). Manual borings (2SB-12 through 2SB-15) were extended using a hand-held Geoprobe corer to a depth of 2 feet bsg to screen soils immediately beneath the building slab.

Material was removed directly from the disposable acetate sleeves of the Geoprobe or from the split-spoon sampler of the rotary drill. Samples from mechanically extended borings were collected from the soil/groundwater interface and (as warranted) from the interval exhibiting the most significant field indications of contamination and/or likely to contain sources of contamination (e.g., deeper soils in areas suspected of containing TCE contamination). Samples from manually extended borings were collected from the recovered soil interval (0 to 2 feet bsg). Field personnel wore dedicated disposable gloves and placed samples directly into laboratory-supplied glassware. Samples were maintained at cool temperatures, under proper chain of custody procedures. Prior to and after the collection of each material sample, the sample collection instrument (barrel of Geoprobe or split-spoon sampler) were decontaminated to avoid cross-contamination between samples.

All soil sampling for VOCs was conducted according to USEPA Method 5035 fieldwork protocols, utilizing laboratory sampling kits (disposable plastic syringes and prepared 40-ml glass vials).

### 3.3.2 Fieldwork Observations

Subsurface soils encountered at mechanized soil borings generally consisted of poorly-graded, variable texture sands (including fill beneath the building slab), with sandy silt, sandy and silty clay, and clay noted in deeper saturated intervals (see Section 2.2.2, boring logs provided in Appendix C and driller's well construction logs provided in Appendix D).

LNAPL was observed at the groundwater interface in the western portion of the Site (SB-60, SB-61, SB-67, SB-68 and SB-71/MW-22) and in off-site locations west and southwest of the Site (SB-72, SB-75/MW-20, MW-25 and MW-26). These findings are generally consistent with observations of LNAPL in monitoring and recovery wells (see Section 3.4). Additional evidence of contamination (unambiguous odors and/or staining) was observed at SB-60B, SB-63/MW-21, SB-66 and SB-73. Positive PID readings were recorded in soils at and near the groundwater interface at the northeastern portion of the Site and at off-site areas to the east and to the north along Clay Street (3SB-3A through 3SB-9, and MW-40). A likely thin layer of petroleum-impacted material was observed at the groundwater interface at MW-39, near abandoned fill ports on Clay Street, associated with a former gasoline station.

No evidence of contamination was observed in borings extended at: SB-65 and SB-69 in the central portion of the Site; SB-74 in the sidewalk to the north at Clay Street; MW-23 and MW-24, MW-27 through MW-32, and MW-36 and MW-37 in off-site sidewalks to the south and west; or in MW-41 and MW-42 in Greenpoint Playground.

Petroleum odors, staining and/or LNAPL was observed in borings at the adjoining spill site in MW-18 and MW-19, located to the northwest and south of the former petroleum USTs. No evidence of contamination was observed at MW-17, located to the north, or at borings SB-77A and SB-78A, located to the west, south of MW-18.

Subsurface soils encountered to 2 feet bsg at manual soil borings consisted of uniform fine to medium texture brown sands (likely fill material). No evidence of contamination was observed at these locations.

Soil boring logs, documenting subsurface conditions and all fieldwork observations, are presented in Appendix C.

### 3.3.3 Laboratory Results – Soil

Soil samples collected from the "SB" soil series and from monitoring wells MW-21 to MW-32, MW-34 to MW-37, MW-1 and MW-42 were analyzed for full list SVOCs plus TICs utilizing USEPA Method 8270, with the exception of samples from off-site borings SB-72, SB-73 and SB-74 which were analyzed for base-neutrals only. At least half of these samples were analyzed for full list VOCs plus TICs utilizing USEPA Method 8260 and least 10% of the samples were analyzed for TAL metals utilizing USEPA Methods 6010 and 7471. Soil collected from boring series "2SB" and "3SB", and monitoring wells MW-38 to MW-40, which were specifically extended to further define the extent of TCE contamination, were submitted for a more limited list of analytes: VOCs and SVOCs (2SB-1 through 2SB-11) or VOCs only (all remaining borings).



Samples specifically collected as part of the remedial investigation at the adjoining spill site to the east were analyzed for SVOC and/or VOC full list parameters without TICs, or for base-neutral SVOCs (no metals analysis was conducted).

Soil sampling locations and detections of significant compounds in soil are shown on Figures 6 through 8, soil data are summarized in Tables 3 to 9 and laboratory submission of samples is summarized in Table 14, Appendix B, and laboratory reports are provided in Appendix J.

### **3.3.3.1 Soil Analysis: VOCs**

No VOCs were detected in soil at levels above RRUSCOs at any boring location (75 total samples, including 5 samples collected at the spill site). Analyte levels above UUSCOs were detected in 22 boring locations: 1,2,4-trimethylbenzene and/or total xylenes at SB-60B and SB-65; TCE, cis-DCE and/or vinyl chloride (VC) at SB-1/MW-34, 3SB-3A, 3SB-3B, 3SB-4, 3SB-5, 3SB-8 and 3SB-9; and acetone and/or methylene chloride at MW-19, SB-60, SB-60B, SB-63, SB-67, SB-71, 2SB-13, 2SB-14, 2SB-15, MW-39 and MW-40.

Soils were generally collected from the surface to 15 to 20 feet, with overall focus on deep soils at or below the groundwater interface and on any overtly impacted materials. Soil from several borings with known or suspected contamination by chlorinated solvents was additionally collected from the 20 to 25 feet interval (3SB-4, 3SB-6 and 3SB-9), the 20 to 30 feet interval (3SB-6, collected as representative deep samples for SB-1/MW-34), or was limited to the 0 to 5 feet interval to screen for the potential location of a surface release (2SB-12 to 2SB-15). Peak VOC levels were observed at soil boring SB-60B (15,000 ppb 1,2,4-trimethylbenzene at 6 to 8 feet) and at 3SB-3A (14,000 ppb TCE at 10 to 15 feet).

TICs were detected in 10 of 44 boring locations, with peak total levels reported in overtly impacted soil at SB-60B and MW-19 (27,200 ppb and 28,891 ppb, respectively). TICs generally appear to be related to petroleum.

VOCs at levels above UUSCOs are shown on Figure 6 and detected levels of TCE (and related compounds) are shown on Figure 7, and VOC levels in soil are summarized in Tables 3, 4 and .

### **3.3.3.2 Soil Analysis: SVOCs**

Elevated levels of DEHP (RRUSCO 50,000 ppb, UUSCO not established) were detected in 18 of 46 boring locations, with 5 locations additionally containing elevated levels of di-n-octyl phthalate (DOP, RRUSCO 100,000 ppb, UUSCO not established). Total phthalate levels exceeded 1,000,000 ppb in 11 samples (peak total level of 59,776,000 ppb at MW-22[12-14]). Benzyl butyl phthalate (RRUSCO not established) was detected at 48,300 ppb sample MW-22 (10-11). An elevated level of 2-methylnaphthalene (RRUSCO 410 ppb, UUSCO not established) was detected at the spill site at MW-19. No other significant SVOC levels were detected in soil samples.

TICs were detected in 11 of 27 boring locations, with a peak total level reported in overtly impacted soil at MW-21 (18,629 ppb; sample identified as SB-63[14]).

Phthalates at levels above RRUSCOs are shown on Figure 8, and SVOCs in soil are summarized in Tables 5, 6 and 9.

### **3.3.3.3 Soil Analysis: Metals**

All TAL metals, with exception of mercury and silver, were detected in Site soil samples (14 boring locations). Elevated levels of iron (RRUSCO 2,700 ppm) were detected in all samples submitted for analysis, with levels ranging from 10,200 to 37,800 ppm. No other metals were detected at levels above RRUSCOs at any boring location. Metal levels above UUSCOs were detected in 7 locations, including relatively low levels of chromium, copper, lead, nickel, selenium and/or zinc. Metals in soil are summarized in Table 7.

### **3.3.4 Nature and Extent of Contamination – Soil**

Significant soil contamination (i.e. analyte levels above RRUSCOs) is restricted to elevated levels of DEHP and DOP, encountered in soil located at and near the groundwater interface, in an area delimited by known LNAPL contamination (see Sections 3.2.2 and 3.3), and to contamination by 2-methylnaphthalene in overtly impacted soil at the spill site. Other than these areas, no SVOCs were identified at levels exceeding UUSCOs.

The total on-site volume of phthalate contaminated soils is estimated at 7,900 cubic yards. This estimate is calculated based on the lateral extent of free product (documented by LNAPL observed in soil and in monitoring/recovery wells) and assumes a uniform potential smear zone of four feet (the area directly impacted by the static height of LNAPL in the soil column, with allowance made for movement of the top and bottom of the LNAPL lens as groundwater elevations change over time. This estimate is considered to be highly conservative, given that product thickness as measured in wells are generally greater than actual thicknesses in the soil formation. Additional phthalate contaminated soil is present off-site.

Levels of iron in soil above RRUSCOs appear to be indicative of background conditions and are not likely to represent a significant environmental concern.

TCE and related compounds, as well as other VOCs documented in overtly impacted soils, are present at levels below RRUSCOs, but are a potential ongoing source of soil vapor contamination. Existing data suggest the presence of a limited solvent hot spot in soil (and/or groundwater) in the northeastern corner of the Site and off-site, particularly in the vicinity of at MW-8. No estimate of the volume of TCE-contaminated soil can be provided at this time.

Petroleum compounds released at the adjoining spill site to the east have not significantly impacted Site soils. Similarly, with the exception of phthalates associated with LNAPL contamination, contamination by organic and inorganic compounds has not significantly impacted soils beneath off-site sidewalks to the south, west and north, or in Greenpoint Playground.

The total on-site volume of petroleum contaminated soil is estimated at 800 cubic yards (excluding the volumes occupied by USTs that have been closed-in-place).

## **3.4 Groundwater Investigation**

A total of 45 groundwater samples from 30 on- and off-site monitoring wells (8 pre-existing wells and 22 of 25 wells installed by ESI) were submitted for laboratory analysis. Several newly installed wells at the southwestern margin of the phthalate plume (MW-20, MW-25 and MW-26) were not sampled for groundwater based on the presence of LNAPL. All groundwater sampling locations are shown on

Figure 3, Sampling Location Map, Appendix A and a summary of sample collection and submission to the laboratory is provided in Table 14, Appendix B.

#### *Investigation of IHWDS*

A total of 22 new groundwater monitoring wells were installed at both the Site and in off-site areas in accordance with the Work Plan and subsequent NYSDEC communications. The RIWP called for completion of borings SB-75, SB-63, and SB-71 as groundwater monitoring wells (MW-20, MW-21 and MW-22), and the redevelopment of 8 existing monitoring wells (MW-4, MW-6, MW-7, MW-12, MW-13, MW-14, MW-15 and MW-16). An additional 3 wells were installed on- and off-site within the building in the vicinity of TCE contamination in soil vapor (MW-34, MW-35 and MW-40) and 16 additional monitoring wells were installed at exterior off-site locations (MW-23 through MW-32, and MW-36 and MW-37 in sidewalks to the southwest and west, MW-38 and MW-39 in the sidewalk north of Clay Street, and MW-41 and MW-42 within Greenpoint Playground).

Groundwater quality was investigated through the gauging and sampling of both the newly installed wells and selected wells from the pre-existing monitoring-well network (comparative data generated from well sampling conducted by ESI in 2010, prior to the approval of the Work Plan, has been included in the data tables).

#### *Investigation of NYSDEC Spill Site*

A total of 3 new monitoring wells (MW-17 through MW-19) were installed in the eastern portion of the building as part of the approved Work Plan implemented at the NYSDEC spill site. Findings from the spill site investigation have been used to supplement data generated during the investigation at the IHWDS.

### **3.4.1 Monitoring Well Installation**

Monitoring wells MW-17 through MW-29 were installed by Soil Testing, MW-30 through MW-32, MW-34 and MW-35, and MW-38 through MW-40 were installed by Zebra, MW-36 and MW-37 were installed by HPI, and MW-41 and MW-42 were installed by AES. All fieldwork was conducted under the direct supervision of ESI field personnel. Monitoring well locations are illustrated on Figure 12, Direction of Groundwater Flow, Appendix A.

Each monitoring well was constructed of two-inch PVC casing with 10 feet of 0.01-inch slotted PVC well screening placed to extend 2 feet above the water table (monitoring wells MW-38 through MW-40 utilized 15 feet of well screen from 5 to 20 feet bsg). All wells points were set at approximately 20 feet bsg. The annular spaces between well screens and boreholes were backfilled with clean #1 silica sand to a depth of 1 to 2 feet above the well screen (monitoring wells MW-30 through MW-32, and MW-34 and MW-35 installed by Zebra utilized well screen “pre-packed” with sand). A one-foot thick bentonite seal was poured down the borehole above the sand pack and allowed to hydrate before grouting the remaining annular space with cement. All wells are equipped with a gripper casing cap and are secured with a drive over steel casing (with the exception of MW-34 and MW-35, which are stick-up wells within the building). Soil boring logs are presented in Appendix C and driller’s monitoring well construction logs are presented in Appendix D.



### **3.4.2 Monitoring Well Development**

Wells were developed to enhance the natural hydraulic connection between the well screen and the surrounding soils. Well casings were first screened with a PID to document the presence of any volatile organic vapors. A submersible pump and dedicated polyethylene tubing were then used to clear fine-grained material that may have settled around the well screen and at the base of the well. Well development began at the top of the water column to prevent clogging of the pump by excessive sediment. The pump body acted as a surge-block by being raised and lowered within portions of the screened interval to force water back and forth through the screen. Repeated surging and pumping was conducted to the bottom of the well casing until the discharged water appeared free of sediment and indicator parameters (pH, temperature, turbidity, dissolved oxygen and specific conductivity) had stabilized. The pump assembly was removed from the well while the pump was still running to avoid discharge of purged water back into the well. Between wells, all non-dedicated equipment was decontaminated.

Newly installed monitoring wells MW-20, MW-21, MW-25 and MW-26, and pre-existing monitoring wells MW-4, MW-6, 7, 15, 16 were noted to contain LNAPL and were not developed. Previously existing monitoring wells MW-12 and MW-14 were dry during well sampling conducted in 2012.

### **3.4.3 Groundwater Flow and Tidal Influences**

Groundwater flow was calculated using measurements collected in March 2014 from 7 of 35 monitoring wells, all of which did not have LNAPL. The general direction of groundwater flow was determined based on elevations of static groundwater using an electronic depth meter accurate to the nearest 0.01-foot (measured prior to any sample collection). Groundwater depth from the top of the well casing, as recorded during the March 2014 gauging event, ranged from between 6.94 (MW-13) and 10.69 feet (MW-29) bsg. These raw measurements were compared to existing well survey data to generate current groundwater elevation contours. Direction of groundwater flow was determined to be in a westerly direction, consistent with previous observations, which show general groundwater flow from east to west, toward the nearby East River and Newtown Creek. The rate of groundwater flow was not determined. Direction of groundwater flow is illustrated on Figure 12, Appendix A.

An assessment of tidal influences from the East River was completed using electronic level loggers installed in monitoring wells MW-1, MW-2, MW-3, MW-12, MW-13, and MW-14 on Friday February 12, 2010 (these wells were chosen based on an absence of LNAPL, as indicated in ASR reports). The level loggers were recovered on Monday February 15, 2010, providing data for approximately 72 hours.

Recording data indicated a rise and fall in groundwater elevation in all wells over the 72 hour testing period; however, a repeating pattern of groundwater rising and falling over approximately 12 hours cycles (indicating tidal influence) was evident only in MW-12 and MW-13, which are located on the western side of Commercial Street and are closest to the confluence of Newtown Creek and the East River. MW-14, the next closest well to the on-site building, and MW-1, MW-2, and MW-3, located off-site in the eastern portion of the building, did not have repeating water level patterns, indicating minimal or no tidal influence. Tidal assessment data are presented in the Interim Investigation Report, provided in Appendix E.

#### 3.4.4 LNAPL in Monitoring wells

Previous environmental investigations by ASR and ESI documented the presence of LNAPL in on-site monitoring and recovery wells, and in multiple off-site monitoring wells located in sidewalks immediately adjacent to the on-site building. LNAPL at MW-4 was identified as a mixture of phthalates, and LNAPL at RW-12 was identified as a mixture of phthalates and a high boiling point petroleum based oil. LNAPL at off-site monitoring well MW-20 was identified during the RI as DEHP. The source of this material is likely to have been failing USTs formerly containing plasticizers and lubricating oil, rather than the former piping network (significant phthalate contamination is not present in surface soil). The areal extent of LNAPL contamination is shown on Figure 13, Appendix A, and laboratory reports identifying LNAPL constituents are provided in Appendix H.

A total of 22 new monitoring wells (5 interior and 17 exterior) were installed by ESI during the implementation of the Work Plan, with an additional 3 new wells (1 interior and 2 exterior) installed at the spill site. LNAPL has been observed in 5 of these new wells (interior wells MW-21 and MW-22, and exterior wells MW-20, MW-25 and MW-26).

Monthly gauging events conducted during the RI and the ongoing IRM document a LNAPL plume beneath approximately 80% of the defined footprint of the IHWDS, which extends off-site to the southwest, with free product observed at the northwestern and southeastern corners of Dupont and Franklin Streets. Historical gauging data for LNAPL (the 25 most recent fieldwork events) are presented in Table 15, Appendix B.

The lateral extent of contamination is defined by an absence of LNAPL at additional wells installed: along the perimeter and within Greenpoint Playground to the west (MW-30 to MW-32, MW-41 and MW-42); at the southwestern corner of Dupont and Franklin Streets (MW-24, MW-36 and MW-37) and farther along the roadways (MW-23 and MW-27 to MW-29); along Clay Street to the north (MW-38 and MW-39) and east (MW-17 and MW-18); and within the building in the northeastern quadrant of the IHWDS (MW-34 and MW-35) and off-site to the east at MW-19 and MW-40.

The total volume of free product at this Site is estimated at 32,900 gallons on-site and an additional 9,000 gallons off-site, with an expressed error range of 50%. This estimate is calculated from the relative apparent thicknesses of product at all wells with meaningful product thicknesses, assuming consistent thicknesses in areas between data points and assuming linear reductions beyond data points. Boring logs generally demonstrate variable texture sand above the static water levels (that is, in the stratum where floating product is present) and therefore a co-efficient of 0.35 is used to represent available space for product within the soil column.

It is recognized that gauging data represent the apparent thicknesses of LNAPL measured in wells of varying diameters and over periods of time during which the water table fluctuated. As result of capillary forces and other processes operating within wells, particularly under changing water table conditions, the apparent thickness of LNAPL in wells is generally greater than the actual thickness in the formation. Therefore, LNAPL volume estimates made using well gauging data tend to overestimate the actual volume of LNAPL in the formation.

### **3.4.5 Sample Collection Methodology**

Groundwater samples were collected in February 2010 (prior to implementation of the Work Plan), March, April, and September 2012, August and November 2013, and in April, October and December 2014. Monitoring wells MW-20, MW-21, MW-25 and MW-26, and pre-existing monitoring wells MW-4, MW-6, 7, 15 and 16 were not sampled during fieldwork conducted prior to November 2013 based on the presence of LNAPL within the casing. Monitoring wells MW-12 and MW-14 were found to be dry during the 2012 groundwater quality sampling event. A total of 45 water samples (excluding duplicates) were collected.

Prior to sampling, each monitoring well casing was opened and the well column was immediately screened with a PID to document the presence of any volatile organic vapors. All wells were purged and sampled following USEPA low stress (“low flow”) purging and sampling procedures. All sampling was conducted using a Horiba® U-52 multi-parameter water quality meter, dedicated plastic tubing and a peristaltic pump.

Sample collection occurred after wells were purged for at least 15 minutes and field parameters stabilized (achieved when three consecutive readings were within the required parameters specified by the USEPA protocol). Each groundwater sample was collected in laboratory supplied glassware (40 ml vials, 1 liter amber jars and 250 ml plastic jars, preserved with acid as appropriate for the specific analysis). No groundwater samples were filtered prior to submission to the laboratory. After sample collection, the containers were placed in a cooler prior to laboratory pick-up. All samples were accompanied by proper chain of custody documentation.

Sample collection methodology at monitoring wells MW-4 and MW-21 was modified during the November 2013 and April 2014 sampling events (delineation of TCE contamination) in an attempt to collect groundwater from beneath the LNAPL layer. The wells were gauged prior to sampling to determine the heights of both the water column and the LNAPL layer. Based on these data points, a 1 inch diameter PVC pipe of an appropriate length, with a tethered, friction-fitted cap at the bottom, was lowered into each well and the cap was knocked loose with a stiff rod after the invert of the pipe was within the calculated water column. Although the procedure failed in November 2013 (LNAPL was drawn into the sampling tubing), samples were successfully collected for VOC analysis in April 2014. This successful procedure was repeated at LNAPL-impacted monitoring wells MW-7 and MW-22 during the October 2014 sampling event (follow-up TCE investigation).

### **3.4.6 Laboratory Results – Groundwater**

Samples were analyzed for VOCs (USEPA Method 8260), SVOCs (USEPA Method 8270), and/or TAL metals (USEPA Methods 6010) in accordance with the Work Plan. Laboratory results for groundwater are summarized in Tables 10 to 13 and laboratory submission of samples is summarized in Table 14, Appendix B, and laboratory reports are provided in Appendix J.

#### **3.4.6.1 Water Analysis: VOCs**

Significantly elevated levels of TCE (AWQS 5 µg/L) and cis-DCE (AWQS 5 µg/L) were detected at MW-8 (peak values 33,000 µg/L and 2,700 µg/L, respectively), MW-40 (7,400 µg/L and 530 µg/L, respectively), MW-34 (peak values 3,000 µg/L and 740 µg/L, respectively), MW-39 (210 µg/L and 33 µg/L, respectively) and MW-35 (160 µg/L and 61 µg/L, respectively). Elevated levels of vinyl chloride

(AWQS 2 µg/L) were detected at MW-8 (16 µg/L), MW-34 (12 µg/L), MW-12 (8.5 µg/L) and MW-35 (2.9 µg/L). Low-level exceedances of TCE were detected in MW-13 (15 µg/L), MW-17 (7 µg/L), MW-18 (16 µg/L), MW-38 (47 µg/L), and MW-29 (13 µg/L) and a single low-level exceedance of PCE (AWQS 5 µg/L) was detected in MW-8.

TCE and related compounds were detected at levels below AWQS at MW-4, MW-7, MW-10, MW-14, MW-17, MW-19, MW-21 and MW-23.

Several petroleum compounds were detected below AWQS in MW-3, MW-18, MW-19 and MW-29.

An elevated estimated level of acetone (AWQS 50 µg/L) was detected at MW-8 (420 µg/L) in April 2014 (this sample was noted to contain the analyte in the method blank, indicating possible cross-contamination, and acetone was non-detect in the well during the October 2014 sampling event). No other significant acetone levels were noted. Marginal exceedances of methylene chloride (AWQS 5 µg/L) were reported for multiple monitoring wells; this compound, however, is a common laboratory contaminant which was also found in the method blanks, and is not considered representative of actual site conditions.

TICs were detected in 6 of 25 groundwater samples. Total TICs were reported at spill site wells MW-10 and MW-18 at 59 and 110 µg/L, respectively, and at MW-21 and MW-22 (installed within the LNAPL plume) at 6,624 µg/L and 69 µg/L, respectively. Total TIC levels at MW-19, MW-23 and MW-35 were below 7 µg/L.

TCE and related compounds in groundwater are shown on Figure 9 and TCE isoconcentrations in groundwater are shown on Figure 10, and VOC levels in groundwater are summarized in Tables 10 and 13.

#### **3.4.6.2 Water Analysis: SVOCs**

Elevated levels of DEHP (AWQS 5 µg/L) were detected at MW-22 (1,750 µg/L), MW-29 (209 µg/L), MW-34 (59 µg/L), MW-19 (39.6 µg/L), and at MW-3, MW-17, MW-23 and MW-27 at levels below 13 µg/L. An elevated level of DOP (87.1 µg/L, AWQS 50 µg/L) was detected at MW-34 in November 2013 (DOP was detected in this well at 6.51 µg/L in August 2013). No other SVOCs were detected in any groundwater samples.

TICs were detected in 3 of 16 groundwater samples. Total TICs were reported at spill site wells MW-18 and MW-19 at 32 and 6 µg/L, respectively, and at off-site well MW-42 at 4.96 µg/L.

Levels of phthalates in groundwater are shown on Figure 11, and SVOC levels in groundwater are summarized in Tables 11 and 13.

#### **3.4.6.3 Water Analysis: Metals**

Elevated levels of several TAL metals were detected: sodium (34.9 to 311 µg/L, AWQS 20 µg/L) in all 16 samples; iron (0.899 to 9.38 µg/L, AWQS 0.3 µg/L) in 9 samples; and, magnesium (39.4 to 80.1 µg/L, AWQS 0.02 µg/L) in 5 samples. No other TAL metals were reported at levels above AWQS (antimony, arsenic, beryllium, cadmium, mercury, silver, thallium and vanadium were non-detect in all samples). Metals in groundwater are summarized in Table 12.

#### **3.4.6.4 Quality Control Samples (Blanks)**

An elevated level of DEHP (849 µg/L) was detected in the rinse blank sample collected on February 2, 2012 (no other SVOCs or TICs were identified). No VOCs or significant metal levels were detected. No SVOCs were detected in the rinse blank collected on March 16, 2012. A low level of 4-methyl-2-pentanone (2 µg/L) and multiple TICs were detected in the trip blank prepared April 3, 2014. Low levels of acetone and methylene chloride were detected in several blanks; with the exception of acetone detected at 7 µg/L in the trip blank prepared August 16, 2013, however, all results are flagged to indicate that the analyte was also detected in the laboratory batch sample, indicating contamination during analysis.

#### **3.4.7 Nature and Extent of Contamination – Groundwater**

##### **VOCs**

Groundwater sampling in 2013 and 2014 documented peak levels of TCE (33,000 µg/L) and DCE (2,700 µg/L) at MW-8, with levels decreasing by an order of magnitude at MW-40 (7,400 µg/L and 530 µg/L) and MW-34 (3,000 µg/L and 740 µg/L), and by two orders of magnitude at MW-35 and MW-39 (peak values of 210 µg/L and 61 µg/L). TCE levels in nearby cross-gradient well MW-38 is similarly low (47 µg/L). Low-grade contamination (16 µg/L or less) is documented at peripheral wells MW-12, MW-13, MW-18 and MW-29. No significant TCE contamination was found in any other wells, including MW-3, MW-10 and MW-19 located at the eastern portion of the building (older data from 2012 documented low-level exceedances at MW-17 [7 µg/L]).

The steep reduction in TCE and DCE levels in monitoring wells located at the periphery of the northeastern quadrant of the Site suggests that the source area of the contamination is limited. The consistency of data across media suggest the presence of a release of cVOCs in the immediate vicinity of MW-8 and MW-34, affecting the integrity of the soil, groundwater and soil vapor.

No significant levels of other VOCs have been detected in groundwater. Trace to low-level petroleum compounds may be related to either the adjoining spill or poor water quality generally present in the surrounding industrial area.

##### **SVOCs**

Groundwater contamination by SVOCs is limited to phthalates (DEHP and DOP). Elevated levels of DEHP were detected in 3 of 12 wells sampled in 2013 and 2014, and 7 of 10 wells sampled in 2012. An elevated level of DOP was detected in one well in 2013. The peak DEHP level was detected at MW-22, collected prior to LNAPL entering the well casing (likely due to phthalates adhering to fines suspended in the groundwater). No other SVOCs have been detected in groundwater samples (low levels of TICs were found at MW-18 and MW-19 at the spill site).

##### **Metals**

Groundwater contamination by metals is limited to iron, magnesium and sodium. These findings are likely to be associated with suspended soil particles (samples were unfiltered) and/or may represent dissolved levels found in local area groundwater. The absence of significant heavy metal contamination supports the conclusion that previous industrial activities at the Site have not significantly impacted groundwater quality in relation to inorganic compounds.



### **3.5 Data Generation and Validation**

Complete laboratory data packages (ASP Category B Deliverables, 25 separate reports), containing all laboratory data generated during execution of the Work Plan, were provided by the laboratories. (Several of the reports include soil and groundwater quality data generated during investigation at the spill site in February and March, 2012). These data packages were provided to independent, third-party data validators as specified in the Work Plan.

All data for detected analyte levels in soil, soil vapor and groundwater samples were usable and suited for analysis (with qualifications for several analytes). Laboratory data indicating “non-detect” levels were rejected for a minimal number of samples. A summary overview of the findings, and all Data Usability Summary Reports (DUSRs) provided by the validators, are provided in Appendix I.

### **3.6 Qualitative Human Health Exposure Assessment**

An exposure assessment was conducted to qualitatively assess the potential impacts of known environmental contaminants associated with the Site on human health, with attention to all possible exposure pathways (i.e. ingestion, inhalation and direct contact). Both current (existing conditions) and future use (proposed restricted-residential or mixed restricted-residential/commercial use) scenarios were considered. Contaminants were assessed relative to specific impacted media.

The primary contaminants of concern at the Site are phthalates (DEHP and DOP) in subsurface soils and groundwater (and as LNAPL in both media), cVOCs in soil, soil vapor and groundwater, and low-grade petroleum VOCs in soil vapor. No significant metals contamination, or other significant contamination by VOCs or SVOCs, is present at the Site. On-site workers (or trespassers) present during remediation and/or future development activities are the most likely receptor population.

The following section evaluates the elements associated with exposure pathways, and describes how each of these elements pertains to the Site. For all media, the implementation of a HASP and a CAMP will mitigate possible impacts to both on-site and off-site receptor populations. Any on-site or off-site development activities that involve disturbance, exposure or contact with contaminated soil, soil vapor or groundwater will require monitoring and mitigation plans to address potential direct contact with media, dust generation and contaminant migration.

#### **3.6.1 Soil**

Direct contact, ingestion and/or inhalation (of particulate matter) are the primary exposure pathways for contaminated subsurface soils. People can come into contact if they participate in ground-intrusive work at the Site or at off-site areas impacted by the LNAPL plume, or are exposed to dust generated during construction activities, which disturb contaminated soil. Within excavation areas, the potential for contact is generally a concern for work conducted at depths approaching the seasonally high local groundwater elevation (approximately 7 to 12 feet bsg), and for soils located several feet above the water table in areas where LNAPL is present. Outside of excavation activities, there are no likely exposures to contaminated soil, either on the Site or at off-site areas.

The potential exists for low-level contamination to remain at both on-site and off-site areas after remediation and development activities. All potential exposure pathways (direct contact, ingestion or

inhalation) will likely be mitigated as subsurface soils would have been remediated and/or access to subsurface soils would be limited by paved areas and building foundations.

### **3.6.2 Soil Vapor**

Potential exposure pathways include vapor intrusion within the structure (IHWDS and eastern interior off-site areas) and at off-site properties, and direct contact and/or inhalation of contaminated soil vapor generated during soil excavation or remedial construction. Exposure pathways within the building are likely to be insignificant, unless the building is reoccupied prior to remediation and development. A CAMP would be implemented at the Site (and, as required, at off-site areas) to monitor air quality and minimize potential exposures to vapors for both construction works and the public.

The potential for on-site and off-site exposure to soil vapor is expected to decrease after subsurface soils and groundwater have been remediated. Post-remediation sampling results will document contaminant levels in remaining media and will determine the need for any on-site and off-site vapor intrusion studies, and the need for any on-site engineering controls or building design features (e.g., sub-slab depressurization system or a fully ventilated ground floor garage) to mitigate soil vapor intrusion.

### **3.6.3 Groundwater**

Direct contact and/or ingestion are the primary exposure pathways for contaminated groundwater. Impacted groundwater is not being used for drinking water (or any other purposes) at the Site or at off-site areas, as the area is served by the public water supply. No known private wells exist in the vicinity of the Site. People can come into contact if they participate in ground-intrusive work at the Site or at off-site areas impacted by the LNAPL plume or other site-related contamination. The potential for contact is generally a concern for work conducted at depths approaching the seasonally high local groundwater elevation (approximately 7 to 12 feet bsg), and for soils located several feet above the water table in areas where LNAPL is present. Levels of dissolved contaminants in groundwater downgradient of the Site are anticipated to diminish as a result of Site remediation.

## 4.0 FINDINGS AND CONCLUSIONS

This office has completed the environmental investigative services summarized in Section 3.0 for the Former NuHart Plastic Manufacturing Site, located at 280 Franklin Street, Brooklyn, New York. The investigative work was performed to document the extent of known contamination resulting from former manufacturing and industrial uses of the property, in accordance with a NYSDEC approved Work Plan, and to provide guidance on response actions warranted to address identified environmental conditions.

### 4.1 Findings

Phase I and Phase II environmental site assessment investigations of the NuHart facility, issued prior to inclusion in the IHWDS program, indicate that the Site has a long history of industrial use, including production of plastic and vinyl products. Underground storage tanks (USTs) formerly containing plasticizers, lubricating oil, chemicals and fuel oil were closed-in-place in 2006. Subsequent soil and groundwater investigations identified petroleum contamination in the vicinity of former fuel oil tanks at the northeastern portion of the building (NYSDEC spill site) and phthalate impacts at the western portion of the building (IHWDS Site).

Phthalates were observed as LNAPL in groundwater wells, and elevated levels of phthalates were detected in soil and groundwater samples. Phthalates were generally detected in deep soil near the groundwater interface. No significant levels (above RRUSCOs) of other SVOCs, VOCs, metals, PCBs or pesticides were detected in soil samples.

LNAPL was identified as mixed phthalates at the central-eastern portion of the Site (MW-4), phthalates and paraffinic petroleum-based oil at the western portion (RW-12), and phthalates (DEHP) at an off-site monitoring well on Dupont Street (MW-20). Well gauging data (conducted monthly at both on-site and off-site wells) document a LNAPL plume extending beneath the western and central portions of the Site and beneath off-site sidewalk areas located along Dupont, Franklin and Clay Streets.

Elevated levels of phthalates and TCE, and low-level exceedances of petroleum-related VOCs, were detected in groundwater monitoring wells. Significant TCE contamination is restricted to the northeastern corner of the Site (MW-34 and MW-35) and immediately adjoining off-site areas to the north (MW-8) and east (MW-40). Elevated levels of TCE in soil vapor, and TCE at concentrations above UUSCOs (but below RRUSCOs) in soil, are generally collocated with impacted groundwater, suggesting the presence of a limited solvent “hot spot” in soil and/or groundwater.

With the exception of phthalates associated with LNAPL impacts, contamination by organic and inorganic compounds has not significantly impacted soils beneath off-site sidewalks to the north and south, or at downgradient areas to the west.

Environmental investigations conducted by ESI under the Work Plan document the following areas of concern:



**1:      *NAPL in Soil and Groundwater***

Phthalates and a mixture of phthalates/mineral oil are present as a LNAPL plume underlying the majority of the IHWDS and extending off-site to the southwest. The lateral extent of off-site contamination is defined by an absence of LNAPL at wells installed within and along the perimeter of the adjoining Greenpoint Playground to the west and at additional locations along Commercial, Franklin and Dupont Streets. Soil contamination above RRUSCOs is restricted to elevated levels of phthalates (DEHP and DOP), encountered in soil located at and near the groundwater interface, in an area delimited by known LNAPL contamination.

**2:      *Dissolved Organic Compounds in Groundwater***

Groundwater sampled in monitoring wells near the LNAPL plume is correspondingly contaminated by phthalates, possibly by suspended particles in the water column. Groundwater at the northeastern portion of the Site (MW-34) and at immediately adjoining off-site areas to the north (MW-8) and east (MW-40) contains significant cVOC contamination. Groundwater at nearby cross-gradient and/or downgradient wells (MW-35 and MW-39) are similarly contaminated, but analytes are present at significantly lower levels (by one or two orders of magnitude). An absence of significant cVOC levels at MW-4, MW-7 and MW-21 (wells immediately downgradient of the wells demonstrating the greatest impacts), and in MW-3, MW-10 and MW-19 (located in the eastern portion of the building), support the conclusion that TCE contamination is limited. Low-grade contamination (16 µg/L or less) is documented at peripheral wells MW-12, MW-13, MW-17, MW-18, MW-29 and MW-32. Petroleum-related VOCs have been detected at levels marginally above AWQS.

**3:      *Soil Contamination (TCE)***

TCE is present in soil above UUSCOs (but below RRUSCOs) in the vicinity of elevated levels in soil vapor and groundwater at the northeastern quadrant of the Site and in adjoining off-site areas, suggesting the presence of a limited TCE source area in soil.

**4:      *Soil Vapor Contamination***

Elevated levels of TCE and related cVOCs were detected in soil vapor collected at the northeastern and eastern-central portions of the Site, in the vicinity of TCE impacted soil and groundwater, and at nearby off-site locations to the east (within the building) and to the north on Clay Street (northward migration of soil vapor may be impacting commercial buildings in this area). Limited sampling data indicate that impacted vapor is not present at the southwestern corner of the Site, or at the far northeastern corner of the building near adjoining eastern residential properties.

**5:      *Petroleum Contamination***

Petroleum compounds released at the adjoining spill site to the east have not significantly impacted Site soils.

## 4.2 Conclusions

Site investigative work has been completed on IHWD Site #224136, including substantial work demonstrating the extent of contamination both on and off the Site. Soil, soil vapor, and groundwater investigations have been completed, with supplemental work completed in product identification and groundwater flow.

Based on this work, the following general conclusions are reached:

- Sufficient investigative work has been completed on the spatial dimensions of soil and groundwater (including free-product) contamination associated with phthalates and TCE. Additional work is warranted to identify and evaluate remedial options both on and off the Site and to remediate on-site soils that are considered source areas.
- Sufficient investigative work has been completed with respect to known petroleum contamination in soil, as well as the limited area of free-product petroleum. Additional work is warranted to identify and evaluate remedial options to address these known conditions
- Limited investigative work has been completed with respect to soil vapor concerns on and off the Site. An area of elevated cVOCs is present, in the general location of impacted soil and groundwater. Response actions to address cVOCs in other media (soil and groundwater) are expected to substantially reduce soil vapor levels. Additional documentation of soil vapor conditions, both on- and off-site, is warranted following construction to document the effectiveness of the remedial action.
- Sufficient investigative work has been completed with respect to metals, PCBs and pesticides in on-site soils and groundwater. None of these compounds were determined to be constituents of concern at this Site.

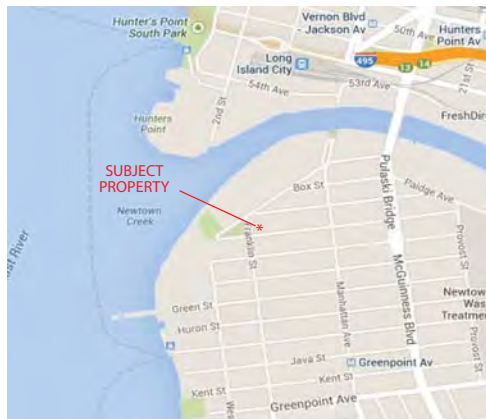


## **APPENDIX A**

### ***Figures***



## OVERVIEW



All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

### Figure 1: Site Location Map

280 Franklin Street  
Borough of Brooklyn  
Kings County, New York

#### Legend:

- IHWD site boundary
- - - - - former NuHart Plastics Manufacturing Site

ESI File: SB09110.50

July 2015

Appendix A





- 1 & 2 Family Residential
- Multi-family Residential
- Mixed Use
- Open space & outdoor recreation
- Commercial
- Institutions
- Industrial
- Parking
- Transportation / Utilities
- Vacant Lots

**Figure 2: Area Land Uses**

280 Franklin Street  
Borough of Brooklyn  
Kings County, New York

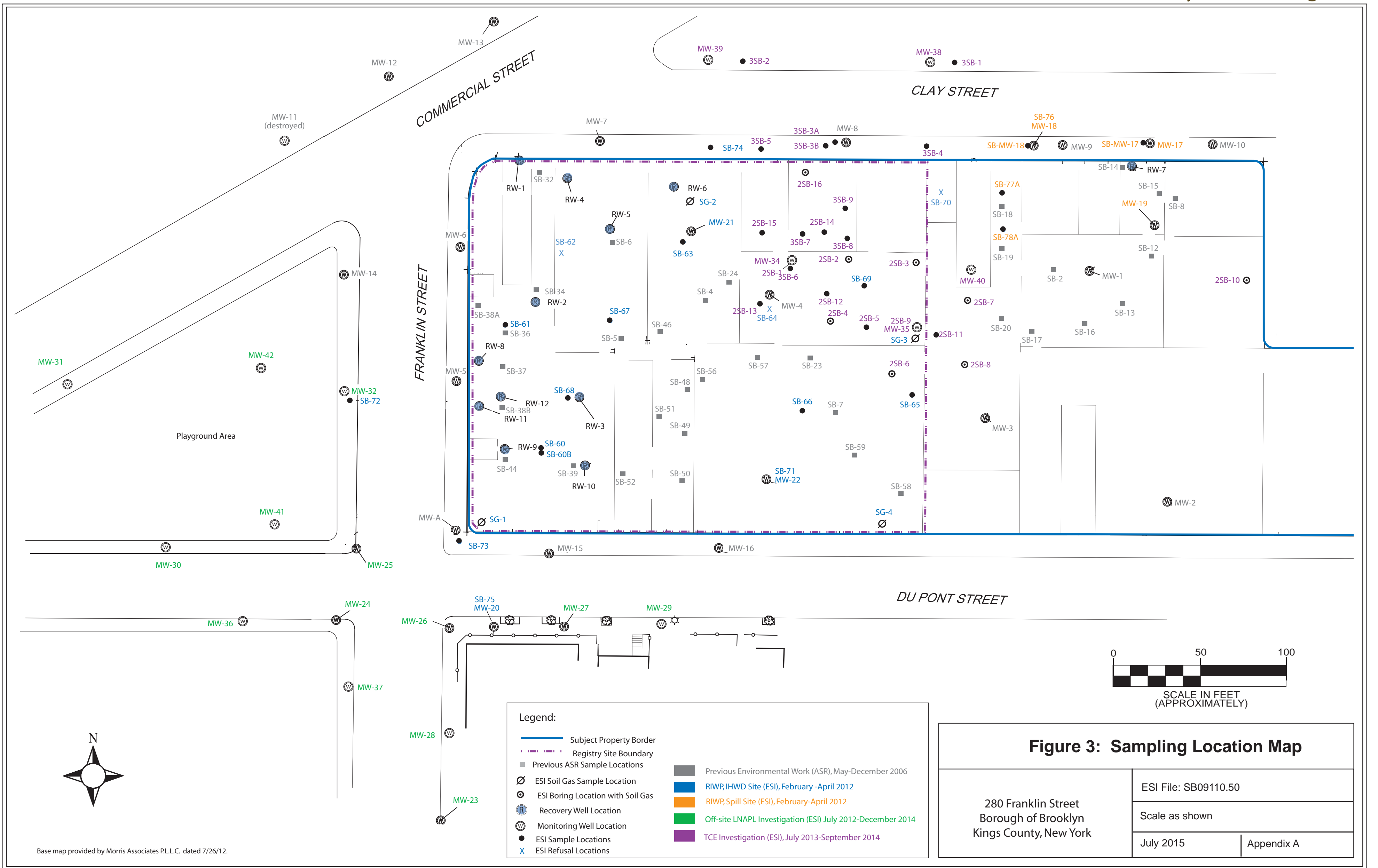
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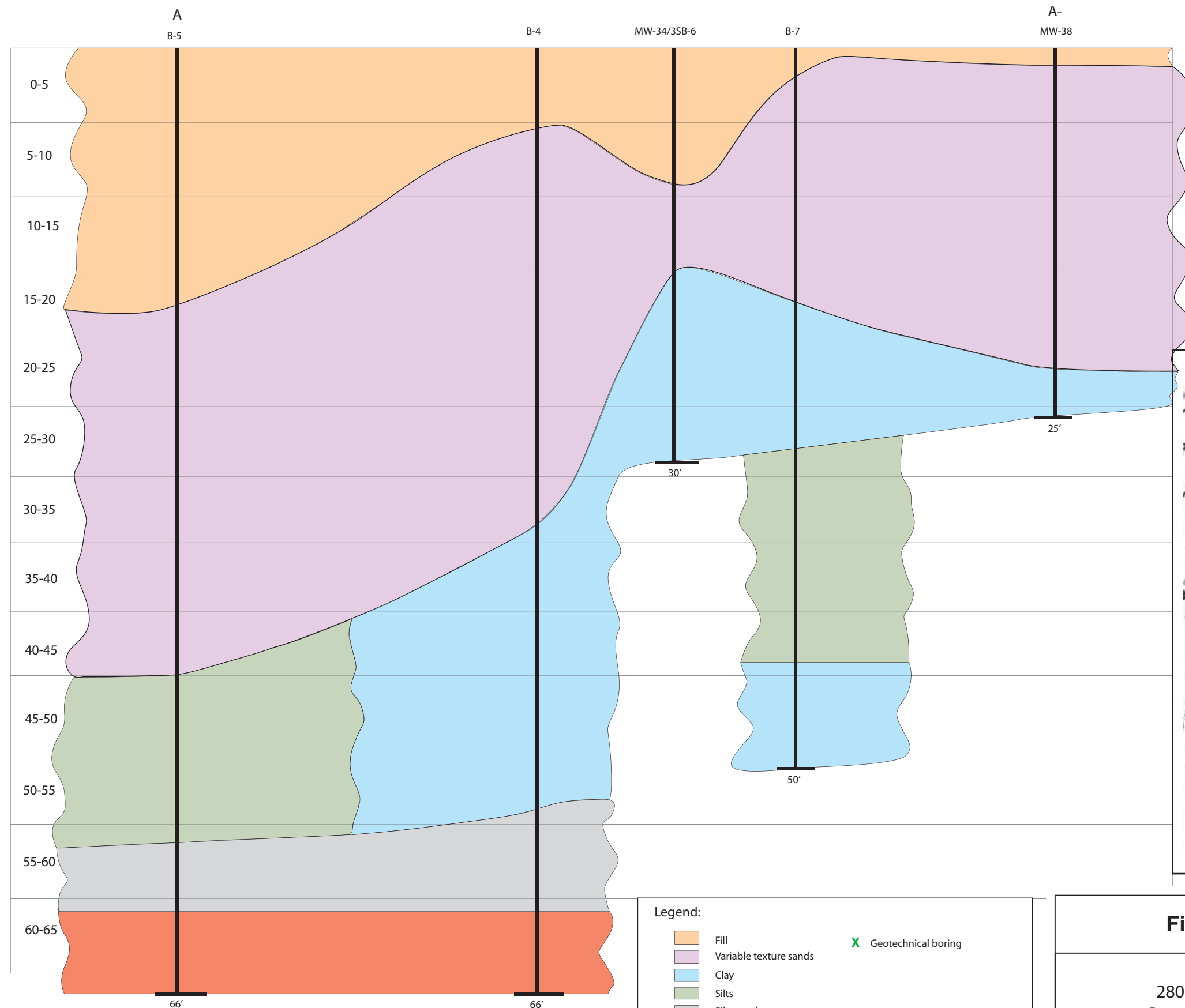
- IHWD site boundary
- - - former NuHart Plastics Manufacturing Site

ESI File: SB09110.50

July 2015

Appendix A





All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Legend:

- Fill
- Variable texture sands
- Clay
- Silts
- Silty sand
- Bedrock (gneiss)
- X Geotechnical boring

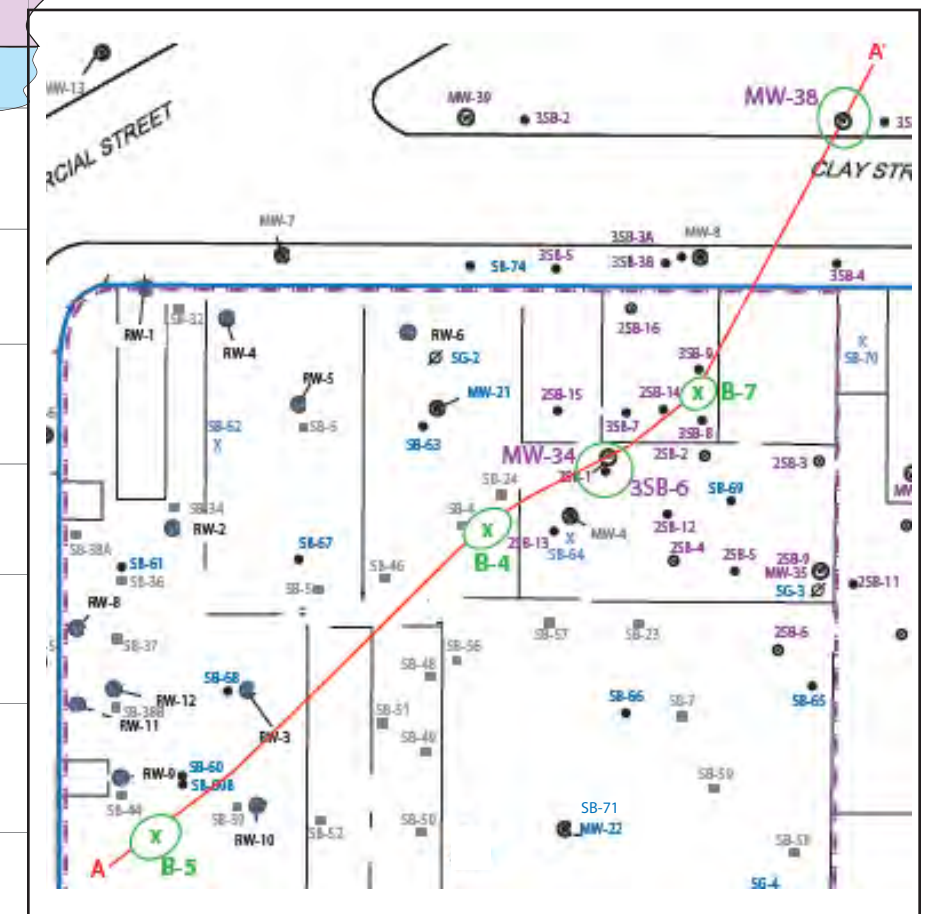


Figure 4: Geological Cross Section

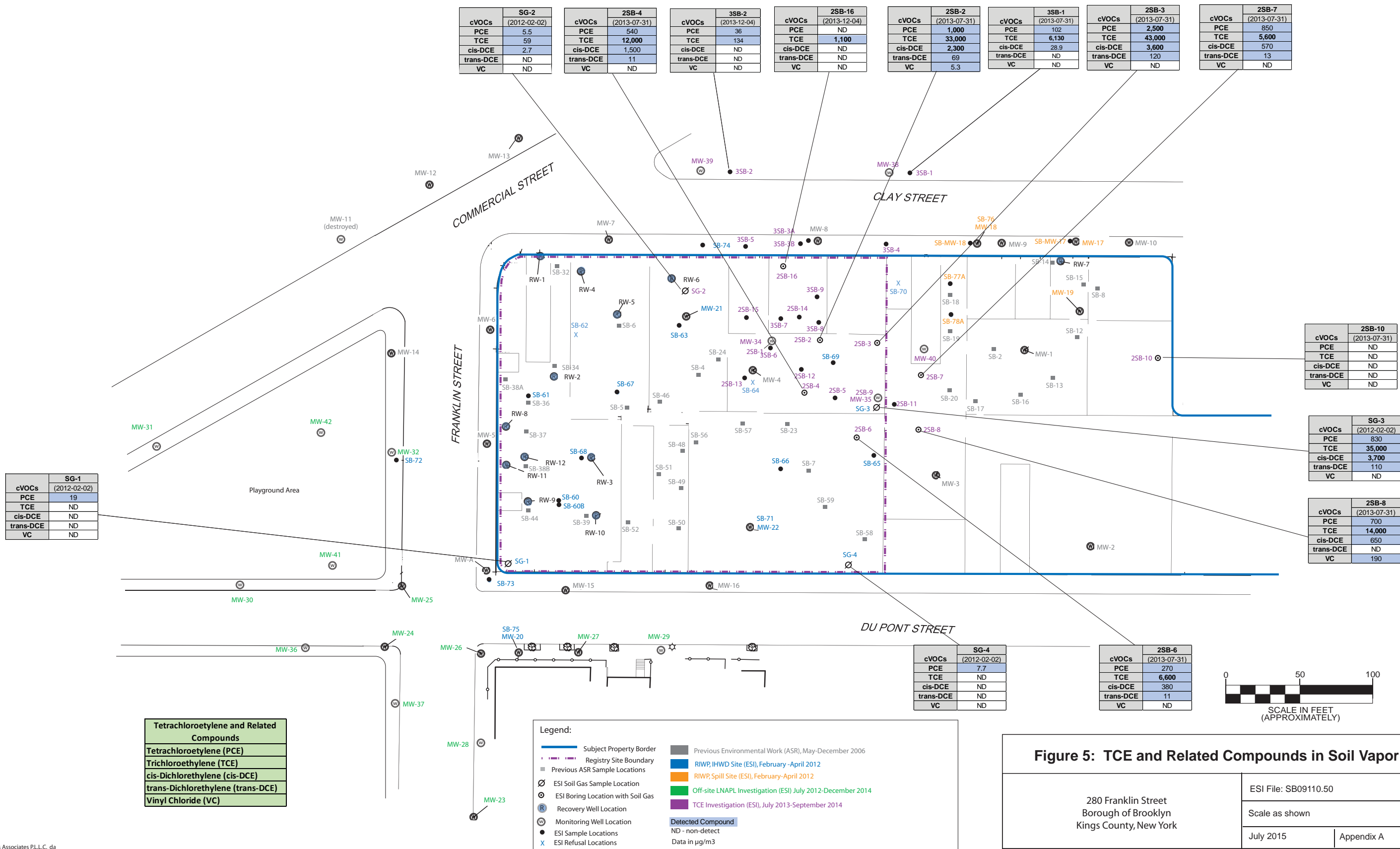
280 Franklin Street  
Borough of Brooklyn  
Kings County, New York

ESI File: SB09110.50

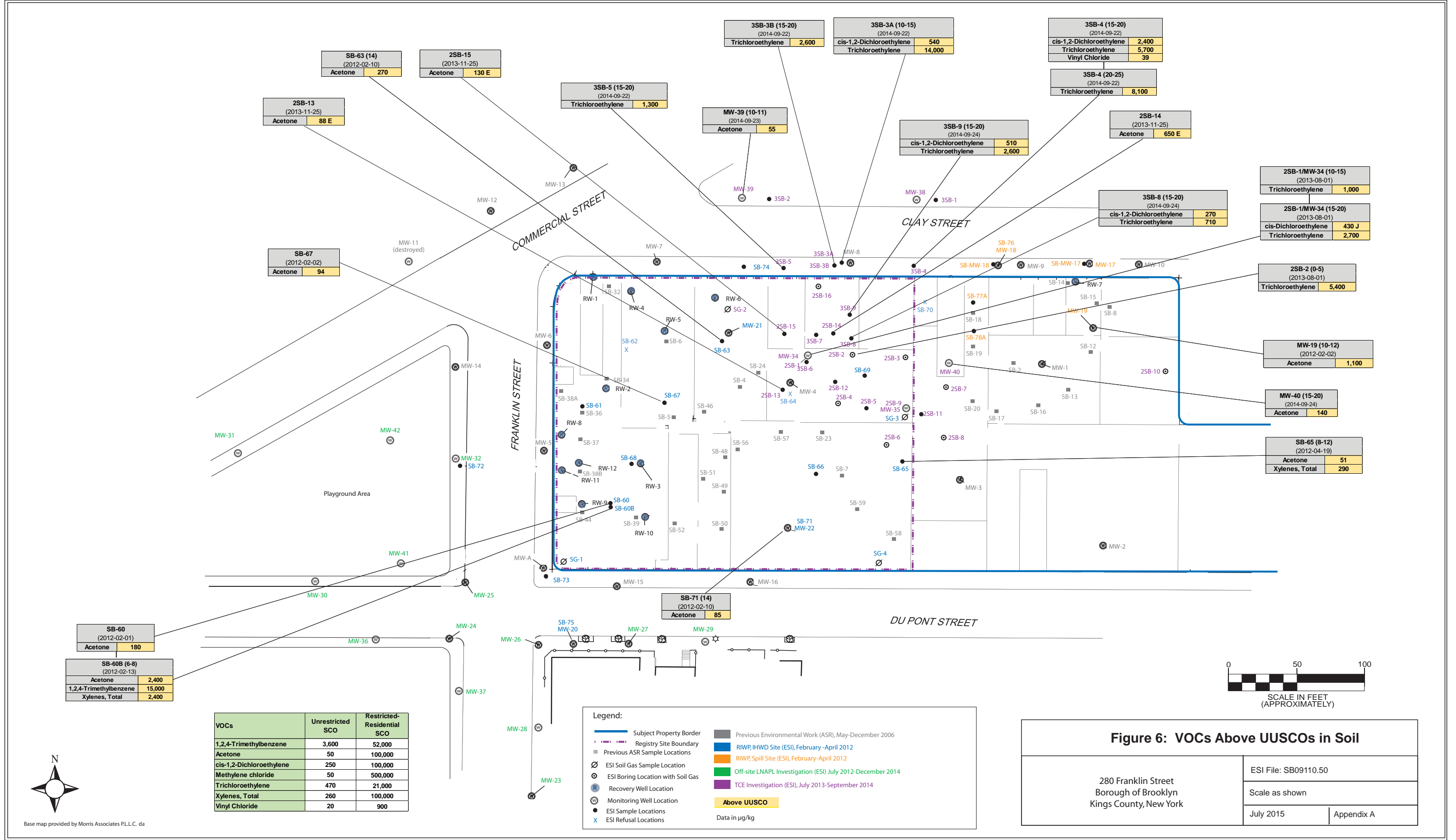
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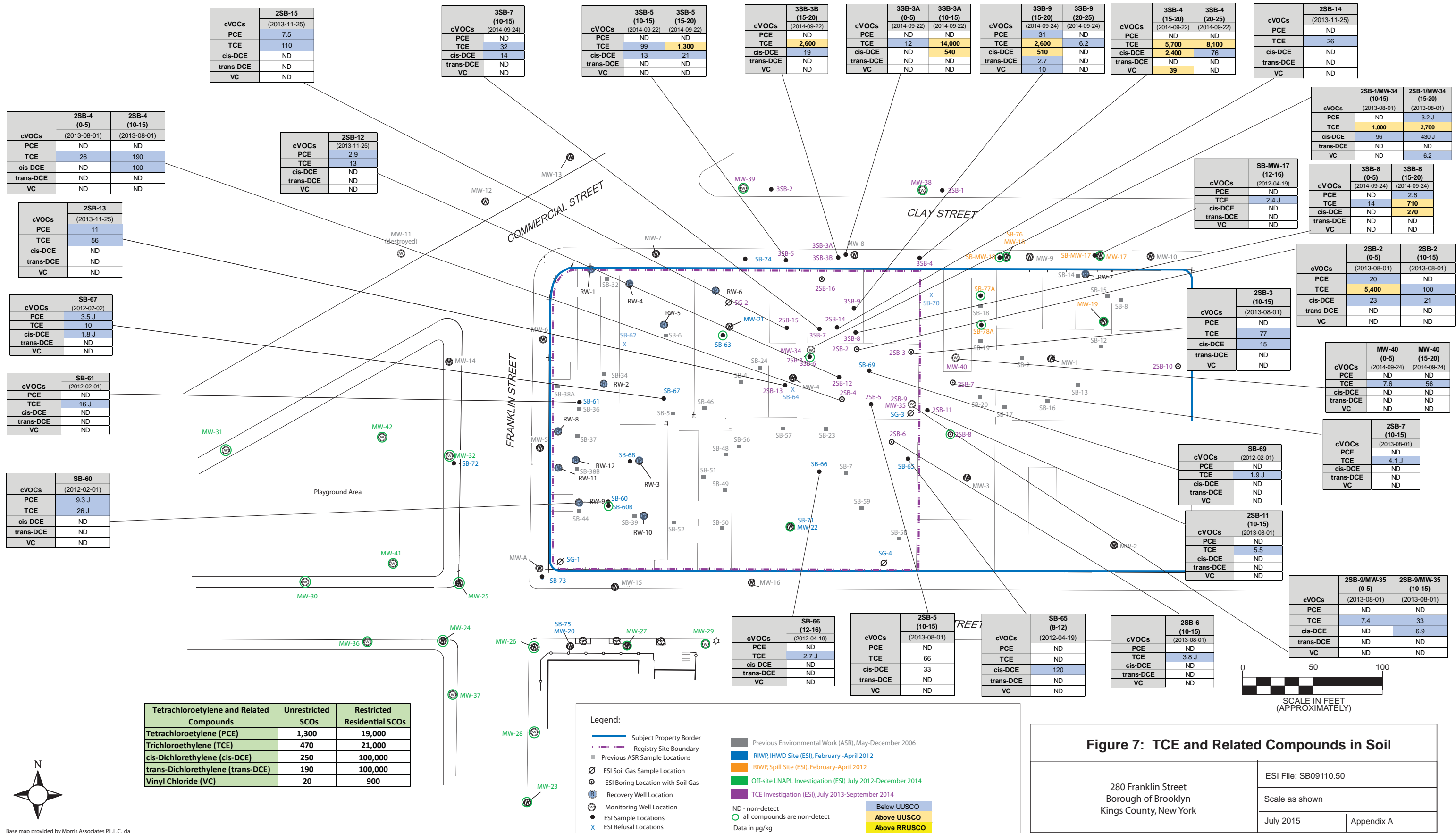
July 2015

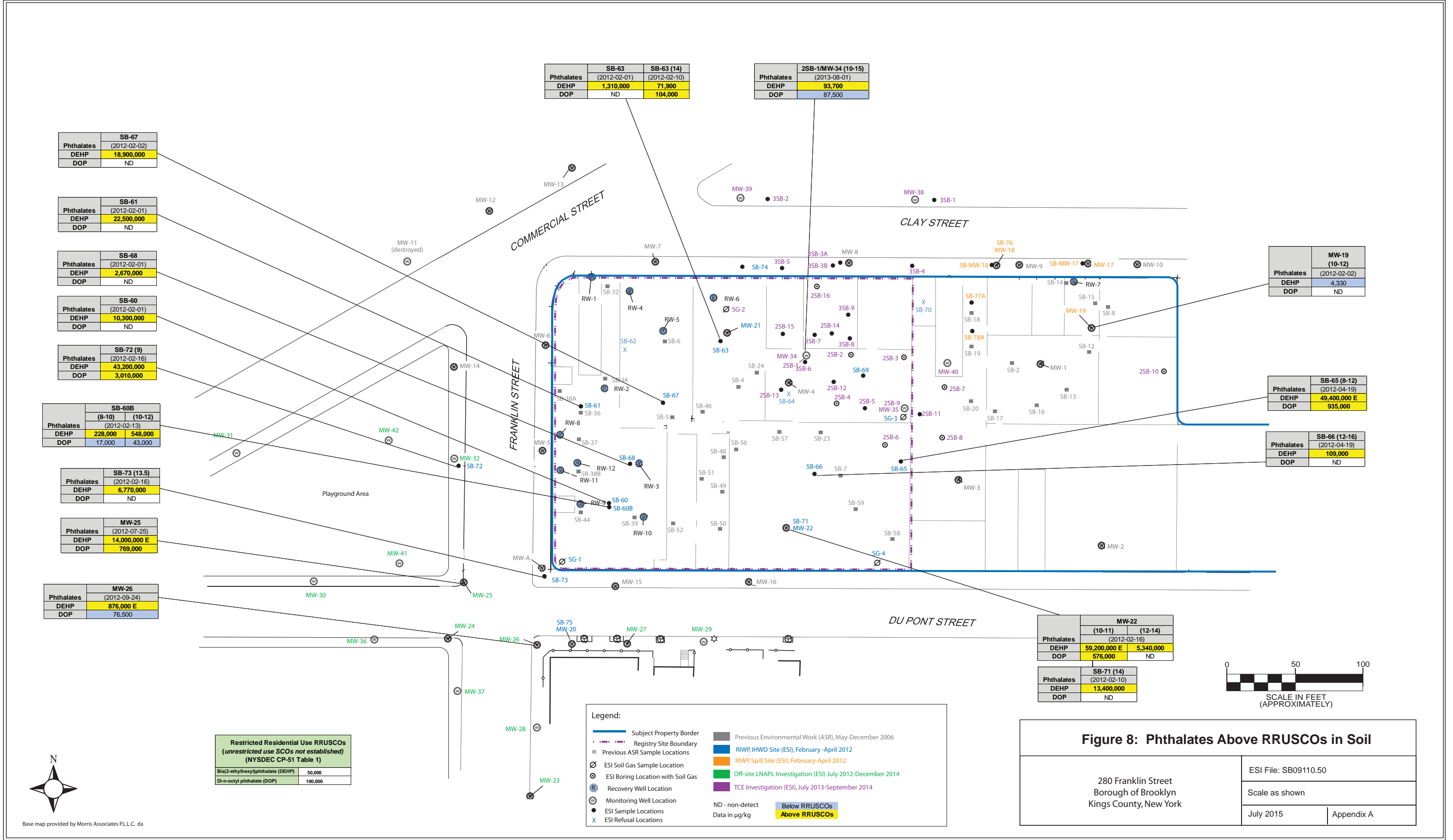
Appendix A

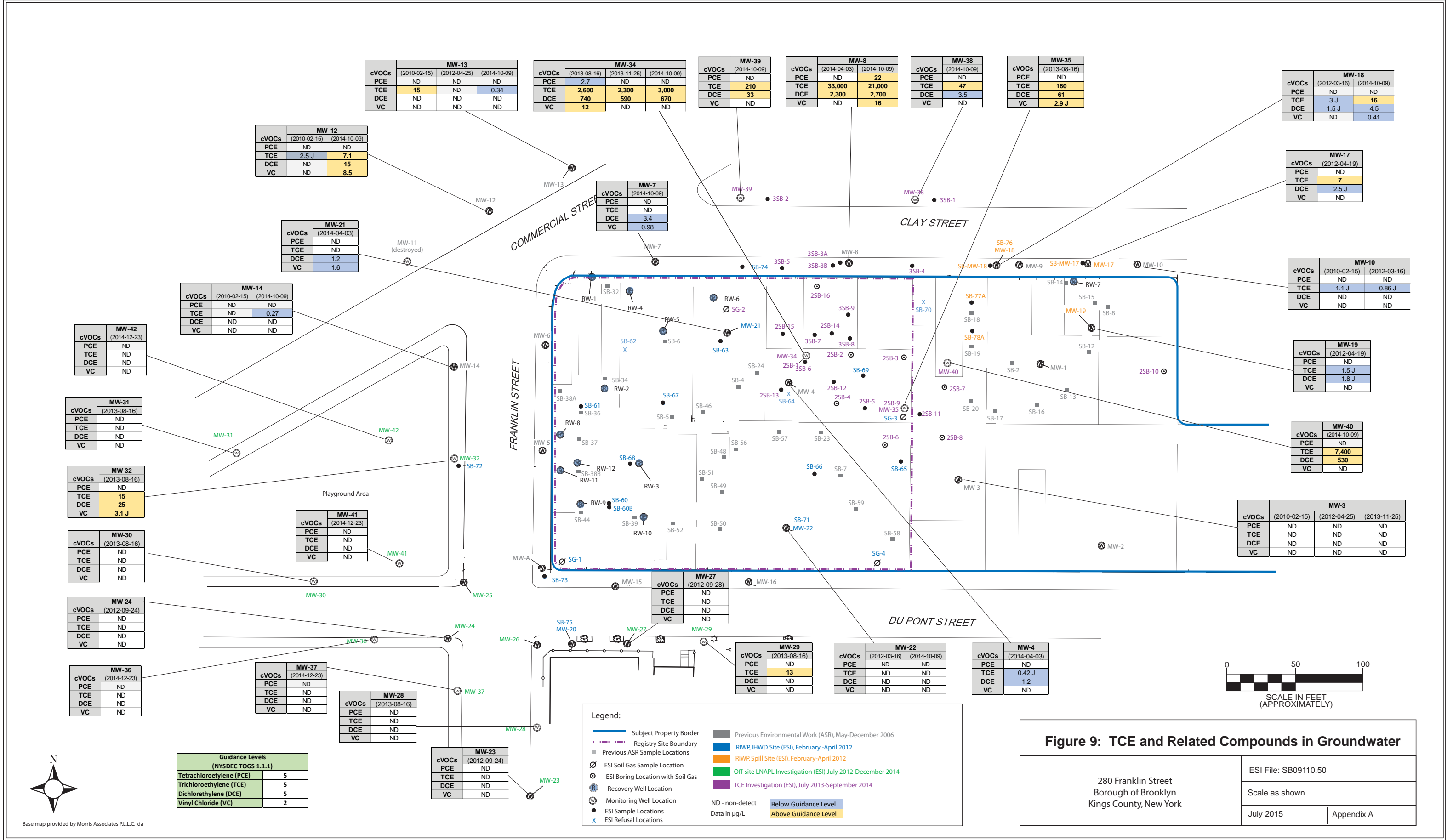






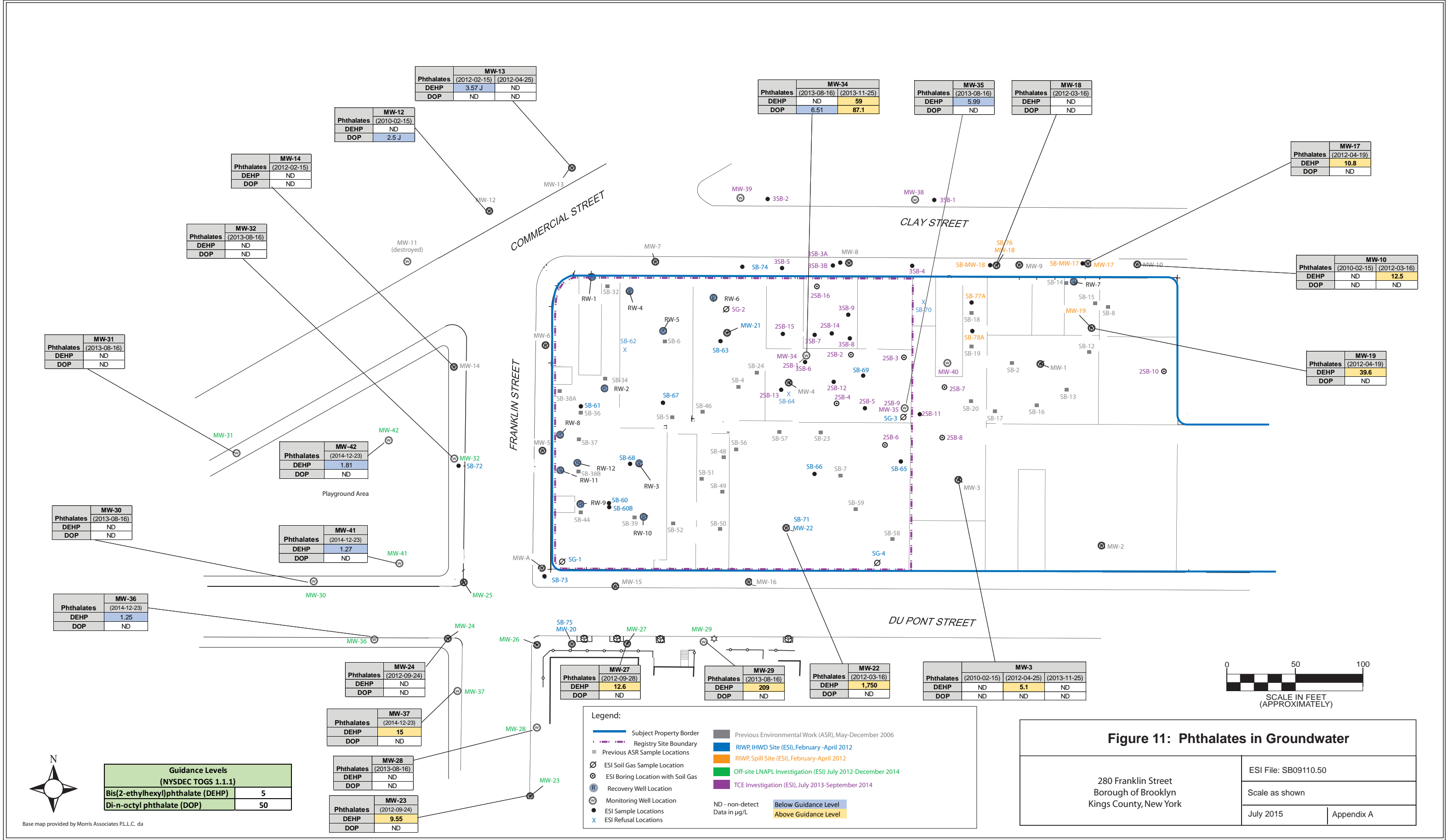


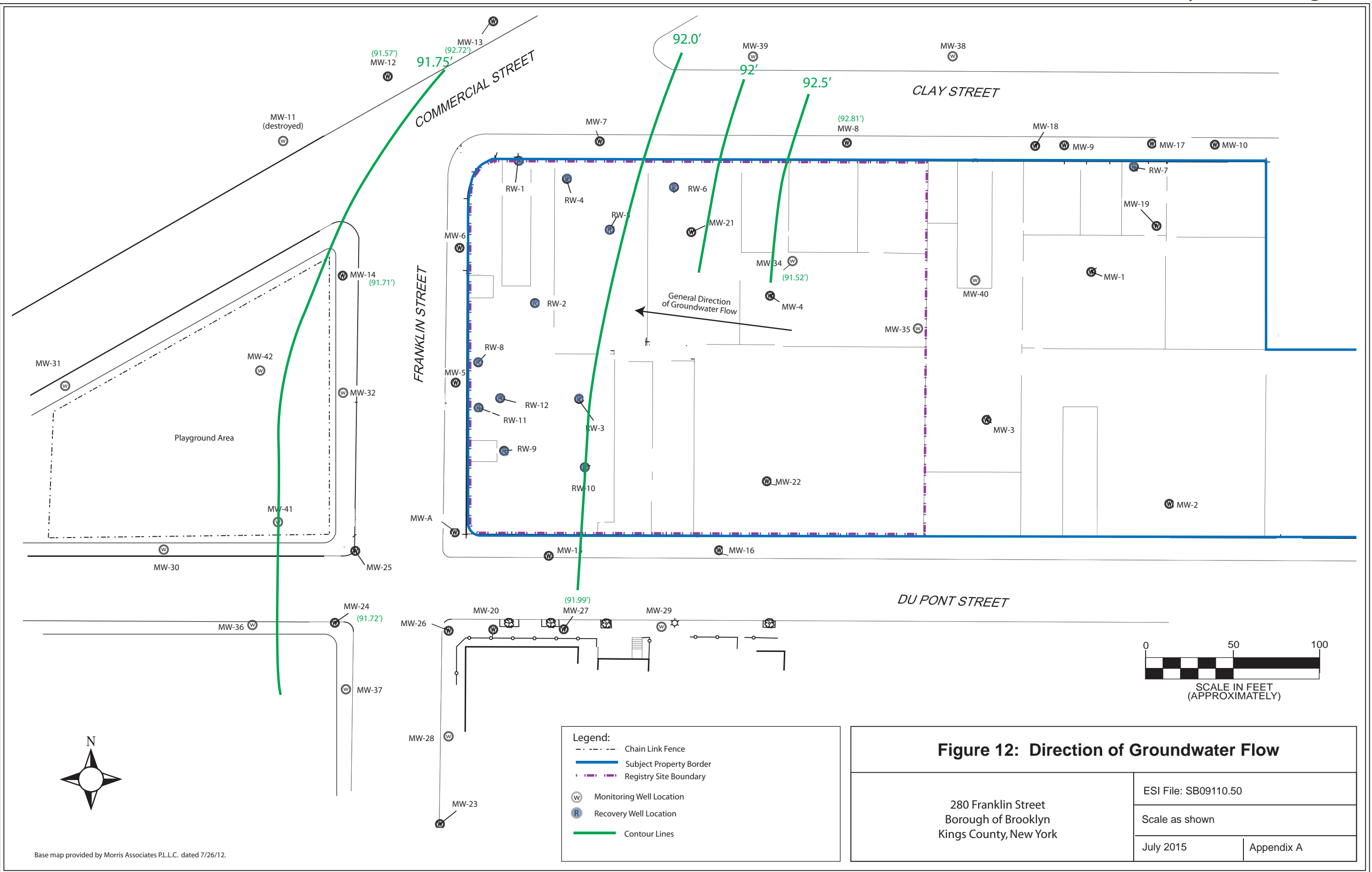






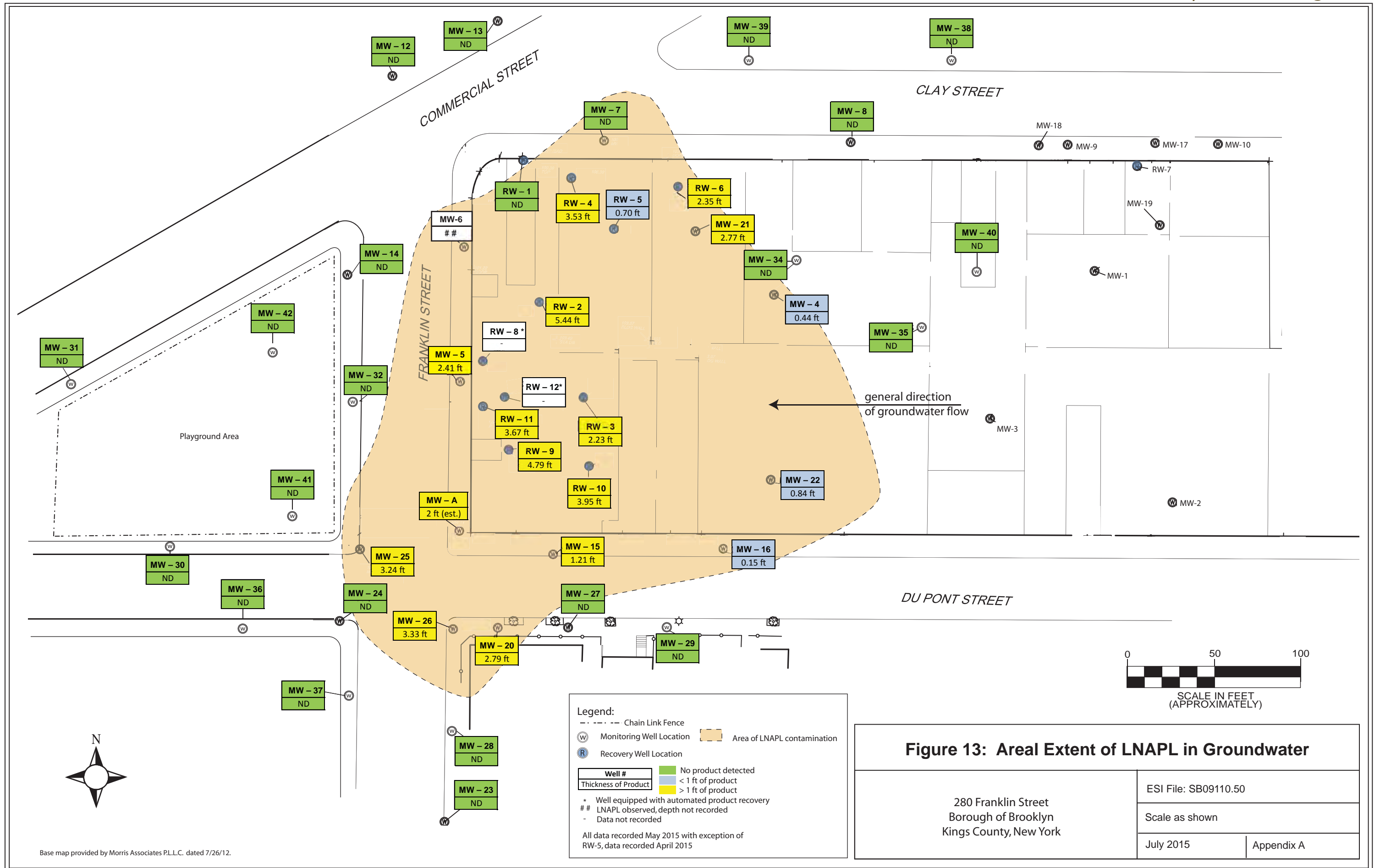






**Legend:**

- - - Chain Link Fence
- Subject Property Border
- - - Registry Site Boundary
- ⊙ Monitoring Well Location
- ⊙ Recovery Well Location
- Contour Lines







## **APPENDIX B**

### ***Data Tables***

**Table 1: Soil Vapor - VOCs**

 Data in µg/m<sup>3</sup>

 Concentrations ≥1000 shown in **Bold**


ESI File: SB09110

VOCs (USEPA Method TO-15)	SG-1 (2012-02-02)			SG-2 (2012-02-02)			SG-3 (2012-02-02)			SG-4 (2012-02-02)		
	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1-Trichloroethane (TCA)	ND		1.9	92		1.8	150		9.7	ND		2
1,1,2,2-Tetrachloroethane	ND		2.4	ND		2.3	ND		12	ND		2.5
1,1,2-Trichloro-1,2,2-trifluoroethane	4.5		2.6	ND		2.6	ND		14	ND		2.8
1,1,2-Trichloroethane	ND		1.9	ND		1.8	ND		9.7	ND		2
1,1-Dichloroethane	ND		1.4	ND		1.4	ND		7.2	ND		1.5
1,1-Dichloroethylene	ND		1.4	ND		1.3	36		7.1	ND		1.4
1,2,4-Trichlorobenzene	ND		2.5	ND		2.5	ND		13	ND		2.7
1,2,4-Trimethylbenzene	18		8.4	18		8.3	ND		44	20		9
1,2-Dibromoethane	NA		-	NA		-	NA		-	NA		-
1,2-Dichlorobenzene	ND		2.1	ND		2	ND		11	ND		2.2
1,2-Dichloroethane	ND		1.4	ND		1.4	ND		7.2	ND		1.5
1,2-Dichloropropane	ND		1.6	ND		1.6	ND		8.2	ND		1.7
1,2-Dichlorotetrafluoroethane	ND		2.4	ND		2.4	ND		12	ND		2.6
1,3,5-Trimethylbenzene	4.6		3.4	5.1		3.3	ND		18	5.7		3.6
1,3-Butadiene	ND		1.5	12		1.5	ND		7.7	ND		1.6
1,3-Dichlorobenzene	ND		2.1	ND		2	ND		11	ND		2.2
1,4-Dichlorobenzene	ND		2.1	ND		2	ND		11	ND		2.2
1,4-Dioxane	ND		12	ND		12	ND		64	ND		13
2,2,4-Trimethylpentane	ND		1.6	ND		1.6	ND		8.3	ND		1.7
2-Butanone (MEK)	25		1	36		0.99	ND		5.2	59		1.1
2-Hexanone	ND		2.8	ND		2.8	ND		15	53		3
3-Chloropropene	ND		11	ND		11	ND		56	ND		11
4-Methyl-2-pentanone	60		1.4	180		1.4	330		7.3	77		1.5
Acetone	130		0.81	110		0.8	130		4.2	150		0.87
Benzene	8.5		1.1	8.3		1.1	ND		5.7	11		1.2
Benzyl chloride	ND		1.8	ND		1.7	ND		9.2	ND		1.9
Bromodichloromethane	ND		2.1	ND		2.1	ND		11	ND		2.3
Bromoform	ND		3.5	ND		3.5	ND		18	ND		3.8
Bromomethane	ND		1.3	ND		1.3	ND		6.9	ND		1.4
Carbon disulfide	7.9		1.1	21		1.1	ND		5.5	20		1.1
Carbon tetrachloride	ND		1.1	ND		1.1	ND		5.6	ND		1.1
Chlorobenzene	ND		1.6	ND		1.6	ND		8.2	ND		1.7
Chloroethane	ND		0.9	ND		0.89	ND		4.7	ND		0.96
Chloroform	9.2		1.7	5.9		1.6	52		8.7	ND		1.8
Chloromethane	ND		0.71	ND		0.7	ND		3.7	ND		0.75
cis-1,2-Dichloroethylene (DCE)	ND		1.4	2.7		1.3	3,700		180	ND		1.4
cis-1,3-Dichloropropylene	ND		1.6	ND		1.5	ND		8.1	ND		1.7
Cyclohexane	ND		1.2	3.9		1.2	ND		6.1	ND		1.3
Dibromochloromethane	NA		-	NA		-	NA		-	NA		-
Dichlorodifluoromethane	ND		1.7	ND		1.7	ND		8.8	ND		1.8
Ethanol	NA		-	NA		-	NA		-	NA		-
Ethyl acetate	ND		1.2	ND		1.2	ND		6.4	ND		1.3
Ethyl Benzene	16		1.5	25		1.5	17		7.7	26		1.6
Hexachlorobutadiene	ND		3.7	ND		3.6	ND		19	ND		3.9
Isopropanol	ND		0.84	ND		0.83	ND		4.4	43		0.9
Methyl Methacrylate	NA		-	NA		-	NA		-	NA		-
Methyl tert-butyl ether (MTBE)	ND		1.2	ND		1.2	ND		6.4	ND		1.3
Methylene chloride	7.1	B	1.2	3.6	B	1.2	17	B	6.2	4.2	B	1.3
n-Heptane	4.4		1.4	9		1.4	ND		7.3	11		1.5
n-Hexane	32		1.2	12		1.2	ND		6.3	23		1.3
o-Xylene	19		1.5	28		1.5	20		7.7	27		1.6
p- & m- Xylenes	61		1.5	86		1.5	53		7.7	87		1.6
p-Ethyltoluene	26		8.4	28		8.3	ND		44	30		9
Propylene	ND		0.59	ND		0.58	ND		3.1	ND		0.63
Styrene	ND		1.5	ND		1.4	ND		7.6	ND		1.6
Tertiary butyl Alcohol	NA		-	NA		-	NA		-	NA		-
Tetrachloroethylene (PCE)	19		2.3	5.5		2.3	830		12	7.7		2.5
Tetrahydrofuran	ND		1	ND		0.99	ND		5.2	ND		1.1
Toluene	54		1.3	110		1.3	37		6.7	79		1.4
trans-1,2-Dichloroethylene (DCE)	ND		1.4	ND		1.3	110		7.1	ND		1.4
trans-1,3-Dichloropropylene	ND		1.6	ND		1.5	ND		8.1	ND		1.7
Trichloroethylene (TCE)	ND		0.92	59		0.91	35,000		120	ND		0.98
Trichlorofluoromethane	ND		1.9	ND		1.9	ND		10	ND		2.1
Vinyl acetate	ND		2.4	ND		2.4	ND		13	ND		2.6
Vinyl Bromide	ND		1.5	ND		1.5	ND		7.8	ND		1.6
Vinyl Chloride (VC)	ND		1.8	ND		1.7	ND		9.1	ND		1.9
Helium (%)	ND		0.5	ND		0.5	ND		0.5	ND		0.5

**Table 1: Soil Vapor - VOCs**

Data in µg/m<sup>3</sup>

Concentrations ≥1000 shown in **Bold**



ESI File: SB09110

VOCs (USEPA Method TO-15)	2SB-2 (2013-07-31)			2SB-3 (2013-07-31)			2SB-4 (2013-07-31)			2SB-6 (2013-07-31)		
	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1-Trichloroethane (TCA)	48		10	270		10	20		11	58		11
1,1,2,2-Tetrachloroethane	ND		13	ND		13	ND		14	ND		14
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		14	ND		14	ND		15	ND		16
1,1,2-Trichloroethane	ND		10	ND		10	ND		11	ND		11
1,1-Dichloroethane	ND		7.6	17		7.6	ND		8	ND		8.3
1,1-Dichloroethylene	18		7.5	ND		7.4	ND		7.9	ND		8.1
1,2,4-Trichlorobenzene	25		14	26		14	ND		15	ND		15
1,2,4-Trimethylbenzene	32		9.3	33		9.2	32		9.8	35		10
1,2-Dibromoethane	ND		14	ND		14	ND		15	ND		16
1,2-Dichlorobenzene	ND		11	ND		11	ND		12	ND		12
1,2-Dichloroethane	ND		7.6	ND		7.6	ND		8	ND		8.3
1,2-Dichloropropane	320		8.7	430		8.6	150		9.2	ND		9.5
1,2-Dichlorotetrafluoroethane	ND		13	ND		13	ND		14	ND		14
1,3,5-Trimethylbenzene	ND		9.3	ND		9.2	ND		9.8	ND		10
1,3-Butadiene	ND		8.2	ND		8.1	ND		8.6	ND		8.9
1,3-Dichlorobenzene	ND		11	ND		11	ND		12	ND		12
1,4-Dichlorobenzene	ND		11	ND		11	ND		12	ND		12
1,4-Dioxane	ND		6.8	ND		6.7	ND		7.2	ND		7.4
2,2,4-Trimethylpentane	NA		-	NA		-	NA		-	NA		-
2-Butanone (MEK)	ND		5.6	24		5.5	16		5.9	43		6
2-Hexanone	ND		7.7	23		7.7	ND		8.1	ND		8.4
3-Chloropropene	NA		-	NA		-	NA		-	NA		-
4-Methyl-2-pentanone	29		7.7	41		7.7	90		8.1	ND		8.4
Acetone	29		4.5	300		4.4	69		4.7	40		4.9
Benzene	ND		6	13		6	ND		6.3	ND		6.6
Benzyl chloride	22		9.8	22		9.7	23		10	ND		11
Bromodichloromethane	ND		12	ND		12	ND		12	ND		13
Bromoform	ND		19	ND		19	ND		21	ND		21
Bromomethane	ND		7.3	ND		7.3	ND		7.7	ND		8
Carbon disulfide	ND		5.9	7		5.8	ND		6.2	ND		6.4
Carbon tetrachloride	ND		5.9	ND		5.9	ND		6.2	9		6.4
Chlorobenzene	ND		8.7	ND		8.6	ND		9.1	ND		9.4
Chloroethane	ND		5	ND		4.9	ND		5.2	ND		5.4
Chloroform	29		9.2	100		9.1	33		9.7	81		10
Chloromethane	ND		3.9	6.2		3.9	ND		4.1	ND		4.2
cis-1,2-Dichloroethylene (DCE)	2,300		150	3,600		150	1,500		7.9	380		8.1
cis-1,3-Dichloropropylene	ND		8.6	ND		8.5	ND		9	ND		9.3
Cyclohexane	ND		6.5	12		6.4	ND		6.8	ND		7.1
Dibromochloromethane	ND		15	1,600		15	340		16	ND		16
Dichlorodifluoromethane	ND		9.3	ND		9.3	ND		9.8	ND		10
Ethanol	NA		-	NA		-	NA		-	NA		-
Ethyl acetate	ND		6.8	19		6.7	9.3		7.2	ND		7.4
Ethyl Benzene	ND		8.2	ND		8.1	ND		8.6	8.9		8.9
Hexachlorobutadiene	ND		20	ND		20	ND		21	ND		22
Isopropanol	ND		4.6	100		4.6	ND		4.9	ND		5
Methyl Methacrylate	ND		7.7	ND		7.7	ND		8.1	ND		8.4
Methyl tert-butyl ether (MTBE)	ND		6.8	ND		6.7	ND		7.1	ND		7.4
Methylene chloride	ND		6.5	ND		6.5	ND		6.9	ND		7.1
n-Heptane	ND		7.7	9.2		7.7	35		8.1	ND		8.4
n-Hexane	ND		6.6	9.2		6.6	ND		7	ND		7.2
o-Xylene	15		8.2	17		8.1	16		8.6	20		8.9
p- & m- Xylenes	ND		16	ND		16	ND		17	33		18
p-Ethyltoluene	ND		46	ND		46	ND		49	ND		50
Propylene	ND		3.2	67		3.2	ND		3.4	ND		3.5
Styrene	ND		8	16		8	ND		8.5	ND		8.7
Tertiary butyl Alcohol	NA		-	NA		-	NA		-	NA		-
Tetrachloroethylene (PCE)	1,000		260	2,500		13	540		13	270		14
Tetrahydrofuran	ND		5.6	24		5.5	ND		5.9	ND		6
Toluene	ND		7.1	13		7.1	ND		7.5	8.5		7.7
trans-1,2-Dichloroethylene (DCE)	69		7.5	120		7.4	11		7.9	11		8.1
trans-1,3-Dichloropropylene	ND		8.6	ND		8.5	ND		9	ND		9.3
Trichloroethylene (TCE)	33,000		100	43,000		100	12,000		110	6,600		110
Trichlorofluoromethane	ND		11	ND		11	ND		11	ND		12
Vinyl acetate	ND		6.6	ND		6.6	ND		7	ND		7.2
Vinyl Bromide	NA		-	NA		-	NA		-	NA		-
Vinyl Chloride (VC)	5.3		4.8	ND		4.8	ND		5.1	ND		5.2
Helium (%)	ND		0.93	ND		0.92	ND		ND	ND		1

**Table 1: Soil Vapor - VOCs**

 Data in µg/m<sup>3</sup>

 Concentrations ≥1000 shown in **Bold**


ESI File: SB09110

VOCs (USEPA Method TO-15)	2SB-7 (2013-07-31)			2SB-8 (2013-07-31)			2SB-10 (2013-07-31)			2SB-16 (2013-12-04)		
	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1-Trichloroethane (TCA)	1,000		9.3	430		220	ND		11	ND		10
1,1,2,2-Tetrachloroethane	ND		12	ND		280	ND		13	ND		13
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		13	ND		320	ND		15	ND		14
1,1,2-Trichloroethane	ND		9.3	ND		220	ND		11	ND		10
1,1-Dichloroethane	34		6.9	ND		170	ND		7.9	ND		7.4
1,1-Dichloroethylene	ND		6.8	ND		160	ND		7.7	ND		7.3
1,2,4-Trichlorobenzene	ND		13	ND		310	ND		14	ND		14
1,2,4-Trimethylbenzene	30		8.4	770		200	ND		9.6	ND		9
1,2-Dibromoethane	ND		13	ND		320	ND		15	ND		14
1,2-Dichlorobenzene	ND		10	ND		250	ND		12	ND		11
1,2-Dichloroethane	ND		6.9	ND		170	ND		7.9	ND		7.4
1,2-Dichloropropane	ND		7.9	ND		190	ND		9	ND		8.5
1,2-Dichlorotetrafluoroethane	ND		12	ND		290	ND		14	ND		13
1,3,5-Trimethylbenzene	ND		8.4	240		200	ND		9.6	ND		9
1,3-Butadiene	ND		7.4	ND		180	ND		8.4	ND		7.9
1,3-Dichlorobenzene	ND		10	ND		250	ND		12	ND		11
1,4-Dichlorobenzene	ND		10	ND		250	ND		12	ND		11
1,4-Dioxane	ND		6.2	ND		150	ND		7	ND		6.6
2,2,4-Trimethylpentane	NA		-	NA		-	NA		-	NA		-
2-Butanone (MEK)	13		5	400		120	ND		5.7	9.7		5.4
2-Hexanone	ND		7	ND		170	ND		8	ND		7.5
3-Chloropropene	NA		-	NA		-	NA		-	NA		-
4-Methyl-2-pentanone	ND		7	ND		170	11		8	ND		7.5
Acetone	29		4.1	280		98	20		4.6	15		4.4
Benzene	ND		5.5	250		130	ND		6.2	ND		5.8
Benzyl chloride	ND		8.8	ND		210	ND		10	ND		9.5
Bromodichloromethane	ND		11	ND		260	ND		12	ND		11
Bromoform	ND		18	ND		430	ND		20	ND		19
Bromomethane	ND		6.6	ND		160	ND		7.6	ND		7.1
Carbon disulfide	ND		5.3	ND		130	13		6.1	ND		5.7
Carbon tetrachloride	ND		5.4	410		130	ND		6.1	ND		5.8
Chlorobenzene	ND		7.9	340		190	ND		9	ND		8.4
Chloroethane	ND		4.5	ND		110	ND		5.1	ND		4.8
Chloroform	38		8.3	440		200	ND		9.5	ND		8.9
Chloromethane	ND		3.5	ND		85	ND		4	ND		3.8
cis-1,2-Dichloroethylene (DCE)	570		6.8	650		160	ND		7.7	ND		7.3
cis-1,3-Dichloropropylene	ND		7.8	ND		190	ND		8.8	ND		8.3
Cyclohexane	ND		5.9	260		140	ND		6.7	ND		6.3
Dibromochloromethane	ND		14	ND		330	ND		16	ND		15
Dichlorodifluoromethane	ND		8.4	ND		200	ND		9.6	ND		9.1
Ethanol	NA		-	NA		-	NA		-	NA		-
Ethyl acetate	ND		6.2	ND		150	ND		7	ND		6.6
Ethyl Benzene	25		7.4	300		180	14		8.5	ND		7.9
Hexachlorobutadiene	ND		18	ND		440	ND		21	ND		20
Isopropanol	ND		4.2	ND		100	ND		4.8	ND		4.5
Methyl Methacrylate	ND		7	ND		170	ND		8	ND		7.5
Methyl tert-butyl ether (MTBE)	ND		6.1	ND		150	ND		7	ND		6.6
Methylene chloride	7.7		5.9	ND		140	11		6.8	21	B	6.4
n-Heptane	ND		7	290		170	ND		8	ND		7.5
n-Hexane	6.6		6	ND		150	9.6		6.9	29		6.5
o-Xylene	38		7.4	500		180	11		8.5	ND		7.9
p- & m- Xylenes	110		15	590		360	44		17	ND		16
p-Ethyltoluene	ND		42	ND		1,000	ND		48	ND		45
Propylene	ND		2.9	ND		71	60		3.4	ND		3.2
Styrene	ND		7.3	490		180	ND		8.3	ND		7.8
Tertiary butyl Alcohol	NA		-	NA		-	NA		-	NA		-
Tetrachloroethylene (PCE)	850		12	700		280	ND		13	43		12
Tetrahydrofuran	ND		5	ND		120	ND		5.7	11		5.4
Toluene	10		6.4	340		160	18		7.3	ND		6.9
trans-1,2-Dichloroethylene (DCE)	13		6.8	ND		160	ND		7.7	ND		7.3
trans-1,3-Dichloropropylene	ND		7.8	ND		190	ND		8.8	ND		8.3
Trichloroethylene (TCE)	5,600		92	14,000		110	ND		5.2	1,100		4.9
Trichlorofluoromethane	ND		9.6	ND		230	ND		11	ND		10
Vinyl acetate	ND		6	ND		140	ND		6.9	ND		6.4
Vinyl Bromide	NA		-	NA		-	NA		-	NA		-
Vinyl Chloride (VC)	ND		4.4	190		110	ND		5	ND		4.7
Helium (%)	ND		0.84	ND		1	ND		0.96	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 1: Soil Vapor - VOCs**

Data in  $\mu\text{g}/\text{m}^3$

Concentrations  $\geq 1000$  shown in **Bold**

VOCs (USEPA Method TO-15)	3SB-1 (2014-09-22)			3SB-2 (2014-09-22)		
	Result	Flag	RL	Result	Flag	RL
1,1,1-Trichloroethane (TCA)	31.6		10.9	14.1		1.09
1,1,2,2-Tetrachloroethane	ND		13.7	ND		1.37
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		15.3	ND		1.53
1,1,2-Trichloroethane	ND		10.9	ND		1.09
1,1-Dichloroethane	ND		8.09	ND		0.809
1,1-Dichloroethylene	ND		7.93	ND		0.793
1,2,4-Trichlorobenzene	ND		14.8	ND		1.48
1,2,4-Trimethylbenzene	11.4		9.83	14.6		0.983
1,2-Dibromoethane	ND		15.4	ND		1.54
1,2-Dichlorobenzene	ND		12	ND		1.2
1,2-Dichloroethane	ND		8.09	ND		0.809
1,2-Dichloropropane	ND		9.24	ND		0.924
1,2-Dichlorotetrafluoroethane	ND		14	ND		1.4
1,3,5-Trimethylbenzene	ND		9.83	4.34		0.983
1,3-Butadiene	ND		4.42	1.06		0.442
1,3-Dichlorobenzene	ND		12	ND		1.2
1,4-Dichlorobenzene	ND		12	ND		1.2
1,4-Dioxane	ND		7.21	ND		0.721
2,2,4-Trimethylpentane	ND		9.34	4.86		0.934
2-Butanone (MEK)	18.9		5.9	11.2		0.59
2-Hexanone	ND		8.2	4.84		0.82
3-Chloropropene	ND		6.26	ND		0.626
4-Methyl-2-pentanone	ND		8.2	87.3		0.82
Acetone	185		23.8	176		2.38
Benzene	ND		6.39	5.91		0.639
Benzyl chloride	ND		10.4	ND		1.04
Bromodichloromethane	ND		13.4	ND		1.34
Bromoform	ND		20.7	ND		2.07
Bromomethane	ND		7.77	ND		0.777
Carbon disulfide	ND		6.23	6.51		0.623
Carbon tetrachloride	ND		12.6	ND		1.26
Chlorobenzene	ND		9.21	ND		0.921
Chloroethane	ND		5.28	ND		0.528
Chloroform	18.6		9.77	2.59		0.977
Chloromethane	ND		4.13	ND		0.413
cis-1,2-Dichloroethylene (DCE)	28.9		7.93	ND		0.793
cis-1,3-Dichloropropylene	ND		9.08	ND		0.908
Cyclohexane	ND		6.88	1.38		0.688
Dibromochloromethane	ND		17	ND		1.7
Dichlorodifluoromethane	9.99		9.89	3.56		0.989
Ethanol	ND		47.1	10.9		4.71
Ethyl acetate	ND		18	ND		1.8
Ethyl Benzene	ND		8.69	7.12		0.869
Hexachlorobutadiene	ND		21.3	ND		2.13
Isopropanol	ND		12.3	1.94		1.23
Methyl Methacrylate	NA		-	NA		-
Methyl tert-butyl ether (MTBE)	ND		7.21	ND		0.721
Methylene chloride	ND		17.4	7.43		1.74
n-Heptane	ND		8.2	4.18		0.82
n-Hexane	ND		7.05	3.45		0.705
o-Xylene	9.9		8.69	9.9		0.869
p- & m- Xylenes	22.4		17.4	23.8		1.74
p-Ethyltoluene	ND		9.83	4.35		0.983
Propylene	NA		-	NA		-
Styrene	ND		8.52	ND		0.852
Tertiary butyl Alcohol	ND		15.2	6.4		1.52
Tetrachloroethylene (PCE)	102		13.6	36		1.36
Tetrahydrofuran	ND		5.9	1.57		0.59
Toluene	15.9		7.54	18.7		0.754
trans-1,2-Dichloroethylene (DCE)	ND		7.93	ND		0.793
trans-1,3-Dichloropropylene	ND		9.08	ND		0.908
Trichloroethylene (TCE)	6,130	E	10.7	134		1.07
Trichlorofluoromethane	ND		11.2	7.64		1.12
Vinyl acetate	NA		-	NA		-
Vinyl Bromide	ND		8.74	ND		0.874
Vinyl Chloride (VC)	ND		5.11	ND		0.511
Helium (%)	ND		0.175	ND		0.198

**Table 2: Soil Vapor - Selected cVOCs**Data in  $\mu\text{g}/\text{m}^3$ Concentrations  $\geq 1000$  shown in **Bold****Comparison of Selected cVOC Results for Soil Vapor**

VOCs (TO-15)	SG-1 (2012-02-02)	SG-2 (2012-02-02)	SG-3 (2012-02-02)	SG-4 (2012-02-02)	2SB-2 (2013-07-31)	2SB-3 (2013-07-31)	2SB-4 (2013-07-31)
	<i>Result</i>	<i>Result</i>	<i>Result</i>	<i>Result</i>	<i>Result</i>	<i>Result</i>	<i>Result</i>
TCA	ND	92	150	ND	48	270	20
PCE	19	5.5	830	7.7	<b>1,000</b>	<b>2,500</b>	540
TCE	ND	59	<b>35,000</b>	ND	<b>33,000</b>	<b>43,000</b>	<b>12,000</b>
cis-DCE	ND	2.7	<b>3,700</b>	ND	<b>2,300</b>	<b>3,600</b>	1,500
trans-DCE	ND	ND	110	ND	69	120	11
VC	ND	ND	ND	ND	5.3	ND	ND

VOCs (TO-15)	2SB-6 (2013-07-31)	2SB-7 (2013-07-31)	2SB-8 (2013-07-31)	2SB-10 (2013-07-31)	2SB-16 (2013-12-04)	3SB-1 (2014-09-22)	3SB-2 (2014-09-22)
	<i>Result</i>	<i>Result</i>	<i>Result</i>	<i>Result</i>	<i>Result</i>	<i>Result</i>	<i>Result</i>
TCA	58	<b>1,000</b>	430	ND	ND	31.6	14.1
PCE	270	850	700	ND	ND	102	36
TCE	<b>6,600</b>	<b>5,600</b>	<b>14,000</b>	ND	<b>1,100</b>	<b>6,130</b>	134
cis-DCE	380	570	650	ND	ND	28.9	ND
trans-DCE	11	13	ND	ND	ND	ND	ND
VC	ND	ND	190	ND	ND	ND	ND

## Notes:

Table presents only detected soil vapor concentrations of TCE and related compounds, and TCA

**Table 3: Soil - VOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		SB-MW-17 (12-16) (2012-04-19) (Spill Site)			SB-MW-18 (8-12) (2012-04-19) (Spill Site)			MW-19 (10-12) (2012-02-02) (Spill Site)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	NE	NE	ND		13	ND		560	ND		600
1,1,1-Trichloroethane	680	100,000	ND		13	ND		560	ND		600
1,1,2,2-Tetrachloroethane	NE	NE	ND		13	ND		560	ND		600
1,1,2-Trichloro-1,2,2-trifluoroethane	NE	NE	ND		13	ND		560	ND		600
1,1,2-Trichloroethane	NE	NE	ND		13	ND		560	ND		600
1,1-Dichloroethane	270	26,000	ND		13	ND		560	ND		600
1,1-Dichloroethylene	330	100,000	ND		13	ND		560	ND		600
1,1-Dichloropropylene	NE	NE	ND		13	ND		560	ND		600
1,2,3-Trichlorobenzene	NE	NE	ND		25	ND		1,100	ND		1,200
1,2,3-Trichloropropane	NE	NE	ND		13	ND		560	ND		600
1,2,4-Trichlorobenzene	NE	NE	ND		25	ND		1,100	ND		1,200
1,2,4-Trimethylbenzene	3,600	52,000	ND		13	ND		560	ND		600
1,2-Dibromo-3-chloropropane	NE	NE	ND		25	ND		1,100	ND		1,200
1,2-Dibromoethane	NE	NE	ND		13	ND		560	ND		600
1,2-Dichlorobenzene	1,100	100,000	ND		13	ND		560	ND		600
1,2-Dichloroethane	20	3,100	ND		13	ND		560	ND		600
1,2-Dichloropropane	NE	NE	ND		13	ND		560	ND		600
1,3,5-Trimethylbenzene	8,400	52,000	ND		13	ND		560	ND		600
1,3-Dichlorobenzene	2,400	49,000	ND		13	ND		560	ND		600
1,3-Dichloropropane	NE	NE	ND		13	ND		560	ND		600
1,4-Dichlorobenzene	1,800	13,000	ND		13	ND		560	ND		600
1,4-Dioxane	100	13,000	ND		130	ND		5,600	ND	R	6,000
2,2-Dichloropropane	NE	NE	ND		13	ND		560	ND		600
2-Butanone	120	100,000	ND		25	ND		1,100	ND		1,200
2-Chlorotoluene	NE	NE	ND		13	ND		560	ND		600
2-Hexanone	NE	NE	NA		-	NA		-	NA		-
4-Chlorotoluene	NE	NE	ND		13	ND		560	ND		600
4-Methyl-2-pentanone	NE	NE	NA		-	NA		-	NA		-
Acetone	50	100,000	49	B	25	16	B-dil, B	11	1,100	J	1,200
Benzene	60	4,800	ND		13	ND		560	ND		600
Bromobenzene	NE	NE	ND		13	ND		560	ND		600
Bromochloromethane	NE	NE	ND		13	ND		560	ND		600
Bromodichloromethane	NE	NE	ND		13	ND		560	ND		600
Bromoform	NE	NE	ND		13	ND		560	ND		600
Bromomethane	NE	NE	ND		13	290	J	560	ND		600
Carbon disulfide	NE	100	NA		-	NA		-	NA		-
Carbon tetrachloride	760	2,400	ND		13	ND		560	ND		600
Chlorobenzene	1,100	100,000	ND		13	ND		560	ND		600
Chloroethane	NE	NE	ND		13	ND		560	ND		600
Chloroform	370	49,000	ND		13	ND		560	ND		600
Chloromethane	NE	NE	ND		13	ND		560	ND		600
cis-1,2-Dichloroethylene	250	100,000	ND		13	ND		560	ND		600
cis-1,3-Dichloropropylene	NE	NE	ND		13	ND		560	ND		600
Dibromochloromethane	NE	NE	ND		13	ND		560	ND		600
Dibromomethane	NE	NE	ND		13	ND		560	ND		600
Dichlorodifluoromethane	NE	NE	ND		13	ND		560	ND		600
Ethyl Benzene	1,000	41,000	ND		13	ND		560	260	J	600
Hexachlorobutadiene	NE	NE	ND		13	ND		560	ND		600
Isopropylbenzene	2,300	100,000	ND		13	ND		560	250	J	600
Methyl tert-butyl ether (MTBE)	930	100,000	ND		13	ND		560	ND		600
Methylene chloride	50	500,000	23	J, B	25	8.1	B-dil, J, B	11	2.3	B-dil, J, B	12
Naphthalene	12,000	NE	ND		25	ND		1,100	2,900		1,200
n-Butylbenzene	12,000	100,000	ND		13	ND		560	450	J	600
n-Propylbenzene	3,900	100,000	ND		13	ND		560	440	J	600
o-Xylene	NE	NE	ND		13	ND		560	130	J	600
p- & m- Xylenes	NE	NE	ND		25	ND		1,100	ND		1,200
p-Isopropyltoluene	10,000	NE	ND		13	ND		560	ND		600
sec-Butylbenzene	11,000	100,000	ND		13	ND		560	330	J	600
Styrene	NE	NE	ND		13	ND		560	ND		600
tert-Butylbenzene	5,900	100,000	ND		13	ND		560	ND		600
Tetrachloroethylene	1,300	19,000	ND		13	ND		560	ND		600
Toluene	700	100,000	ND		13	ND		560	ND		600
trans-1,2-Dichloroethylene	190	100,000	ND		13	ND		560	ND		600
trans-1,3-Dichloropropylene	NE	NE	ND		13	ND		560	ND		600
Trichloroethylene	470	21,000	2.4	J	13	ND		560	ND		600
Trichlorofluoromethane	NE	NE	ND		13	ND		560	ND		600
Vinyl acetate	NE	NE	NA		-	NA		-	NA		-
Vinyl Chloride	20	900	ND		13	ND		560	ND		600
Xylenes, Total	260	100,000	ND		38	ND		1,700	ND		1,800
Total TICs	NE	NE	NA		-	NA		-	28,891		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 3: Soil - VOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		MW-23 (2012-07-25)			MW-24 (2012-07-25)			MW-25 (2012-07-25)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
<b>1,1,1,2-Tetrachloroethane</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>1,1,1-Trichloroethane</b>	680	100,000	ND		6.1	ND		6.3	ND		560
<b>1,1,2,2-Tetrachloroethane</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>1,1,2-Trichloro-1,2,2-trifluoroethane</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>1,1,2-Trichloroethane</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>1,1-Dichloroethane</b>	270	26,000	ND		6.1	ND		6.3	ND		560
<b>1,1-Dichloroethylene</b>	330	100,000	ND		6.1	ND		6.3	ND		560
<b>1,1-Dichloropropylene</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>1,2,3-Trichlorobenzene</b>	NE	NE	ND		12	ND		13	ND		1,100
<b>1,2,3-Trichloropropane</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>1,2,4-Trichlorobenzene</b>	NE	NE	ND		12	ND		13	ND		1,100
<b>1,2,4-Trimethylbenzene</b>	3,600	52,000	ND		6.1	ND		6.3	ND		560
<b>1,2-Dibromo-3-chloropropane</b>	NE	NE	ND		12	ND		13	ND		1,100
<b>1,2-Dibromoethane</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>1,2-Dichlorobenzene</b>	1,100	100,000	ND		6.1	ND		6.3	ND		560
<b>1,2-Dichloroethane</b>	20	3,100	ND		6.1	ND		6.3	ND		560
<b>1,2-Dichloropropane</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>1,3,5-Trimethylbenzene</b>	8,400	52,000	ND		6.1	ND		6.3	ND		560
<b>1,3-Dichlorobenzene</b>	2,400	49,000	ND		6.1	ND		6.3	ND		560
<b>1,3-Dichloropropane</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>1,4-Dichlorobenzene</b>	1,800	13,000	ND		6.1	ND		6.3	ND		560
<b>1,4-Dioxane</b>	100	13,000	ND		6.1	ND		6.3	ND		5,600
<b>2,2-Dichloropropane</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>2-Butanone</b>	120	100,000	ND		12	ND		13	ND		1,100
<b>2-Chlorotoluene</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>2-Hexanone</b>	NE	NE	NA		-	NA		-	NA		-
<b>4-Chlorotoluene</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>4-Methyl-2-pentanone</b>	NE	NE	NA		-	NA		-	NA		-
<b>Acetone</b>	50	100,000	9.4	J	12	19		13	ND	B-Dil	11
<b>Benzene</b>	60	4,800	ND		6.1	ND		6.3	ND		560
<b>Bromobenzene</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>Bromochloromethane</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>Bromodichloromethane</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>Bromoform</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>Bromomethane</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>Carbon disulfide</b>	NE	100	NA		-	NA		-	NA		-
<b>Carbon tetrachloride</b>	760	2,400	ND		6.1	ND		6.3	ND		560
<b>Chlorobenzene</b>	1,100	100,000	ND		6.1	ND		6.3	ND		560
<b>Chloroethane</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>Chloroform</b>	370	49,000	ND		6.1	ND		6.3	ND		560
<b>Chloromethane</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>cis-1,2-Dichloroethylene</b>	250	100,000	ND		6.1	ND		6.3	ND		560
<b>cis-1,3-Dichloropropylene</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>Dibromochloromethane</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>Dibromomethane</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>Dichlorodifluoromethane</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>Ethyl Benzene</b>	1,000	41,000	ND		6.1	ND		6.3	ND		560
<b>Hexachlorobutadiene</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>Isopropylbenzene</b>	2,300	100,000	ND		6.1	ND		6.3	ND		560
<b>Methyl tert-butyl ether (MTBE)</b>	930	100,000	ND		6.1	ND		6.3	ND		560
<b>Methylene chloride</b>	50	500,000	11	J, B	12	6.3	J, B	13	1.1	B-dil, J, B	11
<b>Naphthalene</b>	12,000	NE	ND		12	ND		13	ND		1,100
<b>n-Butylbenzene</b>	12,000	100,000	ND		6.1	ND		6.3	ND		560
<b>n-Propylbenzene</b>	3,900	100,000	ND		6.1	ND		6.3	ND		560
<b>o-Xylene</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>p- &amp; m- Xylenes</b>	NE	NE	ND		12	ND		13	ND		1,100
<b>p-Isopropyltoluene</b>	10,000	NE	ND		6.1	ND		6.3	ND		560
<b>sec-Butylbenzene</b>	11,000	100,000	ND		6.1	ND		6.3	ND		560
<b>Styrene</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>tert-Butylbenzene</b>	5,900	100,000	ND		6.1	ND		6.3	ND		560
<b>Tetrachloroethylene</b>	1,300	19,000	ND		6.1	ND		6.3	ND		560
<b>Toluene</b>	700	100,000	ND		6.1	ND		6.3	ND		560
<b>trans-1,2-Dichloroethylene</b>	190	100,000	ND		6.1	ND		6.3	ND		560
<b>trans-1,3-Dichloropropylene</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>Trichloroethylene</b>	470	21,000	ND		6.1	ND		6.3	ND		560
<b>Trichlorofluoromethane</b>	NE	NE	ND		6.1	ND		6.3	ND		560
<b>Vinyl acetate</b>	NE	NE	ND		12	ND		13	ND		1,100
<b>Vinyl Chloride</b>	20	900	ND		6.1	ND		6.3	ND		560
<b>Xylenes, Total</b>	260	100,000	ND		18	ND		19	ND		1,700
<b>Total TICs</b>	NE	NE	ND		-	ND		-	ND		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 3: Soil - VOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		MW-26 (2012-09-24)			MW-27 (2012-09-24)			MW-28 (2013-01-15)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
<b>1,1,1,2-Tetrachloroethane</b>	NE	NE	ND		6.5	ND		6.4	ND		6.1
<b>1,1,1-Trichloroethane</b>	680	100,000	ND		6.5	ND		6.4	ND		6.1
<b>1,1,2,2-Tetrachloroethane</b>	NE	NE	ND	R	6.5	ND		6.4	ND		6.1
<b>1,1,2-Trichloro-1,2,2-trifluoroethane</b>	NE	NE	ND		6.5	ND		6.4	ND		6.1
<b>1,1,2-Trichloroethane</b>	NE	NE	ND		6.5	ND		6.4	ND		6.1
<b>1,1-Dichloroethane</b>	270	26,000	ND		6.5	ND		6.4	ND		6.1
<b>1,1-Dichloroethylene</b>	330	100,000	ND		6.5	ND		6.4	ND		6.1
<b>1,1-Dichloropropylene</b>	NE	NE	ND		6.5	ND		6.4	ND		6.1
<b>1,2,3-Trichlorobenzene</b>	NE	NE	1.1	J	13	ND		13	ND		12
<b>1,2,3-Trichloropropane</b>	NE	NE	ND	R	6.5	ND		6.4	ND		6.1
<b>1,2,4-Trichlorobenzene</b>	NE	NE	ND	R	13	ND		13	ND		12
<b>1,2,4-Trimethylbenzene</b>	3,600	52,000	ND	R	6.5	ND		6.4	ND		6.1
<b>1,2-Dibromo-3-chloropropane</b>	NE	NE	ND	R	13	ND		13	ND		12
<b>1,2-Dibromoethane</b>	NE	NE	ND		6.5	ND		6.4	ND		6.1
<b>1,2-Dichlorobenzene</b>	1,100	100,000	8.5		6.5	ND		6.4	ND		6.1
<b>1,2-Dichloroethane</b>	20	3,100	ND		6.5	ND		6.4	ND		6.1
<b>1,2-Dichloropropane</b>	NE	NE	ND		6.5	ND		6.4	ND		6.1
<b>1,3,5-Trimethylbenzene</b>	8,400	52,000	ND	R	6.5	ND		6.4	ND		6.1
<b>1,3-Dichlorobenzene</b>	2,400	49,000	ND	R	6.5	ND		6.4	ND		6.1
<b>1,3-Dichloropropane</b>	NE	NE	ND		6.5	ND		6.4	ND		6.1
<b>1,4-Dichlorobenzene</b>	1,800	13,000	2.1	J	6.5	ND		6.4	ND		6.1
<b>1,4-Dioxane</b>	100	13,000	ND		6.5	ND		6.4	ND		6.1
<b>2,2-Dichloropropane</b>	NE	NE	ND		6.5	ND		6.4	ND		6.1
<b>2-Butanone</b>	120	100,000	3	J	13	ND		13	ND		12
<b>2-Chlorotoluene</b>	NE	NE	ND	R	6.5	ND		6.4	ND		6.1
<b>2-Hexanone</b>	NE	NE	NA		-	NA		-	NA		-
<b>4-Chlorotoluene</b>	NE	NE	ND	R	6.5	ND		6.4	ND		6.1
<b>4-Methyl-2-pentanone</b>	NE	NE	NA		-	NA		-	NA		-
<b>Acetone</b>	50	100,000	19	B	13	46	B	13	ND		12
<b>Benzene</b>	60	4,800	ND		6.5	ND		6.4	ND		6.1
<b>Bromobenzene</b>	NE	NE	ND	R	6.5	ND		6.4	ND		6.1
<b>Bromochloromethane</b>	NE	NE	ND		6.5	ND		6.4	ND		6.1
<b>Bromodichloromethane</b>	NE	NE	ND		6.5	ND		6.4	ND		6.1
<b>Bromoform</b>	NE	NE	ND	R	6.5	ND		6.4	ND		6.1
<b>Bromomethane</b>	NE	NE	ND		6.5	ND		6.4	ND		6.1
<b>Carbon disulfide</b>	NE	100	NA		-	NA		-	NA		-
<b>Carbon tetrachloride</b>	760	2,400	ND		6.5	ND		6.4	ND		6.1
<b>Chlorobenzene</b>	1,100	100,000	ND		6.5	ND		6.4	ND		6.1
<b>Chloroethane</b>	NE	NE	ND		6.5	ND		6.4	ND		6.1
<b>Chloroform</b>	370	49,000	ND		6.5	ND		6.4	ND		6.1
<b>Chloromethane</b>	NE	NE	ND		6.5	ND		6.4	ND		6.1
<b>cis-1,2-Dichloroethylene</b>	250	100,000	ND		6.5	ND		6.4	ND		6.1
<b>cis-1,3-Dichloropropylene</b>	NE	NE	ND		6.5	ND		6.4	ND		6.1
<b>Dibromochloromethane</b>	NE	NE	ND		6.5	ND		6.4	ND		6.1
<b>Dibromomethane</b>	NE	NE	ND		6.5	ND		6.4	ND		6.1
<b>Dichlorodifluoromethane</b>	NE	NE	ND		6.5	ND		6.4	ND		6.1
<b>Ethyl Benzene</b>	1,000	41,000	ND		6.5	ND		6.4	ND		6.1
<b>Hexachlorobutadiene</b>	NE	NE	ND	R	6.5	ND		6.4	ND		6.1
<b>Isopropylbenzene</b>	2,300	100,000	7.5		6.5	ND		6.4	ND		6.1
<b>Methyl tert-butyl ether (MTBE)</b>	930	100,000	ND		6.5	ND		6.4	ND		6.1
<b>Methylene chloride</b>	50	500,000	3.2	J,B	13	2.9	J,B	13	ND		12
<b>Naphthalene</b>	12,000	NE	3.6	J	13	ND		13	ND		12
<b>n-Butylbenzene</b>	12,000	100,000	13		6.5	ND		6.4	ND		6.1
<b>n-Propylbenzene</b>	3,900	100,000	4.3	J	6.5	ND		6.4	ND		6.1
<b>o-Xylene</b>	NE	NE	ND		6.5	ND		6.4	ND		6.1
<b>p- &amp; m- Xylenes</b>	NE	NE	ND		13	ND		13	ND		12
<b>p-Isopropyltoluene</b>	10,000	NE	2.2	J	6.5	ND		6.4	ND		6.1
<b>sec-Butylbenzene</b>	11,000	100,000	13		6.5	ND		6.4	ND		6.1
<b>Styrene</b>	NE	NE	ND		6.5	ND		6.4	ND		6.1
<b>tert-Butylbenzene</b>	5,900	100,000	ND	R	6.5	ND		6.4	ND		6.1
<b>Tetrachloroethylene</b>	1,300	19,000	ND		6.5	ND		6.4	ND		6.1
<b>Toluene</b>	700	100,000	ND		6.5	ND		6.4	ND		6.1
<b>trans-1,2-Dichloroethylene</b>	190	100,000	ND		6.5	ND		6.4	ND		6.1
<b>trans-1,3-Dichloropropylene</b>	NE	NE	ND		6.5	ND		6.4	ND		6.1
<b>Trichloroethylene</b>	470	21,000	ND		6.5	ND		6.4	ND		6.1
<b>Trichlorofluoromethane</b>	NE	NE	ND		6.5	ND		6.4	ND		6.1
<b>Vinyl acetate</b>	NE	NE	ND		13	ND		13	ND		12
<b>Vinyl Chloride</b>	20	900	ND		6.5	ND		6.4	ND		6.1
<b>Xylenes, Total</b>	260	100,000	ND		20	ND		19	ND		18
<b>Total TICs</b>	NE	NE	455		-	ND		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWID ID: 224136

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**Table 3: Soil - VOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		MW-29 (2013-01-08)			MW-30 (10-15) (2013-07-31)			MW-31 (10-15) (2013-07-31)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	NE	NE	ND		2	ND		4.9	ND		5.5
1,1,1-Trichloroethane	680	100,000	ND		2	ND		4.9	ND		5.5
1,1,2,2-Tetrachloroethane	NE	NE	ND		2	ND		4.9	ND		5.5
1,1,2-Trichloro-1,2,2-trifluoroethane	NE	NE	ND		2	ND		4.9	ND		5.5
1,1,2-Trichloroethane	NE	NE	ND		2	ND		4.9	ND		5.5
1,1-Dichloroethane	270	26,000	ND		2	ND		4.9	ND		5.5
1,1-Dichloroethylene	330	100,000	ND		2	ND		4.9	ND		5.5
1,1-Dichloropropylene	NE	NE	ND		2	ND		4.9	ND		5.5
1,2,3-Trichlorobenzene	NE	NE	ND		4.1	ND		4.9	ND		5.5
1,2,3-Trichloropropane	NE	NE	ND		2	ND		4.9	ND		5.5
1,2,4-Trichlorobenzene	NE	NE	ND		4.1	ND		4.9	ND		5.5
1,2,4-Trimethylbenzene	3,600	52,000	ND		2	ND		4.9	ND		5.5
1,2-Dibromo-3-chloropropane	NE	NE	ND		4.1	ND		4.9	ND		5.5
1,2-Dibromoethane	NE	NE	ND		2	ND		4.9	ND		5.5
1,2-Dichlorobenzene	1,100	100,000	ND		2	ND		4.9	ND		5.5
1,2-Dichloroethane	20	3,100	ND		2	ND		4.9	ND		5.5
1,2-Dichloropropane	NE	NE	ND		2	ND		4.9	ND		5.5
1,3,5-Trimethylbenzene	8,400	52,000	ND		2	ND		4.9	ND		5.5
1,3-Dichlorobenzene	2,400	49,000	ND		2	ND		4.9	ND		5.5
1,3-Dichloropropane	NE	NE	ND		2	ND		4.9	ND		5.5
1,4-Dichlorobenzene	1,800	13,000	ND		2	ND		4.9	ND		5.5
1,4-Dioxane	100	13,000	ND	R	20	ND		98	ND		110
2,2-Dichloropropane	NE	NE	ND		2	ND		4.9	ND		5.5
2-Butanone	120	100,000	ND		4.1	ND		4.9	ND		5.5
2-Chlorotoluene	NE	NE	ND		2	ND		4.9	ND		5.5
2-Hexanone	NE	NE	NA		-	NA		-	NA		-
4-Chlorotoluene	NE	NE	ND		2	ND		4.9	ND		5.5
4-Methyl-2-pentanone	NE	NE	NA		-	NA		-	NA		-
Acetone	50	100,000	2.1		4.1	ND		9.8	3.7	J,B	11
Benzene	60	4,800	ND		2	ND		4.9	ND		5.5
Bromobenzene	NE	NE	ND		2	ND		4.9	ND		5.5
Bromochloromethane	NE	NE	ND		2	ND		4.9	ND		5.5
Bromodichloromethane	NE	NE	ND		2	ND		4.9	ND		5.5
Bromoform	NE	NE	ND		2	ND		4.9	ND		5.5
Bromomethane	NE	NE	ND		2	ND		4.9	ND		5.5
Carbon disulfide	NE	100	NA		-	NA		-	NA		-
Carbon tetrachloride	760	2,400	ND		2	ND		4.9	ND		5.5
Chlorobenzene	1,100	100,000	ND		2	ND		4.9	ND		5.5
Chloroethane	NE	NE	ND		2	ND		4.9	ND		5.5
Chloroform	370	49,000	ND		2	ND		4.9	ND		5.5
Chloromethane	NE	NE	ND		2	ND		4.9	ND		5.5
cis-1,2-Dichloroethylene	250	100,000	ND		2	ND		4.9	ND		5.5
cis-1,3-Dichloropropylene	NE	NE	ND		2	ND		4.9	ND		5.5
Dibromochloromethane	NE	NE	ND		2	ND		4.9	ND		5.5
Dibromomethane	NE	NE	ND		2	ND		4.9	ND		5.5
Dichlorodifluoromethane	NE	NE	ND		2	ND		4.9	ND		5.5
Ethyl Benzene	1,000	41,000	ND		2	ND		4.9	ND		5.5
Hexachlorobutadiene	NE	NE	ND		2	ND		4.9	ND		5.5
Isopropylbenzene	2,300	100,000	ND		2	ND		4.9	ND		5.5
Methyl tert-butyl ether (MTBE)	930	100,000	ND		2	ND		4.9	ND		5.5
Methylene chloride	50	500,000	ND		4.1	ND		9.8	ND		11
Naphthalene	12,000	NE	ND		4.1	ND		9.8	ND		11
n-Butylbenzene	12,000	100,000	ND		2	ND		4.9	ND		5.5
n-Propylbenzene	3,900	100,000	ND		2	ND		4.9	ND		5.5
o-Xylene	NE	NE	ND		2	ND		4.9	ND		5.5
p- & m- Xylenes	NE	NE	ND		4.1	ND		9.8	ND		11
p-Isopropyltoluene	10,000	NE	ND		2	ND		4.9	ND		5.5
sec-Butylbenzene	11,000	100,000	ND		2	ND		4.9	ND		5.5
Styrene	NE	NE	ND		2	ND		4.9	ND		5.5
tert-Butylbenzene	5,900	100,000	ND		2	ND		4.9	ND		5.5
Tetrachloroethylene	1,300	19,000	ND		2	ND		4.9	ND		5.5
Toluene	700	100,000	ND		2	ND		4.9	ND		5.5
trans-1,2-Dichloroethylene	190	100,000	ND		2	ND		4.9	ND		5.5
trans-1,3-Dichloropropylene	NE	NE	ND		2	ND		4.9	ND		5.5
Trichloroethylene	470	21,000	ND		2	ND		4.9	ND		5.5
Trichlorofluoromethane	NE	NE	ND		2	ND		4.9	ND		5.5
Vinyl acetate	NE	NE	ND		4.1	ND		4.9	ND		5.5
Vinyl Chloride	20	900	ND		2	ND		4.9	ND		5.5
Xylenes, Total	260	100,000	ND		6.1	ND		15	ND		16
Total TICs	NE	NE	ND		-	ND		-	ND		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 3: Soil - VOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		MW-32 (0-5) (2013-07-31)			MW-32 (10-15) (2013-07-31)			2SB-1/MW-34 (10-15) (2013-08-01)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
<b>1,1,1,2-Tetrachloroethane</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>1,1,1-Trichloroethane</b>	680	100,000	ND		5	ND		5	ND		4.9
<b>1,1,2,2-Tetrachloroethane</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>1,1,2-Trichloro-1,2,2-trifluoroethane</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>1,1,2-Trichloroethane</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>1,1-Dichloroethane</b>	270	26,000	ND		5	ND		5	ND		4.9
<b>1,1-Dichloroethylene</b>	330	100,000	ND		5	ND		5	ND		4.9
<b>1,1-Dichloropropylene</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>1,2,3-Trichlorobenzene</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>1,2,3-Trichloropropane</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>1,2,4-Trichlorobenzene</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>1,2,4-Trimethylbenzene</b>	3,600	52,000	ND		5	ND		5	ND		4.9
<b>1,2-Dibromo-3-chloropropane</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>1,2-Dibromoethane</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>1,2-Dichlorobenzene</b>	1,100	100,000	ND		5	ND		5	ND		4.9
<b>1,2-Dichloroethane</b>	20	3,100	ND		5	ND		5	ND		4.9
<b>1,2-Dichloropropane</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>1,3,5-Trimethylbenzene</b>	8,400	52,000	ND		5	ND		5	ND		4.9
<b>1,3-Dichlorobenzene</b>	2,400	49,000	ND		5	ND		5	ND		4.9
<b>1,3-Dichloropropane</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>1,4-Dichlorobenzene</b>	1,800	13,000	ND		5	ND		5	ND		4.9
<b>1,4-Dioxane</b>	100	13,000	ND		100	ND		100	ND		98
<b>2,2-Dichloropropane</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>2-Butanone</b>	120	100,000	ND		5	ND		5	ND		4.9
<b>2-Chlorotoluene</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>2-Hexanone</b>	NE	NE	NA		-	NA		-	NA		-
<b>4-Chlorotoluene</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>4-Methyl-2-pentanone</b>	NE	NE	NA		-	NA		-	NA		-
<b>Acetone</b>	50	100,000	3.5	J.B	10	15	B	10	ND		9.8
<b>Benzene</b>	60	4,800	ND		5	ND		5	ND		4.9
<b>Bromobenzene</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>Bromochloromethane</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>Bromodichloromethane</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>Bromoform</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>Bromomethane</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>Carbon disulfide</b>	NE	100	NA		-	NA		-	NA		-
<b>Carbon tetrachloride</b>	760	2,400	ND		5	ND		5	ND		4.9
<b>Chlorobenzene</b>	1,100	100,000	ND		5	ND		5	ND		4.9
<b>Chloroethane</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>Chloroform</b>	370	49,000	ND		5	ND		5	ND		4.9
<b>Chloromethane</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>cis-1,2-Dichloroethylene</b>	250	100,000	ND		5	ND		5	96		4.9
<b>cis-1,3-Dichloropropylene</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>Dibromochloromethane</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>Dibromomethane</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>Dichlorodifluoromethane</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>Ethyl Benzene</b>	1,000	41,000	ND		5	ND		5	ND		4.9
<b>Hexachlorobutadiene</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>Isopropylbenzene</b>	2,300	100,000	ND		5	ND		5	ND		4.9
<b>Methyl tert-butyl ether (MTBE)</b>	930	100,000	ND		5	ND		5	ND		4.9
<b>Methylene chloride</b>	50	500,000	ND		10	ND		10	ND		9.8
<b>Naphthalene</b>	12,000	NE	ND		10	ND		10	ND		9.8
<b>n-Butylbenzene</b>	12,000	100,000	ND		5	ND		5	ND		4.9
<b>n-Propylbenzene</b>	3,900	100,000	ND		5	ND		5	ND		4.9
<b>o-Xylene</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>p- &amp; m- Xylenes</b>	NE	NE	ND		10	ND		10	ND		9.8
<b>p-Isopropyltoluene</b>	10,000	NE	ND		5	ND		5	ND		4.9
<b>sec-Butylbenzene</b>	11,000	100,000	ND		5	ND		5	ND		4.9
<b>Styrene</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>tert-Butylbenzene</b>	5,900	100,000	ND		5	ND		5	ND		4.9
<b>Tetrachloroethylene</b>	1,300	19,000	ND		5	ND		5	ND		4.9
<b>Toluene</b>	700	100,000	ND		5	ND		5	ND		4.9
<b>trans-1,2-Dichloroethylene</b>	190	100,000	ND		5	ND		5	ND		4.9
<b>trans-1,3-Dichloropropylene</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>Trichloroethylene</b>	470	21,000	ND		5	ND		5	1,000		490
<b>Trichlorofluoromethane</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>Vinyl acetate</b>	NE	NE	ND		5	ND		5	ND		4.9
<b>Vinyl Chloride</b>	20	900	ND		5	ND		5	ND		4.9
<b>Xylenes, Total</b>	260	100,000	ND		15	ND		15	ND		15
<b>Total TICs</b>	NE	NE	ND		-	ND		-	ND		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 3: Soil - VOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		2SB-1/MW-34 (15-20) (2013-08-01)			2SB-9/MW-35 (0-5) (2013-08-01)			2SB-9/MW-35 (10-15) (2013-08-01)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	NE	NE	ND		4.8	ND		4.6	ND		6
1,1,1-Trichloroethane	680	100,000	ND		4.8	ND		4.6	ND		6
1,1,2,2-Tetrachloroethane	NE	NE	ND		4.8	ND		4.6	ND		6
1,1,2-Trichloro-1,2,2-trifluoroethane	NE	NE	ND		4.8	ND		4.6	ND		6
1,1,2-Trichloroethane	NE	NE	ND		4.8	ND		4.6	ND		6
1,1-Dichloroethane	270	26,000	ND		4.8	ND		4.6	ND		6
1,1-Dichloroethylene	330	100,000	ND		4.8	ND		4.6	ND		6
1,1-Dichloropropylene	NE	NE	ND		4.8	ND		4.6	ND		6
1,2,3-Trichlorobenzene	NE	NE	ND		4.8	ND		4.6	ND		6
1,2,3-Trichloropropane	NE	NE	ND		4.8	ND		4.6	ND		6
1,2,4-Trichlorobenzene	NE	NE	ND		4.8	ND		4.6	ND		6
1,2,4-Trimethylbenzene	3,600	52,000	ND		4.8	ND		4.6	ND		6
1,2-Dibromo-3-chloropropane	NE	NE	ND		4.8	ND		4.6	ND		6
1,2-Dibromoethane	NE	NE	ND		4.8	ND		4.6	ND		6
1,2-Dichlorobenzene	1,100	100,000	ND		4.8	ND		4.6	ND		6
1,2-Dichloroethane	20	3,100	ND		4.8	ND		4.6	ND		6
1,2-Dichloropropane	NE	NE	ND		4.8	ND		4.6	ND		6
1,3,5-Trimethylbenzene	8,400	52,000	ND		4.8	ND		4.6	ND		6
1,3-Dichlorobenzene	2,400	49,000	ND		4.8	ND		4.6	ND		6
1,3-Dichloropropane	NE	NE	ND		4.8	ND		4.6	ND		6
1,4-Dichlorobenzene	1,800	13,000	ND		4.8	ND		4.6	ND		6
1,4-Dioxane	100	13,000	ND		96	ND		93	ND		120
2,2-Dichloropropane	NE	NE	ND		4.8	ND		4.6	ND		6
2-Butanone	120	100,000	ND		4.8	ND		4.6	ND		6
2-Chlorotoluene	NE	NE	ND		4.8	ND		4.6	ND		6
2-Hexanone	NE	NE	NA		-	NA		-	NA		-
4-Chlorotoluene	NE	NE	ND		4.8	ND		4.6	ND		6
4-Methyl-2-pentanone	NE	NE	NA		-	NA		-	NA		-
Acetone	50	100,000	ND		9.6	ND		9.3	ND		12
Benzene	60	4,800	ND		4.8	ND		4.6	ND		6
Bromobenzene	NE	NE	ND		4.8	ND		4.6	ND		6
Bromochloromethane	NE	NE	ND		4.8	ND		4.6	ND		6
Bromodichloromethane	NE	NE	ND		4.8	ND		4.6	ND		6
Bromoform	NE	NE	ND		4.8	ND		4.6	ND		6
Bromomethane	NE	NE	ND		4.8	ND		4.6	ND		6
Carbon disulfide	NE	100	NA		-	NA		-	NA		-
Carbon tetrachloride	760	2,400	ND		4.8	ND		4.6	ND		6
Chlorobenzene	1,100	100,000	ND		4.8	ND		4.6	ND		6
Chloroethane	NE	NE	ND		4.8	ND		4.6	ND		6
Chloroform	370	49,000	ND		4.8	ND		4.6	ND		6
Chloromethane	NE	NE	ND		4.8	ND		4.6	ND		6
cis-1,2-Dichloroethylene	250	100,000	430	J	480	ND		4.6	6.9		6
cis-1,3-Dichloropropylene	NE	NE	ND		4.8	ND		4.6	ND		6
Dibromochloromethane	NE	NE	ND		4.8	ND		4.6	ND		6
Dibromomethane	NE	NE	ND		4.8	ND		4.6	ND		6
Dichlorodifluoromethane	NE	NE	ND		4.8	ND		4.6	ND		6
Ethyl Benzene	1,000	41,000	ND		4.8	ND		4.6	ND		6
Hexachlorobutadiene	NE	NE	ND		4.8	ND		4.6	ND		6
Isopropylbenzene	2,300	100,000	ND		4.8	ND		4.6	ND		6
Methyl tert-butyl ether (MTBE)	930	100,000	ND		4.8	ND		4.6	ND		6
Methylene chloride	50	500,000	ND		9.6	ND		9.3	ND		12
Naphthalene	12,000	NE	ND		9.6	ND		9.3	ND		12
n-Butylbenzene	12,000	100,000	ND		4.8	ND		4.6	ND		6
n-Propylbenzene	3,900	100,000	ND		4.8	ND		4.6	ND		6
o-Xylene	NE	NE	ND		4.8	ND		4.6	ND		6
p- & m- Xylenes	NE	NE	ND		9.6	ND		9.3	ND		12
p-Isopropyltoluene	10,000	NE	ND		4.8	ND		4.6	ND		6
sec-Butylbenzene	11,000	100,000	ND		4.8	ND		4.6	ND		6
Styrene	NE	NE	ND		4.8	ND		4.6	ND		6
tert-Butylbenzene	5,900	100,000	ND		4.8	ND		4.6	ND		6
Tetrachloroethylene	1,300	19,000	3.2	J	4.8	ND		4.6	ND		6
Toluene	700	100,000	ND		4.8	ND		4.6	ND		6
trans-1,2-Dichloroethylene	190	100,000	ND		4.8	ND		4.6	ND		6
trans-1,3-Dichloropropylene	NE	NE	ND		4.8	ND		4.6	ND		6
Trichloroethylene	470	21,000	2,700		480	7.4		4.6	33		6
Trichlorofluoromethane	NE	NE	ND		4.8	ND		4.6	ND		6
Vinyl acetate	NE	NE	ND		4.8	ND		4.6	ND		6
Vinyl Chloride	20	900	6.2		4.8	ND		4.6	ND		6
Xylenes, Total	260	100,000	ND		14	ND		14	ND		18
Total TICs	NE	NE	ND		-	ND		-	ND		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 3: Soil - VOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		MW-36 (11-12) (2014-07-30)			MW-37 (11-12) (2014-07-30)			MW-Dup-01 (2014-07-30) (mw-37 11-12)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
<b>1,1,1,2-Tetrachloroethane</b>	NE	NE	NA		-	NA		-	NA		-
<b>1,1,1-Trichloroethane</b>	680	100,000	ND		2.5	ND		2.6	ND		2.9
<b>1,1,2,2-Tetrachloroethane</b>	NE	NE	ND		2.5	ND		2.6	ND		2.9
<b>1,1,2-Trichloro-1,2,2-trifluoroethane</b>	NE	NE	ND		2.5	ND		2.6	ND		2.9
<b>1,1,2-Trichloroethane</b>	NE	NE	ND		2.5	ND		2.6	ND		2.9
<b>1,1-Dichloroethane</b>	270	26,000	ND		2.5	ND		2.6	ND		2.9
<b>1,1-Dichloroethylene</b>	330	100,000	ND		2.5	ND		2.6	ND		2.9
<b>1,1-Dichloropropylene</b>	NE	NE	NA		-	NA		-	NA		-
<b>1,2,3-Trichlorobenzene</b>	NE	NE	NA		-	NA		-	NA		-
<b>1,2,3-Trichloropropane</b>	NE	NE	NA		-	NA		-	NA		-
<b>1,2,4-Trichlorobenzene</b>	NE	NE	ND		2.5	ND		2.6	ND		2.9
<b>1,2,4-Trimethylbenzene</b>	3,600	52,000	ND		2.5	ND		2.6	ND		2.9
<b>1,2-Dibromo-3-chloropropane</b>	NE	NE	ND		2.5	ND		2.6	ND		2.9
<b>1,2-Dibromoethane</b>	NE	NE	ND		2.5	ND		2.6	ND		2.9
<b>1,2-Dichlorobenzene</b>	1,100	100,000	ND		2.5	ND		2.6	ND		2.9
<b>1,2-Dichloroethane</b>	20	3,100	ND		2.5	ND		2.6	ND		2.9
<b>1,2-Dichloropropane</b>	NE	NE	ND		2.5	ND		2.6	ND		2.9
<b>1,3,5-Trimethylbenzene</b>	8,400	52,000	ND		2.5	ND		2.6	ND		2.9
<b>1,3-Dichlorobenzene</b>	2,400	49,000	NA		-	NA		-	NA		-
<b>1,3-Dichloropropane</b>	NE	NE	NA		-	NA		-	NA		-
<b>1,4-Dichlorobenzene</b>	1,800	13,000	NA		-	NA		-	NA		-
<b>1,4-Dioxane</b>	100	13,000	NA		-	NA		-	NA		-
<b>2,2-Dichloropropane</b>	NE	NE	NA		-	NA		-	NA		-
<b>2-Butanone</b>	120	100,000	ND		2.5	ND		2.6	ND		2.9
<b>2-Chlorotoluene</b>	NE	NE	NA		-	NA		-	NA		-
<b>2-Hexanone</b>	NE	NE	ND		2.5	ND		2.6	ND		2.9
<b>4-Chlorotoluene</b>	NE	NE	NA		-	NA		-	NA		-
<b>4-Methyl-2-pentanone</b>	NE	NE	ND		2.5	ND		2.6	ND		2.9
<b>Acetone</b>	50	100,000	20		2.5	12		2.6	38		2.9
<b>Benzene</b>	60	4,800	ND		2.5	ND		2.6	ND		2.9
<b>Bromobenzene</b>	NE	NE	NA		-	NA		-	NA		-
<b>Bromochloromethane</b>	NE	NE	NA		-	NA		-	NA		-
<b>Bromodichloromethane</b>	NE	NE	ND		2.5	ND		2.6	ND		2.9
<b>Bromoform</b>	NE	NE	ND		2.5	ND		2.6	ND		2.9
<b>Bromomethane</b>	NE	NE	ND		2.5	ND		2.6	ND		2.9
<b>Carbon disulfide</b>	NE	100	ND		2.5	ND		2.6	ND		2.9
<b>Carbon tetrachloride</b>	760	2,400	ND		2.5	ND		2.6	ND		2.9
<b>Chlorobenzene</b>	1,100	100,000	ND		2.5	ND		2.6	ND		2.9
<b>Chloroethane</b>	NE	NE	ND		2.5	ND		2.6	ND		2.9
<b>Chloroform</b>	370	49,000	ND		2.5	ND		2.6	ND		2.9
<b>Chloromethane</b>	NE	NE	ND		2.5	ND		2.6	ND		2.9
<b>cis-1,2-Dichloroethylene</b>	250	100,000	ND		2.5	ND		2.6	ND		2.9
<b>cis-1,3-Dichloropropylene</b>	NE	NE	ND		2.5	ND		2.6	ND		2.9
<b>Dibromochloromethane</b>	NE	NE	ND		2.5	ND		2.6	ND		2.9
<b>Dibromomethane</b>	NE	NE	NA		-	NA		-	NA		-
<b>Dichlorodifluoromethane</b>	NE	NE	ND		2.5	ND		2.6	ND		2.9
<b>Ethyl Benzene</b>	1,000	41,000	ND		2.5	ND		2.6	ND		2.9
<b>Hexachlorobutadiene</b>	NE	NE	NA		-	NA		-	NA		-
<b>Isopropylbenzene</b>	2,300	100,000	NA		-	NA		-	NA		-
<b>Methyl tert-butyl ether (MTBE)</b>	930	100,000	ND		2.5	ND		2.6	ND		2.9
<b>Methylene chloride</b>	50	500,000	ND		2.5	3.5	J	2.6	ND		2.9
<b>Naphthalene</b>	12,000	NE	ND		2.5	ND		2.6	ND		2.9
<b>n-Butylbenzene</b>	12,000	100,000	ND		2.5	ND		2.6	ND		2.9
<b>n-Propylbenzene</b>	3,900	100,000	ND		2.5	ND		2.6	ND		2.9
<b>o-Xylene</b>	NE	NE	ND		2.5	ND		2.6	ND		2.9
<b>p- &amp; m- Xylenes</b>	NE	NE	ND		2.5	ND		2.6	ND		2.9
<b>p-Isopropyltoluene</b>	10,000	NE	NA		-	NA		-	NA		-
<b>sec-Butylbenzene</b>	11,000	100,000	ND		2.5	ND		2.6	ND		2.9
<b>Styrene</b>	NE	NE	ND		2.5	ND		2.6	ND		2.9
<b>tert-Butylbenzene</b>	5,900	100,000	ND		2.5	ND		2.6	ND		2.9
<b>Tetrachloroethylene</b>	1,300	19,000	ND		2.5	ND		2.6	ND		2.9
<b>Toluene</b>	700	100,000	ND		2.5	ND		2.6	ND		2.9
<b>trans-1,2-Dichloroethylene</b>	190	100,000	ND		2.5	ND		2.6	ND		2.9
<b>trans-1,3-Dichloropropylene</b>	NE	NE	ND		2.5	ND		2.6	ND		2.9
<b>Trichloroethylene</b>	470	21,000	ND		2.5	ND		2.6	ND		2.9
<b>Trichlorofluoromethane</b>	NE	NE	ND		2.5	ND		2.6	ND		2.9
<b>Vinyl acetate</b>	NE	NE	NA		-	NA		-	NA		-
<b>Vinyl Chloride</b>	20	900	ND		2.5	ND		2.6	ND		2.9
<b>Xylenes, Total</b>	260	100,000	ND		2.5	ND		2.6	ND		2.9
<b>Total TICs</b>	NE	NE	ND		-	ND		-	ND		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 3: Soil - VOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		MW-38 (0-5) (2014-09-23)			MW-38 (10-15) (2014-09-23)			MW-39 (0-5) (2014-09-23)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	NE	NE	NA		-	NA		-	NA		-
1,1,1-Trichloroethane	680	100,000	ND		4.2	ND		4.9	ND		4.9
1,1,2,2-Tetrachloroethane	NE	NE	ND		4.2	ND		4.9	ND		4.9
1,1,2-Trichloro-1,2,2-trifluoroethane	NE	NE	ND		4.2	ND		4.9	ND		4.9
1,1,2-Trichloroethane	NE	NE	ND		4.2	ND		4.9	ND		4.9
1,1-Dichloroethane	270	26,000	ND		4.2	ND		4.9	ND		4.9
1,1-Dichloroethylene	330	100,000	ND		4.2	ND		4.9	ND		4.9
1,1-Dichloropropylene	NE	NE	NA		-	NA		-	NA		-
1,2,3-Trichlorobenzene	NE	NE	NA		-	NA		-	NA		-
1,2,3-Trichloropropane	NE	NE	NA		-	NA		-	NA		-
1,2,4-Trichlorobenzene	NE	NE	ND		4.2	ND		4.9	ND		4.9
1,2,4-Trimethylbenzene	3,600	52,000	ND		4.2	ND		4.9	ND		4.9
1,2-Dibromo-3-chloropropane	NE	NE	ND		4.2	ND		4.9	ND		4.9
1,2-Dibromoethane	NE	NE	ND		4.2	ND		4.9	ND		4.9
1,2-Dichlorobenzene	1,100	100,000	NA		-	NA		-	NA		-
1,2-Dichloroethane	20	3,100	ND		4.2	ND		4.9	ND		4.9
1,2-Dichloropropane	NE	NE	ND		4.2	ND		4.9	ND		4.9
1,3,5-Trimethylbenzene	8,400	52,000	ND		4.2	ND		4.9	ND		4.9
1,3-Dichlorobenzene	2,400	49,000	NA		-	NA		-	NA		-
1,3-Dichloropropane	NE	NE	NA		-	NA		-	NA		-
1,4-Dichlorobenzene	1,800	13,000	NA		-	NA		-	NA		-
1,4-Dioxane	100	13,000	NA		-	NA		-	NA		-
2,2-Dichloropropane	NE	NE	NA		-	NA		-	NA		-
2-Butanone	120	100,000	ND		4.2	ND		4.9	ND		4.9
2-Chlorotoluene	NE	NE	NA		-	NA		-	NA		-
2-Hexanone	NE	NE	ND		4.2	ND		4.9	ND		4.9
4-Chlorotoluene	NE	NE	NA		-	NA		-	NA		-
4-Methyl-2-pentanone	NE	NE	ND		4.2	ND		4.9	ND		4.9
Acetone	50	100,000	28		8.5	14		9.8	31		9.8
Benzene	60	4,800	ND		4.2	ND		4.9	ND		4.9
Bromobenzene	NE	NE	NA		-	NA		-	NA		-
Bromochloromethane	NE	NE	NA		-	NA		-	NA		-
Bromodichloromethane	NE	NE	ND		4.2	ND		4.9	ND		4.9
Bromoform	NE	NE	ND		4.2	ND		4.9	ND		4.9
Bromomethane	NE	NE	ND		4.2	ND		4.9	ND		4.9
Carbon disulfide	NE	100	ND		4.2	ND		4.9	ND		4.9
Carbon tetrachloride	760	2,400	ND		4.2	ND		4.9	ND		4.9
Chlorobenzene	1,100	100,000	ND		4.2	ND		4.9	ND		4.9
Chloroethane	NE	NE	ND		4.2	ND		4.9	ND		4.9
Chloroform	370	49,000	ND		4.2	ND		4.9	ND		4.9
Chloromethane	NE	NE	ND		4.2	ND		4.9	ND		4.9
cis-1,2-Dichloroethylene	250	100,000	ND		4.2	ND		4.9	ND		4.9
cis-1,3-Dichloropropylene	NE	NE	ND		4.2	ND		4.9	ND		4.9
Dibromochloromethane	NE	NE	ND		4.2	ND		4.9	ND		4.9
Dibromomethane	NE	NE	NA		-	NA		-	NA		-
Dichlorodifluoromethane	NE	NE	ND		4.2	ND		4.9	ND		4.9
Ethyl Benzene	1,000	41,000	ND		4.2	ND		4.9	ND		4.9
Hexachlorobutadiene	NE	NE	NA		-	NA		-	NA		-
Isopropylbenzene	2,300	100,000	NA		-	NA		-	NA		-
Methyl tert-butyl ether (MTBE)	930	100,000	ND		4.2	ND		4.9	ND		4.9
Methylene chloride	50	500,000	7.5	J	8.5	ND		9.8	7.9	J	9.8
Naphthalene	12,000	NE	ND		8.5	ND		9.8	ND		9.8
n-Butylbenzene	12,000	100,000	ND		4.2	ND		4.9	ND		4.9
n-Propylbenzene	3,900	100,000	ND		4.2	ND		4.9	ND		4.9
o-Xylene	NE	NE	ND		4.2	ND		4.9	ND		4.9
p- & m- Xylenes	NE	NE	ND		8.5	ND		9.8	ND		9.8
p-Isopropyltoluene	10,000	NE	NA		-	NA		-	NA		-
sec-Butylbenzene	11,000	100,000	ND		4.2	ND		4.9	ND		4.9
Styrene	NE	NE	ND		4.2	ND		4.9	ND		4.9
tert-Butylbenzene	5,900	100,000	ND		4.2	ND		4.9	ND		4.9
Tetrachloroethylene	1,300	19,000	ND		4.2	ND		4.9	ND		4.9
Toluene	700	100,000	ND		4.2	ND		4.9	ND		4.9
trans-1,2-Dichloroethylene	190	100,000	ND		4.2	ND		4.9	ND		4.9
trans-1,3-Dichloropropylene	NE	NE	ND		4.2	ND		4.9	ND		4.9
Trichloroethylene	470	21,000	ND		4.2	ND		4.9	ND		4.9
Trichlorofluoromethane	NE	NE	ND		4.2	ND		4.9	ND		4.9
Vinyl acetate	NE	NE	NA		-	NA		-	NA		-
Vinyl Chloride	20	900	ND		4.2	ND		4.9	ND		4.9
Xylenes, Total	260	100,000	ND		13	ND		15	ND		15
Total TICs	NE	NE	NA		-	NA		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWID ID: 224136

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**Table 3: Soil - VOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		MW-39 (10-11) (2014-09-23)			MW-40 (0-5) (2014-09-24)			MW-40 (15-20) (2014-09-24)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	NE	NE	NA		-	NA		-	NA		-
1,1,1-Trichloroethane	680	100,000	ND		5.3	ND		6.2	ND		15
1,1,2,2-Tetrachloroethane	NE	NE	ND		5.3	ND		6.2	ND		15
1,1,2-Trichloro-1,2,2-trifluoroethane	NE	NE	ND		5.3	ND		6.2	ND		15
1,1,2-Trichloroethane	NE	NE	ND		5.3	ND		6.2	ND		15
1,1-Dichloroethane	270	26,000	ND		5.3	ND		6.2	ND		15
1,1-Dichloroethylene	330	100,000	ND		5.3	ND		6.2	ND		15
1,1-Dichloropropylene	NE	NE	NA		-	NA		-	NA		-
1,2,3-Trichlorobenzene	NE	NE	NA		-	NA		-	NA		-
1,2,3-Trichloropropane	NE	NE	NA		-	NA		-	NA		-
1,2,4-Trichlorobenzene	NE	NE	NA		-	ND		6.2	ND		15
1,2,4-Trimethylbenzene	3,600	52,000	ND		5.3	ND		6.2	ND		15
1,2-Dibromo-3-chloropropane	NE	NE	ND		5.3	ND		6.2	ND		15
1,2-Dibromoethane	NE	NE	ND		5.3	ND		6.2	ND		15
1,2-Dichlorobenzene	1,100	100,000	NA		-	NA		-	NA		-
1,2-Dichloroethane	20	3,100	ND		5.3	ND		6.2	ND		15
1,2-Dichloropropane	NE	NE	ND		5.3	ND		6.2	ND		15
1,3,5-Trimethylbenzene	8,400	52,000	ND		5.3	ND		6.2	ND		15
1,3-Dichlorobenzene	2,400	49,000	NA		-	NA		-	NA		-
1,3-Dichloropropane	NE	NE	NA		-	NA		-	NA		-
1,4-Dichlorobenzene	1,800	13,000	NA		-	NA		-	NA		-
1,4-Dioxane	100	13,000	ND		110	NA		-	NA		-
2,2-Dichloropropane	NE	NE	NA		-	NA		-	NA		-
2-Butanone	120	100,000	9.1		5.3	ND		6.2	ND		15
2-Chlorotoluene	NE	NE	NA		-	NA		-	NA		-
2-Hexanone	NE	NE	ND		5.3	ND		6.2	ND		15
4-Chlorotoluene	NE	NE	NA		-	NA		-	NA		-
4-Methyl-2-pentanone	NE	NE	ND		5.3	ND		6.2	ND		15
Acetone	50	100,000	55		11	24	CCV-E	12	140		31
Benzene	60	4,800	ND		5.3	ND		6.2	ND		15
Bromobenzene	NE	NE	NA		-	NA		-	NA		-
Bromochloromethane	NE	NE	NA		-	NA		-	NA		-
Bromodichloromethane	NE	NE	ND		5.3	ND		6.2	ND		15
Bromoform	NE	NE	ND		5.3	ND		6.2	ND		15
Bromomethane	NE	NE	ND		5.3	ND		6.2	ND		15
Carbon disulfide	NE	100	5.7		5.3	ND		6.2	ND		15
Carbon tetrachloride	760	2,400	ND		5.3	ND		6.2	ND		15
Chlorobenzene	1,100	100,000	ND		5.3	ND		6.2	ND		15
Chloroethane	NE	NE	ND		5.3	ND		6.2	ND		15
Chloroform	370	49,000	ND		5.3	ND		6.2	ND		15
Chloromethane	NE	NE	ND		5.3	ND		6.2	ND		15
cis-1,2-Dichloroethylene	250	100,000	ND		5.3	ND		6.2	ND		15
cis-1,3-Dichloropropylene	NE	NE	ND		5.3	ND		6.2	ND		15
Dibromochloromethane	NE	NE	ND		5.3	ND		6.2	ND		15
Dibromomethane	NE	NE	NA		-	NA		-	NA		-
Dichlorodifluoromethane	NE	NE	ND		5.3	ND		6.2	ND		15
Ethyl Benzene	1,000	41,000	ND		5.3	ND		6.2	ND		15
Hexachlorobutadiene	NE	NE	NA		-	NA		-	NA		-
Isopropylbenzene	2,300	100,000	ND		5.3	NA		-	NA		-
Methyl tert-butyl ether (MTBE)	930	100,000	ND		5.3	ND		6.2	ND		15
Methylene chloride	50	500,000	8.3	J	11	ND		12	ND		31
Naphthalene	12,000	NE	NA		-	ND		12	ND		31
n-Butylbenzene	12,000	100,000	ND		5.3	ND		6.2	ND		15
n-Propylbenzene	3,900	100,000	ND		5.3	ND		6.2	ND		15
o-Xylene	NE	NE	ND		5.3	ND		6.2	ND		15
p- & m- Xylenes	NE	NE	ND		11	ND		12	ND		31
p-Isopropyltoluene	10,000	NE	ND		5.3	NA		-	NA		-
sec-Butylbenzene	11,000	100,000	ND		5.3	ND		6.2	ND		15
Styrene	NE	NE	ND		5.3	ND		6.2	ND		15
tert-Butylbenzene	5,900	100,000	ND		5.3	ND		6.2	ND		15
Tetrachloroethylene	1,300	19,000	ND		5.3	ND		6.2	ND		15
Toluene	700	100,000	ND		5.3	ND		6.2	ND		15
trans-1,2-Dichloroethylene	190	100,000	ND		5.3	ND		6.2	ND		15
trans-1,3-Dichloropropylene	NE	NE	ND		5.3	ND		6.2	ND		15
Trichloroethylene	470	21,000	ND		5.3	7.6		6.2	56		15
Trichlorofluoromethane	NE	NE	ND		5.3	ND		6.2	ND		15
Vinyl acetate	NE	NE	NA		-	NA		-	NA		-
Vinyl Chloride	20	900	ND		5.3	ND		6.2	ND		15
Xylenes, Total	260	100,000	ND		16	ND		19	ND		46
Total TICs	NE	NE	NA		-	NA		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 3: Soil - VOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		MW-41 (8-10) (2014-12-10)			MW-Dup-02 (8-10) (2014-12-10) (mw-41 8-10)			MW-42 (8-10) (2014-12-10)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
<b>1,1,1,2-Tetrachloroethane</b>	NE	NE	NA		-	NA		-	NA		-
<b>1,1,1-Trichloroethane</b>	680	100,000	ND		6.8	ND		6.9	ND		5.7
<b>1,1,2,2-Tetrachloroethane</b>	NE	NE	ND		6.8	ND		6.9	ND		5.7
<b>1,1,2-Trichloro-1,2,2-trifluoroethane</b>	NE	NE	ND		6.8	ND		6.9	ND		5.7
<b>1,1,2-Trichloroethane</b>	NE	NE	ND		6.8	ND		6.9	ND		5.7
<b>1,1-Dichloroethane</b>	270	26,000	ND		6.8	ND		6.9	ND		5.7
<b>1,1-Dichloroethylene</b>	330	100,000	ND		6.8	ND		6.9	ND		5.7
<b>1,1-Dichloropropylene</b>	NE	NE	NA		-	NA		-	NA		-
<b>1,2,3-Trichlorobenzene</b>	NE	NE	NA		-	NA		-	NA		-
<b>1,2,3-Trichloropropane</b>	NE	NE	NA		-	NA		-	NA		-
<b>1,2,4-Trichlorobenzene</b>	NE	NE	ND		6.8	ND		6.9	ND		5.7
<b>1,2,4-Trimethylbenzene</b>	3,600	52,000	ND		6.8	ND		6.9	ND		5.7
<b>1,2-Dibromo-3-chloropropane</b>	NE	NE	ND		6.8	ND		6.9	ND		5.7
<b>1,2-Dibromoethane</b>	NE	NE	ND		6.8	ND		6.9	ND		5.7
<b>1,2-Dichlorobenzene</b>	1,100	100,000	ND		6.8	ND		6.9	ND		5.7
<b>1,2-Dichloroethane</b>	20	3,100	NA		-	NA		-	NA		-
<b>1,2-Dichloropropane</b>	NE	NE	ND		6.8	ND		6.9	ND		5.7
<b>1,3,5-Trimethylbenzene</b>	8,400	52,000	ND		6.8	ND		6.9	ND		5.7
<b>1,3-Dichlorobenzene</b>	2,400	49,000	NA		-	NA		-	NA		-
<b>1,3-Dichloropropane</b>	NE	NE	NA		-	NA		-	NA		-
<b>1,4-Dichlorobenzene</b>	1,800	13,000	NA		-	NA		-	NA		-
<b>1,4-Dioxane</b>	100	13,000	NA		-	NA		-	NA		-
<b>2,2-Dichloropropane</b>	NE	NE	NA		-	NA		-	NA		-
<b>2-Butanone</b>	120	100,000	ND		6.8	ND		6.9	ND		5.7
<b>2-Chlorotoluene</b>	NE	NE	NA		-	NA		-	NA		-
<b>2-Hexanone</b>	NE	NE	ND		6.8	ND		6.9	ND		5.7
<b>4-Chlorotoluene</b>	NE	NE	NA		-	NA		-	NA		-
<b>4-Methyl-2-pentanone</b>	NE	NE	ND		6.8	ND		6.9	ND		5.7
<b>Acetone</b>	50	100,000	13	J	14	16		14	12		11
<b>Benzene</b>	60	4,800	ND		6.8	ND		6.9	ND		5.7
<b>Bromobenzene</b>	NE	NE	NA		-	NA		-	NA		-
<b>Bromochloromethane</b>	NE	NE	NA		-	NA		-	NA		-
<b>Bromodichloromethane</b>	NE	NE	ND		6.8	ND		6.9	ND		5.7
<b>Bromoform</b>	NE	NE	ND		6.8	ND		6.9	ND		5.7
<b>Bromomethane</b>	NE	NE	ND		6.8	ND		6.9	ND		5.7
<b>Carbon disulfide</b>	NE	100	ND		6.8	ND		6.9	ND		5.7
<b>Carbon tetrachloride</b>	760	2,400	ND		6.8	ND		6.9	ND		5.7
<b>Chlorobenzene</b>	1,100	100,000	ND		6.8	ND		6.9	ND		5.7
<b>Chloroethane</b>	NE	NE	ND		6.8	ND		6.9	ND		5.7
<b>Chloroform</b>	370	49,000	ND		6.8	ND		6.9	ND		5.7
<b>Chloromethane</b>	NE	NE	ND		6.8	ND		6.9	ND		5.7
<b>cis-1,2-Dichloroethylene</b>	250	100,000	ND		6.8	ND		6.9	ND		5.7
<b>cis-1,3-Dichloropropylene</b>	NE	NE	ND		6.8	ND		6.9	ND		5.7
<b>Dibromochloromethane</b>	NE	NE	ND		6.8	ND		6.9	ND		5.7
<b>Dibromomethane</b>	NE	NE	NA		-	NA		-	NA		-
<b>Dichlorodifluoromethane</b>	NE	NE	ND		6.8	ND		6.9	ND		5.7
<b>Ethyl Benzene</b>	1,000	41,000	ND		6.8	ND		6.9	ND		5.7
<b>Hexachlorobutadiene</b>	NE	NE	NA		-	NA		-	NA		-
<b>Isopropylbenzene</b>	2,300	100,000	NA		-	NA		-	NA		-
<b>Methyl tert-butyl ether (MTBE)</b>	930	100,000	ND		6.8	ND		6.9	ND		5.7
<b>Methylene chloride</b>	50	500,000	ND		14	ND		14	13		11
<b>Naphthalene</b>	12,000	NE	ND		14	ND		14	ND		11
<b>n-Butylbenzene</b>	12,000	100,000	ND		6.8	ND		6.9	ND		5.7
<b>n-Propylbenzene</b>	3,900	100,000	ND		6.8	ND		6.9	ND		5.7
<b>o-Xylene</b>	NE	NE	ND		6.8	ND		6.9	ND		5.7
<b>p- &amp; m- Xylenes</b>	NE	NE	ND		14	ND		14	ND		11
<b>p-Isopropyltoluene</b>	10,000	NE	NA		-	NA		-	NA		-
<b>sec-Butylbenzene</b>	11,000	100,000	ND		6.8	ND		6.9	ND		5.7
<b>Styrene</b>	NE	NE	ND		6.8	ND		6.9	ND		5.7
<b>tert-Butylbenzene</b>	5,900	100,000	ND		6.8	ND		6.9	ND		5.7
<b>Tetrachloroethylene</b>	1,300	19,000	ND		6.8	ND		6.9	ND		5.7
<b>Toluene</b>	700	100,000	ND		6.8	ND		6.9	ND		5.7
<b>trans-1,2-Dichloroethylene</b>	190	100,000	ND		6.8	ND		6.9	ND		5.7
<b>trans-1,3-Dichloropropylene</b>	NE	NE	ND		6.8	ND		6.9	ND		5.7
<b>Trichloroethylene</b>	470	21,000	ND		6.8	ND		6.9	ND		5.7
<b>Trichlorofluoromethane</b>	NE	NE	ND		6.8	ND		6.9	ND		5.7
<b>Vinyl acetate</b>	NE	NE	NA		-	NA		-	NA		-
<b>Vinyl Chloride</b>	20	900	ND		6.8	ND		6.9	ND		5.7
<b>Xylenes, Total</b>	260	100,000	ND		20	ND		21	ND		17
<b>Total TICs</b>	NE	NE	ND		-	ND		-	ND		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWID ID: 224136

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**Table 3: Soil - VOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		SB-60 (2012-02-01)			SB-60B (6-8) (2012-02-13)			SB-61 (2012-02-01)		
	Unrestricted	Restricted- Residential	Note: Sampled from 12-14'						Note: Sampled from 12-14'		
			Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	NE	NE	ND		53	ND		550	ND		56
1,1,1-Trichloroethane	680	100,000	ND		53	ND		550	ND		56
1,1,2,2-Tetrachloroethane	NE	NE	ND		53	ND		550	ND		56
1,1,2-Trichloro-1,2,2-trifluoroethane	NE	NE	ND		53	ND		550	ND		56
1,1,2-Trichloroethane	NE	NE	ND		53	ND		550	ND		56
1,1-Dichloroethane	270	26,000	ND		53	ND		550	ND		56
1,1-Dichloroethylene	330	100,000	ND		53	ND		550	ND		56
1,1-Dichloropropylene	NE	NE	ND		53	ND		550	ND		56
1,2,3-Trichlorobenzene	NE	NE	ND		110	ND		1,100	ND		110
1,2,3-Trichloropropane	NE	NE	ND		53	ND		550	ND		56
1,2,4-Trichlorobenzene	NE	NE	ND		110	ND		1,100	ND		110
1,2,4-Trimethylbenzene	3,600	52,000	350		53	15,000		550	510		56
1,2-Dibromo-3-chloropropane	NE	NE	ND		110	ND		1,100	ND		110
1,2-Dibromoethane	NE	NE	ND		53	ND		550	ND		56
1,2-Dichlorobenzene	1,100	100,000	82		53	ND		550	9.1	J	56
1,2-Dichloroethane	20	3,100	ND		53	ND		550	ND		56
1,2-Dichloropropane	NE	NE	ND		53	ND		550	ND		56
1,3,5-Trimethylbenzene	8,400	52,000	75		53	3,000		550	87		56
1,3-Dichlorobenzene	2,400	49,000	13	J	53	ND		550	ND		56
1,3-Dichloropropane	NE	NE	ND		53	ND		550	ND		56
1,4-Dichlorobenzene	1,800	13,000	13	J	53	ND		550	ND		56
1,4-Dioxane	100	13,000	NA	R	-	ND	R	5,500	NA		-
2,2-Dichloropropane	NE	NE	ND		53	ND		550	ND		56
2-Butanone	120	100,000	49	J	110	ND		1,100	ND		110
2-Chlorotoluene	NE	NE	ND		53	ND		550	ND		56
2-Hexanone	NE	NE	NA		-	NA		-	NA		-
4-Chlorotoluene	NE	NE	ND		53	ND		550	ND		56
4-Methyl-2-pentanone	NE	NE	NA		-	NA		-	NA		-
Acetone	50	100,000	180		110	2,400	B	1,100	ND		110
Benzene	60	4,800	9.4	J	53	ND		550	ND		56
Bromobenzene	NE	NE	ND		53	ND		550	ND		56
Bromochloromethane	NE	NE	ND		53	ND		550	ND		56
Bromodichloromethane	NE	NE	ND		53	ND		550	ND		56
Bromoform	NE	NE	ND		53	ND		550	ND		56
Bromomethane	NE	NE	ND		53	ND		550	ND		56
Carbon disulfide	NE	100	NA		-	NA		-	NA		-
Carbon tetrachloride	760	2,400	ND		53	ND		550	ND		56
Chlorobenzene	1,100	100,000	ND		53	ND		550	ND		56
Chloroethane	NE	NE	ND		53	ND		550	ND		56
Chloroform	370	49,000	ND		53	ND		550	ND		56
Chloromethane	NE	NE	ND		53	ND		550	ND		56
cis-1,2-Dichloroethylene	250	100,000	ND		53	ND		550	ND		56
cis-1,3-Dichloropropylene	NE	NE	ND		53	ND		550	ND		56
Dibromochloromethane	NE	NE	ND		53	ND		550	ND		56
Dibromomethane	NE	NE	ND		53	ND		550	ND		56
Dichlorodifluoromethane	NE	NE	ND		53	ND		550	ND		56
Ethyl Benzene	1,000	41,000	76		53	490	J	550	37	J	56
Hexachlorobutadiene	NE	NE	ND		53	ND		550	ND		56
Isopropylbenzene	2,300	100,000	220		53	290	J	550	42	J	56
Methyl tert-butyl ether (MTBE)	930	100,000	ND		53	ND		550	ND		56
Methylene chloride	50	500,000	22	B-Dil, B	11	1,100	B	1,100	12	B-Dil, B	11
Naphthalene	12,000	NE	66	J	110	7,000	B	1,100	65	J	110
n-Butylbenzene	12,000	100,000	350		53	ND		550	96		56
n-Propylbenzene	3,900	100,000	510		53	1,200		550	73		56
o-Xylene	NE	NE	100		53	970		550	49	J	56
p- & m- Xylenes	NE	NE	84	J	110	1,400		1,100	81	J	110
p-Isopropyltoluene	10,000	NE	83		53	2,100		550	56	J	56
sec-Butylbenzene	11,000	100,000	260		53	ND		550	54	J	56
Styrene	NE	NE	ND		53	ND		550	ND		56
tert-Butylbenzene	5,900	100,000	ND		53	ND		550	ND		56
Tetrachloroethylene	1,300	19,000	9.3	J	53	ND		550	ND		56
Toluene	700	100,000	44	J	53	250	J	550	43	J	56
trans-1,2-Dichloroethylene	190	100,000	ND		53	ND		550	ND		56
trans-1,3-Dichloropropylene	NE	NE	ND		53	ND		550	ND		56
Trichloroethylene	470	21,000	26	J	53	ND		550	16	J	56
Trichlorofluoromethane	NE	NE	ND		53	ND		550	ND		56
Vinyl acetate	NE	NE	NA		-	NA		-	NA		-
Vinyl Chloride	20	900	ND		53	ND		550	ND		56
Xylenes, Total	260	100,000	190		160	2,400		1,600	130	J	170
Total TICs	NE	NE	5,672		-	27,200		-	2,200		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 3: Soil - VOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		SB-63 (14) (2012-02-10)			SB-65 (8-12) (2012-04-19)			SB-66 (12-16) (2012-04-19)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
<b>1,1,1,2-Tetrachloroethane</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>1,1,1-Trichloroethane</b>	680	100,000	ND		6.2	ND		56	ND		5.6
<b>1,1,2,2-Tetrachloroethane</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>1,1,2-Trichloro-1,2,2-trifluoroethane</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>1,1,2-Trichloroethane</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>1,1-Dichloroethane</b>	270	26,000	ND		6.2	ND		56	ND		5.6
<b>1,1-Dichloroethylene</b>	330	100,000	ND		6.2	ND		56	ND		5.6
<b>1,1-Dichloropropylene</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>1,2,3-Trichlorobenzene</b>	NE	NE	ND		12	ND		110	ND		11
<b>1,2,3-Trichloropropane</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>1,2,4-Trichlorobenzene</b>	NE	NE	ND		12	ND		110	ND		11
<b>1,2,4-Trimethylbenzene</b>	3,600	52,000	ND		6.2	110		56	ND		5.6
<b>1,2-Dibromo-3-chloropropane</b>	NE	NE	ND		12	ND		110	ND		11
<b>1,2-Dibromoethane</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>1,2-Dichlorobenzene</b>	1,100	100,000	ND		6.2	ND		56	ND		5.6
<b>1,2-Dichloroethane</b>	20	3,100	ND		6.2	ND		56	ND		5.6
<b>1,2-Dichloropropane</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>1,3,5-Trimethylbenzene</b>	8,400	52,000	ND		6.2	50	J	56	ND		5.6
<b>1,3-Dichlorobenzene</b>	2,400	49,000	ND		6.2	ND		56	ND		5.6
<b>1,3-Dichloropropane</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>1,4-Dichlorobenzene</b>	1,800	13,000	ND		6.2	ND		56	ND		5.6
<b>1,4-Dioxane</b>	100	13,000	ND		6.2	ND	R	560	ND		56
<b>2,2-Dichloropropane</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>2-Butanone</b>	120	100,000	110		12	ND		110	16		11
<b>2-Chlorotoluene</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>2-Hexanone</b>	NE	NE	NA		-	NA		-	NA		-
<b>4-Chlorotoluene</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>4-Methyl-2-pentanone</b>	NE	NE	NA		-	NA		-	NA		-
<b>Acetone</b>	50	100,000	270	B	12	51	J, B	110	31	B	11
<b>Benzene</b>	60	4,800	ND		6.2	ND		56	ND		5.6
<b>Bromobenzene</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>Bromochloromethane</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>Bromodichloromethane</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>Bromoform</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>Bromomethane</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>Carbon disulfide</b>	NE	100	NA		-	NA		-	NA		-
<b>Carbon tetrachloride</b>	760	2,400	ND		6.2	ND		56	ND		5.6
<b>Chlorobenzene</b>	1,100	100,000	ND		6.2	ND		56	ND		5.6
<b>Chloroethane</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>Chloroform</b>	370	49,000	ND		6.2	ND		56	ND		5.6
<b>Chloromethane</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>cis-1,2-Dichloroethylene</b>	250	100,000	ND		6.2	120		56	ND		5.6
<b>cis-1,3-Dichloropropylene</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>Dibromochloromethane</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>Dibromomethane</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>Dichlorodifluoromethane</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>Ethyl Benzene</b>	1,000	41,000	2.4	J	6.2	48	J	56	ND		5.6
<b>Hexachlorobutadiene</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>Isopropylbenzene</b>	2,300	100,000	ND		6.2	13	J	56	ND		5.6
<b>Methyl tert-butyl ether (MTBE)</b>	930	100,000	ND		6.2	ND		56	ND		5.6
<b>Methylene chloride</b>	50	500,000	25	B	12	87	J, B	110	13	B	11
<b>Naphthalene</b>	12,000	NE	ND		12	ND		110	ND		11
<b>n-Butylbenzene</b>	12,000	100,000	ND		6.2	ND		56	ND		5.6
<b>n-Propylbenzene</b>	3,900	100,000	ND		6.2	21	J	56	ND		5.6
<b>o-Xylene</b>	NE	NE	1.8	J	6.2	77		56	ND		5.6
<b>p- &amp; m- Xylenes</b>	NE	NE	8.6	J	12	210		110	1.1	J	11
<b>p-Isopropyltoluene</b>	10,000	NE	ND		6.2	ND		56	ND		5.6
<b>sec-Butylbenzene</b>	11,000	100,000	ND		6.2	ND		56	ND		5.6
<b>Styrene</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>tert-Butylbenzene</b>	5,900	100,000	ND		6.2	ND		56	ND		5.6
<b>Tetrachloroethylene</b>	1,300	19,000	ND		6.2	ND		56	ND		5.6
<b>Toluene</b>	700	100,000	ND		6.2	78		56	1.2	J	5.6
<b>trans-1,2-Dichloroethylene</b>	190	100,000	ND		6.2	ND		56	ND		5.6
<b>trans-1,3-Dichloropropylene</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>Trichloroethylene</b>	470	21,000	ND		6.2	ND		56	2.7	J	5.6
<b>Trichlorofluoromethane</b>	NE	NE	ND		6.2	ND		56	ND		5.6
<b>Vinyl acetate</b>	NE	NE	NA		-	NA		-	NA		-
<b>Vinyl Chloride</b>	20	900	ND		6.2	ND		56	ND		5.6
<b>Xylenes, Total</b>	260	100,000	10	J	19	290		170	ND		17
<b>Total TICs</b>	NE	NE	1,195		-	474		-	ND		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 3: Soil - VOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		SB-67 (2012-02-02)			SB-69 (2012-02-01)			SB-71 (14) (2012-02-10)		
	Unrestricted	Restricted- Residential	Note: Sampled from 12-14'								
			Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
<b>1,1,1,2-Tetrachloroethane</b>	NE	NE	ND		5.3	ND		6	ND		5.6
<b>1,1,1-Trichloroethane</b>	680	100,000	ND		5.3	ND		6	ND		5.6
<b>1,1,2,2-Tetrachloroethane</b>	NE	NE	ND		5.3	ND		6	ND		5.6
<b>1,1,2-Trichloro-1,2,2-trifluoroethane</b>	NE	NE	ND		5.3	ND		6	ND		5.6
<b>1,1,2-Trichloroethane</b>	NE	NE	ND		5.3	ND		6	ND		5.6
<b>1,1-Dichloroethane</b>	270	26,000	21		5.3	ND		6	ND		5.6
<b>1,1-Dichloroethylene</b>	330	100,000	ND		5.3	ND		6	ND		5.6
<b>1,1-Dichloropropylene</b>	NE	NE	ND		5.3	ND		6	ND		5.6
<b>1,2,3-Trichlorobenzene</b>	NE	NE	ND		11	ND		12	ND		11
<b>1,2,3-Trichloropropane</b>	NE	NE	ND		5.3	ND		6	ND		5.6
<b>1,2,4-Trichlorobenzene</b>	NE	NE	ND		11	ND		12	ND		11
<b>1,2,4-Trimethylbenzene</b>	3,600	52,000	34		5.3	ND		6	5.3	J	5.6
<b>1,2-Dibromo-3-chloropropane</b>	NE	NE	ND		11	ND		12	ND		11
<b>1,2-Dibromoethane</b>	NE	NE	ND		5.3	ND		6	ND		5.6
<b>1,2-Dichlorobenzene</b>	1,100	100,000	5.2	J	5.3	ND		6	ND		5.6
<b>1,2-Dichloroethane</b>	20	3,100	ND		5.3	ND		6	ND		5.6
<b>1,2-Dichloropropane</b>	NE	NE	ND		5.3	ND		6	ND		5.6
<b>1,3,5-Trimethylbenzene</b>	8,400	52,000	15		5.3	ND		6	3	J	5.6
<b>1,3-Dichlorobenzene</b>	2,400	49,000	ND		5.3	ND		6	ND		5.6
<b>1,3-Dichloropropane</b>	NE	NE	ND		5.3	ND		6	ND		5.6
<b>1,4-Dichlorobenzene</b>	1,800	13,000	ND		5.3	ND		6	ND		5.6
<b>1,4-Dioxane</b>	100	13,000	NA		-	NA		-	ND	R	5.6
<b>2,2-Dichloropropane</b>	NE	NE	ND		5.3	ND		6	ND		5.6
<b>2-Butanone</b>	120	100,000	59		11	ND		12	5.8	J	11
<b>2-Chlorotoluene</b>	NE	NE	ND		5.3	ND		6	ND		5.6
<b>2-Hexanone</b>	NE	NE	NA		-	NA		-	NA		-
<b>4-Chlorotoluene</b>	NE	NE	ND		5.3	ND		6	ND		5.6
<b>4-Methyl-2-pentanone</b>	NE	NE	NA		-	NA		-	NA		-
<b>Acetone</b>	50	100,000	94		11	33		12	85	B	11
<b>Benzene</b>	60	4,800	2.3	J	5.3	ND		6	ND		5.6
<b>Bromobenzene</b>	NE	NE	ND		5.3	ND		6	ND		5.6
<b>Bromochloromethane</b>	NE	NE	ND		5.3	ND		6	ND		5.6
<b>Bromodichloromethane</b>	NE	NE	ND		5.3	ND		6	ND		5.6
<b>Bromoform</b>	NE	NE	ND		5.3	ND		6	ND		5.6
<b>Bromomethane</b>	NE	NE	ND		5.3	ND		6	ND		5.6
<b>Carbon disulfide</b>	NE	100	NA		-	NA		-	NA		-
<b>Carbon tetrachloride</b>	760	2,400	ND		5.3	ND		6	ND		5.6
<b>Chlorobenzene</b>	1,100	100,000	ND		5.3	ND		6	2.4	J	5.6
<b>Chloroethane</b>	NE	NE	2.6	J	5.3	ND		6	ND		5.6
<b>Chloroform</b>	370	49,000	ND		5.3	ND		6	ND		5.6
<b>Chloromethane</b>	NE	NE	ND		5.3	ND		6	ND		5.6
<b>cis-1,2-Dichloroethylene</b>	250	100,000	1.8	J	5.3	ND		6	ND		5.6
<b>cis-1,3-Dichloropropylene</b>	NE	NE	ND		5.3	ND		6	ND		5.6
<b>Dibromochloromethane</b>	NE	NE	ND		5.3	ND		6	ND		5.6
<b>Dibromomethane</b>	NE	NE	ND		5.3	ND		6	ND		5.6
<b>Dichlorodifluoromethane</b>	NE	NE	ND		5.3	ND		6	ND		5.6
<b>Ethyl Benzene</b>	1,000	41,000	5.6		5.3	ND		6	14		5.6
<b>Hexachlorobutadiene</b>	NE	NE	ND		5.3	ND		6	ND		5.6
<b>Isopropylbenzene</b>	2,300	100,000	7.8		5.3	ND		6	ND		5.6
<b>Methyl tert-butyl ether (MTBE)</b>	930	100,000	ND		5.3	ND		6	ND		5.6
<b>Methylene chloride</b>	50	500,000	63	B	11	10	J, B	12	56	B	11
<b>Naphthalene</b>	12,000	NE	8.8	J	11	ND		12	ND		11
<b>n-Butylbenzene</b>	12,000	100,000	11		5.3	ND		6	ND		5.6
<b>n-Propylbenzene</b>	3,900	100,000	8.6		5.3	ND		6	ND		5.6
<b>o-Xylene</b>	NE	NE	7.4		5.3	ND		6	6.3		5.6
<b>p- &amp; m- Xylenes</b>	NE	NE	17		11	ND		12	40		11
<b>p-Isopropyltoluene</b>	10,000	NE	6.9		5.3	ND		6	ND		5.6
<b>sec-Butylbenzene</b>	11,000	100,000	6.4		5.3	ND		6	ND		5.6
<b>Styrene</b>	NE	NE	ND		5.3	ND		6	ND		5.6
<b>tert-Butylbenzene</b>	5,900	100,000	ND		5.3	ND		6	ND		5.6
<b>Tetrachloroethylene</b>	1,300	19,000	3.5	J	5.3	ND		6	ND		5.6
<b>Toluene</b>	700	100,000	24		5.3	ND		6	1.8	J	5.6
<b>trans-1,2-Dichloroethylene</b>	190	100,000	ND		5.3	ND		6	ND		5.6
<b>trans-1,3-Dichloropropylene</b>	NE	NE	ND		5.3	ND		6	ND		5.6
<b>Trichloroethylene</b>	470	21,000	10		5.3	1.9	J	6	ND		5.6
<b>Trichlorofluoromethane</b>	NE	NE	ND		5.3	ND		6	ND		5.6
<b>Vinyl acetate</b>	NE	NE	NA		-	NA		-	NA		-
<b>Vinyl Chloride</b>	20	900	ND		5.3	ND		6	ND		5.6
<b>Xylenes, Total</b>	260	100,000	24		16	ND		18	47		17
<b>Total TICs</b>	NE	NE	680.7		-	33		-	967.8		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 3: Soil - VOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		SB-77A (8-12) (Spill Site) (2012-04-19)			SB-78A (8-12) (Spill Site) (2012-04-19)			2SB-2 (0-5)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	NE	NE	ND		13	ND		12	ND		4.9
1,1,1-Trichloroethane	680	100,000	ND		13	ND		12	ND		4.9
1,1,2,2-Tetrachloroethane	NE	NE	ND		13	ND		12	ND		4.9
1,1,2-Trichloro-1,2,2-trifluoroethane	NE	NE	ND		13	ND		12	ND		4.9
1,1,2-Trichloroethane	NE	NE	ND		13	ND		12	ND		4.9
1,1-Dichloroethane	270	26,000	ND		13	ND		12	ND		4.9
1,1-Dichloroethylene	330	100,000	ND		13	ND		12	ND		4.9
1,1-Dichloropropylene	NE	NE	ND		13	ND		12	ND		4.9
1,2,3-Trichlorobenzene	NE	NE	ND		26	ND		24	ND		4.9
1,2,3-Trichloropropane	NE	NE	ND		13	ND		12	ND		4.9
1,2,4-Trichlorobenzene	NE	NE	ND		26	ND		24	ND		4.9
1,2,4-Trimethylbenzene	3,600	52,000	ND		13	ND		12	ND		4.9
1,2-Dibromo-3-chloropropane	NE	NE	ND		26	ND		24	ND		4.9
1,2-Dibromoethane	NE	NE	ND		13	ND		12	ND		4.9
1,2-Dichlorobenzene	1,100	100,000	ND		13	ND		12	ND		4.9
1,2-Dichloroethane	20	3,100	ND		13	ND		12	ND		4.9
1,2-Dichloropropane	NE	NE	ND		13	ND		12	ND		4.9
1,3,5-Trimethylbenzene	8,400	52,000	ND		13	ND		12	ND		4.9
1,3-Dichlorobenzene	2,400	49,000	ND		13	ND		12	ND		4.9
1,3-Dichloropropane	NE	NE	ND		13	ND		12	ND		4.9
1,4-Dichlorobenzene	1,800	13,000	ND		13	ND		12	ND		4.9
1,4-Dioxane	100	13,000	ND		130	ND		120	ND		98
2,2-Dichloropropane	NE	NE	ND		13	ND		12	ND		4.9
2-Butanone	120	100,000	ND		26	ND		24	ND		4.9
2-Chlorotoluene	NE	NE	ND		13	ND		12	ND		4.9
2-Hexanone	NE	NE	NA		-	NA		-	NA		-
4-Chlorotoluene	NE	NE	ND		13	ND		12	ND		4.9
4-Methyl-2-pentanone	NE	NE	NA		-	NA		-	NA		-
Acetone	50	100,000	25	J.B	26	22	J.B	24	4.3	J.B	9.8
Benzene	60	4,800	ND		13	ND		12	ND		4.9
Bromobenzene	NE	NE	ND		13	ND		12	ND		4.9
Bromochloromethane	NE	NE	ND		13	ND		12	ND		4.9
Bromodichloromethane	NE	NE	ND		13	ND		12	ND		4.9
Bromoform	NE	NE	ND		13	ND		12	ND		4.9
Bromomethane	NE	NE	ND		13	ND		12	ND		4.9
Carbon disulfide	NE	100	NA		-	NA		-	NA		-
Carbon tetrachloride	760	2,400	ND		13	ND		12	ND		4.9
Chlorobenzene	1,100	100,000	ND		13	ND		12	ND		4.9
Chloroethane	NE	NE	ND		13	ND		12	ND		4.9
Chloroform	370	49,000	ND		13	ND		12	ND		4.9
Chloromethane	NE	NE	ND		13	ND		12	ND		4.9
cis-1,2-Dichloroethylene	250	100,000	ND		13	ND		12	23		4.9
cis-1,3-Dichloropropylene	NE	NE	ND		13	ND		12	ND		4.9
Dibromochloromethane	NE	NE	ND		13	ND		12	ND		4.9
Dibromomethane	NE	NE	ND		13	ND		12	ND		4.9
Dichlorodifluoromethane	NE	NE	ND		13	ND		12	ND		4.9
Ethyl Benzene	1,000	41,000	ND		13	ND		12	ND		4.9
Hexachlorobutadiene	NE	NE	ND		13	ND		12	ND		4.9
Isopropylbenzene	2,300	100,000	ND		13	ND		12	ND		4.9
Methyl tert-butyl ether (MTBE)	930	100,000	ND		13	ND		12	ND		4.9
Methylene chloride	50	500,000	22	J.B	26	20	J.B	24	ND		9.8
Naphthalene	12,000	NE	ND		26	ND		24	ND		9.8
n-Butylbenzene	12,000	100,000	ND		13	ND		12	ND		4.9
n-Propylbenzene	3,900	100,000	ND		13	ND		12	ND		4.9
o-Xylene	NE	NE	ND		13	ND		12	ND		4.9
p- & m- Xylenes	NE	NE	ND		26	ND		24	ND		9.8
p-Isopropyltoluene	10,000	NE	ND		13	ND		12	ND		4.9
sec-Butylbenzene	11,000	100,000	ND		13	ND		12	ND		4.9
Styrene	NE	NE	ND		13	ND		12	ND		4.9
tert-Butylbenzene	5,900	100,000	ND		13	ND		12	ND		4.9
Tetrachloroethylene	1,300	19,000	ND		13	ND		12	20		4.9
Toluene	700	100,000	ND		13	ND		12	ND		4.9
trans-1,2-Dichloroethylene	190	100,000	ND		13	ND		12	ND		4.9
trans-1,3-Dichloropropylene	NE	NE	ND		13	ND		12	ND		4.9
Trichloroethylene	470	21,000	ND		13	ND		12	5,400		490
Trichlorofluoromethane	NE	NE	ND		13	ND		12	ND		4.9
Vinyl acetate	NE	NE	NA		-	NA		-	ND		4.9
Vinyl Chloride	20	900	ND		13	ND		12	ND		4.9
Xylenes, Total	260	100,000	ND		39	ND		35	ND		15
Total TICs	NE	NE	NA		-	NA		-	ND		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 3: Soil - VOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		2SB-2 (10-15) (2013-08-01)			2SB-3 (10-15) (2013-08-01)			2SB-4 (0-5)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	NE	NE	ND		5.1	ND		5.6	ND		5.1
1,1,1-Trichloroethane	680	100,000	ND		5.1	ND		5.6	ND		5.1
1,1,2,2-Tetrachloroethane	NE	NE	ND		5.1	ND		5.6	ND		5.1
1,1,2-Trichloro-1,2,2-trifluoroethane	NE	NE	ND		5.1	ND		5.6	ND		5.1
1,1,2-Trichloroethane	NE	NE	ND		5.1	ND		5.6	ND		5.1
1,1-Dichloroethane	270	26,000	ND		5.1	ND		5.6	ND		5.1
1,1-Dichloroethylene	330	100,000	ND		5.1	ND		5.6	ND		5.1
1,1-Dichloropropylene	NE	NE	ND		5.1	ND		5.6	ND		5.1
1,2,3-Trichlorobenzene	NE	NE	ND		5.1	ND		5.6	ND		5.1
1,2,3-Trichloropropane	NE	NE	ND		5.1	ND		5.6	ND		5.1
1,2,4-Trichlorobenzene	NE	NE	ND		5.1	ND		5.6	ND		5.1
1,2,4-Trimethylbenzene	3,600	52,000	ND		5.1	ND		5.6	ND		5.1
1,2-Dibromo-3-chloropropane	NE	NE	ND		5.1	ND		5.6	ND		5.1
1,2-Dibromoethane	NE	NE	ND		5.1	ND		5.6	ND		5.1
1,2-Dichlorobenzene	1,100	100,000	ND		5.1	ND		5.6	ND		5.1
1,2-Dichloroethane	20	3,100	ND		5.1	ND		5.6	ND		5.1
1,2-Dichloropropane	NE	NE	ND		5.1	ND		5.6	ND		5.1
1,3,5-Trimethylbenzene	8,400	52,000	ND		5.1	ND		5.6	ND		5.1
1,3-Dichlorobenzene	2,400	49,000	ND		5.1	ND		5.6	ND		5.1
1,3-Dichloropropane	NE	NE	ND		5.1	ND		5.6	ND		5.1
1,4-Dichlorobenzene	1,800	13,000	ND		5.1	ND		5.6	ND		5.1
1,4-Dioxane	100	13,000	ND	R	100	ND		110	ND		100
2,2-Dichloropropane	NE	NE	ND		5.1	ND		5.6	ND		5.1
2-Butanone	120	100,000	ND		5.1	ND		5.6	ND		5.1
2-Chlorotoluene	NE	NE	ND		5.1	ND		5.6	ND		5.1
2-Hexanone	NE	NE	NA		-	NA		-	NA		-
4-Chlorotoluene	NE	NE	ND		5.1	ND		5.6	ND		5.1
4-Methyl-2-pentanone	NE	NE	NA		-	NA		-	NA		-
Acetone	50	100,000	ND		10	ND		11	ND		10
Benzene	60	4,800	ND		5.1	ND		5.6	ND		5.1
Bromobenzene	NE	NE	ND		5.1	ND		5.6	ND		5.1
Bromochloromethane	NE	NE	ND		5.1	ND		5.6	ND		5.1
Bromodichloromethane	NE	NE	ND		5.1	ND		5.6	ND		5.1
Bromoform	NE	NE	ND		5.1	ND		5.6	ND		5.1
Bromomethane	NE	NE	ND		5.1	ND		5.6	ND		5.1
Carbon disulfide	NE	100	NA		-	NA		-	NA		-
Carbon tetrachloride	760	2,400	ND		5.1	ND		5.6	ND		5.1
Chlorobenzene	1,100	100,000	ND		5.1	ND		5.6	ND		5.1
Chloroethane	NE	NE	ND		5.1	ND		5.6	ND		5.1
Chloroform	370	49,000	ND		5.1	ND		5.6	ND		5.1
Chloromethane	NE	NE	ND		5.1	ND		5.6	ND		5.1
cis-1,2-Dichloroethylene	250	100,000	21		5.1	15		5.6	ND		5.1
cis-1,3-Dichloropropylene	NE	NE	ND		5.1	ND		5.6	ND		5.1
Dibromochloromethane	NE	NE	ND		5.1	ND		5.6	ND		5.1
Dibromomethane	NE	NE	ND		5.1	ND		5.6	ND		5.1
Dichlorodifluoromethane	NE	NE	ND		5.1	ND		5.6	ND		5.1
Ethyl Benzene	1,000	41,000	ND		5.1	ND		5.6	ND		5.1
Hexachlorobutadiene	NE	NE	ND		5.1	ND		5.6	ND		5.1
Isopropylbenzene	2,300	100,000	ND		5.1	ND		5.6	ND		5.1
Methyl tert-butyl ether (MTBE)	930	100,000	ND		5.1	ND		5.6	ND		5.1
Methylene chloride	50	500,000	ND		10	ND		11	ND		10
Naphthalene	12,000	NE	ND		10	ND		11	ND		10
n-Butylbenzene	12,000	100,000	ND		5.1	ND		5.6	ND		5.1
n-Propylbenzene	3,900	100,000	ND		5.1	ND		5.6	ND		5.1
o-Xylene	NE	NE	ND		5.1	ND		5.6	ND		5.1
p- & m- Xylenes	NE	NE	ND		10	ND		11	ND		10
p-Isopropyltoluene	10,000	NE	ND		5.1	ND		5.6	ND		5.1
sec-Butylbenzene	11,000	100,000	ND		5.1	ND		5.6	ND		5.1
Styrene	NE	NE	ND		5.1	ND		5.6	ND		5.1
tert-Butylbenzene	5,900	100,000	ND		5.1	ND		5.6	ND		5.1
Tetrachloroethylene	1,300	19,000	ND		5.1	ND		5.6	ND		5.1
Toluene	700	100,000	ND		5.1	ND		5.6	ND		5.1
trans-1,2-Dichloroethylene	190	100,000	ND		5.1	ND		5.6	ND		5.1
trans-1,3-Dichloropropylene	NE	NE	ND		5.1	ND		5.6	ND		5.1
Trichloroethylene	470	21,000	100		5.1	77		5.6	26		5.1
Trichlorofluoromethane	NE	NE	ND		5.1	ND		5.6	ND		5.1
Vinyl acetate	NE	NE	ND		5.1	ND		5.6	ND		5.1
Vinyl Chloride	20	900	ND		5.1	ND		5.6	ND		5.1
Xylenes, Total	260	100,000	ND		15	ND		17	ND		15
Total TICs	NE	NE	ND		-	ND		-	ND		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 3: Soil - VOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		2SB-4 (10-15) (2013-08-01)			2SB-5 (10-15) (2013-08-01)			2SB-5A (2013-08-01)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
<b>1,1,1,2-Tetrachloroethane</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>1,1,1-Trichloroethane</b>	680	100,000	ND		3.4	ND		5.2	ND		4.7
<b>1,1,2,2-Tetrachloroethane</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>1,1,2-Trichloro-1,2,2-trifluoroethane</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>1,1,2-Trichloroethane</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>1,1-Dichloroethane</b>	270	26,000	ND		3.4	ND		5.2	ND		4.7
<b>1,1-Dichloroethylene</b>	330	100,000	ND		3.4	ND		5.2	ND		4.7
<b>1,1-Dichloropropylene</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>1,2,3-Trichlorobenzene</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>1,2,3-Trichloropropane</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>1,2,4-Trichlorobenzene</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>1,2,4-Trimethylbenzene</b>	3,600	52,000	ND		3.4	ND		5.2	ND		4.7
<b>1,2-Dibromo-3-chloropropane</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>1,2-Dibromoethane</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>1,2-Dichlorobenzene</b>	1,100	100,000	ND		3.4	ND		5.2	ND		4.7
<b>1,2-Dichloroethane</b>	20	3,100	ND		3.4	ND		5.2	ND		4.7
<b>1,2-Dichloropropane</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>1,3,5-Trimethylbenzene</b>	8,400	52,000	ND		3.4	ND		5.2	ND		4.7
<b>1,3-Dichlorobenzene</b>	2,400	49,000	ND		3.4	ND		5.2	ND		4.7
<b>1,3-Dichloropropane</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>1,4-Dichlorobenzene</b>	1,800	13,000	ND		3.4	ND		5.2	ND		4.7
<b>1,4-Dioxane</b>	100	13,000	ND		67	ND		100	ND		93
<b>2,2-Dichloropropane</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>2-Butanone</b>	120	100,000	ND		3.4	ND		5.2	ND		4.7
<b>2-Chlorotoluene</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>2-Hexanone</b>	NE	NE	NA		-	NA		-	NA		-
<b>4-Chlorotoluene</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>4-Methyl-2-pentanone</b>	NE	NE	NA		-	NA		-	NA		-
<b>Acetone</b>	50	100,000	2.4	J,B	6.7	ND		10	ND		9.3
<b>Benzene</b>	60	4,800	ND		3.4	ND		5.2	ND		4.7
<b>Bromobenzene</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>Bromochloromethane</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>Bromodichloromethane</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>Bromoform</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>Bromomethane</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>Carbon disulfide</b>	NE	100	NA		-	NA		-	NA		-
<b>Carbon tetrachloride</b>	760	2,400	ND		3.4	ND		5.2	ND		4.7
<b>Chlorobenzene</b>	1,100	100,000	ND		3.4	ND		5.2	ND		4.7
<b>Chloroethane</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>Chloroform</b>	370	49,000	ND		3.4	ND		5.2	ND		4.7
<b>Chloromethane</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>cis-1,2-Dichloroethylene</b>	250	100,000	100		3.4	33		5.2	21		4.7
<b>cis-1,3-Dichloropropylene</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>Dibromochloromethane</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>Dibromomethane</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>Dichlorodifluoromethane</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>Ethyl Benzene</b>	1,000	41,000	ND		3.4	ND		5.2	ND		4.7
<b>Hexachlorobutadiene</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>Isopropylbenzene</b>	2,300	100,000	ND		3.4	ND		5.2	ND		4.7
<b>Methyl tert-butyl ether (MTBE)</b>	930	100,000	ND		3.4	ND		5.2	ND		4.7
<b>Methylene chloride</b>	50	500,000	ND		6.7	ND		10	ND		9.3
<b>Naphthalene</b>	12,000	NE	ND		6.7	ND		10	ND		9.3
<b>n-Butylbenzene</b>	12,000	100,000	ND		3.4	ND		5.2	ND		4.7
<b>n-Propylbenzene</b>	3,900	100,000	ND		3.4	ND		5.2	ND		4.7
<b>o-Xylene</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>p- &amp; m- Xylenes</b>	NE	NE	ND		6.7	ND		10	ND		9.3
<b>p-Isopropyltoluene</b>	10,000	NE	ND		3.4	ND		5.2	ND		4.7
<b>sec-Butylbenzene</b>	11,000	100,000	ND		3.4	ND		5.2	ND		4.7
<b>Styrene</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>tert-Butylbenzene</b>	5,900	100,000	ND		3.4	ND		5.2	ND		4.7
<b>Tetrachloroethylene</b>	1,300	19,000	ND		3.4	ND		5.2	ND		4.7
<b>Toluene</b>	700	100,000	ND		3.4	ND		5.2	ND		4.7
<b>trans-1,2-Dichloroethylene</b>	190	100,000	ND		3.4	ND		5.2	ND		4.7
<b>trans-1,3-Dichloropropylene</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>Trichloroethylene</b>	470	21,000	190	J	340	66		5.2	44		4.7
<b>Trichlorofluoromethane</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>Vinyl acetate</b>	NE	NE	ND		3.4	ND		5.2	ND		4.7
<b>Vinyl Chloride</b>	20	900	ND		3.4	ND		5.2	ND		4.7
<b>Xylenes, Total</b>	260	100,000	ND		10	ND		16	ND		14
<b>Total TICs</b>	NE	NE	ND		-	ND		-	ND		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 3: Soil - VOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		2SB-6 (10-15) (2013-08-01)			2SB-7 (10-15) (2013-08-01)			2SB-8 (10-15) (2013-08-01)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	NE	NE	ND		6.9	ND		5	ND		6.4
1,1,1-Trichloroethane	680	100,000	ND		6.9	ND		5	ND		6.4
1,1,2,2-Tetrachloroethane	NE	NE	ND		6.9	ND		5	ND		6.4
1,1,2-Trichloro-1,2,2-trifluoroethane	NE	NE	ND		6.9	ND		5	ND		6.4
1,1,2-Trichloroethane	NE	NE	ND		6.9	ND		5	ND		6.4
1,1-Dichloroethane	270	26,000	ND		6.9	ND		5	ND		6.4
1,1-Dichloroethylene	330	100,000	ND		6.9	ND		5	ND		6.4
1,1-Dichloropropylene	NE	NE	ND		6.9	ND		5	ND		6.4
1,2,3-Trichlorobenzene	NE	NE	ND		6.9	ND		5	ND		6.4
1,2,3-Trichloropropane	NE	NE	ND		6.9	ND		5	ND		6.4
1,2,4-Trichlorobenzene	NE	NE	ND		6.9	ND		5	ND		6.4
1,2,4-Trimethylbenzene	3,600	52,000	ND		6.9	ND		5	ND		6.4
1,2-Dibromo-3-chloropropane	NE	NE	ND		6.9	ND		5	ND		6.4
1,2-Dibromoethane	NE	NE	ND		6.9	ND		5	ND		6.4
1,2-Dichlorobenzene	1,100	100,000	ND		6.9	ND		5	ND		6.4
1,2-Dichloroethane	20	3,100	ND		6.9	ND		5	ND		6.4
1,2-Dichloropropane	NE	NE	ND		6.9	ND		5	ND		6.4
1,3,5-Trimethylbenzene	8,400	52,000	ND		6.9	ND		5	ND		6.4
1,3-Dichlorobenzene	2,400	49,000	ND		6.9	ND		5	ND		6.4
1,3-Dichloropropane	NE	NE	ND		6.9	ND		5	ND		6.4
1,4-Dichlorobenzene	1,800	13,000	ND		6.9	ND		5	ND		6.4
1,4-Dioxane	100	13,000	ND		140	ND		100	ND		130
2,2-Dichloropropane	NE	NE	ND		6.9	ND		5	ND		6.4
2-Butanone	120	100,000	ND		6.9	ND		5	ND		6.4
2-Chlorotoluene	NE	NE	ND		6.9	ND		5	ND		6.4
2-Hexanone	NE	NE	NA		-	NA		-	NA		-
4-Chlorotoluene	NE	NE	ND		6.9	ND		5	ND		6.4
4-Methyl-2-pentanone	NE	NE	NA		-	NA		-	NA		-
Acetone	50	100,000	16	B	14	2.6	J,B	10	ND		13
Benzene	60	4,800	ND		6.9	ND		5	ND		6.4
Bromobenzene	NE	NE	ND		6.9	ND		5	ND		6.4
Bromochloromethane	NE	NE	ND		6.9	ND		5	ND		6.4
Bromodichloromethane	NE	NE	ND		6.9	ND		5	ND		6.4
Bromoform	NE	NE	ND		6.9	ND		5	ND		6.4
Bromomethane	NE	NE	ND		6.9	ND		5	ND		6.4
Carbon disulfide	NE	100	NA		-	NA		-	NA		-
Carbon tetrachloride	760	2,400	ND		6.9	ND		5	ND		6.4
Chlorobenzene	1,100	100,000	ND		6.9	ND		5	ND		6.4
Chloroethane	NE	NE	ND		6.9	ND		5	ND		6.4
Chloroform	370	49,000	ND		6.9	ND		5	ND		6.4
Chloromethane	NE	NE	ND		6.9	ND		5	ND		6.4
cis-1,2-Dichloroethylene	250	100,000	ND		6.9	ND		5	ND		6.4
cis-1,3-Dichloropropylene	NE	NE	ND		6.9	ND		5	ND		6.4
Dibromochloromethane	NE	NE	ND		6.9	ND		5	ND		6.4
Dibromomethane	NE	NE	ND		6.9	ND		5	ND		6.4
Dichlorodifluoromethane	NE	NE	ND		6.9	ND		5	ND		6.4
Ethyl Benzene	1,000	41,000	ND		6.9	ND		5	ND		6.4
Hexachlorobutadiene	NE	NE	ND		6.9	ND		5	ND		6.4
Isopropylbenzene	2,300	100,000	ND		6.9	ND		5	ND		6.4
Methyl tert-butyl ether (MTBE)	930	100,000	ND		6.9	ND		5	ND		6.4
Methylene chloride	50	500,000	ND		14	ND		10	ND		13
Naphthalene	12,000	NE	ND		14	ND		10	ND		13
n-Butylbenzene	12,000	100,000	ND		6.9	ND		5	ND		6.4
n-Propylbenzene	3,900	100,000	ND		6.9	ND		5	ND		6.4
o-Xylene	NE	NE	ND		6.9	ND		5	ND		6.4
p- & m- Xylenes	NE	NE	ND		14	ND		10	ND		13
p-Isopropyltoluene	10,000	NE	ND		6.9	ND		5	ND		6.4
sec-Butylbenzene	11,000	100,000	ND		6.9	ND		5	ND		6.4
Styrene	NE	NE	ND		6.9	ND		5	ND		6.4
tert-Butylbenzene	5,900	100,000	ND		6.9	ND		5	ND		6.4
Tetrachloroethylene	1,300	19,000	ND		6.9	ND		5	ND		6.4
Toluene	700	100,000	ND		6.9	ND		5	ND		6.4
trans-1,2-Dichloroethylene	190	100,000	ND		6.9	ND		5	ND		6.4
trans-1,3-Dichloropropylene	NE	NE	ND		6.9	ND		5	ND		6.4
Trichloroethylene	470	21,000	3.8	J	6.9	4.1	J	5	ND		6.4
Trichlorofluoromethane	NE	NE	ND		6.9	ND		5	ND		6.4
Vinyl acetate	NE	NE	ND		6.9	ND		5	ND		6.4
Vinyl Chloride	20	900	ND		6.9	ND		5	ND		6.4
Xylenes, Total	260	100,000	ND		21	ND		15	ND		19
Total TICs	NE	NE	ND		-	ND		-	ND		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWID ID: 224136

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**Table 3: Soil - VOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		2SB-11 (10-15) (2013-08-01)			2SB-12 (2013-11-25)			2SB-13 (2013-11-25)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	NE	NE	ND		5	ND		5	ND		5
1,1,1-Trichloroethane	680	100,000	ND		5	ND		5	ND		5
1,1,2,2-Tetrachloroethane	NE	NE	ND		5	ND		5	ND		5
1,1,2-Trichloro-1,2,2-trifluoroethane	NE	NE	ND		5	ND		5	ND		5
1,1,2-Trichloroethane	NE	NE	ND		5	ND		5	ND		5
1,1-Dichloroethane	270	26,000	ND		5	ND		5	ND		5
1,1-Dichloroethylene	330	100,000	ND		5	ND		5	ND		5
1,1-Dichloropropylene	NE	NE	ND		5	ND		5	ND		5
1,2,3-Trichlorobenzene	NE	NE	ND		5	ND		5	ND		5
1,2,3-Trichloropropane	NE	NE	ND		5	ND		5	ND		5
1,2,4-Trichlorobenzene	NE	NE	ND		5	ND		5	ND		5
1,2,4-Trimethylbenzene	3,600	52,000	ND		5	ND		5	ND		5
1,2-Dibromo-3-chloropropane	NE	NE	ND		5	ND		5	ND		5
1,2-Dibromoethane	NE	NE	ND		5	ND		5	ND		5
1,2-Dichlorobenzene	1,100	100,000	ND		5	ND		5	ND		5
1,2-Dichloroethane	20	3,100	ND		5	ND		5	ND		5
1,2-Dichloropropane	NE	NE	ND		5	ND		5	ND		5
1,3,5-Trimethylbenzene	8,400	52,000	ND		5	ND		5	ND		5
1,3-Dichlorobenzene	2,400	49,000	ND		5	ND		5	ND		5
1,3-Dichloropropane	NE	NE	ND		5	ND		5	ND		5
1,4-Dichlorobenzene	1,800	13,000	ND		5	ND		5	ND		5
1,4-Dioxane	100	13,000	ND		100	ND		100	ND		100
2,2-Dichloropropane	NE	NE	ND		5	ND		5	ND		5
2-Butanone	120	100,000	ND		5	ND		5	ND		5
2-Chlorotoluene	NE	NE	ND		5	ND		5	ND		5
2-Hexanone	NE	NE	NA		-	NA		-	NA		-
4-Chlorotoluene	NE	NE	ND		5	ND		5	ND		5
4-Methyl-2-pentanone	NE	NE	NA		-	NA		-	NA		-
Acetone	50	100,000	ND		10	15	CCV-E	10	88	CCV-E	10
Benzene	60	4,800	ND		5	ND		5	ND		5
Bromobenzene	NE	NE	ND		5	ND		5	ND		5
Bromochloromethane	NE	NE	ND		5	ND		5	ND		5
Bromodichloromethane	NE	NE	ND		5	ND		5	ND		5
Bromoform	NE	NE	ND		5	ND		5	ND		5
Bromomethane	NE	NE	ND		5	ND		5	ND		5
Carbon disulfide	NE	100	NA		-	NA		-	NA		-
Carbon tetrachloride	760	2,400	ND		5	ND		5	ND		5
Chlorobenzene	1,100	100,000	ND		5	ND		5	ND		5
Chloroethane	NE	NE	ND		5	ND		5	ND		5
Chloroform	370	49,000	ND		5	ND		5	ND		5
Chloromethane	NE	NE	ND		5	ND		5	ND		5
cis-1,2-Dichloroethylene	250	100,000	ND		5	ND		5	ND		5
cis-1,3-Dichloropropylene	NE	NE	ND		5	ND		5	ND		5
Dibromochloromethane	NE	NE	ND		5	ND		5	ND		5
Dibromomethane	NE	NE	ND		5	ND		5	ND		5
Dichlorodifluoromethane	NE	NE	ND		5	ND		5	ND		5
Ethyl Benzene	1,000	41,000	ND		5	ND		5	ND		5
Hexachlorobutadiene	NE	NE	ND		5	ND		5	ND		5
Isopropylbenzene	2,300	100,000	ND		5	ND		5	ND		5
Methyl tert-butyl ether (MTBE)	930	100,000	ND		5	ND		5	ND		5
Methylene chloride	50	500,000	ND		10	ND		10	2.8	J, B	10
Naphthalene	12,000	NE	ND		10	ND		10	ND		10
n-Butylbenzene	12,000	100,000	ND		5	ND		5	ND		5
n-Propylbenzene	3,900	100,000	ND		5	ND		5	ND		5
o-Xylene	NE	NE	ND		5	ND		5	ND		5
p- & m- Xylenes	NE	NE	ND		10	ND		10	ND		10
p-Isopropyltoluene	10,000	NE	ND		5	ND		5	ND		5
sec-Butylbenzene	11,000	100,000	ND		5	ND		5	ND		5
Styrene	NE	NE	ND		5	ND		5	ND		5
tert-Butylbenzene	5,900	100,000	ND		5	ND		5	ND		5
Tetrachloroethylene	1,300	19,000	ND		5	2.9	J	5	11		5
Toluene	700	100,000	ND		5	ND		5	ND		5
trans-1,2-Dichloroethylene	190	100,000	ND		5	ND		5	ND		5
trans-1,3-Dichloropropylene	NE	NE	ND		5	ND		5	ND		5
Trichloroethylene	470	21,000	5.5		5	13		5	56		5
Trichlorofluoromethane	NE	NE	ND		5	ND		5	ND		5
Vinyl acetate	NE	NE	ND		5	ND		5	ND		5
Vinyl Chloride	20	900	ND		5	ND		5	ND		5
Xylenes, Total	260	100,000	ND		15	ND		15	ND		15
Total TICs	NE	NE	ND		-	ND		-	ND		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 3: Soil - VOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		2SB-14 (2013-11-25)			2SB-15 (2013-11-25)			3SB-3A (0-5) (2014-09-22)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	NE	NE	ND		5.1	ND		5.7	NA		-
1,1,1-Trichloroethane	680	100,000	ND		5.1	ND		5.7	ND		4.2
1,1,2,2-Tetrachloroethane	NE	NE	ND		5.1	ND		5.7	ND		4.2
1,1,2-Trichloro-1,2,2-trifluoroethane	NE	NE	ND		5.1	ND		5.7	ND		4.2
1,1,2-Trichloroethane	NE	NE	ND		5.1	ND		5.7	ND		4.2
1,1-Dichloroethane	270	26,000	ND		5.1	ND		5.7	ND		4.2
1,1-Dichloroethylene	330	100,000	ND		5.1	ND		5.7	ND		4.2
1,1-Dichloropropylene	NE	NE	ND		5.1	ND		5.7	NA		-
1,2,3-Trichlorobenzene	NE	NE	ND		5.1	ND		5.7	NA		-
1,2,3-Trichloropropane	NE	NE	ND		5.1	ND		5.7	NA		-
1,2,4-Trichlorobenzene	NE	NE	ND		5.1	ND		5.7	ND		4.2
1,2,4-Trimethylbenzene	3,600	52,000	ND		5.1	ND		5.7	ND		4.2
1,2-Dibromo-3-chloropropane	NE	NE	ND		5.1	ND		5.7	ND		4.2
1,2-Dibromoethane	NE	NE	ND		5.1	ND		5.7	ND		4.2
1,2-Dichlorobenzene	1,100	100,000	ND		5.1	ND		5.7	NA		-
1,2-Dichloroethane	20	3,100	ND		5.1	ND		5.7	ND		4.2
1,2-Dichloropropane	NE	NE	ND		5.1	ND		5.7	ND		4.2
1,3,5-Trimethylbenzene	8,400	52,000	ND		5.1	ND		5.7	ND		4.2
1,3-Dichlorobenzene	2,400	49,000	ND		5.1	ND		5.7	NA		-
1,3-Dichloropropane	NE	NE	ND		5.1	ND		5.7	NA		-
1,4-Dichlorobenzene	1,800	13,000	ND		5.1	ND		5.7	NA		-
1,4-Dioxane	100	13,000	ND		100	ND		110	NA		-
2,2-Dichloropropane	NE	NE	ND		5.1	ND		5.7	NA		-
2-Butanone	120	100,000	29		5.1	ND		5.7	ND		4.2
2-Chlorotoluene	NE	NE	ND		5.1	ND		5.7	NA		-
2-Hexanone	NE	NE	NA		-	NA		-	ND		4.2
4-Chlorotoluene	NE	NE	ND		5.1	ND		5.7	NA		-
4-Methyl-2-pentanone	NE	NE	NA		-	NA		-	ND		4.2
Acetone	50	100,000	650	CCV-E, E	10	130	CCV-E	11	15	CCV-E, CCV	8.5
Benzene	60	4,800	ND		5.1	ND		5.7	ND		4.2
Bromobenzene	NE	NE	ND		5.1	ND		5.7	NA		-
Bromochloromethane	NE	NE	ND		5.1	ND		5.7	NA		-
Bromodichloromethane	NE	NE	ND		5.1	ND		5.7	ND		4.2
Bromoform	NE	NE	ND		5.1	ND		5.7	ND		4.2
Bromomethane	NE	NE	ND		5.1	ND		5.7	ND		4.2
Carbon disulfide	NE	100	NA		-	NA		-	ND		4.2
Carbon tetrachloride	760	2,400	ND		5.1	ND		5.7	ND		4.2
Chlorobenzene	1,100	100,000	ND		5.1	ND		5.7	ND		4.2
Chloroethane	NE	NE	ND		5.1	ND		5.7	ND		4.2
Chloroform	370	49,000	ND		5.1	ND		5.7	ND		4.2
Chloromethane	NE	NE	ND		5.1	ND		5.7	ND		4.2
cis-1,2-Dichloroethylene	250	100,000	ND		5.1	ND		5.7	ND		4.2
cis-1,3-Dichloropropylene	NE	NE	ND		5.1	ND		5.7	ND		4.2
Dibromochloromethane	NE	NE	ND		5.1	ND		5.7	ND		4.2
Dibromomethane	NE	NE	ND		5.1	ND		5.7	NA		-
Dichlorodifluoromethane	NE	NE	ND		5.1	ND		5.7	ND		4.2
Ethyl Benzene	1,000	41,000	ND		5.1	ND		5.7	ND		4.2
Hexachlorobutadiene	NE	NE	ND		5.1	ND		5.7	NA		-
Isopropylbenzene	2,300	100,000	ND		5.1	ND		5.7	NA		-
Methyl tert-butyl ether (MTBE)	930	100,000	ND		5.1	ND		5.7	ND		4.2
Methylene chloride	50	500,000	2.6	J, B	10	3.3	J, B	11	4.8	J	8.5
Naphthalene	12,000	NE	ND		10	ND		11	ND		8.5
n-Butylbenzene	12,000	100,000	ND		5.1	ND		5.7	ND		4.2
n-Propylbenzene	3,900	100,000	ND		5.1	ND		5.7	ND		4.2
o-Xylene	NE	NE	ND		5.1	ND		5.7	ND		4.2
p- & m- Xylenes	NE	NE	ND		10	ND		11	ND		8.5
p-Isopropyltoluene	10,000	NE	ND		5.1	ND		5.7	NA		-
sec-Butylbenzene	11,000	100,000	ND		5.1	ND		5.7	ND		4.2
Styrene	NE	NE	ND		5.1	ND		5.7	ND		4.2
tert-Butylbenzene	5,900	100,000	ND		5.1	ND		5.7	ND		4.2
Tetrachloroethylene	1,300	19,000	ND		5.1	7.5		5.7	ND		4.2
Toluene	700	100,000	3.4	J	5.1	ND		5.7	ND		4.2
trans-1,2-Dichloroethylene	190	100,000	ND		5.1	ND		5.7	ND		4.2
trans-1,3-Dichloropropylene	NE	NE	ND		5.1	ND		5.7	ND		4.2
Trichloroethylene	470	21,000	26		5.1	110		5.7	12		4.2
Trichlorofluoromethane	NE	NE	ND		5.1	ND		5.7	ND		4.2
Vinyl acetate	NE	NE	ND		5.1	ND		5.7	NA		-
Vinyl Chloride	20	900	ND		5.1	ND		5.7	ND		4.2
Xylenes, Total	260	100,000	ND		15	ND		17	ND		13
Total TICs	NE	NE	ND		-	ND		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 3: Soil - VOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		3SB-3A (10-15) (2014-09-22)			3SB-3B (15-20) (2014-09-22)			3SB-4 (0-5) (2014-09-22)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	NE	NE	NA		-	NA		-	NA		-
1,1,1-Trichloroethane	680	100,000	ND		530	ND		4.4	ND		4.8
1,1,2,2-Tetrachloroethane	NE	NE	ND		530	ND		4.4	ND		4.8
1,1,2-Trichloro-1,2,2-trifluoroethane	NE	NE	ND		530	ND		4.4	ND		4.8
1,1,2-Trichloroethane	NE	NE	ND		530	ND		4.4	ND		4.8
1,1-Dichloroethane	270	26,000	ND		530	ND		4.4	ND		4.8
1,1-Dichloroethylene	330	100,000	ND		530	ND		4.4	ND		4.8
1,1-Dichloropropylene	NE	NE	NA		-	NA		-	NA		-
1,2,3-Trichlorobenzene	NE	NE	NA		-	NA		-	NA		-
1,2,3-Trichloropropane	NE	NE	NA		-	NA		-	NA		-
1,2,4-Trichlorobenzene	NE	NE	ND		530	ND		4.4	ND		4.8
1,2,4-Trimethylbenzene	3,600	52,000	ND		530	ND		4.4	ND		4.8
1,2-Dibromo-3-chloropropane	NE	NE	ND		530	ND		4.4	ND		4.8
1,2-Dibromoethane	NE	NE	ND		530	ND		4.4	ND		4.8
1,2-Dichlorobenzene	1,100	100,000	NA		-	NA		-	NA		-
1,2-Dichloroethane	20	3,100	ND		530	ND		4.4	ND		4.8
1,2-Dichloropropane	NE	NE	ND		530	ND		4.4	ND		4.8
1,3,5-Trimethylbenzene	8,400	52,000	ND		530	ND		4.4	ND		4.8
1,3-Dichlorobenzene	2,400	49,000	NA		-	NA		-	NA		-
1,3-Dichloropropane	NE	NE	NA		-	NA		-	NA		-
1,4-Dichlorobenzene	1,800	13,000	NA		-	NA		-	NA		-
1,4-Dioxane	100	13,000	NA		-	NA		-	NA		-
2,2-Dichloropropane	NE	NE	NA		-	NA		-	NA		-
2-Butanone	120	100,000	ND		530	ND		8.8	ND		9.6
2-Chlorotoluene	NE	NE	NA		-	NA		-	NA		-
2-Hexanone	NE	NE	ND		530	ND		4.4	ND		4.8
4-Chlorotoluene	NE	NE	NA		-	NA		-	NA		-
4-Methyl-2-pentanone	NE	NE	ND		530	ND		4.4	ND		4.8
Acetone	50	100,000	ND		1,100	21		8.8	30		9.6
Benzene	60	4,800	ND		530	ND		4.4	ND		4.8
Bromobenzene	NE	NE	NA		-	NA		-	NA		-
Bromochloromethane	NE	NE	NA		-	NA		-	NA		-
Bromodichloromethane	NE	NE	ND		530	ND		4.4	ND		4.8
Bromoform	NE	NE	ND		530	ND		4.4	ND		4.8
Bromomethane	NE	NE	ND		530	ND		4.4	ND		4.8
Carbon disulfide	NE	100	ND		530	ND		4.4	ND		4.8
Carbon tetrachloride	760	2,400	ND		530	ND		4.4	ND		4.8
Chlorobenzene	1,100	100,000	ND		530	ND		4.4	ND		4.8
Chloroethane	NE	NE	ND		530	ND		4.4	ND		4.8
Chloroform	370	49,000	ND		530	ND		4.4	ND		4.8
Chloromethane	NE	NE	ND		530	ND		4.4	ND		4.8
cis-1,2-Dichloroethylene	250	100,000	540		530	19		4.4	ND		4.8
cis-1,3-Dichloropropylene	NE	NE	ND		530	ND		4.4	ND		4.8
Dibromochloromethane	NE	NE	ND		530	ND		4.4	ND		4.8
Dibromomethane	NE	NE	NA		-	NA		-	NA		-
Dichlorodifluoromethane	NE	NE	ND		530	ND		4.4	ND		4.8
Ethyl Benzene	1,000	41,000	ND		530	ND		4.4	ND		4.8
Hexachlorobutadiene	NE	NE	NA		-	NA		-	NA		-
Isopropylbenzene	2,300	100,000	NA		-	NA		-	NA		-
Methyl tert-butyl ether (MTBE)	930	100,000	ND		530	ND		4.4	ND		4.8
Methylene chloride	50	500,000	ND		1,100	5.9	J	8.8	6.7	J	9.6
Naphthalene	12,000	NE	ND		1,100	ND		8.8	ND		9.6
n-Butylbenzene	12,000	100,000	ND		530	ND		4.4	ND		4.8
n-Propylbenzene	3,900	100,000	ND		530	ND		4.4	ND		4.8
o-Xylene	NE	NE	ND		530	ND		4.4	ND		4.8
p- & m- Xylenes	NE	NE	ND		1,100	ND		8.8	ND		9.6
p-Isopropyltoluene	10,000	NE	NA		-	NA		-	NA		-
sec-Butylbenzene	11,000	100,000	ND		530	ND		4.4	ND		4.8
Styrene	NE	NE	ND		530	ND		4.4	ND		4.8
tert-Butylbenzene	5,900	100,000	ND		530	ND		4.4	ND		4.8
Tetrachloroethylene	1,300	19,000	ND		530	ND		4.4	ND		4.8
Toluene	700	100,000	ND		530	ND		4.4	ND		4.8
trans-1,2-Dichloroethylene	190	100,000	ND		530	ND		4.4	ND		4.8
trans-1,3-Dichloropropylene	NE	NE	ND		530	ND		4.4	ND		4.8
Trichloroethylene	470	21,000	14,000		530	2,600		500	ND		4.8
Trichlorofluoromethane	NE	NE	ND		530	ND		4.4	ND		4.8
Vinyl acetate	NE	NE	NA		-	NA		-	NA		-
Vinyl Chloride	20	900	ND		530	ND		4.4	ND		4.8
Xylenes, Total	260	100,000	ND		1,600	ND		13	ND		14
Total TICs	NE	NE	NA		-	NA		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWID ID: 224136

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**Table 3: Soil - VOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		3SB-4 (15-20) (2014-09-22)			3SB-4 (20-25) (2014-09-22)			3SB-5 (0-5) (2014-09-22)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	NE	NE	NA		-	NA		-	NA		-
1,1,1-Trichloroethane	680	100,000	ND		4.9	ND		5.1	ND		5.1
1,1,2,2-Tetrachloroethane	NE	NE	ND		4.9	ND		5.1	ND		5.1
1,1,2-Trichloro-1,2,2-trifluoroethane	NE	NE	ND		4.9	ND		5.1	ND		5.1
1,1,2-Trichloroethane	NE	NE	ND		4.9	ND		5.1	ND		5.1
1,1-Dichloroethane	270	26,000	ND		4.9	ND		5.1	ND		5.1
1,1-Dichloroethylene	330	100,000	2.8	J	4.9	ND		5.1	ND		5.1
1,1-Dichloropropylene	NE	NE	NA		-	NA		-	NA		-
1,2,3-Trichlorobenzene	NE	NE	NA		-	NA		-	NA		-
1,2,3-Trichloropropane	NE	NE	NA		-	NA		-	NA		-
1,2,4-Trichlorobenzene	NE	NE	ND		4.9	ND		5.1	ND		5.1
1,2,4-Trimethylbenzene	3,600	52,000	ND		4.9	ND		5.1	ND		5.1
1,2-Dibromo-3-chloropropane	NE	NE	ND		4.9	ND		5.1	ND		5.1
1,2-Dibromoethane	NE	NE	ND		4.9	ND		5.1	ND		5.1
1,2-Dichlorobenzene	1,100	100,000	NA		-	NA		-	NA		-
1,2-Dichloroethane	20	3,100	ND		4.9	ND		5.1	ND		5.1
1,2-Dichloropropane	NE	NE	ND		4.9	ND		5.1	ND		5.1
1,3,5-Trimethylbenzene	8,400	52,000	ND		4.9	ND		5.1	ND		5.1
1,3-Dichlorobenzene	2,400	49,000	NA		-	NA		-	NA		-
1,3-Dichloropropane	NE	NE	NA		-	NA		-	NA		-
1,4-Dichlorobenzene	1,800	13,000	NA		-	NA		-	NA		-
1,4-Dioxane	100	13,000	NA		-	NA		-	NA		-
2,2-Dichloropropane	NE	NE	NA		-	NA		-	NA		-
2-Butanone	120	100,000	ND		9.9	ND		5.1	ND		5.1
2-Chlorotoluene	NE	NE	NA		-	NA		-	NA		-
2-Hexanone	NE	NE	ND		4.9	ND		5.1	ND		5.1
4-Chlorotoluene	NE	NE	NA		-	NA		-	NA		-
4-Methyl-2-pentanone	NE	NE	ND		4.9	ND		5.1	ND		5.1
Acetone	50	100,000	11		9.9	27		10	20		10
Benzene	60	4,800	ND		4.9	ND		5.1	ND		5.1
Bromobenzene	NE	NE	NA		-	NA		-	NA		-
Bromochloromethane	NE	NE	NA		-	NA		-	NA		-
Bromodichloromethane	NE	NE	ND		4.9	ND		5.1	ND		5.1
Bromoform	NE	NE	ND		4.9	ND		5.1	ND		5.1
Bromomethane	NE	NE	ND		4.9	ND		5.1	ND		5.1
Carbon disulfide	NE	100	ND		4.9	ND		5.1	ND		5.1
Carbon tetrachloride	760	2,400	ND		4.9	ND		5.1	ND		5.1
Chlorobenzene	1,100	100,000	ND		4.9	ND		5.1	ND		5.1
Chloroethane	NE	NE	ND		4.9	ND		5.1	ND		5.1
Chloroform	370	49,000	ND		4.9	ND		5.1	ND		5.1
Chloromethane	NE	NE	ND		4.9	ND		5.1	ND		5.1
cis-1,2-Dichloroethylene	250	100,000	2,400		570	76		5.1	ND		5.1
cis-1,3-Dichloropropylene	NE	NE	ND		4.9	ND		5.1	ND		5.1
Dibromochloromethane	NE	NE	ND		4.9	ND		5.1	ND		5.1
Dibromomethane	NE	NE	NA		-	NA		-	NA		-
Dichlorodifluoromethane	NE	NE	ND		4.9	ND		5.1	ND		5.1
Ethyl Benzene	1,000	41,000	ND		4.9	ND		5.1	ND		5.1
Hexachlorobutadiene	NE	NE	NA		-	NA		-	NA		-
Isopropylbenzene	2,300	100,000	NA		-	NA		-	NA		-
Methyl tert-butyl ether (MTBE)	930	100,000	ND		4.9	ND		5.1	ND		5.1
Methylene chloride	50	500,000	ND		9.9	7.2	J	10	ND		10
Naphthalene	12,000	NE	ND		9.9	ND		10	ND		10
n-Butylbenzene	12,000	100,000	ND		4.9	ND		5.1	ND		5.1
n-Propylbenzene	3,900	100,000	ND		4.9	ND		5.1	ND		5.1
o-Xylene	NE	NE	ND		4.9	ND		5.1	ND		5.1
p- & m- Xylenes	NE	NE	ND		9.9	ND		10	ND		10
p-Isopropyltoluene	10,000	NE	NA		-	NA		-	NA		-
sec-Butylbenzene	11,000	100,000	ND		4.9	ND		5.1	ND		5.1
Styrene	NE	NE	ND		4.9	ND		5.1	ND		5.1
tert-Butylbenzene	5,900	100,000	ND		4.9	ND		5.1	ND		5.1
Tetrachloroethylene	1,300	19,000	ND		4.9	ND		5.1	ND		5.1
Toluene	700	100,000	ND		4.9	ND		5.1	ND		5.1
trans-1,2-Dichloroethylene	190	100,000	ND		4.9	ND		5.1	ND		5.1
trans-1,3-Dichloropropylene	NE	NE	ND		4.9	ND		5.1	ND		5.1
Trichloroethylene	470	21,000	5,700		570	8,100		530	ND		5.1
Trichlorofluoromethane	NE	NE	ND		4.9	ND		5.1	ND		5.1
Vinyl acetate	NE	NE	NA		-	NA		-	NA		-
Vinyl Chloride	20	900	39		4.9	ND		5.1	ND		5.1
Xylenes, Total	260	100,000	ND		15	ND		15	ND		15
Total TICs	NE	NE	NA		-	NA		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWID ID: 224136

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**Table 3: Soil - VOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		3SB-5 (10-15) (2014-09-22)			3SB-5 (15-20) (2014-09-22)			3SB-6 (20-25) (2014-09-24)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	NE	NE	NA		-	NA		-	NA		-
1,1,1-Trichloroethane	680	100,000	ND		4.7	ND		4.1	ND		4.4
1,1,2,2-Tetrachloroethane	NE	NE	ND		4.7	ND		4.1	ND		4.4
1,1,2-Trichloro-1,2,2-trifluoroethane	NE	NE	ND		4.7	ND		4.1	ND		4.4
1,1,2-Trichloroethane	NE	NE	ND		4.7	ND		4.1	ND		4.4
1,1-Dichloroethane	270	26,000	ND		4.7	ND		4.1	ND		4.4
1,1-Dichloroethylene	330	100,000	ND		4.7	ND		4.1	ND		4.4
1,1-Dichloropropylene	NE	NE	NA		-	NA		-	NA		-
1,2,3-Trichlorobenzene	NE	NE	NA		-	NA		-	NA		-
1,2,3-Trichloropropane	NE	NE	NA		-	NA		-	NA		-
1,2,4-Trichlorobenzene	NE	NE	ND		4.7	ND		4.1	ND		4.4
1,2,4-Trimethylbenzene	3,600	52,000	ND		4.7	ND		4.1	ND		4.4
1,2-Dibromo-3-chloropropane	NE	NE	ND		4.7	ND		4.1	ND		4.4
1,2-Dibromoethane	NE	NE	ND		4.7	ND		4.1	ND		4.4
1,2-Dichlorobenzene	1,100	100,000	NA		-	NA		-	NA		-
1,2-Dichloroethane	20	3,100	ND		4.7	ND		4.1	ND		4.4
1,2-Dichloropropane	NE	NE	ND		4.7	ND		4.1	ND		4.4
1,3,5-Trimethylbenzene	8,400	52,000	ND		4.7	ND		4.1	ND		4.4
1,3-Dichlorobenzene	2,400	49,000	NA		-	NA		-	NA		-
1,3-Dichloropropane	NE	NE	NA		-	NA		-	NA		-
1,4-Dichlorobenzene	1,800	13,000	NA		-	NA		-	NA		-
1,4-Dioxane	100	13,000	NA		-	NA		-	NA		-
2,2-Dichloropropane	NE	NE	NA		-	NA		-	NA		-
2-Butanone	120	100,000	ND		4.7	ND		4.1	ND		4.4
2-Chlorotoluene	NE	NE	NA		-	NA		-	NA		-
2-Hexanone	NE	NE	ND		4.7	ND		4.1	ND		4.4
4-Chlorotoluene	NE	NE	NA		-	NA		-	NA		-
4-Methyl-2-pentanone	NE	NE	ND		4.7	ND		4.1	ND		4.4
Acetone	50	100,000	9.3	J	9.4	12		8.2	16		8.9
Benzene	60	4,800	ND		4.7	ND		4.1	ND		4.4
Bromobenzene	NE	NE	NA		-	NA		-	NA		-
Bromochloromethane	NE	NE	NA		-	NA		-	NA		-
Bromodichloromethane	NE	NE	ND		4.7	ND		4.1	ND		4.4
Bromoform	NE	NE	ND		4.7	ND		4.1	ND		4.4
Bromomethane	NE	NE	ND		4.7	ND		4.1	ND		4.4
Carbon disulfide	NE	100	ND		4.7	2	J	4.1	ND		4.4
Carbon tetrachloride	760	2,400	ND		4.7	ND		4.1	ND		4.4
Chlorobenzene	1,100	100,000	ND		4.7	ND		4.1	ND		4.4
Chloroethane	NE	NE	ND		4.7	ND		4.1	ND		4.4
Chloroform	370	49,000	ND		4.7	ND		4.1	ND		4.4
Chloromethane	NE	NE	ND		4.7	ND		4.1	ND		4.4
cis-1,2-Dichloroethylene	250	100,000	13		4.7	21		4.1	ND		4.4
cis-1,3-Dichloropropylene	NE	NE	ND		4.7	ND		4.1	ND		4.4
Dibromochloromethane	NE	NE	ND		4.7	ND		4.1	ND		4.4
Dibromomethane	NE	NE	NA		-	NA		-	NA		-
Dichlorodifluoromethane	NE	NE	ND		4.7	ND		4.1	ND		4.4
Ethyl Benzene	1,000	41,000	ND		4.7	ND		4.1	ND		4.4
Hexachlorobutadiene	NE	NE	NA		-	NA		-	NA		-
Isopropylbenzene	2,300	100,000	NA		-	NA		-	NA		-
Methyl tert-butyl ether (MTBE)	930	100,000	ND		4.7	ND		4.1	ND		4.4
Methylene chloride	50	500,000	ND		9.4	ND		8.2	ND		8.9
Naphthalene	12,000	NE	ND		9.4	ND		8.2	ND		8.9
n-Butylbenzene	12,000	100,000	ND		4.7	ND		4.1	ND		4.4
n-Propylbenzene	3,900	100,000	ND		4.7	ND		4.1	ND		4.4
o-Xylene	NE	NE	ND		4.7	ND		4.1	ND		4.4
p- & m- Xylenes	NE	NE	ND		9.4	ND		8.2	ND		8.9
p-Isopropyltoluene	10,000	NE	NA		-	NA		-	NA		-
sec-Butylbenzene	11,000	100,000	ND		4.7	ND		4.1	ND		4.4
Styrene	NE	NE	ND		4.7	ND		4.1	ND		4.4
tert-Butylbenzene	5,900	100,000	ND		4.7	ND		4.1	ND		4.4
Tetrachloroethylene	1,300	19,000	ND		4.7	ND		4.1	ND		4.4
Toluene	700	100,000	ND		4.7	ND		4.1	ND		4.4
trans-1,2-Dichloroethylene	190	100,000	ND		4.7	ND		4.1	ND		4.4
trans-1,3-Dichloropropylene	NE	NE	ND		4.7	ND		4.1	ND		4.4
Trichloroethylene	470	21,000	99		4.7	1,300		350	ND		4.4
Trichlorofluoromethane	NE	NE	ND		4.7	ND		4.1	ND		4.4
Vinyl acetate	NE	NE	NA		-	NA		-	NA		-
Vinyl Chloride	20	900	ND		14	ND		4.1	ND		4.4
Xylenes, Total	260	100,000	ND		7	ND		12	ND		13
Total TICs	NE	NE	NA		-	NA		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 3: Soil - VOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		3SB-6 (25-30) (2014-09-24)			3SB-7 (0-5) (2014-09-24)			3SB-7 (10-15) (2014-09-24)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	NE	NE	NA		-	NA		-	NA		-
1,1,1-Trichloroethane	680	100,000	ND		4.8	ND		4.3	ND		4.3
1,1,2,2-Tetrachloroethane	NE	NE	ND		4.8	ND		4.3	ND		4.3
1,1,2-Trichloro-1,2,2-trifluoroethane	NE	NE	ND		4.8	ND		4.3	ND		4.3
1,1,2-Trichloroethane	NE	NE	ND		4.8	ND		4.3	ND		4.3
1,1-Dichloroethane	270	26,000	ND		4.8	ND		4.3	ND		4.3
1,1-Dichloroethylene	330	100,000	ND		4.8	ND		4.3	ND		4.3
1,1-Dichloropropylene	NE	NE	NA		-	NA		-	NA		-
1,2,3-Trichlorobenzene	NE	NE	NA		-	NA		-	NA		-
1,2,3-Trichloropropane	NE	NE	NA		-	NA		-	NA		-
1,2,4-Trichlorobenzene	NE	NE	ND		4.8	ND		4.3	ND		4.3
1,2,4-Trimethylbenzene	3,600	52,000	ND		4.8	ND		4.3	ND		4.3
1,2-Dibromo-3-chloropropane	NE	NE	ND		4.8	ND		4.3	ND		4.3
1,2-Dibromoethane	NE	NE	ND		4.8	ND		4.3	ND		4.3
1,2-Dichlorobenzene	1,100	100,000	NA		-	NA		-	NA		-
1,2-Dichloroethane	20	3,100	ND		4.8	ND		4.3	ND		4.3
1,2-Dichloropropane	NE	NE	ND		4.8	ND		4.3	ND		4.3
1,3,5-Trimethylbenzene	8,400	52,000	ND		4.8	ND		4.3	ND		4.3
1,3-Dichlorobenzene	2,400	49,000	NA		-	NA		-	NA		-
1,3-Dichloropropane	NE	NE	NA		-	NA		-	NA		-
1,4-Dichlorobenzene	1,800	13,000	NA		-	NA		-	NA		-
1,4-Dioxane	100	13,000	NA		-	NA		-	NA		-
2,2-Dichloropropane	NE	NE	NA		-	NA		-	NA		-
2-Butanone	120	100,000	ND		4.8	ND		4.3	ND		4.3
2-Chlorotoluene	NE	NE	NA		-	NA		-	NA		-
2-Hexanone	NE	NE	ND		4.8	ND		4.3	ND		4.3
4-Chlorotoluene	NE	NE	NA		-	NA		-	NA		-
4-Methyl-2-pentanone	NE	NE	ND		4.8	ND		4.3	ND		4.3
Acetone	50	100,000	17		9.5	8.5	J	8.6	15		8.6
Benzene	60	4,800	ND		4.8	ND		4.3	ND		4.3
Bromobenzene	NE	NE	NA		-	NA		-	NA		-
Bromochloromethane	NE	NE	NA		-	NA		-	NA		-
Bromodichloromethane	NE	NE	ND		4.8	ND		4.3	ND		4.3
Bromoform	NE	NE	ND		4.8	ND		4.3	ND		4.3
Bromomethane	NE	NE	ND		4.8	ND		4.3	ND		4.3
Carbon disulfide	NE	100	ND		4.8	ND		4.3	ND		4.3
Carbon tetrachloride	760	2,400	ND		4.8	ND		4.3	ND		4.3
Chlorobenzene	1,100	100,000	ND		4.8	ND		4.3	ND		4.3
Chloroethane	NE	NE	ND		4.8	ND		4.3	ND		4.3
Chloroform	370	49,000	ND		4.8	ND		4.3	ND		4.3
Chloromethane	NE	NE	ND		4.8	ND		4.3	ND		4.3
cis-1,2-Dichloroethylene	250	100,000	ND		4.8	ND		4.3	14		4.3
cis-1,3-Dichloropropylene	NE	NE	ND		4.8	ND		4.3	ND		4.3
Dibromochloromethane	NE	NE	ND		4.8	ND		4.3	ND		4.3
Dibromomethane	NE	NE	NA		-	NA		-	NA		-
Dichlorodifluoromethane	NE	NE	ND		4.8	ND		4.3	ND		4.3
Ethyl Benzene	1,000	41,000	ND		4.8	ND		4.3	ND		4.3
Hexachlorobutadiene	NE	NE	NA		-	NA		-	NA		-
Isopropylbenzene	2,300	100,000	NA		-	NA		-	NA		-
Methyl tert-butyl ether (MTBE)	930	100,000	ND		4.8	ND		4.3	ND		4.3
Methylene chloride	50	500,000	4.9	J	9.5	ND		8.6	5.7	J	8.6
Naphthalene	12,000	NE	ND		9.5	ND		8.6	ND		8.6
n-Butylbenzene	12,000	100,000	ND		4.8	ND		4.3	ND		4.3
n-Propylbenzene	3,900	100,000	ND		4.8	ND		4.3	ND		4.3
o-Xylene	NE	NE	ND		4.8	ND		4.3	ND		4.3
p- & m- Xylenes	NE	NE	ND		9.5	ND		8.6	ND		8.6
p-Isopropyltoluene	10,000	NE	NA		-	NA		-	NA		-
sec-Butylbenzene	11,000	100,000	ND		4.8	ND		4.3	ND		4.3
Styrene	NE	NE	ND		4.8	ND		4.3	ND		4.3
tert-Butylbenzene	5,900	100,000	ND		4.8	ND		4.3	ND		4.3
Tetrachloroethylene	1,300	19,000	ND		4.8	ND		4.3	ND		4.3
Toluene	700	100,000	ND		4.8	ND		4.3	ND		4.3
trans-1,2-Dichloroethylene	190	100,000	ND		4.8	ND		4.3	ND		4.3
trans-1,3-Dichloropropylene	NE	NE	ND		4.8	ND		4.3	ND		4.3
Trichloroethylene	470	21,000	ND		4.8	ND		4.3	32		4.3
Trichlorofluoromethane	NE	NE	ND		4.8	ND		4.3	ND		4.3
Vinyl acetate	NE	NE	NA		-	NA		-	NA		-
Vinyl Chloride	20	900	ND		4.8	ND		4.3	ND		4.3
Xylenes, Total	260	100,000	ND		14	ND		13	ND		13
Total TICs	NE	NE	NA		-	NA		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 3: Soil - VOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		3SB-8 (0-5) (2014-09-24)			3SB-Dup (2014-09-24) (3SB-8 0-5)			3SB-8 (15-20) (2014-09-24)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	NE	NE	NA		-	NA		-	NA		-
1,1,1-Trichloroethane	680	100,000	ND		4.4	ND		4.6	ND		4.4
1,1,2,2-Tetrachloroethane	NE	NE	ND		4.4	ND		4.6	ND		4.4
1,1,2-Trichloro-1,2,2-trifluoroethane	NE	NE	ND		4.4	ND		4.6	ND		4.4
1,1,2-Trichloroethane	NE	NE	ND		4.4	ND		4.6	ND		4.4
1,1-Dichloroethane	270	26,000	ND		4.4	ND		4.6	ND		4.4
1,1-Dichloroethylene	330	100,000	ND		4.4	ND		4.6	2.2	J	4.4
1,1-Dichloropropylene	NE	NE	NA		-	NA		-	NA		-
1,2,3-Trichlorobenzene	NE	NE	NA		-	NA		-	NA		-
1,2,3-Trichloropropane	NE	NE	NA		-	NA		-	NA		-
1,2,4-Trichlorobenzene	NE	NE	ND		4.4	ND		4.6	ND		4.4
1,2,4-Trimethylbenzene	3,600	52,000	ND		4.4	ND		4.6	ND		4.4
1,2-Dibromo-3-chloropropane	NE	NE	ND		4.4	ND		4.6	ND		4.4
1,2-Dibromoethane	NE	NE	ND		4.4	ND		4.6	ND		4.4
1,2-Dichlorobenzene	1,100	100,000	NA		-	NA		-	NA		-
1,2-Dichloroethane	20	3,100	ND		4.4	ND		4.6	ND		4.4
1,2-Dichloropropane	NE	NE	ND		4.4	ND		4.6	ND		4.4
1,3,5-Trimethylbenzene	8,400	52,000	ND		4.4	ND		4.6	ND		4.4
1,3-Dichlorobenzene	2,400	49,000	NA		-	NA		-	NA		-
1,3-Dichloropropane	NE	NE	NA		-	NA		-	NA		-
1,4-Dichlorobenzene	1,800	13,000	NA		-	NA		-	NA		-
1,4-Dioxane	100	13,000	NA		-	NA		-	NA		-
2,2-Dichloropropane	NE	NE	NA		-	NA		-	NA		-
2-Butanone	120	100,000	ND		4.4	ND		4.6	ND		4.4
2-Chlorotoluene	NE	NE	NA		-	NA		-	NA		-
2-Hexanone	NE	NE	ND		4.4	ND		4.6	ND		4.4
4-Chlorotoluene	NE	NE	NA		-	NA		-	NA		-
4-Methyl-2-pentanone	NE	NE	ND		4.4	ND		4.6	ND		4.4
Acetone	50	100,000	13		8.8	19		9.2	8.1	J	8.8
Benzene	60	4,800	ND		4.4	ND		4.6	ND		4.4
Bromobenzene	NE	NE	NA		-	NA		-	NA		-
Bromochloromethane	NE	NE	NA		-	NA		-	NA		-
Bromodichloromethane	NE	NE	ND		4.4	ND		4.6	ND		4.4
Bromoform	NE	NE	ND		4.4	ND		4.6	ND		4.4
Bromomethane	NE	NE	ND		4.4	ND		4.6	ND		4.4
Carbon disulfide	NE	100	ND		4.4	ND		4.6	ND		4.4
Carbon tetrachloride	760	2,400	ND		4.4	ND		4.6	ND		4.4
Chlorobenzene	1,100	100,000	ND		4.4	ND		4.6	ND		4.4
Chloroethane	NE	NE	ND		4.4	ND		4.6	ND		4.4
Chloroform	370	49,000	ND		4.4	ND		4.6	ND		4.4
Chloromethane	NE	NE	ND		4.4	ND		4.6	ND		4.4
cis-1,2-Dichloroethylene	250	100,000	ND		4.4	ND		4.6	270	E	4.4
cis-1,3-Dichloropropylene	NE	NE	ND		4.4	ND		4.6	ND		4.4
Dibromochloromethane	NE	NE	ND		4.4	ND		4.6	ND		4.4
Dibromomethane	NE	NE	NA		-	NA		-	NA		-
Dichlorodifluoromethane	NE	NE	ND		4.4	ND		4.6	ND		4.4
Ethyl Benzene	1,000	41,000	ND		4.4	ND		4.6	ND		4.4
Hexachlorobutadiene	NE	NE	NA		-	NA		-	NA		-
Isopropylbenzene	2,300	100,000	NA		-	NA		-	NA		-
Methyl tert-butyl ether (MTBE)	930	100,000	ND		4.4	ND		4.6	ND		4.4
Methylene chloride	50	500,000	ND		8.8	ND		9.2	ND		8.8
Naphthalene	12,000	NE	ND		8.8	ND		9.2	ND		8.8
n-Butylbenzene	12,000	100,000	ND		4.4	ND		4.6	ND		4.4
n-Propylbenzene	3,900	100,000	ND		4.4	ND		4.6	ND		4.4
o-Xylene	NE	NE	ND		4.4	ND		4.6	ND		4.4
p- & m- Xylenes	NE	NE	ND		8.8	ND		9.2	ND		8.8
p-Isopropyltoluene	10,000	NE	NA		-	NA		-	NA		-
sec-Butylbenzene	11,000	100,000	ND		4.4	ND		4.6	ND		4.4
Styrene	NE	NE	ND		4.4	ND		4.6	ND		4.4
tert-Butylbenzene	5,900	100,000	ND		4.4	ND		4.6	ND		4.4
Tetrachloroethylene	1,300	19,000	ND		4.4	ND		4.6	2.6	J	4.4
Toluene	700	100,000	ND		4.4	ND		4.6	ND		4.4
trans-1,2-Dichloroethylene	190	100,000	ND		4.4	ND		4.6	ND		4.4
trans-1,3-Dichloropropylene	NE	NE	ND		4.4	ND		4.6	ND		4.4
Trichloroethylene	470	21,000	14		4.4	13		4.6	710		450
Trichlorofluoromethane	NE	NE	ND		4.4	ND		4.6	ND		4.4
Vinyl acetate	NE	NE	NA		-	NA		-	NA		-
Vinyl Chloride	20	900	ND		4.4	ND		4.6	ND		4.4
Xylenes, Total	260	100,000	ND		13	ND		14	ND		13
Total TICs	NE	NE	NA		-	NA		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 3: Soil - VOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		3SB-9 (0-5) (2014-09-24)			3SB-9 (15-20) (2014-09-24)			3SB-9 (20-25) (2014-09-24)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	NE	NE	NA		-	NA		-	NA		-
1,1,1-Trichloroethane	680	100,000	ND		5	ND		4.6	ND		4.2
1,1,2,2-Tetrachloroethane	NE	NE	ND		5	ND		4.6	ND		4.2
1,1,2-Trichloro-1,2,2-trifluoroethane	NE	NE	ND		5	ND		4.6	ND		4.2
1,1,2-Trichloroethane	NE	NE	ND		5	ND		4.6	ND		4.2
1,1-Dichloroethane	270	26,000	ND		5	ND		4.6	ND		4.2
1,1-Dichloroethylene	330	100,000	ND		5	4.5	J	4.6	ND		4.2
1,1-Dichloropropylene	NE	NE	NA		-	NA		-	NA		-
1,2,3-Trichlorobenzene	NE	NE	NA		-	NA		-	NA		-
1,2,3-Trichloropropane	NE	NE	NA		-	NA		-	NA		-
1,2,4-Trichlorobenzene	NE	NE	ND		5	ND		4.6	ND		4.2
1,2,4-Trimethylbenzene	3,600	52,000	ND		5	ND		4.6	ND		4.2
1,2-Dibromo-3-chloropropane	NE	NE	ND		5	ND		4.6	ND		4.2
1,2-Dibromoethane	NE	NE	ND		5	ND		4.6	ND		4.2
1,2-Dichlorobenzene	1,100	100,000	NA		-	NA		-	NA		-
1,2-Dichloroethane	20	3,100	ND		5	ND		4.6	ND		4.2
1,2-Dichloropropane	NE	NE	ND		5	ND		4.6	ND		4.2
1,3,5-Trimethylbenzene	8,400	52,000	ND		5	ND		4.6	ND		4.2
1,3-Dichlorobenzene	2,400	49,000	NA		-	NA		-	NA		-
1,3-Dichloropropane	NE	NE	NA		-	NA		-	NA		-
1,4-Dichlorobenzene	1,800	13,000	NA		-	NA		-	NA		-
1,4-Dioxane	100	13,000	NA		-	NA		-	NA		-
2,2-Dichloropropane	NE	NE	NA		-	NA		-	NA		-
2-Butanone	120	100,000	ND		5	ND		4.6	ND		4.2
2-Chlorotoluene	NE	NE	NA		-	NA		-	NA		-
2-Hexanone	NE	NE	ND		5	ND		4.6	ND		4.2
4-Chlorotoluene	NE	NE	NA		-	NA		-	NA		-
4-Methyl-2-pentanone	NE	NE	ND		5	ND		4.6	ND		4.2
Acetone	50	100,000	18		10	25		9.1	25	CCV-E	8.4
Benzene	60	4,800	ND		5	ND		4.6	ND		4.2
Bromobenzene	NE	NE	NA		-	NA		-	NA		-
Bromochloromethane	NE	NE	NA		-	NA		-	NA		-
Bromodichloromethane	NE	NE	ND		5	ND		4.6	ND		4.2
Bromoform	NE	NE	ND		5	ND		4.6	ND		4.2
Bromomethane	NE	NE	ND		5	ND		4.6	ND		4.2
Carbon disulfide	NE	100	ND		5	2.4	J	4.6	ND		4.2
Carbon tetrachloride	760	2,400	ND		5	ND		4.6	ND		4.2
Chlorobenzene	1,100	100,000	ND		5	ND		4.6	ND		4.2
Chloroethane	NE	NE	ND		5	ND		4.6	ND		4.2
Chloroform	370	49,000	ND		5	ND		4.6	ND		4.2
Chloromethane	NE	NE	ND		5	ND		4.6	ND		4.2
cis-1,2-Dichloroethylene	250	100,000	ND		5	510	E	4.6	ND		4.2
cis-1,3-Dichloropropylene	NE	NE	ND		5	ND		4.6	ND		4.2
Dibromochloromethane	NE	NE	ND		5	ND		4.6	ND		4.2
Dibromomethane	NE	NE	NA		-	NA		-	NA		-
Dichlorodifluoromethane	NE	NE	ND		5	ND		4.6	ND		4.2
Ethyl Benzene	1,000	41,000	ND		5	ND		4.6	ND		4.2
Hexachlorobutadiene	NE	NE	NA		-	NA		-	NA		-
Isopropylbenzene	2,300	100,000	NA		-	NA		-	NA		-
Methyl tert-butyl ether (MTBE)	930	100,000	ND		5	ND		4.6	ND		4.2
Methylene chloride	50	500,000	5.8	J	10	7.5	J	9.1	5	J	8.4
Naphthalene	12,000	NE	ND		10	ND		9.1	ND		8.4
n-Butylbenzene	12,000	100,000	ND		5	ND		4.6	ND		4.2
n-Propylbenzene	3,900	100,000	ND		5	ND		4.6	ND		4.2
o-Xylene	NE	NE	ND		5	ND		4.6	ND		4.2
p- & m- Xylenes	NE	NE	ND		10	ND		9.1	ND		8.4
p-Isopropyltoluene	10,000	NE	NA		-	NA		-	NA		-
sec-Butylbenzene	11,000	100,000	ND		5	ND		4.6	ND		4.2
Styrene	NE	NE	ND		5	ND		4.6	ND		4.2
tert-Butylbenzene	5,900	100,000	ND		5	ND		4.6	ND		4.2
Tetrachloroethylene	1,300	19,000	ND		5	31		4.6	ND		4.2
Toluene	700	100,000	ND		5	ND		4.6	ND		4.2
trans-1,2-Dichloroethylene	190	100,000	ND		5	2.7	J	4.6	ND		4.2
trans-1,3-Dichloropropylene	NE	NE	ND		5	ND		4.6	ND		4.2
Trichloroethylene	470	21,000	ND		5	2,600		470	6.2		4.2
Trichlorofluoromethane	NE	NE	ND		5	ND		4.6	ND		4.2
Vinyl acetate	NE	NE	NA		-	NA		-	NA		-
Vinyl Chloride	20	900	ND		5	10		4.6	ND		4.2
Xylenes, Total	260	100,000	ND		15	ND		14	ND		13
Total TICs	NE	NE	NA		-	NA		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

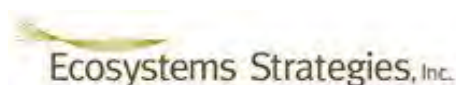
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**Table 4: Soil - VOCs (Spill Site)**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

Concentrations above UU-SCOs in **Bold**

ESI File: SB09110

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		SB-MW-17 (12-16) (Spill Site) (2012-04-19)			SB-MW-18 (8-12) (Spill Site) (2012-04-19)			MW-19 (10-12) (Spill Site) (2012-02-02)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	NE	NE	ND		13	ND		560	ND		600
1,1,1-Trichloroethane	680	100,000	ND		13	ND		560	ND		600
1,1,2,2-Tetrachloroethane	NE	NE	ND		13	ND		560	ND		600
1,1,2-Trichloro-1,2,2-trifluoroethane	NE	NE	ND		13	ND		560	ND		600
1,1,2-Trichloroethane	NE	NE	ND		13	ND		560	ND		600
1,1-Dichloroethane	270	26,000	ND		13	ND		560	ND		600
1,1-Dichloroethylene	330	100,000	ND		13	ND		560	ND		600
1,1-Dichloropropylene	NE	NE	ND		13	ND		560	ND		600
1,2,3-Trichlorobenzene	NE	NE	ND		25	ND		1,100	ND		1,200
1,2,3-Trichloropropane	NE	NE	ND		13	ND		560	ND		600
1,2,4-Trichlorobenzene	NE	NE	ND		25	ND		1,100	ND		1,200
1,2,4-Trimethylbenzene	3,600	52,000	ND		13	ND		560	ND		600
1,2-Dibromo-3-chloropropane	NE	NE	ND		25	ND		1,100	ND		1,200
1,2-Dibromoethane	NE	NE	ND		13	ND		560	ND		600
1,2-Dichlorobenzene	1,100	100,000	ND		13	ND		560	ND		600
1,2-Dichloroethane	20	3,100	ND		13	ND		560	ND		600
1,2-Dichloropropane	NE	NE	ND		13	ND		560	ND		600
1,3,5-Trimethylbenzene	8,400	52,000	ND		13	ND		560	ND		600
1,3-Dichlorobenzene	2,400	49,000	ND		13	ND		560	ND		600
1,3-Dichloropropane	NE	NE	ND		13	ND		560	ND		600
1,4-Dichlorobenzene	1,800	13,000	ND		13	ND		560	ND		600
1,4-Dioxane	100	13,000	ND		130	ND		5,600	ND		6,000
2,2-Dichloropropane	NE	NE	ND		13	ND		560	ND		600
2-Butanone	120	100,000	ND		25	ND		1,100	ND		1,200
2-Chlorotoluene	NE	NE	ND		13	ND		560	ND		600
4-Chlorotoluene	NE	NE	ND		13	ND		560	ND		600
Acetone	50	100,000	49	B	25	16	B-dil, B	11	1,100	J	1,200
Benzene	60	4,800	ND		13	ND		560	ND		600
Bromobenzene	NE	NE	ND		13	ND		560	ND		600
Bromochloromethane	NE	NE	ND		13	ND		560	ND		600
Bromodichloromethane	NE	NE	ND		13	ND		560	ND		600
Bromoform	NE	NE	ND		13	ND		560	ND		600
Bromomethane	NE	NE	ND		13	290	J	560	ND		600
Carbon tetrachloride	760	2,400	ND		13	ND		560	ND		600
Chlorobenzene	1,100	100,000	ND		13	ND		560	ND		600
Chloroethane	NE	NE	ND		13	ND		560	ND		600
Chloroform	370	49,000	ND		13	ND		560	ND		600
Chloromethane	NE	NE	ND		13	ND		560	ND		600
cis-1,2-Dichloroethylene	250	100,000	ND		13	ND		560	ND		600
cis-1,3-Dichloropropylene	NE	NE	ND		13	ND		560	ND		600
Dibromochloromethane	NE	NE	ND		13	ND		560	ND		600
Dibromomethane	NE	NE	ND		13	ND		560	ND		600
Dichlorodifluoromethane	NE	NE	ND		13	ND		560	ND		600
Ethyl Benzene	1,000	41,000	ND		13	ND		560	260	J	600
Hexachlorobutadiene	NE	NE	ND		13	ND		560	ND		600
Isopropylbenzene	2,300	100,000	ND		13	ND		560	250	J	600
Methyl tert-butyl ether (MTBE)	930	100,000	ND		13	ND		560	ND		600
Methylene chloride	50	500,000	23	J, B	25	8.1	B-dil, J, B	11	2.3	B-dil, J, B	12
Naphthalene	12,000	NE	ND		25	ND		1,100	2,900		1,200
n-Butylbenzene	12,000	100,000	ND		13	ND		560	450	J	600
n-Propylbenzene	3,900	100,000	ND		13	ND		560	440	J	600
o-Xylene	NE	NE	ND		13	ND		560	130	J	600
p- & m- Xylenes	NE	NE	ND		25	ND		1,100	ND		1,200
p-Isopropyltoluene	10,000	NE	ND		13	ND		560	ND		600
sec-Butylbenzene	11,000	100,000	ND		13	ND		560	330	J	600
Styrene	NE	NE	ND		13	ND		560	ND		600
tert-Butylbenzene	5,900	100,000	ND		13	ND		560	ND		600
Tetrachloroethylene	1,300	19,000	ND		13	ND		560	ND		600
Toluene	700	100,000	ND		13	ND		560	ND		600
trans-1,2-Dichloroethylene	190	100,000	ND		13	ND		560	ND		600
trans-1,3-Dichloropropylene	NE	NE	ND		13	ND		560	ND		600
Trichloroethylene	470	21,000	2.4	J	13	ND		560	ND		600
Trichlorofluoromethane	NE	NE	ND		13	ND		560	ND		600
Vinyl acetate	NE	NE	NA		-	NA		-	NA		-
Vinyl Chloride	20	900	ND		13	ND		560	ND		600
Xylenes, Total	260	100,000	ND		38	ND		1,700	ND		1,800
Total TICs	NE	NE	NA		-	NA		-	28,891		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

Spill No. 0601852

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**Table 4: Soil - VOCs (Spill Site)**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

Concentrations above UU-SCOs in **Bold**

VOCs (USEPA Method 8260)	Soil Cleanup Objectives (SCOs)		SB-77A (8-12) (Spill Site) (2012-04-19)			SB-78A (8-12) (Spill Site) (2012-04-19)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	NE	NE	ND		13	ND		12
1,1,1-Trichloroethane	680	100,000	ND		13	ND		12
1,1,2,2-Tetrachloroethane	NE	NE	ND		13	ND		12
1,1,2-Trichloro-1,2,2-trifluoroethane	NE	NE	ND		13	ND		12
1,1,2-Trichloroethane	NE	NE	ND		13	ND		12
1,1-Dichloroethane	270	26,000	ND		13	ND		12
1,1-Dichloroethylene	330	100,000	ND		13	ND		12
1,1-Dichloropropylene	NE	NE	ND		13	ND		12
1,2,3-Trichlorobenzene	NE	NE	ND		26	ND		24
1,2,3-Trichloropropane	NE	NE	ND		13	ND		12
1,2,4-Trichlorobenzene	NE	NE	ND		26	ND		24
1,2,4-Trimethylbenzene	3,600	52,000	ND		13	ND		12
1,2-Dibromo-3-chloropropane	NE	NE	ND		26	ND		24
1,2-Dibromoethane	NE	NE	ND		13	ND		12
1,2-Dichlorobenzene	1,100	100,000	ND		13	ND		12
1,2-Dichloroethane	20	3,100	ND		13	ND		12
1,2-Dichloropropane	NE	NE	ND		13	ND		12
1,3,5-Trimethylbenzene	8,400	52,000	ND		13	ND		12
1,3-Dichlorobenzene	2,400	49,000	ND		13	ND		12
1,3-Dichloropropane	NE	NE	ND		13	ND		12
1,4-Dichlorobenzene	1,800	13,000	ND		13	ND		12
1,4-Dioxane	100	13,000	ND		130	ND		120
2,2-Dichloropropane	NE	NE	ND		13	ND		12
2-Butanone	120	100,000	ND		26	ND		24
2-Chlorotoluene	NE	NE	ND		13	ND		12
4-Chlorotoluene	NE	NE	ND		13	ND		12
Acetone	50	100,000	25	J,B	26	22	J,B	24
Benzene	60	4,800	ND		13	ND		12
Bromobenzene	NE	NE	ND		13	ND		12
Bromochloromethane	NE	NE	ND		13	ND		12
Bromodichloromethane	NE	NE	ND		13	ND		12
Bromoform	NE	NE	ND		13	ND		12
Bromomethane	NE	NE	ND		13	ND		12
Carbon tetrachloride	760	2,400	ND		13	ND		12
Chlorobenzene	1,100	100,000	ND		13	ND		12
Chloroethane	NE	NE	ND		13	ND		12
Chloroform	370	49,000	ND		13	ND		12
Chloromethane	NE	NE	ND		13	ND		12
cis-1,2-Dichloroethylene	250	100,000	ND		13	ND		12
cis-1,3-Dichloropropylene	NE	NE	ND		13	ND		12
Dibromochloromethane	NE	NE	ND		13	ND		12
Dibromomethane	NE	NE	ND		13	ND		12
Dichlorodifluoromethane	NE	NE	ND		13	ND		12
Ethyl Benzene	1,000	41,000	ND		13	ND		12
Hexachlorobutadiene	NE	NE	ND		13	ND		12
Isopropylbenzene	2,300	100,000	ND		13	ND		12
Methyl tert-butyl ether (MTBE)	930	100,000	ND		13	ND		12
Methylene chloride	50	500,000	22	J,B	26	20	J,B	24
Naphthalene	12,000	NE	ND		26	ND		24
n-Butylbenzene	12,000	100,000	ND		13	ND		12
n-Propylbenzene	3,900	100,000	ND		13	ND		12
o-Xylene	NE	NE	ND		13	ND		12
p- & m- Xylenes	NE	NE	ND		26	ND		24
p-Isopropyltoluene	10,000	NE	ND		13	ND		12
sec-Butylbenzene	11,000	100,000	ND		13	ND		12
Styrene	NE	NE	ND		13	ND		12
tert-Butylbenzene	5,900	100,000	ND		13	ND		12
Tetrachloroethylene	1,300	19,000	ND		13	ND		12
Toluene	700	100,000	ND		13	ND		12
trans-1,2-Dichloroethylene	190	100,000	ND		13	ND		12
trans-1,3-Dichloropropylene	NE	NE	ND		13	ND		12
Trichloroethylene	470	21,000	ND		13	ND		12
Trichlorofluoromethane	NE	NE	ND		13	ND		12
Vinyl acetate	NE	NE	NA		-	NA		-
Vinyl Chloride	20	900	ND		13	ND		12
Xylenes, Total	260	100,000	ND		39	ND		35
Total TICs	NE	NE	NA		-	NA		-

**Table 5: Soil - SVOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

SVOCs (USEPA Method 8270)	Soil Cleanup Objectives (SCOs)		MW-17 (14) (2012-02-15) (Spill Site)			MW-18 (15) (2012-02-15) (Spill Site)			MW-19 (10-12) (2012-02-02) (Spill Site)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,2,4-Trichlorobenzene	NE	NE	ND		215	ND		198	ND		4,030
1,2-Dichlorobenzene	NE	NE	ND		215	ND		198	ND		4,030
1,3-Dichlorobenzene	NE	NE	ND		215	ND		198	ND		4,030
1,4-Dichlorobenzene	NE	NE	ND		215	ND		198	ND		4,030
2,4,5-Trichlorophenol	NE	100,000	NA		-	NA		-	ND		4,030
2,4,6-Trichlorophenol	NE	NE	NA		-	NA		-	ND		4,030
2,4-Dichlorophenol	NE	100,000	NA		-	NA		-	ND		4,030
2,4-Dimethylphenol	NE	NE	NA		-	NA		-	ND		4,030
2,4-Dinitrophenol	NE	100,000	NA		-	NA		-	ND		8,060
2,4-Dinitrotoluene	NE	NE	ND		215	ND		198	ND		4,030
2,6-Dinitrotoluene	NE	1,030	ND		215	ND		198	ND		4,030
2-Chloronaphthalene	NE	NE	ND		215	ND		198	ND		4,030
2-Chlorophenol	NE	100,000	NA		-	NA		-	ND		4,030
2-Methylnaphthalene	NE	410	ND		215	ND		198	<b>13,200</b>		4,030
2-Methylphenol	330	100,000	NA		-	NA		-	ND		4,030
2-Nitroaniline	NE	NE	NA		-	NA		-	ND		4,030
2-Nitrophenol	NE	NE	NA		-	NA		-	ND		4,030
3- & 4-Methylphenols	330	100,000	NA		-	NA		-	ND		4,030
3,3'-Dichlorobenzidine	NE	NE	ND		215	ND		198	ND		4,030
3-Nitroaniline	NE	NE	ND		215	ND		198	ND		4,030
4,6-Dinitro-2-methylphenol	NE	NE	NA		-	NA		-	ND		8,060
4-Bromophenyl phenyl ether	NE	NE	ND		215	ND		198	ND		4,030
4-Chloro-3-methylphenol	NE	NE	ND		215	ND		198	ND		4,030
4-Chloroaniline	NE	NE	ND		215	ND		198	ND		4,030
4-Chlorophenyl phenyl ether	NE	NE	ND		215	ND		198	ND		4,030
4-Nitroaniline	NE	NE	ND		215	ND		198	ND		4,030
4-Nitrophenol	NE	NE	NA		-	NA		-	ND		4,030
Acenaphthene	20,000	100,000	ND		215	ND		198	ND		4,030
Acenaphthylene	100,000	100,000	ND		215	ND		198	ND		4,030
Aniline	NE	100,000	ND		215	ND		198	ND		4,030
Anthracene	100,000	100,000	ND		215	ND		198	<b>1,400</b>	J	4,030
Benzo(a)anthracene	1,000	1,000	ND		215	ND		198	ND		4,030
Benzo(a)pyrene	1,000	1,000	ND		215	<b>53</b>	J	198	ND		4,030
Benzo(b)fluoranthene	1,000	1,000	ND		215	ND		198	ND		4,030
Benzo(g,h,i)perylene	100,000	100,000	ND		215	ND		198	ND		4,030
Benzo(k)fluoranthene	800	3,900	ND		215	ND		198	ND		4,030
<b>Benzoic acid</b>			NA		-	NA		-	NA		-
Benzyl alcohol	NE	NE	NA		-	NA		-	ND		4,030
Benzyl butyl phthalate	NE	NE	ND		215	ND		198	<b>10,100</b>		4,030
Bis(2-chloroethoxy)methane	NE	NE	ND		215	ND		198	ND		4,030
Bis(2-chloroethyl)ether	NE	NE	ND		215	ND		198	ND		4,030
Bis(2-chloroisopropyl)ether	NE	NE	ND		215	ND		198	ND		4,030
Bis(2-ethylhexyl)phthalate	NE	50,000	<b>1,400</b>		215	<b>440</b>		198	<b>4,330</b>		4,030
Carbazole	NE	NE	ND		215	ND		198	NA		-
Chrysene	1,000	3,900	ND		215	ND		198	ND		4,030
Dibenzo(a,h)anthracene	330	330	ND		215	ND		198	ND		4,030
Dibenzofuran	NE	NE	ND		215	ND		198	ND		4,030
Diethyl phthalate	NE	100,000	ND		215	ND		198	ND		4,030
Dimethyl phthalate	NE	100,000	ND		215	ND		198	ND		4,030
Di-n-butyl phthalate	NE	100,000	ND		215	ND		198	ND		4,030
Di-n-octyl phthalate	NE	100,000	<b>350</b>		215	ND		198	ND		4,030
Fluoranthene	100,000	100,000	ND		215	ND		198	ND		4,030
Fluorene	30,000	100,000	ND		215	ND		198	<b>1,850</b>	J	4,030
Hexachlorobenzene	NE	410	ND		215	ND		198	ND		4,030
Hexachlorobutadiene	NE	NE	ND		215	ND		198	ND		4,030
Hexachlorocyclopentadiene	NE	NE	ND		215	ND		198	ND		4,030
Hexachloroethane	NE	NE	ND		215	ND		198	ND		4,030
Indeno(1,2,3-cd)pyrene	500	500	ND		215	ND		198	ND		4,030
Isophorone	NE	100,000	ND		215	ND		198	ND		4,030
Naphthalene	12,000	100,000	ND		215	ND		198	<b>2,000</b>	J	4,030
Nitrobenzene	NE	15,000	ND		215	ND		198	ND		4,030
N-Nitrosodimethylamine	NE	NE	ND	R	215	ND		198	ND		4,030
N-nitroso-di-n-propylamine	NE	NE	ND		215	ND		198	ND		4,030
N-Nitrosodiphenylamine	NE	NE	ND		215	ND		198	ND		4,030
Pentachlorophenol	800	6,700	NA		-	NA		-	ND		4,030
Phenanthrene	100,000	100,000	ND		215	ND		198	<b>6,650</b>		4,030
Phenol	330	100,000	NA		-	NA		-	ND		4,030
Pyrene	100,000	100,000	ND		215	<b>76.4</b>	J	198	<b>3,360</b>	J	4,030
Pyridine	NE	NE	ND		215	ND	R	198	ND	R	4,030
Total TICs	NE	NE	NA		-	NA		-	<b>5,360</b>		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 5: Soil - SVOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

SVOCs (USEPA Method 8270)	Soil Cleanup Objectives (SCOs)		MW-22 (10-11) (2012-02-16)			MW-22 (12-14) (2012-02-16)			MW-23 (2012-07-25)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,2,4-Trichlorobenzene	NE	NE	ND		88,700	ND		19,900	ND		2,040
1,2-Dichlorobenzene	NE	NE	ND		88,700	ND		19,900	ND		2,040
1,3-Dichlorobenzene	NE	NE	ND		88,700	ND		19,900	ND		2,040
1,4-Dichlorobenzene	NE	NE	ND		88,700	ND		19,900	ND		2,040
2,4,5-Trichlorophenol	NE	100,000	NA		-	ND		19,900	ND		2,040
2,4,6-Trichlorophenol	NE	NE	NA		-	ND		19,900	ND		2,040
2,4-Dichlorophenol	NE	100,000	NA		-	ND		19,900	ND		2,040
2,4-Dimethylphenol	NE	NE	NA		-	ND		19,900	ND		2,040
2,4-Dinitrophenol	NE	100,000	NA		-	ND		39,800	ND		4,080
2,4-Dinitrotoluene	NE	NE	ND		88,700	ND		19,900	ND		2,040
2,6-Dinitrotoluene	NE	1,030	ND		88,700	ND		19,900	ND		2,040
2-Chloronaphthalene	NE	NE	ND		88,700	ND		19,900	ND		2,040
2-Chlorophenol	NE	100,000	NA		-	ND		19,900	ND		2,040
2-Methylnaphthalene	NE	410	ND		88,700	ND		19,900	ND		2,040
2-Methylphenol	330	100,000	NA		-	ND		19,900	ND		2,040
2-Nitroaniline	NE	NE	NA		-	ND		199	ND		2,040
2-Nitrophenol	NE	NE	NA		-	ND		19,900	ND		2,040
3- & 4-Methylphenols	330	100,000	NA		-	ND		19,900	ND		2,040
3,3'-Dichlorobenzidine	NE	NE	ND		88,700	ND		19,900	ND		2,040
3-Nitroaniline	NE	NE	ND		88,700	ND		19,900	ND		2,040
4,6-Dinitro-2-methylphenol	NE	NE	NA		-	ND		39,800	ND		4,080
4-Bromophenyl phenyl ether	NE	NE	ND		88,700	ND		19,900	ND		2,040
4-Chloro-3-methylphenol	NE	NE	ND		88,700	ND		19,900	ND		2,040
4-Chloroaniline	NE	NE	ND		88,700	ND		19,900	ND		2,040
4-Chlorophenyl phenyl ether	NE	NE	ND		88,700	ND		19,900	ND		2,040
4-Nitroaniline	NE	NE	ND		88,700	ND		19,900	ND		2,040
4-Nitrophenol	NE	NE	NA		-	ND		19,900	ND		2,040
Acenaphthene	20,000	100,000	ND		88,700	ND		19,900	ND		2,040
Acenaphthylene	100,000	100,000	ND		88,700	ND		19,900	ND		2,040
Aniline	NE	100,000	ND		88,700	ND		19,900	ND		2,040
Anthracene	100,000	100,000	ND		88,700	ND		19,900	ND		2,040
Benzo(a)anthracene	1,000	1,000	ND		88,700	ND		19,900	ND		2,040
Benzo(a)pyrene	1,000	1,000	ND		88,700	ND		19,900	ND		2,040
Benzo(b)fluoranthene	1,000	1,000	ND		88,700	ND		19,900	ND		2,040
Benzo(g,h,i)perylene	100,000	100,000	ND		88,700	ND		19,900	ND		2,040
Benzo(k)fluoranthene	800	3,900	ND		88,700	ND		19,900	ND		2,040
Benzoic acid			NA		-	NA		-	NA		-
Benzyl alcohol	NE	NE	NA		-	ND		19,900	ND		2,040
Benzyl butyl phthalate	NE	NE	48,300	J	88,700	ND		19,900	ND		2,040
Bis(2-chloroethoxy)methane	NE	NE	ND		88,700	ND		19,900	ND		2,040
Bis(2-chloroethyl)ether	NE	NE	ND		88,700	ND		19,900	ND		2,040
Bis(2-chloroisopropyl)ether	NE	NE	ND		88,700	ND		19,900	ND		2,040
Bis(2-ethylhexyl)phthalate	NE	50,000	59,200,000	E	4,440,000	5,340,000		996,000	8,450		2,040
Carbazole	NE	NE	ND		887	NA		-	NA		-
Chrysene	1,000	3,900	ND		88,700	ND		19,900	ND		2,040
Dibenzo(a,h)anthracene	330	330	ND		88,700	ND		19,900	ND		2,040
Dibenzofuran	NE	NE	ND		88,700	ND		19,900	ND		2,040
Diethyl phthalate	NE	100,000	ND		88,700	ND		19,900	ND		2,040
Dimethyl phthalate	NE	100,000	ND		88,700	ND		19,900	ND		2,040
Di-n-butyl phthalate	NE	100,000	ND		88,700	ND		19,900	ND		2,040
Di-n-octyl phthalate	NE	100,000	576,000		88,700	ND		19,900	ND		2,040
Fluoranthene	100,000	100,000	ND		88,700	ND		19,900	ND		2,040
Fluorene	30,000	100,000	ND		88,700	ND		19,900	ND		2,040
Hexachlorobenzene	NE	410	ND		88,700	ND		19,900	ND		2,040
Hexachlorobutadiene	NE	NE	ND		88,700	ND		19,900	ND		2,040
Hexachlorocyclopentadiene	NE	NE	ND		88,700	ND		19,900	ND		2,040
Hexachloroethane	NE	NE	ND		88,700	ND		19,900	ND		2,040
Indeno(1,2,3-cd)pyrene	500	500	ND		88,700	ND		19,900	ND		2,040
Isophorone	NE	100,000	ND		88,700	ND		19,900	ND		2,040
Naphthalene	12,000	100,000	ND		88,700	ND		19,900	ND		2,040
Nitrobenzene	NE	15,000	ND		88,700	ND		19,900	ND		2,040
N-Nitrosodimethylamine	NE	NE	ND		88,700	ND		19,900	ND		2,040
N-nitroso-di-n-propylamine	NE	NE	ND		88,700	ND		19,900	ND		2,040
N-Nitrosodiphenylamine	NE	NE	ND		88,700	ND		19,900	ND		2,040
Pentachlorophenol	800	6,700	NA		-	ND		19,900	ND		2,040
Phenanthrene	100,000	100,000	ND		88,700	ND		19,900	ND		2,040
Phenol	330	100,000	NA		-	ND		19,900	ND		2,040
Pyrene	100,000	100,000	ND		88,700	ND		19,900	ND		2,040
Pyridine	NE	NE	ND		88,700	ND		19,900	ND		2,040
Total TICs	NE	NE	NA		-	358		-	ND		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 5: Soil - SVOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

SVOCs (USEPA Method 8270)	Soil Cleanup Objectives (SCOs)		MW-24 (2012-07-25)			MW-25 (2012-07-25)			MW-26 (2012-09-24)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,2,4-Trichlorobenzene	NE	NE	ND		209	ND		18,600	ND	R	21,800
1,2-Dichlorobenzene	NE	NE	ND		209	ND		18,600	ND		21,800
1,3-Dichlorobenzene	NE	NE	ND		209	ND		18,600	ND		21,800
1,4-Dichlorobenzene	NE	NE	ND		209	ND		18,600	ND		21,800
2,4,5-Trichlorophenol	NE	100,000	ND		209	ND		18,600	ND		21,800
2,4,6-Trichlorophenol	NE	NE	ND		209	ND		18,600	ND		21,800
2,4-Dichlorophenol	NE	100,000	ND		209	ND		18,600	ND		21,800
2,4-Dimethylphenol	NE	NE	ND		209	ND		18,600	ND		21,800
2,4-Dinitrophenol	NE	100,000	ND		417	ND		37,100	ND		43,500
2,4-Dinitrotoluene	NE	NE	ND		209	ND		18,600	ND		21,800
2,6-Dinitrotoluene	NE	1,030	ND		209	ND		18,600	ND		21,800
2-Chloronaphthalene	NE	NE	ND		209	ND		18,600	ND		21,800
2-Chlorophenol	NE	100,000	ND		209	ND		18,600	ND		21,800
2-Methylnaphthalene	NE	410	ND		209	ND		18,600	ND		21,800
2-Methylphenol	330	100,000	ND		209	ND		18,600	ND		21,800
2-Nitroaniline	NE	NE	ND		209	ND		18,600	ND		21,800
2-Nitrophenol	NE	NE	ND		209	ND		18,600	ND		21,800
3- & 4-Methylphenols	330	100,000	ND		209	ND		18,600	ND		21,800
3,3'-Dichlorobenzidine	NE	NE	ND		209	ND		18,600	ND		21,800
3-Nitroaniline	NE	NE	ND		209	ND		18,600	ND		21,800
4,6-Dinitro-2-methylphenol	NE	NE	ND		417	ND		37,100	ND		43,500
4-Bromophenyl phenyl ether	NE	NE	ND		209	ND		18,600	ND		21,800
4-Chloro-3-methylphenol	NE	NE	ND		209	ND		18,600	ND		21,800
4-Chloroaniline	NE	NE	ND		209	ND		18,600	ND		21,800
4-Chlorophenyl phenyl ether	NE	NE	ND		209	ND		18,600	ND		21,800
4-Nitroaniline	NE	NE	ND		209	ND		18,600	ND		21,800
4-Nitrophenol	NE	NE	ND		209	ND		18,600	ND		21,800
Acenaphthene	20,000	100,000	ND		209	ND		18,600	ND		21,800
Acenaphthylene	100,000	100,000	ND		209	ND		18,600	ND		21,800
Aniline	NE	100,000	ND		209	ND		18,600	ND		21,800
Anthracene	100,000	100,000	ND		209	ND		18,600	ND		21,800
Benzo(a)anthracene	1,000	1,000	ND		209	ND		18,600	ND		21,800
Benzo(a)pyrene	1,000	1,000	ND		209	ND		18,600	ND		21,800
Benzo(b)fluoranthene	1,000	1,000	ND		209	ND		18,600	ND		21,800
Benzo(g,h,i)perylene	100,000	100,000	ND		209	ND		18,600	ND		21,800
Benzo(k)fluoranthene	800	3,900	ND		209	ND		18,600	ND		21,800
Benzoic acid			NA		-	NA		-	NA		-
Benzyl alcohol	NE	NE	ND		209	ND		18,600	ND		21,800
Benzyl butyl phthalate	NE	NE	ND		209	ND		18,600	ND		21,800
Bis(2-chloroethoxy)methane	NE	NE	ND		209	ND		18,600	ND		21,800
Bis(2-chloroethyl)ether	NE	NE	ND		209	ND		18,600	ND		21,800
Bis(2-chloroisopropyl)ether	NE	NE	ND		209	ND		18,600	ND		21,800
Bis(2-ethylhexyl)phthalate	NE	50,000	564		209	14,000,000	E	186,000	876,000	E	21,800
Carbazole	NE	NE	NA		-	NA		-	NA		-
Chrysene	1,000	3,900	ND		209	ND		18,600	ND		21,800
Dibenzo(a,h)anthracene	330	330	ND		209	ND		18,600	ND		21,800
Dibenzofuran	NE	NE	ND		209	ND		18,600	ND		21,800
Diethyl phthalate	NE	100,000	ND		209	ND		18,600	ND		21,800
Dimethyl phthalate	NE	100,000	ND		209	ND		18,600	ND		21,800
Di-n-butyl phthalate	NE	100,000	ND		209	ND		18,600	ND		21,800
Di-n-octyl phthalate	NE	100,000	ND		209	769,000		186,000	76,500		21,800
Fluoranthene	100,000	100,000	ND		209	ND		18,600	ND		21,800
Fluorene	30,000	100,000	ND		209	ND		18,600	ND		21,800
Hexachlorobenzene	NE	410	ND		209	ND		18,600	ND		21,800
Hexachlorobutadiene	NE	NE	ND		209	ND		18,600	ND	R	21,800
Hexachlorocyclopentadiene	NE	NE	ND		209	ND		18,600	ND		21,800
Hexachloroethane	NE	NE	ND		209	ND		18,600	ND		21,800
Indeno(1,2,3-cd)pyrene	500	500	ND		209	ND		18,600	ND		21,800
Isophorone	NE	100,000	ND		209	ND		18,600	ND		21,800
Naphthalene	12,000	100,000	ND		209	ND		18,600	ND		21,800
Nitrobenzene	NE	15,000	ND		209	ND		18,600	ND		21,800
N-Nitrosodimethylamine	NE	NE	ND		209	ND		18,600	ND		21,800
N-nitroso-di-n-propylamine	NE	NE	ND		209	ND		18,600	ND		21,800
N-Nitrosodiphenylamine	NE	NE	ND		209	ND		18,600	ND		21,800
Pentachlorophenol	800	6,700	ND		209	ND		18,600	ND		21,800
Phenanthrene	100,000	100,000	ND		209	ND		18,600	ND		21,800
Phenol	330	100,000	ND		209	ND		18,600	ND		21,800
Pyrene	100,000	100,000	ND		209	ND		18,600	ND		21,800
Pyridine	NE	NE	ND		209	ND		18,600	ND		21,800
Total TICs	NE	NE	ND		-	ND		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 5: Soil - SVOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

SVOCs (USEPA Method 8270)	Soil Cleanup Objectives (SCOs)		MW-27 (2012-09-24)			MW-28 (2013-01-15)			MW-29 (2013-01-08)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,2,4-Trichlorobenzene	NE	NE	ND		213	ND		307	ND		196
1,2-Dichlorobenzene	NE	NE	ND		213	ND		307	ND		196
1,3-Dichlorobenzene	NE	NE	ND		213	ND		307	ND		196
1,4-Dichlorobenzene	NE	NE	ND		213	ND		307	ND		196
2,4,5-Trichlorophenol	NE	100,000	ND		213	ND		307	ND		196
2,4,6-Trichlorophenol	NE	NE	ND		213	ND		307	ND		196
2,4-Dichlorophenol	NE	100,000	ND		213	ND		307	ND		196
2,4-Dimethylphenol	NE	NE	ND		213	ND		307	ND		196
2,4-Dinitrophenol	NE	100,000	ND	R	426	ND		614	ND		393
2,4-Dinitrotoluene	NE	NE	ND		213	ND		307	ND		196
2,6-Dinitrotoluene	NE	1,030	ND		213	ND		307	ND		196
2-Chloronaphthalene	NE	NE	ND		213	ND		307	ND		196
2-Chlorophenol	NE	100,000	ND		213	ND		307	ND		196
2-Methylnaphthalene	NE	410	ND		213	ND		307	ND		196
2-Methylphenol	330	100,000	ND		213	ND		307	ND		196
2-Nitroaniline	NE	NE	ND		213	ND		307	ND		196
2-Nitrophenol	NE	NE	ND		213	ND		307	ND		196
3- & 4-Methylphenols	330	100,000	ND		213	ND		307	ND		196
3,3'-Dichlorobenzidine	NE	NE	ND		213	ND		307	ND		196
3-Nitroaniline	NE	NE	ND		213	ND		307	ND	R	196
4,6-Dinitro-2-methylphenol	NE	NE	ND	R	426	ND		614	ND		393
4-Bromophenyl phenyl ether	NE	NE	ND		213	ND		307	ND		196
4-Chloro-3-methylphenol	NE	NE	ND		213	ND		307	ND		196
4-Chloroaniline	NE	NE	ND		213	ND		307	ND	R	196
4-Chlorophenyl phenyl ether	NE	NE	ND		213	ND		307	ND		196
4-Nitroaniline	NE	NE	ND		213	ND		307	ND		196
4-Nitrophenol	NE	NE	ND		213	ND		307	ND		196
Acenaphthene	20,000	100,000	ND		213	ND		307	ND		196
Acenaphthylene	100,000	100,000	ND		213	ND		307	ND		196
Aniline	NE	100,000	ND		213	ND		307	ND	R	196
Anthracene	100,000	100,000	ND		213	ND		307	ND		196
Benzo(a)anthracene	1,000	1,000	ND		213	ND		307	ND		196
Benzo(a)pyrene	1,000	1,000	ND		213	ND		307	ND		196
Benzo(b)fluoranthene	1,000	1,000	ND		213	ND		307	ND		196
Benzo(g,h,i)perylene	100,000	100,000	ND		213	ND		307	ND		196
Benzo(k)fluoranthene	800	3,900	ND		213	ND		307	ND		196
Benzoic acid			NA		-	NA		-	NA		-
Benzyl alcohol	NE	NE	ND		213	ND		307	ND		196
Benzyl butyl phthalate	NE	NE	ND		213	ND		307	ND		196
Bis(2-chloroethoxy)methane	NE	NE	ND		213	ND		307	ND		196
Bis(2-chloroethyl)ether	NE	NE	ND		213	ND		307	ND		196
Bis(2-chloroisopropyl)ether	NE	NE	ND		213	ND		307	ND		196
Bis(2-ethylhexyl)phthalate	NE	50,000	ND		10,700	ND		307	ND		196
Carbazole	NE	NE	NA		-	NA		-	NA		-
Chrysene	1,000	3,900	ND		213	ND		307	ND		196
Dibenzo(a,h)anthracene	330	330	ND		213	ND		307	ND		196
Dibenzofuran	NE	NE	ND		213	ND		307	ND		196
Diethyl phthalate	NE	100,000	ND		213	ND		307	ND		196
Dimethyl phthalate	NE	100,000	ND		213	ND		307	ND		196
Di-n-butyl phthalate	NE	100,000	ND		213	ND		307	ND		196
Di-n-octyl phthalate	NE	100,000	ND		213	ND		307	ND		196
Fluoranthene	100,000	100,000	ND		213	ND		307	ND		196
Fluorene	30,000	100,000	ND		213	ND		307	ND		196
Hexachlorobenzene	NE	410	ND		213	ND		307	ND		196
Hexachlorobutadiene	NE	NE	ND		213	ND		307	ND		196
Hexachlorocyclopentadiene	NE	NE	ND	R	213	ND	R	307	ND		196
Hexachloroethane	NE	NE	ND		213	ND		307	ND		196
Indeno(1,2,3-cd)pyrene	500	500	ND		213	ND		307	ND		196
Isophorone	NE	100,000	ND		213	ND		307	ND		196
Naphthalene	12,000	100,000	ND		213	ND		307	ND		196
Nitrobenzene	NE	15,000	ND		213	ND		307	ND		196
N-Nitrosodimethylamine	NE	NE	ND		213	ND		307	ND		196
N-nitroso-di-n-propylamine	NE	NE	ND		213	ND		307	ND		196
N-Nitrosodiphenylamine	NE	NE	ND		213	ND		307	ND		196
Pentachlorophenol	800	6,700	ND		213	ND		307	ND		196
Phenanthrene	100,000	100,000	ND		213	ND		307	ND		196
Phenol	330	100,000	ND		213	ND		307	ND		196
Pyrene	100,000	100,000	ND		213	ND		307	ND		196
Pyridine	NE	NE	ND		213	ND		307	ND		196
Total TICs	NE	NE	NA		-	NA		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 5: Soil - SVOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

SVOCs (USEPA Method 8270)	Soil Cleanup Objectives (SCOs)		MW-30 (10-15) (2013-07-31)			MW-31 (10-15) (2013-07-31)			MW-32 (0-5) (2013-07-31)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,2,4-Trichlorobenzene	NE	NE	ND		301	ND		274	ND		267
1,2-Dichlorobenzene	NE	NE	ND		301	ND		274	ND		267
1,3-Dichlorobenzene	NE	NE	ND		301	ND		274	ND		267
1,4-Dichlorobenzene	NE	NE	ND		301	ND		274	ND		267
2,4,5-Trichlorophenol	NE	100,000	ND		301	ND		274	ND		267
2,4,6-Trichlorophenol	NE	NE	ND		301	ND		274	ND		267
2,4-Dichlorophenol	NE	100,000	ND		301	ND		274	ND		267
2,4-Dimethylphenol	NE	NE	ND		301	ND		274	ND		267
2,4-Dinitrophenol	NE	100,000	ND	R	603	ND	R	548	ND	R	534
2,4-Dinitrotoluene	NE	NE	ND		301	ND		274	ND		267
2,6-Dinitrotoluene	NE	1,030	ND		301	ND		274	ND		267
2-Chloronaphthalene	NE	NE	ND		301	ND		274	ND		267
2-Chlorophenol	NE	100,000	ND		301	ND		274	ND		267
2-Methylnaphthalene	NE	410	ND		301	ND		274	ND		267
2-Methylphenol	330	100,000	ND		301	ND		274	ND		267
2-Nitroaniline	NE	NE	ND		301	ND		274	ND		267
2-Nitrophenol	NE	NE	ND		301	ND		274	ND		267
3- & 4-Methylphenols	330	100,000	ND		301	ND		274	ND		267
3,3'-Dichlorobenzidine	NE	NE	ND		301	ND		274	ND		267
3-Nitroaniline	NE	NE	ND		301	ND		274	ND		267
4,6-Dinitro-2-methylphenol	NE	NE	ND		603	ND		548	ND		534
4-Bromophenyl phenyl ether	NE	NE	ND		301	ND		274	ND		267
4-Chloro-3-methylphenol	NE	NE	ND		301	ND		274	ND		267
4-Chloroaniline	NE	NE	ND		301	ND		274	ND		267
4-Chlorophenyl phenyl ether	NE	NE	ND		301	ND		274	ND		267
4-Nitroaniline	NE	NE	ND		301	ND		274	ND		267
4-Nitrophenol	NE	NE	ND		301	ND		274	ND		267
Acenaphthene	20,000	100,000	ND		301	ND		274	ND		267
Acenaphthylene	100,000	100,000	ND		301	ND		274	ND		267
Aniline	NE	100,000	ND		301	ND		274	ND		267
Anthracene	100,000	100,000	ND		301	ND		274	ND		267
Benzo(a)anthracene	1,000	1,000	ND		301	ND		274	ND		267
Benzo(a)pyrene	1,000	1,000	ND		301	ND		274	ND		267
Benzo(b)fluoranthene	1,000	1,000	ND		301	ND		274	ND		267
Benzo(g,h,i)perylene	100,000	100,000	ND		301	ND		274	ND		267
Benzo(k)fluoranthene	800	3,900	ND		301	ND		274	ND		267
Benzoic acid			NA		-	NA		-	NA		-
Benzyl alcohol	NE	NE	ND		301	ND		274	ND		267
Benzyl butyl phthalate	NE	NE	ND		301	ND		274	ND		267
Bis(2-chloroethoxy)methane	NE	NE	ND		301	ND		274	ND		267
Bis(2-chloroethyl)ether	NE	NE	ND		301	ND		274	ND		267
Bis(2-chloroisopropyl)ether	NE	NE	ND		301	ND		274	ND		267
Bis(2-ethylhexyl)phthalate	NE	50,000	ND		301	ND		274	ND		267
Carbazole	NE	NE	NA		-	NA		-	NA		-
Chrysene	1,000	3,900	ND		301	ND		274	ND		267
Dibenzo(a,h)anthracene	330	330	ND		301	ND		274	ND		267
Dibenzofuran	NE	NE	ND		301	ND		274	ND		267
Diethyl phthalate	NE	100,000	ND		301	ND		274	ND		267
Dimethyl phthalate	NE	100,000	ND		301	ND		274	ND		267
Di-n-butyl phthalate	NE	100,000	ND		301	ND		274	ND		267
Di-n-octyl phthalate	NE	100,000	ND		301	ND		274	ND		267
Fluoranthene	100,000	100,000	ND		301	ND		274	ND		267
Fluorene	30,000	100,000	ND		301	ND		274	ND		267
Hexachlorobenzene	NE	410	ND		301	ND		274	ND		267
Hexachlorobutadiene	NE	NE	ND		301	ND		274	ND		267
Hexachlorocyclopentadiene	NE	NE	ND		301	ND		274	ND		267
Hexachloroethane	NE	NE	ND		301	ND		274	ND		267
Indeno(1,2,3-cd)pyrene	500	500	ND		301	ND		274	ND		267
Isophorone	NE	100,000	ND		301	ND		274	ND		267
Naphthalene	12,000	100,000	ND		301	ND		274	ND		267
Nitrobenzene	NE	15,000	ND		301	ND		274	ND		267
N-Nitrosodimethylamine	NE	NE	ND		301	ND		274	ND		267
N-nitroso-di-n-propylamine	NE	NE	ND		301	ND		274	ND		267
N-Nitrosodiphenylamine	NE	NE	ND		301	ND		274	ND		267
Pentachlorophenol	800	6,700	ND		301	ND		274	ND		267
Phenanthrene	100,000	100,000	ND		301	ND		274	ND		267
Phenol	330	100,000	ND		301	ND		274	ND		267
Pyrene	100,000	100,000	ND		301	ND		274	ND		267
Pyridine	NE	NE	ND	R	301	ND	R	274	ND	R	267
Total TICs	NE	NE	ND	J	298	ND	J	271	ND	J	264

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 5: Soil - SVOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

SVOCs (USEPA Method 8270)	Soil Cleanup Objectives (SCOs)		MW-32 (10-15) (2013-07-31)			2SB-1/MW-34 (10-15) (2013-08-01)			2SB-1/MW-34 (15-20) (2013-08-01)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,2,4-Trichlorobenzene	NE	NE	ND		291	ND		14,900	ND		312
1,2-Dichlorobenzene	NE	NE	ND		291	ND		14,900	ND		312
1,3-Dichlorobenzene	NE	NE	ND		291	ND		14,900	ND		312
1,4-Dichlorobenzene	NE	NE	ND		291	ND		14,900	ND		312
2,4,5-Trichlorophenol	NE	100,000	ND		291	ND		14,900	ND		312
2,4,6-Trichlorophenol	NE	NE	ND		291	ND		14,900	ND		312
2,4-Dichlorophenol	NE	100,000	ND		291	ND		14,900	ND		312
2,4-Dimethylphenol	NE	NE	ND		291	ND		14,900	ND		312
2,4-Dinitrophenol	NE	100,000	ND	R	581	ND	R	29,800	ND	R	623
2,4-Dinitrotoluene	NE	NE	ND		291	ND		14,900	ND		312
2,6-Dinitrotoluene	NE	1,030	ND		291	ND		14,900	ND		312
2-Chloronaphthalene	NE	NE	ND		291	ND		14,900	ND		312
2-Chlorophenol	NE	100,000	ND		291	ND		14,900	ND		312
2-Methylnaphthalene	NE	410	ND		291	ND		14,900	ND		312
2-Methylphenol	330	100,000	ND		291	ND		14,900	ND		312
2-Nitroaniline	NE	NE	ND		291	ND		14,900	ND		312
2-Nitrophenol	NE	NE	ND		291	ND		14,900	ND		312
3- & 4-Methylphenols	330	100,000	ND		291	ND		14,900	ND		312
3,3'-Dichlorobenzidine	NE	NE	ND		291	ND		14,900	ND		312
3-Nitroaniline	NE	NE	ND		291	ND		14,900	ND		312
4,6-Dinitro-2-methylphenol	NE	NE	ND		581	ND		29,800	ND		623
4-Bromophenyl phenyl ether	NE	NE	ND		291	ND		14,900	ND		312
4-Chloro-3-methylphenol	NE	NE	ND		291	ND		14,900	ND		312
4-Chloroaniline	NE	NE	ND		291	ND		14,900	ND		312
4-Chlorophenyl phenyl ether	NE	NE	ND		291	ND		14,900	ND		312
4-Nitroaniline	NE	NE	ND		291	ND		14,900	ND		312
4-Nitrophenol	NE	NE	ND		291	ND		14,900	ND		312
Acenaphthene	20,000	100,000	ND		291	ND		14,900	ND		312
Acenaphthylene	100,000	100,000	ND		291	ND		14,900	ND		312
Aniline	NE	100,000	ND		291	ND		14,900	ND		312
Anthracene	100,000	100,000	ND		291	ND		14,900	ND		312
Benzo(a)anthracene	1,000	1,000	ND		291	ND		14,900	ND		312
Benzo(a)pyrene	1,000	1,000	ND		291	ND		14,900	ND		312
Benzo(b)fluoranthene	1,000	1,000	ND		291	ND		14,900	ND		312
Benzo(g,h,i)perylene	100,000	100,000	ND		291	ND		14,900	ND		312
Benzo(k)fluoranthene	800	3,900	ND		291	ND		14,900	ND		312
Benzoic acid			NA		-	NA		-	NA		-
Benzyl alcohol	NE	NE	ND		291	ND		14,900	ND		312
Benzyl butyl phthalate	NE	NE	ND		291	ND		14,900	ND		312
Bis(2-chloroethoxy)methane	NE	NE	ND		291	ND		14,900	ND		312
Bis(2-chloroethyl)ether	NE	NE	ND		291	ND		14,900	ND		312
Bis(2-chloroisopropyl)ether	NE	NE	ND		291	ND		14,900	ND		312
Bis(2-ethylhexyl)phthalate	NE	50,000	ND		291	93,700		14,900	ND		312
Carbazole	NE	NE	NA		-	NA		-	NA		-
Chrysene	1,000	3,900	ND		291	ND		14,900	ND		312
Dibenzo(a,h)anthracene	330	330	ND		291	ND		14,900	ND		312
Dibenzofuran	NE	NE	ND		291	ND		14,900	ND		312
Diethyl phthalate	NE	100,000	ND		291	ND		14,900	ND		312
Dimethyl phthalate	NE	100,000	ND		291	ND		14,900	ND		312
Di-n-butyl phthalate	NE	100,000	ND		291	ND		14,900	ND		312
Di-n-octyl phthalate	NE	100,000	ND		291	87,500		14,900	ND		312
Fluoranthene	100,000	100,000	ND		291	ND		14,900	ND		312
Fluorene	30,000	100,000	ND		291	ND		14,900	ND		312
Hexachlorobenzene	NE	410	ND		291	ND		14,900	ND		312
Hexachlorobutadiene	NE	NE	ND		291	ND		14,900	ND		312
Hexachlorocyclopentadiene	NE	NE	ND		291	ND		14,900	ND		312
Hexachloroethane	NE	NE	ND		291	ND		14,900	ND		312
Indeno(1,2,3-cd)pyrene	500	500	ND		291	ND		14,900	ND		312
Isophorone	NE	100,000	ND		291	ND		14,900	ND		312
Naphthalene	12,000	100,000	ND		291	ND		14,900	ND		312
Nitrobenzene	NE	15,000	ND		291	ND		14,900	ND		312
N-Nitrosodimethylamine	NE	NE	ND		291	ND		14,900	ND		312
N-nitroso-di-n-propylamine	NE	NE	ND		291	ND		14,900	ND		312
N-Nitrosodiphenylamine	NE	NE	ND		291	ND		14,900	ND		312
Pentachlorophenol	800	6,700	ND		291	ND		14,900	ND		312
Phenanthrene	100,000	100,000	ND		291	ND		14,900	ND		312
Phenol	330	100,000	ND		291	ND		14,900	ND		312
Pyrene	100,000	100,000	ND		291	ND		14,900	ND		312
Pyridine	NE	NE	ND	R	291	ND	R	14,900	ND	R	312
Total TICs	NE	NE	ND	J	288	NA		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 5: Soil - SVOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

SVOCs (USEPA Method 8270)	Soil Cleanup Objectives (SCOs)		2SB-9/MW-35 (0-5) (2013-08-01)			2SB-9/MW-35 (10-15) (2013-08-01)			MW-36 (11-12) (2014-07-30)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,2,4-Trichlorobenzene	NE	NE	ND		255	ND		334	ND		50.7
1,2-Dichlorobenzene	NE	NE	ND		255	ND		334	ND		50.7
1,3-Dichlorobenzene	NE	NE	ND		255	ND		334	ND		50.7
1,4-Dichlorobenzene	NE	NE	ND		255	ND		334	ND		50.7
2,4,5-Trichlorophenol	NE	100,000	ND		255	ND		334	ND		50.7
2,4,6-Trichlorophenol	NE	NE	ND		255	ND		334	ND		50.7
2,4-Dichlorophenol	NE	100,000	ND		255	ND		334	ND		101
2,4-Dimethylphenol	NE	NE	ND		255	ND		334	ND		50.7
2,4-Dinitrophenol	NE	100,000	ND	R	510	ND	R	669	ND		202
2,4-Dinitrotoluene	NE	NE	ND		255	ND		334	ND		101
2,6-Dinitrotoluene	NE	1,030	ND		255	ND		334	ND		50.7
2-Chloronaphthalene	NE	NE	ND		255	ND		334	ND		50.7
2-Chlorophenol	NE	100,000	ND		255	ND		334	ND		50.7
2-Methylnaphthalene	NE	410	ND		255	ND		334	ND		50.7
2-Methylphenol	330	100,000	ND		255	ND		334	ND		101
2-Nitroaniline	NE	NE	ND		255	ND		334	ND		50.7
2-Nitrophenol	NE	NE	ND		255	ND		334	ND		50.7
3- & 4-Methylphenols	330	100,000	ND		255	ND		334	ND		101
3,3'-Dichlorobenzidine	NE	NE	ND		255	ND		334	ND		202
3-Nitroaniline	NE	NE	ND		255	ND		334	ND		101
4,6-Dinitro-2-methylphenol	NE	NE	ND		510	ND		669	ND		101
4-Bromophenyl phenyl ether	NE	NE	ND		255	ND		334	ND		50.7
4-Chloro-3-methylphenol	NE	NE	ND		255	ND		334	ND		101
4-Chloroaniline	NE	NE	ND		255	ND		334	ND		101
4-Chlorophenyl phenyl ether	NE	NE	ND		255	ND		334	ND		50.7
4-Nitroaniline	NE	NE	ND		255	ND		334	ND		101
4-Nitrophenol	NE	NE	ND		255	ND		334	ND		101
Acenaphthene	20,000	100,000	ND		255	ND		334	ND		50.7
Acenaphthylene	100,000	100,000	ND		255	ND		334	ND		50.7
Aniline	NE	100,000	ND		255	ND		334	NA		-
Anthracene	100,000	100,000	ND		255	ND		334	ND		50.7
Benzo(a)anthracene	1,000	1,000	ND		255	ND		334	ND		50.7
Benzo(a)pyrene	1,000	1,000	ND		255	ND		334	ND		50.7
Benzo(b)fluoranthene	1,000	1,000	ND		255	ND		334	ND		50.7
Benzo(g,h,i)perylene	100,000	100,000	ND		255	ND		334	ND		101
Benzo(k)fluoranthene	800	3,900	ND		255	ND		334	ND		50.7
Benzoic acid			NA		-	NA		-	ND		138
Benzyl alcohol	NE	NE	ND		255	ND		334	ND		101
Benzyl butyl phthalate	NE	NE	ND		255	ND		334	ND		50.7
Bis(2-chloroethoxy)methane	NE	NE	ND		255	ND		334	ND		50.7
Bis(2-chloroethyl)ether	NE	NE	ND		255	ND		334	ND		50.7
Bis(2-chloroisopropyl)ether	NE	NE	ND		255	ND		334	ND		50.7
Bis(2-ethylhexyl)phthalate	NE	50,000	3,870		510	2,640		334	ND		50.7
Carbazole	NE	NE	NA		-	NA		-	NA		-
Chrysene	1,000	3,900	ND		255	ND		334	ND		50.7
Dibenzo(a,h)anthracene	330	330	ND		255	ND		334	ND		50.7
Dibenzofuran	NE	NE	ND		255	ND		334	ND		50.7
Diethyl phthalate	NE	100,000	ND		255	ND		334	ND		50.7
Dimethyl phthalate	NE	100,000	ND		255	ND		334	ND		50.7
Di-n-butyl phthalate	NE	100,000	ND		255	ND		334	ND		50.7
Di-n-octyl phthalate	NE	100,000	ND		255	884		334	ND		50.7
Fluoranthene	100,000	100,000	ND		255	ND		334	ND		50.7
Fluorene	30,000	100,000	ND		255	ND		334	ND		50.7
Hexachlorobenzene	NE	410	ND		255	ND		334	ND		50.7
Hexachlorobutadiene	NE	NE	ND		255	ND		334	ND		50.7
Hexachlorocyclopentadiene	NE	NE	ND		255	ND		334	ND		101
Hexachloroethane	NE	NE	ND		255	ND		334	ND		50.7
Indeno(1,2,3-cd)pyrene	500	500	ND		255	ND		334	ND		50.7
Isophorone	NE	100,000	ND		255	ND		334	ND		50.7
Naphthalene	12,000	100,000	ND		255	ND		334	ND		50.7
Nitrobenzene	NE	15,000	ND		255	ND		334	ND		50.7
N-Nitrosodimethylamine	NE	NE	ND		255	ND		334	NA		-
N-nitroso-di-n-propylamine	NE	NE	ND		255	ND		334	ND		50.7
N-Nitrosodiphenylamine	NE	NE	ND		255	ND		334	ND		50.7
Pentachlorophenol	800	6,700	ND		255	ND		334	ND		101
Phenanthrene	100,000	100,000	ND		255	ND		334	ND		50.7
Phenol	330	100,000	ND		255	ND		334	ND		50.7
Pyrene	100,000	100,000	ND		255	ND		334	ND		50.7
Pyridine	NE	NE	ND	R	255	ND	R	334	NA		-
Total TICs	NE	NE	NA		-	NA		-	ND		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 5: Soil - SVOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

SVOCs (USEPA Method 8270)	Soil Cleanup Objectives (SCOs)		MW-37 (11-12) (2014-07-30)			MW-Dup-01 (2014-07-30) (MW-37 11-12)			MW-39 (10-11) (2014-09-23)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,2,4-Trichlorobenzene	NE	NE	ND		54	ND		54	ND	U	177
1,2-Dichlorobenzene	NE	NE	ND		54	ND		54	ND	U	177
1,3-Dichlorobenzene	NE	NE	ND		54	ND		54	ND	U	177
1,4-Dichlorobenzene	NE	NE	ND		54	ND		54	ND	U	177
2,4,5-Trichlorophenol	NE	100,000	ND		54	ND		54	ND	U	177
2,4,6-Trichlorophenol	NE	NE	ND		54	ND		54	ND	U	177
2,4-Dichlorophenol	NE	100,000	ND		108	ND		109	ND	U	177
2,4-Dimethylphenol	NE	NE	ND		54	ND		54	ND	U	177
2,4-Dinitrophenol	NE	100,000	ND		215	ND		216	ND	U	353
2,4-Dinitrotoluene	NE	NE	ND		108	ND		109	<b>381</b>		177
2,6-Dinitrotoluene	NE	1,030	ND		54	ND		54	ND	U	177
2-Chloronaphthalene	NE	NE	ND		54	ND		54	ND	U	177
2-Chlorophenol	NE	100,000	ND		54	ND		54	ND	U	177
2-Methylnaphthalene	NE	410	ND		54	ND		54	ND	U	177
2-Methylphenol	330	100,000	ND		108	ND		109	ND	U	177
2-Nitroaniline	NE	NE	ND		54	ND		54	ND	U	177
2-Nitrophenol	NE	NE	ND		54	ND		54	ND	U	177
3- & 4-Methylphenols	330	100,000	ND		108	ND		109	ND	U	177
3,3'-Dichlorobenzidine	NE	NE	ND		215	ND		216	ND	U	353
3-Nitroaniline	NE	NE	ND		108	ND		109	ND	U	177
4,6-Dinitro-2-methylphenol	NE	NE	ND		108	ND		109	ND	U	177
4-Bromophenyl phenyl ether	NE	NE	ND		54	ND		54	ND	U	177
4-Chloro-3-methylphenol	NE	NE	ND		108	ND		109	ND	U	177
4-Chloroaniline	NE	NE	ND		108	ND		109	ND	U	177
4-Chlorophenyl phenyl ether	NE	NE	ND		54	ND		54	ND	U	177
4-Nitroaniline	NE	NE	ND		108	ND		109	ND	U	177
4-Nitrophenol	NE	NE	ND		108	ND		109	ND	U	177
Acenaphthene	20,000	100,000	ND		54	ND		54	ND	U	177
Acenaphthylene	100,000	100,000	ND		54	ND		54	ND	U	177
Aniline	NE	100,000	NA		-	NA		-	NA		-
Anthracene	100,000	100,000	ND		54	ND		54	ND	U	177
Benzo(a)anthracene	1,000	1,000	ND		54	ND		54	<b>282</b>		177
Benzo(a)pyrene	1,000	1,000	ND		54	ND		54	<b>157</b>	J	177
Benzo(b)fluoranthene	1,000	1,000	ND		54	ND		54	<b>101</b>	J	177
Benzo(g,h,i)perylene	100,000	100,000	ND		108	ND		109	ND	U	177
Benzo(k)fluoranthene	800	3,900	ND		54	ND		54	<b>153</b>	J	177
<b>Benzoic acid</b>			ND		147	ND		148	ND	U	353
Benzyl alcohol	NE	NE	ND		108	ND		109	ND	U	177
Benzyl butyl phthalate	NE	NE	ND		54	ND		54	ND	U	177
Bis(2-chloroethoxy)methane	NE	NE	ND		54	ND		54	ND	U	177
Bis(2-chloroethyl)ether	NE	NE	ND		54	ND		54	ND	U	177
Bis(2-chloroisopropyl)ether	NE	NE	ND		54	ND		54	ND	U	177
Bis(2-ethylhexyl)phthalate	NE	50,000	ND		54	ND		54	<b>101</b>	J	177
Carbazole	NE	NE	NA		-	NA		-	ND	U	177
Chrysene	1,000	3,900	ND		54	ND		54	<b>271</b>		177
Dibenzo(a,h)anthracene	330	330	ND		54	ND		54	ND	U	177
Dibenzofuran	NE	NE	ND		54	ND		54	ND	U	177
Diethyl phthalate	NE	100,000	ND		54	ND		54	ND	U	177
Dimethyl phthalate	NE	100,000	ND		54	ND		54	ND	U	177
Di-n-butyl phthalate	NE	100,000	ND		54	ND		54	ND	U	177
Di-n-octyl phthalate	NE	100,000	ND		54	ND		54	ND	U	177
Fluoranthene	100,000	100,000	ND		54	ND		54	<b>396</b>		177
Fluorene	30,000	100,000	ND		54	ND		54	ND	U	177
Hexachlorobenzene	NE	410	ND		54	ND		54	ND	U	177
Hexachlorobutadiene	NE	NE	ND		54	ND		54	ND	U	177
Hexachlorocyclopentadiene	NE	NE	ND		108	ND		109	ND	U	177
Hexachloroethane	NE	NE	ND		54	ND		54	ND	U	177
Indeno(1,2,3-cd)pyrene	500	500	ND		54	ND		54	ND	U	177
Isophorone	NE	100,000	ND		54	ND		54	ND	U	177
Naphthalene	12,000	100,000	ND		54	ND		54	ND	U	177
Nitrobenzene	NE	15,000	ND		54	ND		54	ND	U	177
N-Nitrosodimethylamine	NE	NE	NA		-	NA		-	NA		-
N-nitroso-di-n-propylamine	NE	NE	ND		54	ND		54	ND	U	177
N-Nitrosodiphenylamine	NE	NE	ND		54	ND		54	ND	U	177
Pentachlorophenol	800	6,700	ND		108	ND		109	ND	U	177
Phenanthrene	100,000	100,000	ND		54	ND		54	ND	U	177
Phenol	330	100,000	ND		54	ND		54	ND	U	177
Pyrene	100,000	100,000	ND		54	ND		54	<b>471</b>		177
Pyridine	NE	NE	NA		-	NA		-	NA		-
Total TICs	NE	NE	ND		-	ND		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 5: Soil - SVOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

SVOCs (USEPA Method 8270)	Soil Cleanup Objectives (SCOs)		MW-41 (8-10) (2014-12-10)			MW-Dup-02 (2014-12-10) (MW-41 8-10)			MW-42 (8-10) (2014-12-10)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,2,4-Trichlorobenzene	NE	NE	ND		28	ND		28	ND		28
1,2-Dichlorobenzene	NE	NE	ND		28	ND		28	ND		28
1,3-Dichlorobenzene	NE	NE	ND		28	ND		28	ND		28
1,4-Dichlorobenzene	NE	NE	ND		28	ND		28	ND		28
2,4,5-Trichlorophenol	NE	100,000	ND		28	ND		28	ND		28
2,4,6-Trichlorophenol	NE	NE	ND		28	ND		28	ND		28
2,4-Dichlorophenol	NE	100,000	ND		28	ND		28	ND		28
2,4-Dimethylphenol	NE	NE	ND		28	ND		28	ND		28
2,4-Dinitrophenol	NE	100,000	ND		56	ND		56	ND		57
2,4-Dinitrotoluene	NE	NE	ND		28	ND		28	ND		28
2,6-Dinitrotoluene	NE	1,030	ND		28	ND		28	ND		28
2-Chloronaphthalene	NE	NE	ND		28	ND		28	ND		28
2-Chlorophenol	NE	100,000	ND		28	ND		28	ND		28
2-Methylnaphthalene	NE	410	ND		28	ND		28	ND		28
2-Methylphenol	330	100,000	ND		28	ND		28	ND		28
2-Nitroaniline	NE	NE	ND		56	ND		56	ND		57
2-Nitrophenol	NE	NE	ND		28	ND		28	ND		28
3- & 4-Methylphenols	330	100,000	ND		28	ND		28	ND		28
3,3'-Dichlorobenzidine	NE	NE	ND		28	ND		28	ND		28
3-Nitroaniline	NE	NE	ND		56	ND		56	ND		57
4,6-Dinitro-2-methylphenol	NE	NE	ND		56	ND		56	ND		57
4-Bromophenyl phenyl ether	NE	NE	ND		28	ND		28	ND		28
4-Chloro-3-methylphenol	NE	NE	ND		28	ND		28	ND		28
4-Chloroaniline	NE	NE	ND		28	ND		28	ND		28
4-Chlorophenyl phenyl ether	NE	NE	ND		28	ND		28	ND		28
4-Nitroaniline	NE	NE	ND		56	ND		56	ND		57
4-Nitrophenol	NE	NE	ND		56	ND		56	ND		57
Acenaphthene	20,000	100,000	ND		28	ND		28	ND		28
Acenaphthylene	100,000	100,000	ND		28	ND		28	ND		28
Aniline	NE	100,000	NA		-	NA		-	NA		-
Anthracene	100,000	100,000	ND		28	ND		28	ND		28
Benzo(a)anthracene	1,000	1,000	ND		28	ND		28	ND		28
Benzo(a)pyrene	1,000	1,000	ND		28	ND		28	ND		28
Benzo(b)fluoranthene	1,000	1,000	ND		28	ND		28	ND		28
Benzo(g,h,i)perylene	100,000	100,000	ND		28	ND		28	ND		28
Benzo(k)fluoranthene	800	3,900	ND		28	ND		28	ND		28
<b>Benzoic acid</b>			ND		28	ND		28	ND		28
Benzyl alcohol	NE	NE	ND		28	ND		28	ND		28
Benzyl butyl phthalate	NE	NE	ND		28	ND		28	ND		28
Bis(2-chloroethoxy)methane	NE	NE	ND		28	ND		28	ND		28
Bis(2-chloroethyl)ether	NE	NE	ND		28	ND		28	ND		28
Bis(2-chloroisopropyl)ether	NE	NE	ND		28	ND		28	ND		28
Bis(2-ethylhexyl)phthalate	NE	50,000	ND		28	37.2	J,B	37	ND		28
Carbazole	NE	NE	NA		-	NA		-	NA		-
Chrysene	1,000	3,900	ND		28	ND		28	ND		28
Dibenzo(a,h)anthracene	330	330	ND		28	ND		28	ND		28
Dibenzofuran	NE	NE	ND		28	ND		28	ND		28
Diethyl phthalate	NE	100,000	ND		28	ND		28	ND		28
Dimethyl phthalate	NE	100,000	ND		28	ND		28	ND		28
Di-n-butyl phthalate	NE	100,000	ND		28	ND		28	ND		28
Di-n-octyl phthalate	NE	100,000	ND		28	ND		28	ND		28
Fluoranthene	100,000	100,000	ND		28	ND		28	ND		28
Fluorene	30,000	100,000	ND		28	ND		28	ND		28
Hexachlorobenzene	NE	410	ND		28	ND		28	ND		28
Hexachlorobutadiene	NE	NE	ND		28	ND		28	ND		28
Hexachlorocyclopentadiene	NE	NE	ND		28	ND		28	ND		28
Hexachloroethane	NE	NE	ND		28	ND		28	ND		28
Indeno(1,2,3-cd)pyrene	500	500	ND		28	ND		28	ND		28
Isophorone	NE	100,000	ND		28	ND		28	ND		28
Naphthalene	12,000	100,000	ND		28	ND		28	ND		28
Nitrobenzene	NE	15,000	ND		28	ND		28	ND		28
N-Nitrosodimethylamine	NE	NE	NA		-	NA		-	NA		-
N-nitroso-di-n-propylamine	NE	NE	ND		28	ND		28	ND		28
N-Nitrosodiphenylamine	NE	NE	ND		28	ND		28	ND		28
Pentachlorophenol	800	6,700	ND		28	ND		28	ND		28
Phenanthrene	100,000	100,000	ND		28	ND		28	ND		28
Phenol	330	100,000	ND		28	ND		28	ND		28
Pyrene	100,000	100,000	ND		28	ND		28	ND		28
Pyridine	NE	NE	NA		-	NA		-	NA		-
Total TICs	NE	NE	ND		-	ND		-	188		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 5: Soil - SVOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

SVOCs (USEPA Method 8270)	Soil Cleanup Objectives (SCOs)		SB-60 (2012-02-01)			SB-60B (6-8) (2012-02-13)			SB-60B (8-10) (2012-02-13)		
	Unrestricted	Restricted- Residential	Result	Note: Sampled from 12-14*		Result	Flag	RL	Result	Flag	RL
				Flag	RL						
1,2,4-Trichlorobenzene	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
1,2-Dichlorobenzene	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
1,3-Dichlorobenzene	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
1,4-Dichlorobenzene	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
2,4,5-Trichlorophenol	NE	100,000	ND		4,420,000	ND		18,300	ND		17,600
2,4,6-Trichlorophenol	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
2,4-Dichlorophenol	NE	100,000	ND		4,420,000	ND		18,300	ND		17,600
2,4-Dimethylphenol	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
2,4-Dinitrophenol	NE	100,000	ND		8,850,000	ND		36,500	ND		35,100
2,4-Dinitrotoluene	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
2,6-Dinitrotoluene	NE	1,030	ND		4,420,000	ND		18,300	ND		17,600
2-Chloronaphthalene	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
2-Chlorophenol	NE	100,000	ND		4,420,000	ND		18,300	ND		17,600
2-Methylnaphthalene	NE	410	ND		4,420,000	ND		18,300	ND		17,600
2-Methylphenol	330	100,000	ND		4,420,000	ND		18,300	ND		17,600
2-Nitroaniline	NE	NE	ND		4,420,000	ND		18,300	ND		3,510
2-Nitrophenol	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
3- & 4-Methylphenols	330	100,000	ND		4,420,000	ND		18,300	ND		17,600
3,3'-Dichlorobenzidine	NE	NE	ND		8,840,000	ND		18,300	ND		17,600
3-Nitroaniline	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
4,6-Dinitro-2-methylphenol	NE	NE	ND		4,420,000	ND		36,500	ND		35,100
4-Bromophenyl phenyl ether	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
4-Chloro-3-methylphenol	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
4-Chloroaniline	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
4-Chlorophenyl phenyl ether	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
4-Nitroaniline	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
4-Nitrophenol	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
Acenaphthene	20,000	100,000	ND		4,420,000	ND		18,300	ND		17,600
Acenaphthylene	100,000	100,000	ND		4,420,000	ND		18,300	ND		17,600
Aniline	NE	100,000	ND		4,420,000	ND		18,300	ND		17,600
Anthracene	100,000	100,000	ND		4,420,000	ND		18,300	ND		17,600
Benzo(a)anthracene	1,000	1,000	ND		4,420,000	ND		18,300	ND		17,600
Benzo(a)pyrene	1,000	1,000	ND		4,420,000	ND		18,300	ND		17,600
Benzo(b)fluoranthene	1,000	1,000	ND		4,420,000	ND		18,300	ND		17,600
Benzo(g,h,i)perylene	100,000	100,000	ND		4,420,000	ND		18,300	ND		17,600
Benzo(k)fluoranthene	800	3,900	ND		4,420,000	ND		18,300	ND		17,600
<b>Benzoic acid</b>			NA		-	NA		-	NA		-
Benzyl alcohol	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
Benzyl butyl phthalate	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
Bis(2-chloroethoxy)methane	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
Bis(2-chloroethyl)ether	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
Bis(2-chloroisopropyl)ether	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
Bis(2-ethylhexyl)phthalate	NE	50,000	<b>10,300,000</b>		4,420,000	<b>46,300</b>		18,300	<b>228,000</b>		17,600
Carbazole	NE	NE	NA		-	NA		-	NA		-
Chrysene	1,000	3,900	ND		4,420,000	ND		18,300	ND		17,600
Dibenzo(a,h)anthracene	330	330	ND		4,420,000	ND		18,300	ND		17,600
Dibenzofuran	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
Diethyl phthalate	NE	100,000	ND		4,420,000	ND		18,300	ND		17,600
Dimethyl phthalate	NE	100,000	ND		4,420,000	ND		18,300	ND		17,600
Di-n-butyl phthalate	NE	100,000	ND		4,420,000	ND		18,300	ND		17,600
Di-n-octyl phthalate	NE	100,000	ND		4,420,000	<b>10,300</b>	J	18,300	<b>17,000</b>	J	17,600
Fluoranthene	100,000	100,000	ND		4,420,000	ND		18,300	ND		17,600
Fluorene	30,000	100,000	ND		4,420,000	ND		18,300	ND		17,600
Hexachlorobenzene	NE	410	ND		4,420,000	ND		18,300	ND		17,600
Hexachlorobutadiene	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
Hexachlorocyclopentadiene	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
Hexachloroethane	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
Indeno(1,2,3-cd)pyrene	500	500	ND		4,420,000	ND		18,300	ND		17,600
Isophorone	NE	100,000	ND		4,420,000	ND		18,300	ND		17,600
Naphthalene	12,000	100,000	ND		4,420,000	ND		18,300	ND		17,600
Nitrobenzene	NE	15,000	ND		4,420,000	ND		18,300	ND		17,600
N-Nitrosodimethylamine	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
N-nitroso-di-n-propylamine	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
N-Nitrosodiphenylamine	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
Pentachlorophenol	800	6,700	ND		4,420,000	ND		18,300	ND		17,600
Phenanthrene	100,000	100,000	ND		4,420,000	ND		18,300	ND		17,600
Phenol	330	100,000	ND		4,420,000	ND		18,300	ND		17,600
Pyrene	100,000	100,000	ND		4,420,000	ND		18,300	ND		17,600
Pyridine	NE	NE	ND		4,420,000	ND		18,300	ND		17,600
Total TICs	NE	NE	<b>2,125</b>		-	<b>256</b>		-	<b>351</b>		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 5: Soil - SVOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

SVOCs (USEPA Method 8270)	Soil Cleanup Objectives (SCOs)		SB-60B (10-12) (2012-02-13)			SB-61 (2012-02-01) Note: Sampled from 12-14'			SB-63 (2012-02-01) Note: Sampled from 12-14'		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,2,4-Trichlorobenzene	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
1,2-Dichlorobenzene	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
1,3-Dichlorobenzene	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
1,4-Dichlorobenzene	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
2,4,5-Trichlorophenol	NE	100,000	ND		35,000	ND		4,700,000	ND		954,000
2,4,6-Trichlorophenol	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
2,4-Dichlorophenol	NE	100,000	ND		35,000	ND		4,700,000	ND		954,000
2,4-Dimethylphenol	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
2,4-Dinitrophenol	NE	100,000	ND		70,000	ND		9,410,000	ND		1,910,000
2,4-Dinitrotoluene	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
2,6-Dinitrotoluene	NE	1,030	ND		35,000	ND		4,700,000	ND		954,000
2-Chloronaphthalene	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
2-Chlorophenol	NE	100,000	ND		35,000	ND		4,700,000	ND		954,000
2-Methylnaphthalene	NE	410	ND		35,000	ND		4,700,000	ND		954,000
2-Methylphenol	330	100,000	ND		35,000	ND		4,700,000	ND		954,000
2-Nitroaniline	NE	NE	ND		17,500	ND		4,700,000	ND		954,000
2-Nitrophenol	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
3- & 4-Methylphenols	330	100,000	ND		35,000	ND		4,700,000	ND		954,000
3,3'-Dichlorobenzidine	NE	NE	ND		35,000	ND		9,400,000	ND		1,910,000
3-Nitroaniline	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
4,6-Dinitro-2-methylphenol	NE	NE	ND		70,000	ND	R	4,700,000	ND		954,000
4-Bromophenyl phenyl ether	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
4-Chloro-3-methylphenol	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
4-Chloroaniline	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
4-Chlorophenyl phenyl ether	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
4-Nitroaniline	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
4-Nitrophenol	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
Acenaphthene	20,000	100,000	ND		35,000	ND		4,700,000	ND		954,000
Acenaphthylene	100,000	100,000	ND		35,000	ND		4,700,000	ND		954,000
Aniline	NE	100,000	ND		35,000	ND		4,700,000	ND		954,000
Anthracene	100,000	100,000	ND		35,000	ND		4,700,000	ND		954,000
Benzo(a)anthracene	1,000	1,000	ND		35,000	ND		4,700,000	ND		954,000
Benzo(a)pyrene	1,000	1,000	ND		35,000	ND		4,700,000	ND		954,000
Benzo(b)fluoranthene	1,000	1,000	ND		35,000	ND		4,700,000	ND		954,000
Benzo(g,h,i)perylene	100,000	100,000	ND		35,000	ND		4,700,000	ND		954,000
Benzo(k)fluoranthene	800	3,900	ND		35,000	ND		4,700,000	ND		954,000
Benzoic acid			NA		-	NA		-	NA		-
Benzyl alcohol	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
Benzyl butyl phthalate	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
Bis(2-chloroethoxy)methane	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
Bis(2-chloroethyl)ether	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
Bis(2-chloroisopropyl)ether	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
Bis(2-ethylhexyl)phthalate	NE	50,000	548,000		35,000	22,500,000		4,700,000	1,310,000		954,000
Carbazole	NE	NE	NA		-	NA		-	NA		-
Chrysene	1,000	3,900	ND		35,000	ND		4,700,000	ND		954,000
Dibenzo(a,h)anthracene	330	330	ND		35,000	ND		4,700,000	ND		954,000
Dibenzofuran	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
Diethyl phthalate	NE	100,000	ND		35,000	ND		4,700,000	ND		954,000
Dimethyl phthalate	NE	100,000	ND		35,000	ND		4,700,000	ND		954,000
Di-n-butyl phthalate	NE	100,000	ND		35,000	ND		4,700,000	ND		954,000
Di-n-octyl phthalate	NE	100,000	43,000		35,000	ND		4,700,000	ND		954,000
Fluoranthene	100,000	100,000	ND		35,000	ND		4,700,000	ND		954,000
Fluorene	30,000	100,000	ND		35,000	ND		4,700,000	ND		954,000
Hexachlorobenzene	NE	410	ND		35,000	ND		4,700,000	ND		954,000
Hexachlorobutadiene	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
Hexachlorocyclopentadiene	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
Hexachloroethane	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
Indeno(1,2,3-cd)pyrene	500	500	ND		35,000	ND		4,700,000	ND		954,000
Isophorone	NE	100,000	ND		35,000	ND		4,700,000	ND		954,000
Naphthalene	12,000	100,000	ND		35,000	ND		4,700,000	ND		954,000
Nitrobenzene	NE	15,000	ND		35,000	ND		4,700,000	ND		954,000
N-Nitrosodimethylamine	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
N-nitroso-di-n-propylamine	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
N-Nitrosodiphenylamine	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
Pentachlorophenol	800	6,700	ND		35,000	ND		4,700,000	ND		954,000
Phenanthrene	100,000	100,000	ND		35,000	ND		4,700,000	ND		954,000
Phenol	330	100,000	ND		35,000	ND		4,700,000	ND		954,000
Pyrene	100,000	100,000	ND		35,000	ND		4,700,000	ND		954,000
Pyridine	NE	NE	ND		35,000	ND		4,700,000	ND		954,000
Total TICs	NE	NE	560		-	ND		-	954		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

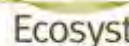
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**Table 5: Soil - SVOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**
 Ecosystems Strategies, Inc.

ESI File: SB09110

SVOCs (USEPA Method 8270)	Soil Cleanup Objectives (SCOs)		SB-63 (14) (2012-02-10)			SB-65 (8-12) (2012-04-19)			SB-66 (12-16) (2012-04-19)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,2,4-Trichlorobenzene	NE	NE	ND		20,600	ND		188,000	ND		93,000
1,2-Dichlorobenzene	NE	NE	ND		20,600	ND		188,000	ND		93,000
1,3-Dichlorobenzene	NE	NE	ND		20,600	ND		188,000	ND		93,000
1,4-Dichlorobenzene	NE	NE	ND		20,600	ND		188,000	ND		93,000
2,4,5-Trichlorophenol	NE	100,000	ND		20,600	ND		188,000	ND		93,000
2,4,6-Trichlorophenol	NE	NE	ND		20,600	ND		188,000	ND		93,000
2,4-Dichlorophenol	NE	100,000	ND		20,600	ND		188,000	ND		93,000
2,4-Dimethylphenol	NE	NE	ND		20,600	ND		188,000	ND		93,000
2,4-Dinitrophenol	NE	100,000	ND		41,300	ND		376,000	ND		186,000
2,4-Dinitrotoluene	NE	NE	ND		20,600	ND		188,000	ND		93,000
2,6-Dinitrotoluene	NE	1,030	ND		20,600	ND		188,000	ND		93,000
2-Chloronaphthalene	NE	NE	ND		20,600	ND		188,000	ND		93,000
2-Chlorophenol	NE	100,000	ND		20,600	ND		188,000	ND		93,000
2-Methylnaphthalene	NE	410	ND		20,600	ND		188,000	ND		93,000
2-Methylphenol	330	100,000	ND		20,600	ND		188,000	ND		93,000
2-Nitroaniline	NE	NE	ND		20,600	ND		188,000	ND		930
2-Nitrophenol	NE	NE	ND		20,600	ND		188,000	ND		93,000
3- & 4-Methylphenols	330	100,000	ND		20,600	ND		188,000	ND		93,000
3,3'-Dichlorobenzidine	NE	NE	ND		20,600	ND		188,000	ND		93,000
3-Nitroaniline	NE	NE	ND		20,600	ND		188,000	ND		93,000
4,6-Dinitro-2-methylphenol	NE	NE	ND		41,300	ND		376,000	ND		186,000
4-Bromophenyl phenyl ether	NE	NE	ND		20,600	ND		188,000	ND		93,000
4-Chloro-3-methylphenol	NE	NE	ND		20,600	ND		188,000	ND		93,000
4-Chloroaniline	NE	NE	ND		20,600	ND		188,000	ND		93,000
4-Chlorophenyl phenyl ether	NE	NE	ND		20,600	ND		188,000	ND		93,000
4-Nitroaniline	NE	NE	ND		20,600	ND		188,000	ND		93,000
4-Nitrophenol	NE	NE	ND		20,600	ND		188,000	ND		93,000
Acenaphthene	20,000	100,000	ND		20,600	ND		188,000	ND		93,000
Acenaphthylene	100,000	100,000	ND		20,600	ND		188,000	ND		93,000
Aniline	NE	100,000	ND		20,600	ND		188,000	ND		93,000
Anthracene	100,000	100,000	ND		20,600	ND		188,000	ND		93,000
Benzo(a)anthracene	1,000	1,000	ND		20,600	ND		188,000	ND		93,000
Benzo(a)pyrene	1,000	1,000	ND		20,600	ND		188,000	ND		93,000
Benzo(b)fluoranthene	1,000	1,000	ND		20,600	ND		188,000	ND		93,000
Benzo(g,h,i)perylene	100,000	100,000	ND		20,600	ND		188,000	ND		93,000
Benzo(k)fluoranthene	800	3,900	ND		20,600	ND		188,000	ND		93,000
Benzoic acid			NA		-	NA		-	NA		-
Benzyl alcohol	NE	NE	ND		20,600	ND		188,000	ND		93,000
Benzyl butyl phthalate	NE	NE	ND		20,600	ND		188,000	ND		93,000
Bis(2-chloroethoxy)methane	NE	NE	ND		20,600	ND		188,000	ND		93,000
Bis(2-chloroethyl)ether	NE	NE	ND		20,600	ND		188,000	ND		93,000
Bis(2-chloroisopropyl)ether	NE	NE	ND		20,600	ND		188,000	ND		93,000
Bis(2-ethylhexyl)phthalate	NE	50,000	<b>71,900</b>		20,600	<b>49,400,000</b>	E	1,880,000	<b>109,000</b>		93,000
Carbazole	NE	NE	NA		-	NA		-	NA		-
Chrysene	1,000	3,900	ND		20,600	ND		188,000	ND		93,000
Dibenzo(a,h)anthracene	330	330	ND		20,600	ND		188,000	ND		93,000
Dibenzofuran	NE	NE	ND		20,600	ND		188,000	ND		93,000
Diethyl phthalate	NE	100,000	ND		20,600	ND		188,000	ND		93,000
Dimethyl phthalate	NE	100,000	ND		20,600	ND		188,000	ND		93,000
Di-n-butyl phthalate	NE	100,000	ND		20,600	ND		188,000	ND		93,000
Di-n-octyl phthalate	NE	100,000	<b>104,000</b>		20,600	<b>935,000</b>		188,000	ND		93,000
Fluoranthene	100,000	100,000	ND		20,600	ND		188,000	ND		93,000
Fluorene	30,000	100,000	ND		20,600	ND		188,000	ND		93,000
Hexachlorobenzene	NE	410	ND		20,600	ND		188,000	ND		93,000
Hexachlorobutadiene	NE	NE	ND		20,600	ND		188,000	ND		93,000
Hexachlorocyclopentadiene	NE	NE	ND		20,600	ND		188,000	ND		93,000
Hexachloroethane	NE	NE	ND		20,600	ND		188,000	ND		93,000
Indeno(1,2,3-cd)pyrene	500	500	ND		20,600	ND		188,000	ND		93,000
Isophorone	NE	100,000	ND		20,600	ND		188,000	ND		93,000
Naphthalene	12,000	100,000	ND		20,600	ND		188,000	ND		93,000
Nitrobenzene	NE	15,000	ND		20,600	ND		188,000	ND		93,000
N-Nitrosodimethylamine	NE	NE	ND		20,600	ND		188,000	ND		93,000
N-nitroso-di-n-propylamine	NE	NE	ND		20,600	ND		188,000	ND		93,000
N-Nitrosodiphenylamine	NE	NE	ND		20,600	ND		188,000	ND		93,000
Pentachlorophenol	800	6,700	ND		20,600	ND		188,000	ND		93,000
Phenanthrene	100,000	100,000	ND		20,600	ND		188,000	ND		93,000
Phenol	330	100,000	ND		20,600	ND		188,000	ND		93,000
Pyrene	100,000	100,000	ND		20,600	ND		188,000	ND		93,000
Pyridine	NE	NE	ND		20,600	ND		188,000	ND		93,000
Total TICs	NE	NE	<b>18,629</b>		-	ND		-	ND		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 5: Soil - SVOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

SVOCs (USEPA Method 8270)	Soil Cleanup Objectives (SCOs)		SB-67 (2012-02-02)			SB-68 (2012-02-01)			SB-69 (2012-02-01)		
	Unrestricted	Restricted- Residential	Note: Sampled from 12-14'			Note: Sampled from 12-13.5'			Note: Sampled from 12-14'		
			Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,2,4-Trichlorobenzene	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
1,2-Dichlorobenzene	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
1,3-Dichlorobenzene	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
1,4-Dichlorobenzene	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
2,4,5-Trichlorophenol	NE	100,000	ND		4,420,000	ND		1,050,000	ND		201
2,4,6-Trichlorophenol	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
2,4-Dichlorophenol	NE	100,000	ND		4,420,000	ND		1,050,000	ND		201
2,4-Dimethylphenol	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
2,4-Dinitrophenol	NE	100,000	ND		8,830,000	ND		2,100,000	ND		402
2,4-Dinitrotoluene	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
2,6-Dinitrotoluene	NE	1,030	ND		4,420,000	ND		1,050,000	ND		201
2-Chloronaphthalene	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
2-Chlorophenol	NE	100,000	ND		4,420,000	ND		1,050,000	ND		201
2-Methylnaphthalene	NE	410	ND		4,420,000	ND		1,050,000	ND		201
2-Methylphenol	330	100,000	ND		4,420,000	ND		1,050,000	ND		201
2-Nitroaniline	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
2-Nitrophenol	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
3- & 4-Methylphenols	330	100,000	ND		4,420,000	ND		1,050,000	ND		201
3,3'-Dichlorobenzidine	NE	NE	ND		8,820,000	ND		2,100,000	ND		402
3-Nitroaniline	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
4,6-Dinitro-2-methylphenol	NE	NE	ND	R	4,420,000	ND		1,050,000	ND	R	201
4-Bromophenyl phenyl ether	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
4-Chloro-3-methylphenol	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
4-Chloroaniline	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
4-Chlorophenyl phenyl ether	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
4-Nitroaniline	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
4-Nitrophenol	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
Acenaphthene	20,000	100,000	ND		4,420,000	ND		1,050,000	ND		201
Acenaphthylene	100,000	100,000	ND		4,420,000	ND		1,050,000	ND		201
Aniline	NE	100,000	ND		4,420,000	ND		1,050,000	ND		201
Anthracene	100,000	100,000	ND		4,420,000	ND		1,050,000	ND		201
Benzo(a)anthracene	1,000	1,000	ND		4,420,000	ND		1,050,000	ND		201
Benzo(a)pyrene	1,000	1,000	ND		4,420,000	ND		1,050,000	ND		201
Benzo(b)fluoranthene	1,000	1,000	ND		4,420,000	ND		1,050,000	ND		201
Benzo(g,h,i)perylene	100,000	100,000	ND		4,420,000	ND		1,050,000	ND		201
Benzo(k)fluoranthene	800	3,900	ND		4,420,000	ND		1,050,000	ND		201
Benzoic acid			NA		-	NA		-	NA		-
Benzyl alcohol	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
Benzyl butyl phthalate	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
Bis(2-chloroethoxy)methane	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
Bis(2-chloroethyl)ether	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
Bis(2-chloroisopropyl)ether	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
Bis(2-ethylhexyl)phthalate	NE	50,000	<b>18,900,000</b>		4,420,000	<b>2,670,000</b>		1,050,000	<b>132</b>	J	201
Carbazole	NE	NE	NA		-	NA		-	NA		-
Chrysene	1,000	3,900	ND		4,420,000	ND		1,050,000	ND		201
Dibenzo(a,h)anthracene	330	330	ND		4,420,000	ND		1,050,000	ND		201
Dibenzofuran	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
Diethyl phthalate	NE	100,000	ND		4,420,000	ND		1,050,000	ND		201
Dimethyl phthalate	NE	100,000	ND		4,420,000	ND		1,050,000	ND		201
Di-n-butyl phthalate	NE	100,000	ND		4,420,000	ND		1,050,000	ND		201
Di-n-octyl phthalate	NE	100,000	ND		4,420,000	ND		1,050,000	ND		201
Fluoranthene	100,000	100,000	ND		4,420,000	ND		1,050,000	ND		201
Fluorene	30,000	100,000	ND		4,420,000	ND		1,050,000	ND		201
Hexachlorobenzene	NE	410	ND		4,420,000	ND		1,050,000	ND		201
Hexachlorobutadiene	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
Hexachlorocyclopentadiene	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
Hexachloroethane	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
Indeno(1,2,3-cd)pyrene	500	500	ND		4,420,000	ND		1,050,000	ND		201
Isophorone	NE	100,000	ND		4,420,000	ND		1,050,000	ND		201
Naphthalene	12,000	100,000	ND		4,420,000	ND		1,050,000	ND		201
Nitrobenzene	NE	15,000	ND		4,420,000	ND		1,050,000	ND		201
N-Nitrosodimethylamine	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
N-nitroso-di-n-propylamine	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
N-Nitrosodiphenylamine	NE	NE	ND		4,420,000	ND		1,050,000	ND		201
Pentachlorophenol	800	6,700	ND		4,420,000	ND		1,050,000	ND		201
Phenanthrene	100,000	100,000	ND		4,420,000	ND		1,050,000	ND		201
Phenol	330	100,000	ND		4,420,000	ND		1,050,000	ND		201
Pyrene	100,000	100,000	ND		4,420,000	ND		1,050,000	ND		201
Pyridine	NE	NE	ND	R	4,420,000	ND		1,050,000	ND	R	201
Total TICs	NE	NE	ND		-	<b>336</b>		-	ND		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 5: Soil - SVOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

SVOCs (USEPA Method 8270)	Soil Cleanup Objectives (SCOs)		SB-71 (14) (2012-02-10)			SB-72 (13) (2012-02-16)			SB-72 (9) (2012-02-16)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,2,4-Trichlorobenzene	NE	NE	ND		937,000	ND		231	ND		4,440,000
1,2-Dichlorobenzene	NE	NE	ND		937,000	ND		231	ND		4,440,000
1,3-Dichlorobenzene	NE	NE	ND		937,000	ND		231	ND		4,440,000
1,4-Dichlorobenzene	NE	NE	ND		937,000	ND		231	ND		4,440,000
2,4,5-Trichlorophenol	NE	100,000	ND		937,000	NA		-	NA		-
2,4,6-Trichlorophenol	NE	NE	ND		937,000	NA		-	NA		-
2,4-Dichlorophenol	NE	100,000	ND		937,000	NA		-	NA		-
2,4-Dimethylphenol	NE	NE	ND		937,000	NA		-	NA		-
2,4-Dinitrophenol	NE	100,000	ND		1,870,000	NA		-	NA		-
2,4-Dinitrotoluene	NE	NE	ND		937,000	ND		231	ND		4,440,000
2,6-Dinitrotoluene	NE	1,030	ND		937,000	ND		231	ND		4,440,000
2-Chloronaphthalene	NE	NE	ND		937,000	ND		231	ND		4,440,000
2-Chlorophenol	NE	100,000	ND		937,000	NA		-	NA		-
2-Methylnaphthalene	NE	410	ND		937,000	ND		231	ND		4,440,000
2-Methylphenol	330	100,000	ND		937,000	NA		-	NA		-
2-Nitroaniline	NE	NE	ND		18,700	NA		-	NA		-
2-Nitrophenol	NE	NE	ND		937,000	NA		-	NA		-
3- & 4-Methylphenols	330	100,000	ND		937,000	NA		-	NA		-
3,3'-Dichlorobenzidine	NE	NE	ND		937,000	ND		231	ND		4,440,000
3-Nitroaniline	NE	NE	ND		937,000	ND		231	ND		4,440,000
4,6-Dinitro-2-methylphenol	NE	NE	ND		1,870,000	NA		-	NA		-
4-Bromophenyl phenyl ether	NE	NE	ND		937,000	ND		231	ND		4,440,000
4-Chloro-3-methylphenol	NE	NE	ND		937,000	ND		231	ND		4,440,000
4-Chloroaniline	NE	NE	ND		937,000	ND		231	ND		4,440,000
4-Chlorophenyl phenyl ether	NE	NE	ND		937,000	ND		231	ND		4,440,000
4-Nitroaniline	NE	NE	ND		937,000	ND		231	ND		4,440,000
4-Nitrophenol	NE	NE	ND		937,000	NA		-	NA		-
Acenaphthene	20,000	100,000	ND		937,000	ND		231	ND		4,440,000
Acenaphthylene	100,000	100,000	ND		937,000	ND		231	ND		4,440,000
Aniline	NE	100,000	ND		937,000	ND		231	ND		4,440,000
Anthracene	100,000	100,000	ND		937,000	ND		231	ND		4,440,000
Benzo(a)anthracene	1,000	1,000	ND		937,000	ND		231	ND		4,440,000
Benzo(a)pyrene	1,000	1,000	ND		937,000	ND		231	ND		4,440,000
Benzo(b)fluoranthene	1,000	1,000	ND		937,000	ND		231	ND		4,440,000
Benzo(g,h,i)perylene	100,000	100,000	ND		937,000	ND		231	ND		4,440,000
Benzo(k)fluoranthene	800	3,900	ND		937,000	ND		231	ND		4,440,000
Benzoic acid			NA		-	NA		-	NA		-
Benzyl alcohol	NE	NE	ND		937,000	NA		-	NA		-
Benzyl butyl phthalate	NE	NE	ND		937,000	ND		231	ND		4,440,000
Bis(2-chloroethoxy)methane	NE	NE	ND		937,000	ND		231	ND		4,440,000
Bis(2-chloroethyl)ether	NE	NE	ND		937,000	ND		231	ND		4,440,000
Bis(2-chloroisopropyl)ether	NE	NE	ND		937,000	ND		231	ND		4,440,000
Bis(2-ethylhexyl)phthalate	NE	50,000	<b>13,400,000</b>		937,000	<b>188</b>	J	231	<b>43,200,000</b>		4,440,000
Carbazole	NE	NE	NA		-	ND		231	ND		887
Chrysene	1,000	3,900	ND		937,000	ND		231	ND		4,440,000
Dibenzo(a,h)anthracene	330	330	ND		937,000	ND		231	ND		4,440,000
Dibenzofuran	NE	NE	ND		937,000	ND		231	ND		4,440,000
Diethyl phthalate	NE	100,000	ND		937,000	ND		231	ND		4,440,000
Dimethyl phthalate	NE	100,000	ND		937,000	ND		231	ND		4,440,000
Di-n-butyl phthalate	NE	100,000	ND		937,000	ND		231	ND		4,440,000
Di-n-octyl phthalate	NE	100,000	ND		937,000	ND		231	<b>3,010,000</b>	J	4,440,000
Fluoranthene	100,000	100,000	ND		937,000	ND		231	ND		4,440,000
Fluorene	30,000	100,000	ND		937,000	ND		231	ND		4,440,000
Hexachlorobenzene	NE	410	ND		937,000	ND		231	ND		4,440,000
Hexachlorobutadiene	NE	NE	ND		937,000	ND		231	ND		4,440,000
Hexachlorocyclopentadiene	NE	NE	ND		937,000	ND		231	ND		4,440,000
Hexachloroethane	NE	NE	ND		937,000	ND		231	ND		4,440,000
Indeno(1,2,3-cd)pyrene	500	500	ND		937,000	ND		231	ND		4,440,000
Isophorone	NE	100,000	ND		937,000	ND		231	ND		4,440,000
Naphthalene	12,000	100,000	ND		937,000	ND		231	ND		4,440,000
Nitrobenzene	NE	15,000	ND		937,000	ND		231	ND		4,440,000
N-Nitrosodimethylamine	NE	NE	ND		937,000	ND		231	ND		4,440,000
N-nitroso-di-n-propylamine	NE	NE	ND		937,000	ND		231	ND		4,440,000
N-Nitrosodiphenylamine	NE	NE	ND		937,000	ND		231	ND		4,440,000
Pentachlorophenol	800	6,700	ND		937,000	NA		-	NA		-
Phenanthrene	100,000	100,000	ND		937,000	ND		231	ND		4,440,000
Phenol	330	100,000	ND		937,000	NA		-	NA		-
Pyrene	100,000	100,000	ND		937,000	ND		231	ND		4,440,000
Pyridine	NE	NE	ND		937,000	ND		231	ND		4,440,000
Total TICs	NE	NE	<b>187</b>		-	NA		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 5: Soil - SVOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

SVOCs (USEPA Method 8270)	Soil Cleanup Objectives (SCOs)		SB-73 (13.5) (2012-02-16)			SB-74 (13) (2012-02-16)			SB-77A (2012-02-01) (Spill Site)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,2,4-Trichlorobenzene	NE	NE	ND		92,800	ND		222	ND		4,020
1,2-Dichlorobenzene	NE	NE	ND		92,800	ND		222	ND		4,020
1,3-Dichlorobenzene	NE	NE	ND		92,800	ND		222	ND		4,020
1,4-Dichlorobenzene	NE	NE	ND		92,800	ND		222	ND		4,020
2,4,5-Trichlorophenol	NE	100,000	NA		-	NA		-	ND		4,020
2,4,6-Trichlorophenol	NE	NE	NA		-	NA		-	ND		4,020
2,4-Dichlorophenol	NE	100,000	NA		-	NA		-	ND		4,020
2,4-Dimethylphenol	NE	NE	NA		-	NA		-	ND		4,020
2,4-Dinitrophenol	NE	100,000	NA		-	NA		-	ND		8,040
2,4-Dinitrotoluene	NE	NE	ND		92,800	ND		222	ND		4,020
2,6-Dinitrotoluene	NE	1,030	ND		92,800	ND		222	ND		4,020
2-Chloronaphthalene	NE	NE	ND		92,800	ND		222	ND		4,020
2-Chlorophenol	NE	100,000	NA		-	NA		-	ND		4,020
2-Methylnaphthalene	NE	410	ND		92,800	ND		222	ND		4,020
2-Methylphenol	330	100,000	NA		-	NA		-	ND		4,020
2-Nitroaniline	NE	NE	NA		-	NA		-	ND		4,020
2-Nitrophenol	NE	NE	NA		-	NA		-	ND		4,020
3- & 4-Methylphenols	330	100,000	NA		-	NA		-	ND		4,020
3,3'-Dichlorobenzidine	NE	NE	ND		92,800	ND		222	ND		8,040
3-Nitroaniline	NE	NE	ND		92,800	ND		222	ND		4,020
4,6-Dinitro-2-methylphenol	NE	NE	NA		-	NA		-	ND		4,020
4-Bromophenyl phenyl ether	NE	NE	ND		92,800	ND		222	ND		4,020
4-Chloro-3-methylphenol	NE	NE	ND		92,800	ND		222	ND		4,020
4-Chloroaniline	NE	NE	ND		92,800	ND		222	ND		4,020
4-Chlorophenyl phenyl ether	NE	NE	ND		92,800	ND		222	ND		4,020
4-Nitroaniline	NE	NE	ND		92,800	ND		222	ND		4,020
4-Nitrophenol	NE	NE	NA		-	NA		-	ND		4,020
Acenaphthene	20,000	100,000	ND		92,800	ND		222	ND		4,020
Acenaphthylene	100,000	100,000	ND		92,800	ND		222	ND		4,020
Aniline	NE	100,000	ND		92,800	ND		222	ND		4,020
Anthracene	100,000	100,000	ND		92,800	ND		222	ND		4,020
Benzo(a)anthracene	1,000	1,000	ND		92,800	ND		222	ND		4,020
Benzo(a)pyrene	1,000	1,000	ND		92,800	ND		222	ND		4,020
Benzo(b)fluoranthene	1,000	1,000	ND		92,800	ND		222	ND		4,020
Benzo(g,h,i)perylene	100,000	100,000	ND		92,800	ND		222	ND		4,020
Benzo(k)fluoranthene	800	3,900	ND		92,800	ND		222	ND		4,020
Benzoic acid			NA		-	NA		-	NA		-
Benzyl alcohol	NE	NE	NA		-	NA		-	ND		4,020
Benzyl butyl phthalate	NE	NE	ND		92,800	ND		222	ND		4,020
Bis(2-chloroethoxy)methane	NE	NE	ND		92,800	ND		222	ND		4,020
Bis(2-chloroethyl)ether	NE	NE	ND		92,800	ND		222	ND		4,020
Bis(2-chloroisopropyl)ether	NE	NE	ND		92,800	ND		222	ND		4,020
Bis(2-ethylhexyl)phthalate	NE	50,000	<b>6,770,000</b>		928,000	<b>458</b>		222	ND		4,020
Carbazole	NE	NE	ND		928	ND		222	NA		-
Chrysene	1,000	3,900	ND		92,800	ND		222	ND		4,020
Dibenzo(a,h)anthracene	330	330	ND		92,800	ND		222	ND		4,020
Dibenzofuran	NE	NE	ND		92,800	ND		222	ND		4,020
Diethyl phthalate	NE	100,000	ND		92,800	ND		222	ND		4,020
Dimethyl phthalate	NE	100,000	ND		92,800	ND		222	ND		4,020
Di-n-butyl phthalate	NE	100,000	ND		92,800	ND		222	ND		4,020
Di-n-octyl phthalate	NE	100,000	ND		92,800	ND		222	ND		4,020
Fluoranthene	100,000	100,000	ND		92,800	ND		222	ND		4,020
Fluorene	30,000	100,000	ND		92,800	ND		222	ND		4,020
Hexachlorobenzene	NE	410	ND		92,800	ND		222	ND		4,020
Hexachlorobutadiene	NE	NE	ND		92,800	ND		222	ND		4,020
Hexachlorocyclopentadiene	NE	NE	ND		92,800	ND		222	ND		4,020
Hexachloroethane	NE	NE	ND		92,800	ND		222	ND		4,020
Indeno(1,2,3-cd)pyrene	500	500	ND		92,800	ND		222	ND		4,020
Isophorone	NE	100,000	ND		92,800	ND		222	ND		4,020
Naphthalene	12,000	100,000	ND		92,800	ND		222	ND		4,020
Nitrobenzene	NE	15,000	ND		92,800	ND		222	ND		4,020
N-Nitrosodimethylamine	NE	NE	ND		92,800	ND		222	ND		4,020
N-nitroso-di-n-propylamine	NE	NE	ND		92,800	ND		222	ND		4,020
N-Nitrosodiphenylamine	NE	NE	ND		92,800	ND		222	ND		4,020
Pentachlorophenol	800	6,700	NA		-	NA		-	ND		4,020
Phenanthrene	100,000	100,000	ND		92,800	ND		222	ND		4,020
Phenol	330	100,000	NA		-	NA		-	ND		4,020
Pyrene	100,000	100,000	ND		92,800	ND		222	ND		4,020
Pyridine	NE	NE	ND		92,800	ND		222	ND		4,020
Total TICs	NE	NE	NA		-	NA		-	ND		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 5: Soil - SVOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

SVOCs (USEPA Method 8270)	Soil Cleanup Objectives (SCOs)		(Spill Site)			2SB-1 (15-20) (2013-08-01)			2SB-11 (10-15) (2013-08-01)		
	Unrestricted	Restricted- Residential	SB-78A (2012-02-01)			Result	Flag	RL	Result	Flag	RL
			Result	Flag	RL						
1,2,4-Trichlorobenzene	NE	NE	ND		221	ND		288	ND		328
1,2-Dichlorobenzene	NE	NE	ND		221	ND		288	ND		328
1,3-Dichlorobenzene	NE	NE	ND		221	ND		288	ND		328
1,4-Dichlorobenzene	NE	NE	ND		221	ND		288	ND		328
2,4,5-Trichlorophenol	NE	100,000	ND		221	ND		288	ND		328
2,4,6-Trichlorophenol	NE	NE	ND		221	ND		288	ND		328
2,4-Dichlorophenol	NE	100,000	ND		221	ND		288	ND		328
2,4-Dimethylphenol	NE	NE	ND		221	ND		288	ND		328
2,4-Dinitrophenol	NE	100,000	ND		443	ND		577	ND	R	655
2,4-Dinitrotoluene	NE	NE	ND		221	ND		288	ND		328
2,6-Dinitrotoluene	NE	1,030	ND		221	ND		288	ND		328
2-Chloronaphthalene	NE	NE	ND		221	ND		288	ND		328
2-Chlorophenol	NE	100,000	ND		221	ND		288	ND		328
2-Methylnaphthalene	NE	410	ND		221	ND		288	ND		328
2-Methylphenol	330	100,000	ND		221	ND		288	ND		328
2-Nitroaniline	NE	NE	ND		221	ND		288	ND		328
2-Nitrophenol	NE	NE	ND		221	ND		288	ND		328
3- & 4-Methylphenols	330	100,000	ND		221	ND		288	ND		328
3,3'-Dichlorobenzidine	NE	NE	ND		442	ND		288	ND		328
3-Nitroaniline	NE	NE	ND		221	ND		288	ND		328
4,6-Dinitro-2-methylphenol	NE	NE	ND		221	ND		577	ND		655
4-Bromophenyl phenyl ether	NE	NE	ND		221	ND		288	ND		328
4-Chloro-3-methylphenol	NE	NE	ND		221	ND		288	ND		328
4-Chloroaniline	NE	NE	ND		221	ND		288	ND		328
4-Chlorophenyl phenyl ether	NE	NE	ND		221	ND		288	ND		328
4-Nitroaniline	NE	NE	ND		221	ND		288	ND		328
4-Nitrophenol	NE	NE	ND		221	ND		288	ND		328
Acenaphthene	20,000	100,000	ND		221	ND		288	ND		328
Acenaphthylene	100,000	100,000	ND		221	ND		288	ND		328
Aniline	NE	100,000	ND		221	ND		288	ND		328
Anthracene	100,000	100,000	ND		221	ND		288	ND		328
Benzo(a)anthracene	1,000	1,000	ND		221	ND		288	ND		328
Benzo(a)pyrene	1,000	1,000	ND		221	ND		288	ND		328
Benzo(b)fluoranthene	1,000	1,000	ND		221	ND		288	ND		328
Benzo(g,h,i)perylene	100,000	100,000	ND		221	ND		288	ND		328
Benzo(k)fluoranthene	800	3,900	ND		221	ND		288	ND		328
Benzoic acid			NA		-	NA		-	NA		-
Benzyl alcohol	NE	NE	ND		221	ND		288	ND		328
Benzyl butyl phthalate	NE	NE	ND		221	ND		288	ND		328
Bis(2-chloroethoxy)methane	NE	NE	ND		221	ND		288	ND		328
Bis(2-chloroethyl)ether	NE	NE	ND		221	ND		288	ND		328
Bis(2-chloroisopropyl)ether	NE	NE	ND		221	ND		288	ND		328
Bis(2-ethylhexyl)phthalate	NE	50,000	233		221	ND		288	ND		328
Carbazole	NE	NE	NA		-	NA		-	NA		-
Chrysene	1,000	3,900	ND		221	ND		288	ND		328
Dibenzo(a,h)anthracene	330	330	ND		221	ND		288	ND		328
Dibenzofuran	NE	NE	ND		221	ND		288	ND		328
Diethyl phthalate	NE	100,000	ND		221	ND		288	ND		328
Dimethyl phthalate	NE	100,000	ND		221	ND		288	ND		328
Di-n-butyl phthalate	NE	100,000	ND		221	ND		288	ND		328
Di-n-octyl phthalate	NE	100,000	ND		221	ND		288	ND		328
Fluoranthene	100,000	100,000	ND		221	ND		288	ND		328
Fluorene	30,000	100,000	ND		221	ND		288	ND		328
Hexachlorobenzene	NE	410	ND		221	ND		288	ND		328
Hexachlorobutadiene	NE	NE	ND		221	ND		288	ND		328
Hexachlorocyclopentadiene	NE	NE	ND		221	ND	R	288	ND		328
Hexachloroethane	NE	NE	ND		221	ND		288	ND		328
Indeno(1,2,3-cd)pyrene	500	500	ND		221	ND		288	ND		328
Isophorone	NE	100,000	149	J	221	ND		288	ND		328
Naphthalene	12,000	100,000	ND		221	ND		288	ND		328
Nitrobenzene	NE	15,000	ND		221	ND		288	ND		328
N-Nitrosodimethylamine	NE	NE	ND		221	ND		288	ND		328
N-nitroso-di-n-propylamine	NE	NE	ND		221	ND		288	ND		328
N-Nitrosodiphenylamine	NE	NE	ND		221	ND		288	ND		328
Pentachlorophenol	800	6,700	ND		221	ND		288	ND		328
Phenanthrene	100,000	100,000	ND		221	ND		288	ND		328
Phenol	330	100,000	ND		221	ND		288	ND		328
Pyrene	100,000	100,000	ND		221	ND		288	ND		328
Pyridine	NE	NE	ND		221	ND		288	ND	R	328
Total TICs	NE	NE	442		-	NA		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 5: Soil - SVOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

SVOCs (USEPA Method 8270)	Soil Cleanup Objectives (SCOs)		2SB-2 (0-5)			2SB-2 (10-15) (2013-08-01)			2SB-3 (10-15) (2013-08-01)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,2,4-Trichlorobenzene	NE	NE	ND		268	ND		305	ND		308
1,2-Dichlorobenzene	NE	NE	ND		268	ND		305	ND		308
1,3-Dichlorobenzene	NE	NE	ND		268	ND		305	ND		308
1,4-Dichlorobenzene	NE	NE	ND		268	ND		305	ND		308
2,4,5-Trichlorophenol	NE	100,000	ND		268	ND		305	ND		308
2,4,6-Trichlorophenol	NE	NE	ND		268	ND		305	ND		308
2,4-Dichlorophenol	NE	100,000	ND		268	ND		305	ND		308
2,4-Dimethylphenol	NE	NE	ND		268	ND		305	ND		308
2,4-Dinitrophenol	NE	100,000	ND	R	536	ND	R	611	ND	R	616
2,4-Dinitrotoluene	NE	NE	ND		268	ND		305	ND		308
2,6-Dinitrotoluene	NE	1,030	ND		268	ND		305	ND		308
2-Chloronaphthalene	NE	NE	ND		268	ND		305	ND		308
2-Chlorophenol	NE	100,000	ND		268	ND		305	ND		308
2-Methylnaphthalene	NE	410	ND		268	ND		305	ND		308
2-Methylphenol	330	100,000	ND		268	ND		305	ND		308
2-Nitroaniline	NE	NE	ND		268	ND		305	ND		308
2-Nitrophenol	NE	NE	ND		268	ND		305	ND		308
3- & 4-Methylphenols	330	100,000	ND		268	ND		305	ND		308
3,3'-Dichlorobenzidine	NE	NE	ND		268	ND		305	ND		308
3-Nitroaniline	NE	NE	ND		268	ND		305	ND		308
4,6-Dinitro-2-methylphenol	NE	NE	ND		536	ND		611	ND		616
4-Bromophenyl phenyl ether	NE	NE	ND		268	ND		305	ND		308
4-Chloro-3-methylphenol	NE	NE	ND		268	ND		305	ND		308
4-Chloroaniline	NE	NE	ND		268	ND		305	ND		308
4-Chlorophenyl phenyl ether	NE	NE	ND		268	ND		305	ND		308
4-Nitroaniline	NE	NE	ND		268	ND		305	ND		308
4-Nitrophenol	NE	NE	ND		268	ND		305	ND		308
Acenaphthene	20,000	100,000	ND		268	ND		305	ND		308
Acenaphthylene	100,000	100,000	ND		268	ND		305	ND		308
Aniline	NE	100,000	ND		268	ND		305	ND		308
Anthracene	100,000	100,000	ND		268	ND		305	ND		308
Benzo(a)anthracene	1,000	1,000	398		268	ND		305	ND		308
Benzo(a)pyrene	1,000	1,000	518		268	ND		305	ND		308
Benzo(b)fluoranthene	1,000	1,000	503		268	ND		305	ND		308
Benzo(g,h,i)perylene	100,000	100,000	399		268	ND		305	ND		308
Benzo(k)fluoranthene	800	3,900	359		268	ND		305	ND		308
Benzoic acid			NA		-	NA		-	NA		-
Benzyl alcohol	NE	NE	ND		268	ND		305	ND		308
Benzyl butyl phthalate	NE	NE	ND		268	ND		305	ND		308
Bis(2-chloroethoxy)methane	NE	NE	ND		268	ND		305	ND		308
Bis(2-chloroethyl)ether	NE	NE	ND		268	ND		305	ND		308
Bis(2-chloroisopropyl)ether	NE	NE	ND		268	ND		305	ND		308
Bis(2-ethylhexyl)phthalate	NE	50,000	ND		268	ND		305	ND		308
Carbazole	NE	NE	NA		-	NA		-	NA		-
Chrysene	1,000	3,900	385		268	ND		305	ND		308
Dibenzo(a,h)anthracene	330	330	ND		268	ND		305	ND		308
Dibenzofuran	NE	NE	ND		268	ND		305	ND		308
Diethyl phthalate	NE	100,000	ND		268	ND		305	ND		308
Dimethyl phthalate	NE	100,000	ND		268	ND		305	ND		308
Di-n-butyl phthalate	NE	100,000	698		268	ND		305	ND		308
Di-n-octyl phthalate	NE	100,000	ND		268	ND		305	ND		308
Fluoranthene	100,000	100,000	589		268	ND		305	ND		308
Fluorene	30,000	100,000	ND		268	ND		305	ND		308
Hexachlorobenzene	NE	410	ND		268	ND		305	ND		308
Hexachlorobutadiene	NE	NE	ND		268	ND		305	ND		308
Hexachlorocyclopentadiene	NE	NE	ND		268	ND		305	ND		308
Hexachloroethane	NE	NE	ND		268	ND		305	ND		308
Indeno(1,2,3-cd)pyrene	500	500	354		268	ND		305	ND		308
Isophorone	NE	100,000	ND		268	ND		305	ND		308
Naphthalene	12,000	100,000	ND		268	ND		305	ND		308
Nitrobenzene	NE	15,000	ND		268	ND		305	ND		308
N-Nitrosodimethylamine	NE	NE	ND		268	ND		305	ND		308
N-nitroso-di-n-propylamine	NE	NE	ND		268	ND		305	ND		308
N-Nitrosodiphenylamine	NE	NE	ND		268	ND		305	ND		308
Pentachlorophenol	800	6,700	ND		268	ND		305	ND		308
Phenanthrene	100,000	100,000	424		268	ND		305	ND		308
Phenol	330	100,000	ND		268	ND		305	ND		308
Pyrene	100,000	100,000	625		268	ND		305	ND		308
Pyridine	NE	NE	ND	R	268	ND	R	305	ND	R	308
Total TICs	NE	NE	NA		-	NA		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 5: Soil - SVOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

SVOCs (USEPA Method 8270)	Soil Cleanup Objectives (SCOs)		2SB-4 (0-5) (2013-08-01)			2SB-4 (10-15) (2013-08-01)			2SB-5 (10-15) (2013-08-01)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,2,4-Trichlorobenzene	NE	NE	ND		263	ND		386	ND		313
1,2-Dichlorobenzene	NE	NE	ND		263	ND		386	ND		313
1,3-Dichlorobenzene	NE	NE	ND		263	ND		386	ND		313
1,4-Dichlorobenzene	NE	NE	ND		263	ND		386	ND		313
2,4,5-Trichlorophenol	NE	100,000	ND		263	ND		386	ND		313
2,4,6-Trichlorophenol	NE	NE	ND		263	ND		386	ND		313
2,4-Dichlorophenol	NE	100,000	ND		263	ND		386	ND		313
2,4-Dimethylphenol	NE	NE	ND		263	ND		386	ND		313
2,4-Dinitrophenol	NE	100,000	ND	R	526	ND	R	773	ND	R	626
2,4-Dinitrotoluene	NE	NE	ND		263	ND		386	ND		313
2,6-Dinitrotoluene	NE	1,030	ND		263	ND		386	ND		313
2-Chloronaphthalene	NE	NE	ND		263	ND		386	ND		313
2-Chlorophenol	NE	100,000	ND		263	ND		386	ND		313
2-Methylnaphthalene	NE	410	ND		263	ND		386	ND		313
2-Methylphenol	330	100,000	ND		263	ND		386	ND		313
2-Nitroaniline	NE	NE	ND		263	ND		386	ND		313
2-Nitrophenol	NE	NE	ND		263	ND		386	ND		313
3- & 4-Methylphenols	330	100,000	ND		263	ND		386	ND		313
3,3'-Dichlorobenzidine	NE	NE	ND		263	ND		386	ND		313
3-Nitroaniline	NE	NE	ND		263	ND		386	ND		313
4,6-Dinitro-2-methylphenol	NE	NE	ND		526	ND		773	ND		626
4-Bromophenyl phenyl ether	NE	NE	ND		263	ND		386	ND		313
4-Chloro-3-methylphenol	NE	NE	ND		263	ND		386	ND		313
4-Chloroaniline	NE	NE	ND		263	ND		386	ND		313
4-Chlorophenyl phenyl ether	NE	NE	ND		263	ND		386	ND		313
4-Nitroaniline	NE	NE	ND		263	ND		386	ND		313
4-Nitrophenol	NE	NE	ND		263	ND		386	ND		313
Acenaphthene	20,000	100,000	ND		263	ND		386	ND		313
Acenaphthylene	100,000	100,000	ND		263	ND		386	ND		313
Aniline	NE	100,000	ND		263	ND		386	ND		313
Anthracene	100,000	100,000	ND		263	ND		386	ND		313
Benzo(a)anthracene	1,000	1,000	153	J	263	ND		386	ND		313
Benzo(a)pyrene	1,000	1,000	165	J	263	ND		386	ND		313
Benzo(b)fluoranthene	1,000	1,000	ND		263	ND		386	ND		313
Benzo(g,h,i)perylene	100,000	100,000	127	J	263	ND		386	ND		313
Benzo(k)fluoranthene	800	3,900	ND		263	ND		386	ND		313
Benzoic acid			NA		-	NA		-	NA		-
Benzyl alcohol	NE	NE	ND		263	ND		386	ND		313
Benzyl butyl phthalate	NE	NE	ND		263	ND		386	ND		313
Bis(2-chloroethoxy)methane	NE	NE	ND		263	ND		386	ND		313
Bis(2-chloroethyl)ether	NE	NE	ND		263	ND		386	ND		313
Bis(2-chloroisopropyl)ether	NE	NE	ND		263	ND		386	ND		313
Bis(2-ethylhexyl)phthalate	NE	50,000	1,440		263	ND		386	ND		313
Carbazole	NE	NE	NA		-	NA		-	NA		-
Chrysene	1,000	3,900	153	J	263	ND		386	ND		313
Dibenzo(a,h)anthracene	330	330	ND		263	ND		386	ND		313
Dibenzofuran	NE	NE	ND		263	ND		386	ND		313
Diethyl phthalate	NE	100,000	ND		263	ND		386	ND		313
Dimethyl phthalate	NE	100,000	259	J	263	ND		386	ND		313
Di-n-butyl phthalate	NE	100,000	ND		263	ND		386	ND		313
Di-n-octyl phthalate	NE	100,000	ND		263	ND		386	ND		313
Fluoranthene	100,000	100,000	188	J	263	ND		386	ND		313
Fluorene	30,000	100,000	ND		263	ND		386	ND		313
Hexachlorobenzene	NE	410	ND		263	ND		386	ND		313
Hexachlorobutadiene	NE	NE	ND		263	ND		386	ND		313
Hexachlorocyclopentadiene	NE	NE	ND		263	ND		386	ND		313
Hexachloroethane	NE	NE	ND		263	ND		386	ND		313
Indeno(1,2,3-cd)pyrene	500	500	ND		263	ND		386	ND		313
Isophorone	NE	100,000	ND		263	ND		386	ND		313
Naphthalene	12,000	100,000	ND		263	ND		386	ND		313
Nitrobenzene	NE	15,000	ND		263	ND		386	ND		313
N-Nitrosodimethylamine	NE	NE	ND		263	ND		386	ND		313
N-nitroso-di-n-propylamine	NE	NE	ND		263	ND		386	ND		313
N-Nitrosodiphenylamine	NE	NE	ND		263	ND		386	ND		313
Pentachlorophenol	800	6,700	ND		263	ND		386	ND		313
Phenanthrene	100,000	100,000	ND		263	ND		386	ND		313
Phenol	330	100,000	ND		263	ND		386	ND		313
Pyrene	100,000	100,000	211	J	263	ND		386	ND		313
Pyridine	NE	NE	ND	R	263	ND	R	386	ND	R	313
Total TICs	NE	NE	NA		-	NA		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWD ID: 224136

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**Table 5: Soil - SVOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Concentrations above UU-SCOs in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

SVOCs (USEPA Method 8270)	Soil Cleanup Objectives (SCOs)		2SB-5A (2013-08-01)			2SB-6 (10-15) (2013-08-01)			2SB-7 (10-15) (2013-08-01)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,2,4-Trichlorobenzene	NE	NE	ND		301	ND		342	ND		309
1,2-Dichlorobenzene	NE	NE	ND		301	ND		342	ND		309
1,3-Dichlorobenzene	NE	NE	ND		301	ND		342	ND		309
1,4-Dichlorobenzene	NE	NE	ND		301	ND		342	ND		309
2,4,5-Trichlorophenol	NE	100,000	ND		301	ND		342	ND		309
2,4,6-Trichlorophenol	NE	NE	ND		301	ND		342	ND		309
2,4-Dichlorophenol	NE	100,000	ND		301	ND		342	ND		309
2,4-Dimethylphenol	NE	NE	ND		301	ND		342	ND		309
2,4-Dinitrophenol	NE	100,000	ND	R	602	ND	R	684	ND	R	617
2,4-Dinitrotoluene	NE	NE	ND		301	ND		342	ND		309
2,6-Dinitrotoluene	NE	1,030	ND		301	ND		342	ND		309
2-Chloronaphthalene	NE	NE	ND		301	ND		342	ND		309
2-Chlorophenol	NE	100,000	ND		301	ND		342	ND		309
2-Methylnaphthalene	NE	410	ND		301	ND		342	ND		309
2-Methylphenol	330	100,000	ND		301	ND		342	ND		309
2-Nitroaniline	NE	NE	ND		301	ND		342	ND		309
2-Nitrophenol	NE	NE	ND		301	ND		342	ND		309
3- & 4-Methylphenols	330	100,000	ND		301	ND		342	ND		309
3,3'-Dichlorobenzidine	NE	NE	ND		301	ND		342	ND		309
3-Nitroaniline	NE	NE	ND		301	ND		342	ND		309
4,6-Dinitro-2-methylphenol	NE	NE	ND		602	ND		684	ND		617
4-Bromophenyl phenyl ether	NE	NE	ND		301	ND		342	ND		309
4-Chloro-3-methylphenol	NE	NE	ND		301	ND		342	ND		309
4-Chloroaniline	NE	NE	ND		301	ND		342	ND		309
4-Chlorophenyl phenyl ether	NE	NE	ND		301	ND		342	ND		309
4-Nitroaniline	NE	NE	ND		301	ND		342	ND		309
4-Nitrophenol	NE	NE	ND		301	ND		342	ND		309
Acenaphthene	20,000	100,000	ND		301	ND		342	ND		309
Acenaphthylene	100,000	100,000	ND		301	ND		342	ND		309
Aniline	NE	100,000	ND		301	ND		342	ND		309
Anthracene	100,000	100,000	ND		301	ND		342	ND		309
Benzo(a)anthracene	1,000	1,000	ND		301	ND		342	ND		309
Benzo(a)pyrene	1,000	1,000	ND		301	ND		342	ND		309
Benzo(b)fluoranthene	1,000	1,000	ND		301	ND		342	ND		309
Benzo(g,h,i)perylene	100,000	100,000	ND		301	ND		342	ND		309
Benzo(k)fluoranthene	800	3,900	ND		301	ND		342	ND		309
Benzoic acid			NA		-	NA		-	NA		-
Benzyl alcohol	NE	NE	ND		301	ND		342	ND		309
Benzyl butyl phthalate	NE	NE	ND		301	ND		342	ND		309
Bis(2-chloroethoxy)methane	NE	NE	ND		301	ND		342	ND		309
Bis(2-chloroethyl)ether	NE	NE	ND		301	ND		342	ND		309
Bis(2-chloroisopropyl)ether	NE	NE	ND		301	ND		342	ND		309
Bis(2-ethylhexyl)phthalate	NE	50,000	ND		301	ND		342	ND		309
Carbazole	NE	NE	NA		-	NA		-	NA		-
Chrysene	1,000	3,900	ND		301	ND		342	ND		309
Dibenzo(a,h)anthracene	330	330	ND		301	ND		342	ND		309
Dibenzofuran	NE	NE	ND		301	ND		342	ND		309
Diethyl phthalate	NE	100,000	ND		301	ND		342	ND		309
Dimethyl phthalate	NE	100,000	ND		301	ND		342	ND		309
Di-n-butyl phthalate	NE	100,000	ND		301	ND		342	ND		309
Di-n-octyl phthalate	NE	100,000	ND		301	ND		342	ND		309
Fluoranthene	100,000	100,000	ND		301	ND		342	ND		309
Fluorene	30,000	100,000	ND		301	ND		342	ND		309
Hexachlorobenzene	NE	410	ND		301	ND		342	ND		309
Hexachlorobutadiene	NE	NE	ND		301	ND		342	ND		309
Hexachlorocyclopentadiene	NE	NE	ND		301	ND		342	ND		309
Hexachloroethane	NE	NE	ND		301	ND		342	ND		309
Indeno(1,2,3-cd)pyrene	500	500	ND		301	ND		342	ND		309
Isophorone	NE	100,000	ND		301	ND		342	ND		309
Naphthalene	12,000	100,000	ND		301	ND		342	ND		309
Nitrobenzene	NE	15,000	ND		301	ND		342	ND		309
N-Nitrosodimethylamine	NE	NE	ND		301	ND		342	ND		309
N-nitroso-di-n-propylamine	NE	NE	ND		301	ND		342	ND		309
N-Nitrosodiphenylamine	NE	NE	ND		301	ND		342	ND		309
Pentachlorophenol	800	6,700	ND		301	ND		342	ND		309
Phenanthrene	100,000	100,000	ND		301	ND		342	ND		309
Phenol	330	100,000	ND		301	ND		342	ND		309
Pyrene	100,000	100,000	ND		301	ND		342	ND		309
Pyridine	NE	NE	ND	R	301	ND	R	342	ND	R	309
Total TICs	NE	NE	NA		-	NA		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

IHWID ID: 224136

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**Table 5: Soil - SVOCs**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

Concentrations above UU-SCOs in **Bold**

SVOCs (USEPA Method 8270)	Soil Cleanup Objectives (SCOs)		2SB-8 (10-15) (2013-08-01)		
	Unrestricted	Restricted- Residential	Result	Flag	RL
1,2,4-Trichlorobenzene	NE	NE	ND		307
1,2-Dichlorobenzene	NE	NE	ND		307
1,3-Dichlorobenzene	NE	NE	ND		307
1,4-Dichlorobenzene	NE	NE	ND		307
2,4,5-Trichlorophenol	NE	100,000	ND		307
2,4,6-Trichlorophenol	NE	NE	ND		307
2,4-Dichlorophenol	NE	100,000	ND		307
2,4-Dimethylphenol	NE	NE	ND		307
2,4-Dinitrophenol	NE	100,000	ND	R	615
2,4-Dinitrotoluene	NE	NE	ND		307
2,6-Dinitrotoluene	NE	1,030	ND		307
2-Chloronaphthalene	NE	NE	ND		307
2-Chlorophenol	NE	100,000	ND		307
2-Methylnaphthalene	NE	410	ND		307
2-Methylphenol	330	100,000	ND		307
2-Nitroaniline	NE	NE	ND		307
2-Nitrophenol	NE	NE	ND		307
3- & 4-Methylphenols	330	100,000	ND		307
3,3'-Dichlorobenzidine	NE	NE	ND		307
3-Nitroaniline	NE	NE	ND		307
4,6-Dinitro-2-methylphenol	NE	NE	ND		615
4-Bromophenyl phenyl ether	NE	NE	ND		307
4-Chloro-3-methylphenol	NE	NE	ND		307
4-Chloroaniline	NE	NE	ND		307
4-Chlorophenyl phenyl ether	NE	NE	ND		307
4-Nitroaniline	NE	NE	ND		307
4-Nitrophenol	NE	NE	ND		307
Acenaphthene	20,000	100,000	ND		307
Acenaphthylene	100,000	100,000	ND		307
Aniline	NE	100,000	ND		307
Anthracene	100,000	100,000	ND		307
Benzo(a)anthracene	1,000	1,000	ND		307
Benzo(a)pyrene	1,000	1,000	ND		307
Benzo(b)fluoranthene	1,000	1,000	ND		307
Benzo(g,h,i)perylene	100,000	100,000	ND		307
Benzo(k)fluoranthene	800	3,900	ND		307
<b>Benzoic acid</b>			NA		-
Benzyl alcohol	NE	NE	ND		307
Benzyl butyl phthalate	NE	NE	ND		307
Bis(2-chloroethoxy)methane	NE	NE	ND		307
Bis(2-chloroethyl)ether	NE	NE	ND		307
Bis(2-chloroisopropyl)ether	NE	NE	ND		307
Bis(2-ethylhexyl)phthalate	NE	50,000	ND		307
Carbazole	NE	NE	NA		-
Chrysene	1,000	3,900	ND		307
Dibenzo(a,h)anthracene	330	330	ND		307
Dibenzofuran	NE	NE	ND		307
Diethyl phthalate	NE	100,000	ND		307
Dimethyl phthalate	NE	100,000	ND		307
Di-n-butyl phthalate	NE	100,000	ND		307
Di-n-octyl phthalate	NE	100,000	ND		307
Fluoranthene	100,000	100,000	ND		307
Fluorene	30,000	100,000	ND		307
Hexachlorobenzene	NE	410	ND		307
Hexachlorobutadiene	NE	NE	ND		307
Hexachlorocyclopentadiene	NE	NE	ND		307
Hexachloroethane	NE	NE	ND		307
Indeno(1,2,3-cd)pyrene	500	500	ND		307
Isophorone	NE	100,000	ND		307
Naphthalene	12,000	100,000	ND		307
Nitrobenzene	NE	15,000	ND		307
N-Nitrosodimethylamine	NE	NE	ND		307
N-nitroso-di-n-propylamine	NE	NE	ND		307
N-Nitrosodiphenylamine	NE	NE	ND		307
Pentachlorophenol	800	6,700	ND		307
Phenanthrene	100,000	100,000	ND		307
Phenol	330	100,000	ND		307
Pyrene	100,000	100,000	ND		307
Pyridine	NE	NE	ND	R	307
Total TICs	NE	NE	NA		-



**Table 6: Soil - SVOCs (Spill Site)**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

 Elevated Concentrations in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

SVOCs (USEPA Method 8270)	Soil Cleanup Objectives (SCOs)		MW-17 (14) (Spill Site) (2012-02-15)			MW-18 (15) (Spill Site) (2012-02-15)			MW-19 (10-12) (Spill Site) (2012-02-02)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,2,4-Trichlorobenzene	NE	NE	ND		215	ND		198	ND		4,030
1,2-Dichlorobenzene	NE	NE	ND		215	ND		198	ND		4,030
1,3-Dichlorobenzene	NE	NE	ND		215	ND		198	ND		4,030
1,4-Dichlorobenzene	NE	NE	ND		215	ND		198	ND		4,030
2,4,5-Trichlorophenol	NE	100,000	NA		-	NA		-	ND		4,030
2,4,6-Trichlorophenol	NE	NE	NA		-	NA		-	ND		4,030
2,4-Dichlorophenol	NE	100,000	NA		-	NA		-	ND		4,030
2,4-Dimethylphenol	NE	NE	NA		-	NA		-	ND		4,030
2,4-Dinitrophenol	NE	100,000	NA		-	NA		-	ND		8,060
2,4-Dinitrotoluene	NE	NE	ND		215	ND		198	ND		4,030
2,6-Dinitrotoluene	NE	1,030	ND		215	ND		198	ND		4,030
2-Chloronaphthalene	NE	NE	ND		215	ND		198	ND		4,030
2-Chlorophenol	NE	100,000	NA		-	NA		-	ND		4,030
2-Methylnaphthalene	NE	410	ND		215	ND		198	<b>13,200</b>		4,030
2-Methylphenol	330	100,000	NA		-	NA		-	ND		4,030
2-Nitroaniline	NE	NE	NA		-	NA		-	ND		4,030
2-Nitrophenol	NE	NE	NA		-	NA		-	ND		4,030
3- & 4-Methylphenols	330	100,000	NA		-	NA		-	ND		4,030
3,3'-Dichlorobenzidine	NE	NE	ND		215	ND		198	ND		4,030
3-Nitroaniline	NE	NE	ND		215	ND		198	ND		4,030
4,6-Dinitro-2-methylphenol	NE	NE	NA		-	NA		-	ND		8,060
4-Bromophenyl phenyl ether	NE	NE	ND		215	ND		198	ND		4,030
4-Chloro-3-methylphenol	NE	NE	ND		215	ND		198	ND		4,030
4-Chloroaniline	NE	NE	ND		215	ND		198	ND		4,030
4-Chlorophenyl phenyl ether	NE	NE	ND		215	ND		198	ND		4,030
4-Nitroaniline	NE	NE	ND		215	ND		198	ND		4,030
4-Nitrophenol	NE	NE	NA		-	NA		-	ND		4,030
Acenaphthene	20,000	100,000	ND		215	ND		198	ND		4,030
Acenaphthylene	100,000	100,000	ND		215	ND		198	ND		4,030
Aniline	NE	100,000	ND		215	ND		198	ND		4,030
Anthracene	100,000	100,000	ND		215	ND		198	<b>1,400</b>	J	4,030
Benzo(a)anthracene	1,000	1,000	ND		215	ND		198	ND		4,030
Benzo(a)pyrene	1,000	1,000	ND		215	<b>53</b>	J	198	ND		4,030
Benzo(b)fluoranthene	1,000	1,000	ND		215	ND		198	ND		4,030
Benzo(g,h,i)perylene	100,000	100,000	ND		215	ND		198	ND		4,030
Benzo(k)fluoranthene	800	3,900	ND		215	ND		198	ND		4,030
Benzyl alcohol	NE	NE	NA		-	NA		-	ND		4,030
Benzyl butyl phthalate	NE	NE	ND		215	ND		198	<b>10,100</b>		4,030
Bis(2-chloroethoxy)methane	NE	NE	ND		215	ND		198	ND		4,030
Bis(2-chloroethyl)ether	NE	NE	ND		215	ND		198	ND		4,030
Bis(2-chloroisopropyl)ether	NE	NE	ND		215	ND		198	ND		4,030
Bis(2-ethylhexyl)phthalate	NE	50,000	<b>1,400</b>		215	<b>440</b>		198	<b>4,330</b>		4,030
Carbazole	NE	NE	ND		215	ND		198	NA		-
Chrysene	1,000	3,900	ND		215	ND		198	ND		4,030
Dibenzo(a,h)anthracene	330	330	ND		215	ND		198	ND		4,030
Dibenzofuran	NE	NE	ND		215	ND		198	ND		4,030
Diethyl phthalate	NE	100,000	ND		215	ND		198	ND		4,030
Dimethyl phthalate	NE	100,000	ND		215	ND		198	ND		4,030
Di-n-butyl phthalate	NE	100,000	ND		215	ND		198	ND		4,030
Di-n-octyl phthalate	NE	100,000	<b>350</b>		215	ND		198	ND		4,030
Fluoranthene	100,000	100,000	ND		215	ND		198	ND		4,030
Fluorene	30,000	100,000	ND		215	ND		198	<b>1,850</b>	J	4,030
Hexachlorobenzene	NE	410	ND		215	ND		198	ND		4,030
Hexachlorobutadiene	NE	NE	ND		215	ND		198	ND		4,030
Hexachlorocyclopentadiene	NE	NE	ND		215	ND		198	ND		4,030
Hexachloroethane	NE	NE	ND		215	ND		198	ND		4,030
Indeno(1,2,3-cd)pyrene	500	500	ND		215	ND		198	ND		4,030
Isophorone	NE	100,000	ND		215	ND		198	ND		4,030
Naphthalene	12,000	100,000	ND		215	ND		198	<b>2,000</b>	J	4,030
Nitrobenzene	NE	15,000	ND		215	ND		198	ND		4,030
N-Nitrosodimethylamine	NE	NE	ND		215	ND		198	ND		4,030
N-nitroso-di-n-propylamine	NE	NE	ND		215	ND		198	ND		4,030
N-Nitrosodiphenylamine	NE	NE	ND		215	ND		198	ND		4,030
Pentachlorophenol	800	6,700	NA		-	NA		-	ND		4,030
Phenanthrene	100,000	100,000	ND		215	ND		198	<b>6,650</b>		4,030
Phenol	330	100,000	NA		-	NA		-	ND		4,030
Pyrene	100,000	100,000	ND		215	<b>76.4</b>	J	198	<b>3,360</b>	J	4,030
Pyridine	NE	NE	ND		215	ND		198	ND		4,030
Total TICs	NE	NE	NA		-	NA		-	<b>5,360</b>		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

Spill No. 0601852

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**Table 6: Soil - SVOCs (Spill Site)**

Data in µg/kg

Guidance: NYSDEC 375-6 and CP-51

Elevated Concentrations in **Bold**

Ecosystems Strategies, Inc.

ESI File: SB09110

SVOCs (USEPA Method 8270)	Soil Cleanup Objectives (SCOs)		SB-77A (2012-02-01) (Spill Site)			SB-78A (2012-02-01) (Spill Site)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL
1,2,4-Trichlorobenzene	NE	NE	ND		4,020	ND		221
1,2-Dichlorobenzene	NE	NE	ND		4,020	ND		221
1,3-Dichlorobenzene	NE	NE	ND		4,020	ND		221
1,4-Dichlorobenzene	NE	NE	ND		4,020	ND		221
2,4,5-Trichlorophenol	NE	100,000	ND		4,020	ND		221
2,4,6-Trichlorophenol	NE	NE	ND		4,020	ND		221
2,4-Dichlorophenol	NE	100,000	ND		4,020	ND		221
2,4-Dimethylphenol	NE	NE	ND		4,020	ND		221
2,4-Dinitrophenol	NE	100,000	ND		8,040	ND		443
2,4-Dinitrotoluene	NE	NE	ND		4,020	ND		221
2,6-Dinitrotoluene	NE	1,030	ND		4,020	ND		221
2-Chloronaphthalene	NE	NE	ND		4,020	ND		221
2-Chlorophenol	NE	100,000	ND		4,020	ND		221
2-Methylnaphthalene	NE	410	ND		4,020	ND		221
2-Methylphenol	330	100,000	ND		4,020	ND		221
2-Nitroaniline	NE	NE	ND		4,020	ND		221
2-Nitrophenol	NE	NE	ND		4,020	ND		221
3- & 4-Methylphenols	330	100,000	ND		4,020	ND		221
3,3'-Dichlorobenzidine	NE	NE	ND		8,040	ND		442
3-Nitroaniline	NE	NE	ND		4,020	ND		221
4,6-Dinitro-2-methylphenol	NE	NE	ND		4,020	ND		221
4-Bromophenyl phenyl ether	NE	NE	ND		4,020	ND		221
4-Chloro-3-methylphenol	NE	NE	ND		4,020	ND		221
4-Chloroaniline	NE	NE	ND		4,020	ND		221
4-Chlorophenyl phenyl ether	NE	NE	ND		4,020	ND		221
4-Nitroaniline	NE	NE	ND		4,020	ND		221
4-Nitrophenol	NE	NE	ND		4,020	ND		221
Acenaphthene	20,000	100,000	ND		4,020	ND		221
Acenaphthylene	100,000	100,000	ND		4,020	ND		221
Aniline	NE	100,000	ND		4,020	ND		221
Anthracene	100,000	100,000	ND		4,020	ND		221
Benzo(a)anthracene	1,000	1,000	ND		4,020	ND		221
Benzo(a)pyrene	1,000	1,000	ND		4,020	ND		221
Benzo(b)fluoranthene	1,000	1,000	ND		4,020	ND		221
Benzo(g,h,i)perylene	100,000	100,000	ND		4,020	ND		221
Benzo(k)fluoranthene	800	3,900	ND		4,020	ND		221
Benzyl alcohol	NE	NE	ND		4,020	ND		221
Benzyl butyl phthalate	NE	NE	ND		4,020	ND		221
Bis(2-chloroethoxy)methane	NE	NE	ND		4,020	ND		221
Bis(2-chloroethyl)ether	NE	NE	ND		4,020	ND		221
Bis(2-chloroisopropyl)ether	NE	NE	ND		4,020	ND		221
Bis(2-ethylhexyl)phthalate	NE	50,000	ND		4,020	233		221
Carbazole	NE	NE	NA		-	NA		-
Chrysene	1,000	3,900	ND		4,020	ND		221
Dibenzo(a,h)anthracene	330	330	ND		4,020	ND		221
Dibenzofuran	NE	NE	ND		4,020	ND		221
Diethyl phthalate	NE	100,000	ND		4,020	ND		221
Dimethyl phthalate	NE	100,000	ND		4,020	ND		221
Di-n-butyl phthalate	NE	100,000	ND		4,020	ND		221
Di-n-octyl phthalate	NE	100,000	ND		4,020	ND		221
Fluoranthene	100,000	100,000	ND		4,020	ND		221
Fluorene	30,000	100,000	ND		4,020	ND		221
Hexachlorobenzene	NE	410	ND		4,020	ND		221
Hexachlorobutadiene	NE	NE	ND		4,020	ND		221
Hexachlorocyclopentadiene	NE	NE	ND		4,020	ND		221
Hexachloroethane	NE	NE	ND		4,020	ND		221
Indeno(1,2,3-cd)pyrene	500	500	ND		4,020	ND		221
Isophorone	NE	100,000	ND		4,020	149	J	221
Naphthalene	12,000	100,000	ND		4,020	ND		221
Nitrobenzene	NE	15,000	ND		4,020	ND		221
N-Nitrosodimethylamine	NE	NE	ND		4,020	ND		221
N-nitroso-di-n-propylamine	NE	NE	ND		4,020	ND		221
N-Nitrosodiphenylamine	NE	NE	ND		4,020	ND		221
Pentachlorophenol	800	6,700	ND		4,020	ND		221
Phenanthrene	100,000	100,000	ND		4,020	ND		221
Phenol	330	100,000	ND		4,020	ND		221
Pyrene	100,000	100,000	ND		4,020	ND		221
Pyridine	NE	NE	ND		4,020	ND		221
Total TICs	NE	NE	ND		-	442		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

Spill No. 0601852

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**Table 7: Soil - Metals**

Data in mg/kg

Guidance: NYSDEC 375-6 and CP-51

Concentrations above UU-SCOs in **Bold**

TAL Metals (Various Methods)	Soil Cleanup Objectives (SCOs)		MW-23 (2012-07-25)			MW-24 (2012-07-25)			MW-25 (2012-07-25)		
	Unrestricted	Restricted-Residential									
			Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
Aluminum	NE	NE	3,850		2.45	4,210		2.5	4,700		2.23
Antimony	NE	NE	ND		0.611	ND		0.626	ND		0.557
Arsenic	13	16	ND		1.22	ND		1.25	ND		1.11
Barium	350	400	51.9		0.611	44.4		0.626	41.5		0.557
Beryllium	7.2	72	ND		0.122	ND		0.125	ND		0.111
Cadmium	2.5	4.3	ND		0.611	ND		0.626	ND		0.557
Calcium	NE	NE	3,280		2.45	1,450		2.5	2,910		2.23
Chromium	30	180	11		0.611	12		0.626	13.9		0.557
Cobalt	NE	30	8.58		0.611	9.46		0.626	14.8		0.557
Copper	50	270	15		0.611	16.9		0.626	31.7		0.557
Iron	NE	2,700	12,100		1.22	18,000		1.25	22,600		1.11
Lead	63	400	4.95	B	0.367	4.29	B	0.376	5.78	B	0.334
Magnesium	NE	NE	3,910		2.45	2,300		2.5	4,120		2.23
Manganese	1,600	2,000	660		1.22	467		1.25	321		1.11
Mercury	0.18	0.81	ND		0.122	ND		0.125	ND		0.111
Nickel	30	310	15.8		0.611	18.4		0.626	25.5		0.557
Potassium	NE	NE	1,160		12.2	1,280		12.5	1,230		11.1
Selenium	3.9	180	ND		0.611	ND		0.626	ND		0.557
Silver	2	180	ND		0.611	ND		0.626	ND		0.557
Sodium	NE	NE	416		12.2	214		12.5	283		11.1
Thallium	NE	NE	ND		0.611	ND		0.626	ND		0.557
Vanadium	NE	100	14.2		0.611	15.9		0.626	22.5		0.557
Zinc	109	10,000	42.9		0.611	39.6		0.626	137		0.557

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration



**Table 7: Soil - Metals**

Data in mg/kg

Guidance: NYSDEC 375-6 and CP-51

Concentrations above UU-SCOs in **Bold**

TAL Metals (Various Methods)	Soil Cleanup Objectives (SCOs)		MW-26 (2012-09-24)			MW-27 (2012-09-24)			MW-28 (2013-01-15)		
	Unrestricted	Restricted-Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
Aluminum	NE	NE	13,900		2.61	3,200		2.56	11,500	B	2.46
Antimony	NE	NE	ND		0.653	ND		0.64	ND		0.614
Arsenic	13	16	2.69		1.31	ND		1.28	1.67		1.23
Barium	350	400	106		0.653	31		0.64	125		0.614
Beryllium	7.2	72	1.17		0.131	0.34		0.128	ND		0.123
Cadmium	2.5	4.3	ND		0.653	ND		0.64	ND		0.614
Calcium	NE	NE	2,900		2.61	1,640		2.56	2,190		6.14
Chromium	30	180	35.2		0.653	11.1		0.64	30.2		0.614
Cobalt	NE	30	21.5		0.653	6.21		0.64	18.8		0.614
Copper	50	270	34.3		0.653	12.6		0.64	25.2		0.614
Iron	NE	2,700	29,400		1.31	10,200		1.28	25,800		2.46
Lead	63	400	8.24		0.392	2.55		0.384	5.82		0.368
Magnesium	NE	NE	10,400		2.61	2,430		2.56	7,590		6.14
Manganese	1,600	2,000	1,290		1.31	294		1.28	604		1.23
Mercury	0.18	0.81	ND		0.131	ND		0.128	ND		0.123
Nickel	30	310	43.3		0.653	12.4		0.64	32.4		0.614
Potassium	NE	NE	5,400		13.1	1,170		12.8	4,580		12.3
Selenium	3.9	180	6.51		0.653	2.1		0.64	4.34		0.614
Silver	2	180	ND		0.653	ND		0.64	ND		0.614
Sodium	NE	NE	561		13.1	109		12.8	262	B	12.3
Thallium	NE	NE	ND		0.653	ND		0.64	ND		0.614
Vanadium	NE	100	51.6		0.653	15.2		0.64	41		0.614
Zinc	109	10,000	103		0.653	29.5		0.64	118		0.614

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

**Table 7: Soil - Metals**

Data in mg/kg

Guidance: NYSDEC 375-6 and CP-51

Concentrations above UU-SCOs in **Bold**

TAL Metals (Various Methods)	Soil Cleanup Objectives (SCOs)		MW-29 (2013-01-08)			SB-60 (2012-02-01)			SB-60B (6-8) (2012-02-13)		
	Unrestricted	Restricted-Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
Aluminum	NE	NE	6,000		2.36	4,530		2.12	8,330		2.19
Antimony	NE	NE	ND		0.589	ND		0.531	2.69		0.548
Arsenic	13	16	ND		1.18	ND		1.06	2.95		1.1
Barium	350	400	53.9		0.589	55		0.531	62.7		0.548
Beryllium	7.2	72	ND		0.118	ND		0.106	ND		0.11
Cadmium	2.5	4.3	ND		0.589	ND		0.531	ND		0.548
Calcium	NE	NE	2,970		5.89	1,330	B	2.12	1,270		2.19
Chromium	30	180	16.8		0.589	13.1		0.531	25		0.548
Cobalt	NE	30	10.6		0.589	8.4		0.531	14.3		0.548
Copper	50	270	19.3		0.589	15.3		0.531	30.1		0.548
Iron	NE	2,700	15,300		2.36	13,400	B	1.06	24,200		1.1
Lead	63	400	3.91		0.354	6.47		0.319	11.1		0.329
Magnesium	NE	NE	4,480		5.89	2,860	B	2.12	4,260		2.19
Manganese	1,600	2,000	363		1.18	733		1.06	406		1.1
Mercury	0.18	0.81	ND		0.118	ND		0.106	ND		0.11
Nickel	30	310	19.5		0.589	16		0.531	46.9		0.548
Potassium	NE	NE	2,130		11.8	1,430		10.6	1,270		11
Selenium	3.9	180	2.53		0.589	1.63		0.531	2.5		0.548
Silver	2	180	ND		0.589	ND		0.531	ND		0.548
Sodium	NE	NE	217		11.8	103	B	10.6	83		11
Thallium	NE	NE	ND		0.589	ND		0.531	ND		0.548
Vanadium	NE	100	22.4		0.589	19.4		0.531	30.5		0.548
Zinc	109	10,000	53.7		0.589	40.9		0.531	77		0.548

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Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

**Table 7: Soil - Metals**

Data in mg/kg

Guidance: NYSDEC 375-6 and CP-51

Concentrations above UU-SCOs in **Bold**

TAL Metals (Various Methods)	Soil Cleanup Objectives (SCOs)		SB-61 (2012-02-01)			SB-63 (14) (2012-02-10)			SB-67 (2012-02-02)		
	Unrestricted	Restricted-Residential	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
Aluminum	NE	NE	2,640		2.26	9,200		2.48	3,680		2.12
Antimony	NE	NE	ND		0.564	6.81		0.619	ND		0.53
Arsenic	13	16	ND		1.13	1.74		1.24	ND		1.06
Barium	350	400	32.9		0.564	93.5		0.619	37.5		0.53
Beryllium	7.2	72	ND		0.113	ND		0.124	ND		0.106
Cadmium	2.5	4.3	ND		0.564	1.57		0.619	ND		0.53
Calcium	NE	NE	2,510	B	2.26	1,260		2.48	1,340	B	2.12
Chromium	30	180	23.9		0.564	37.8		0.619	11.3		0.53
Cobalt	NE	30	8.93		0.564	16.3		0.619	9.44		0.53
Copper	50	270	67.7		0.564	43.3		0.619	23.4		0.53
Iron	NE	2,700	37,800	B	1.13	24,400		1.24	13,900	B	1.06
Lead	63	400	10.8		0.339	19.3		0.371	111		0.318
Magnesium	NE	NE	1,280	B	2.26	5,050		2.48	2,260	B	2.12
Manganese	1,600	2,000	670		1.13	828		1.24	416		1.06
Mercury	0.18	0.81	ND		0.113	ND		0.124	ND		0.106
Nickel	30	310	25.9		0.564	36.7		0.619	16.2		0.53
Potassium	NE	NE	674		11.3	2,890		12.4	1,150		10.6
Selenium	3.9	180	1.99		0.564	4.89		0.619	1.17		0.53
Silver	2	180	ND		0.564	ND		0.619	ND		0.53
Sodium	NE	NE	54.3	B	11.3	149		12.4	61.9	B	10.6
Thallium	NE	NE	ND		0.564	2.35		0.619	ND		0.53
Vanadium	NE	100	43.5		0.564	39		0.619	19.1		0.53
Zinc	109	10,000	57.5		0.564	100		0.619	45		0.53

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

**Table 7: Soil - Metals**

Data in mg/kg

Guidance: NYSDEC 375-6 and CP-51

Concentrations above UU-SCOs in **Bold**

TAL Metals (Various Methods)	Soil Cleanup Objectives (SCOs)		SB-69 (2012-02-01)			SB-71 (14) (2012-02-10)		
	Unrestricted	Restricted- Residential	Result	Flag	RL	Result	Flag	RL
Aluminum	NE	NE	6,450		201	3,890		2.25
Antimony	NE	NE	ND		201	4.98		0.562
Arsenic	13	16	ND		201	ND		1.12
Barium	350	400	79.2		201	45.7		0.562
Beryllium	7.2	72	ND		201	ND		0.112
Cadmium	2.5	4.3	ND		201	0.944		0.562
Calcium	NE	NE	1,080	B	201	13,800		2.25
Chromium	30	180	31.6		201	13.1		0.562
Cobalt	NE	30	9.13		402	7.73		0.562
Copper	50	270	25.9		201	16.2		0.562
Iron	NE	2,700	24,100	B	201	11,700		1.12
Lead	63	400	7.73		201	7.51		0.337
Magnesium	NE	NE	3,730	B	201	10,200		2.25
Manganese	1,600	2,000	308		201	556		1.12
Mercury	0.18	0.81	ND		201	ND		0.112
Nickel	30	310	23		201	15.2		0.562
Potassium	NE	NE	2,640		201	1,760		11.2
Selenium	3.9	180	1.26		201	4.12		0.562
Silver	2	180	ND		402	ND		0.562
Sodium	NE	NE	377	B	201	127		11.2
Thallium	NE	NE	ND		201	ND		0.562
Vanadium	NE	100	32.4		201	18		0.562
Zinc	109	10,000	86.5		201	42.2		0.562

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank E = Estimated concentration

**Table 8: Soil - Detected VOC TICs**

Data in µg/kg

ESI File: SB09110

VOCs - TICs (USEPA Method 8260)	MW-19 (10-12) (2012-02-02)		MW-26 (2012-09-24)		SB-60 (2012-02-01)		SB-60B (6-8) (2012-02-13)	
	Result	Flag	Result	Flag	Result	Flag	Result	Flag
(methylpropyl) cyclohexane isomer	2,400	JN			390			
1,2,4,5-Tetramethylbenzene	1,800							
1-methyl-3-propyl benzene							2,500	JN
2,6-dimethyl octane			34	JN				
2-Butanone								
2-ethyl-1-hexanol								
3-methyl nonane			32	JN				
3-methyl thiophene								
4-Methyl-2-pentanone								
Acetone	11	B-Dil			180	B	2,400	B
Butanal								
butyl cyclohexane			37	JN	390	JN		
butyl octanol isomer								
decahydro methyl naphthalene isomers			84	JN				
dihydro dimethyl indene isomers	8,700	JN						
dimethyl Cyclohexane isomer			66	JN				
dimethyl Heptane isomer	2,800	JN						
dimethyl nonane isomer								
dimethyl octane isomer					590	JN		
dimethyl Octene isomer							2,200	JN
dimethyl Undecane isomer								
Dodecane								
Ethyl Dimethyl Benzene isomer								
ethyl Hexanal isomer								
ethyl Hexanol isomer								
Ethyl Methyl Benzene isomer								
Heptene isomer								
Hexane								
Methyl (methylethyl) benzene isomer							2,900	JN
Methyl (methylpentyl) Cyclopropane isomer								
methyl Cycloheptane isomer								
Methyl Cyclohexane	880				82	JN		
methyl Decane isomer					620	JN		
methyl Heptane isomers								
methyl Heptanol isomer								
methyl hexanol isomer								
methyl Nonane isomer	2,200	JN						
methyl Nonane isomers					1,500	JN		
methyl Octane isomer	2,300	JN						
methyl octane isomers					1,000	JN		
methyl pentyl cyclohexane isomer								
methyl-(methylpropyl) cyclopentane			40	JN				
Nonane	3,200	JN						
Octane	2,400	JN						
p-Diethylbenzene								
Pentanal								
Pentyl Cyclohexane			60	JN				
pentyl Cyclohexane isomer								
p-Ethyltoluene								
propyl cyclohexane			50	JN			3,400	JN
propyl cyclohexanes					920	JN		
tetramethyl Benzene isomers							4,200	JN
tetramethyl cyclohexane isomer			52	JN				
Trimethyl Benzene isomers							7,600	JN
Trimethyl cyclohexane isomer	2,200	JN						
undecane							2,000	JN
undecanes								
Total TICs	28,891		455		5,672		27,200	

Flags: JN = Possible analyte or class of analyte tentatively identified at an estimated concentration.

B and B-dil = Detected in laboratory blank

IHWD ID: 224136

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**Table 8: Soil - Detected VOC TICs**

Data in µg/kg

ESI File: SB09110

VOCs - TICs (USEPA Method 8260)	SB-61 (2012-02-01)		SB-63 (14) (2012-02-10)		SB-65 (8-12) (2012-04-19)		SB-67 (2012-02-02)	
	Result	Flag	Result	Flag	Result	Flag	Result	Flag
(methylpropyl) cyclohexane isomer								
1,2,4,5-Tetramethylbenzene	110						9.7	
1-methyl-3-propyl benzene								
2,6-dimethyl octane								
2-Butanone			110				59	
2-ethyl-1-hexanol								
3-methyl nonane								
3-methyl thiophene							34	JN
4-Methyl-2-pentanone							25	
Acetone			270	B			94	B
Butanal			52	JN				
butyl cyclohexane	320	JN					32	JN
butyl octanol isomer							20	JN
decahydro methyl naphthalene isomers								
dihydro dimethyl indene isomers								
dimethyl Cyclohexane isomer								
dimethyl Heptane isomer								
dimethyl nonane isomer	370	JN						
dimethyl octane isomer	170	JN						
dimethyl Octene isomer	160	JN						
dimethyl Undecane isomer								
Dodecane							31	JN
Ethyl Dimethyl Benzene isomer			12	JN				
ethyl Hexanal isomer			310	JN			24	JN
ethyl Hexanol isomer			360	JN				
Ethyl Methyl Benzene isomer					75	JN		
Heptene isomer			12	JN				
Hexane								
Methyl (methylethyl) benzene isomer								
Methyl (methylpentyl) Cyclopropane isomer			25	JN				
methyl Cycloheptane isomer								
Methyl Cyclohexane								
methyl Decane isomer	180	JN					21	JN
methyl Heptane isomers					120	JN		
methyl Heptanol isomer			15	JN				
methyl hexanol isomer								
methyl Nonane isomer	200	JN					19	JN
methyl Nonane isomers								
methyl Octane isomer					59	JN	23	JN
methyl octane isomers	150	JN			110	JN		
methyl pentyl cyclohexane isomer								
methyl-(methylpropyl) cyclopentane								
Nonane								
Octane					110	JN		
p-Diethylbenzene	160							
Pentanal			29	JN				
Pentyl Cyclohexane								
pentyl Cyclohexane isomer	210	JN						
p-Ethyltoluene							29	
propyl cyclohexane	170	JN					130	JN
propyl cyclohexanes								
tetramethyl Benzene isomers								
tetramethyl cyclohexane isomer								
Trimethyl Benzene isomers								
Trimethyl cyclohexane isomer								
undecane								
undecanes							130	JN
Total TICs	2,200		1,195		474		680.7	

Flags: JN = Possible analyte or class of analyte tentatively identified at an estimated concentration.

B and B-dil = Detected in laboratory blank

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**Table 8: Soil - Detected VOC TICs**

Data in µg/kg

VOCs - TICs (USEPA Method 8260)	SB-69 (2012-02-01)		SB-71 (14) (2012-02-10)	
	Result	Flag	Result	Flag
(methylpropyl) cyclohexane isomer				
1,2,4,5-Tetramethylbenzene				
1-methyl-3-propyl benzene				
2,6-dimethyl octane				
2-Butanone			5.8	
2-ethyl-1-hexanol			740	JN
3-methyl nonane				
3-methyl thiophene				
4-Methyl-2-pentanone				
Acetone	33		85	B
Butanal				
butyl cyclohexane				
butyl octanol isomer				
decahydro methyl naphthalene isomers				
dihydro dimethyl indene isomers				
dimethyl Cyclohexane isomer				
dimethyl Heptane isomer				
dimethyl nonane isomer				
dimethyl octane isomer				
dimethyl Octene isomer				
dimethyl Undecane isomer				
Dodecane				
Ethyl Dimethyl Benzene isomer				
ethyl Hexanal isomer				
ethyl Hexanol isomer				
Ethyl Methyl Benzene isomer				
Heptene isomer				
Hexane			12	JN
Methyl (methylethyl) benzene isomer				
Methyl (methylpentyl) Cyclopropane isomer				
methyl Cycloheptane isomer			33	JN
Methyl Cyclohexane				
methyl Decane isomer				
methyl Heptane isomers				
methyl Heptanol isomer				
methyl hexanol isomer			61	JN
methyl Nonane isomer				
methyl Nonane isomers				
methyl Octane isomer				
methyl octane isomers				
methyl pentyl cyclohexane isomer				
methyl-(methylpropyl) cyclopentane				
Nonane				
Octane				
p-Diethylbenzene				
Pentanal				
Pentyl Cyclohexane				
pentyl Cyclohexane isomer				
p-Ethyltoluene				
propyl cyclohexane				
propyl cyclohexanes				
tetramethyl Benzene isomers				
tetramethyl cyclohexane isomer				
Trimethyl Benzene isomers				
Trimethyl cyclohexane isomer			31	JN
undecane				
undecanes				
Total TICs	33		967.8	

Flags: JN = Possible analyte or class of analyte tentatively identified at an estimated concentration.  
 B and B-dil = Detected in laboratory blank

**Table 9: Soil - Detected SVOC TICs**

Data in µg/kg

SVOCs - TICs (USEPA Method 8270)	MW-19 (10-12) (2012-02-02)		MW-22 (12-14) (2012-02-16)		MW-42 (8-10) (2014-12-10)		SB-60B (6-8) (2012-02-13)		SB-60B (8-10) (2012-02-13)		SB-60B (10-12) (2012-02-13)	
	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benenedicarboxylic acid			159	JN			256	JN	211	JN	280	JN
Didecyl phthalate			199	JN					140	JN		
Didodecyl phthalate											140	JN
dimethyl-Naphthalene isomer	1,170	JN										
ethyl Hexanol isomer												
Hexahydropyridine isomer												
Hexanedioic acid											140	JN
methyl Anthracene isomer	1,370	JN										
methyl Dibenzothiophene	1,450	JN										
nitro Thiophene isomer												
Octacosane	1,370	JN										
unknown hydrocarbon					188							
Total TICs	5,360		358		188		256		351		560	

SVOCs - TICs (USEPA Method 8270)	SB-60B (10-12) (2012-02-13)		SB-63 (12-14) (2012-02-01)		SB-63 (14) (2012-02-10)		SB-68 (14) (2012-02-01)		SB-71 (14) (2012-02-10)		SB-78A (spill site) (2012-02-01)	
	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benenedicarboxylic acid	280	JN					168	JN			221	JN
Didecyl phthalate									187	JN		
Didodecyl phthalate	140	JN			866	JN	168	JN				
dimethyl-Naphthalene isomer												
ethyl Hexanol isomer					2,150	JN						
Hexahydropyridine isomer					413	JN						
Hexanedioic acid	140	JN			15,200	JN					221	JN
methyl Anthracene isomer												
methyl Dibenzothiophene												
nitro Thiophene isomer			954	JN								
Octacosane												
unknown hydrocarbon												
Total TICs	560		954		18,629		336		187		442	

Flags: JN = Possible analyte or class of analyte tentatively identified at an estimated concentration.



**Table 10: Water - VOCs**

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

 Elevated concentrations in **Bold**

VOCs (USEPA Method 8260)	Guidance Level	MW-3 (2010-02-15)			MW-3 (2012-04-25)			MW-3 (2013-11-25)			MW-4 (2014-04-03)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	5	ND		5	ND		5	NA		-	NA		-
1,1,1-Trichloroethane	5	2.4	J	5	ND		5	ND		5	ND		0.5
1,1,2,2-Tetrachloroethane	5	ND		5	ND		5	NA		-	ND		0.5
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ND		5	ND		5	ND		5	ND		0.5
1,1,2-Trichloroethane	1	ND		5	ND		5	ND		5	ND		0.5
1,1-Dichloroethane	5	ND		5	ND		5	ND		5	ND		0.5
1,1-Dichloroethylene	5	ND		5	ND		5	ND		5	ND		0.5
1,1-Dichloropropylene	5	ND		5	ND		5	NA		-	NA		-
1,2,3-Trichlorobenzene	5	ND		5	ND		10	NA		-	ND		0.5
1,2,3-Trichloropropane	0.04	ND		5	ND		5	NA		-	NA		-
1,2,4-Trichlorobenzene	5	ND		5	ND		10	ND		10	ND		0.5
1,2,4-Trimethylbenzene	5	1.1	J	5	ND		5	ND		5	NA		-
1,2-Dibromo-3-chloropropane	0.04	ND		5	ND		10	ND		10	ND		0.5
1,2-Dibromoethane	5	ND		5	ND		5	ND		5	ND		0.5
1,2-Dichlorobenzene	3	ND		5	ND		5	NA		-	ND		0.5
1,2-Dichloroethane	0.6	ND		5	ND		5	ND		5	ND		0.5
1,2-Dichloropropane	1	ND		5	ND		5	ND		5	ND		0.5
1,3,5-Trimethylbenzene	5	ND		5	ND		5	ND		5	NA		-
1,3-Dichlorobenzene	3	ND		5	ND		5	NA		-	ND		0.5
1,3-Dichloropropane	5	ND		5	ND		5	NA		-	NA		-
1,4-Dichlorobenzene	3	ND		5	ND		5	NA		-	ND		0.5
1,4-Dioxane	NE	NA		-	NA		-	NA		-	NA		-
2,2-Dichloropropane	5	ND		5	ND		5	NA		-	NA		-
2-Butanone	50	NA		-	ND		10	ND		10	5.4		0.5
2-Chlorotoluene	5	ND		5	ND		5	NA		-	NA		-
2-Hexanone	50	NA		-	NA		-	ND		5	ND		0.5
4-Chlorotoluene	5	ND		5	ND		5	NA		-	NA		-
4-Methyl-2-pentanone	NE	NA		-	NA		-	ND		10	5.5	E	0.5
Acetone	50	NA		-	3.1	J,B	10	ND		10	18	E,B	2
Benzene	1	ND		5	ND		5	ND		5	ND		0.5
Bromobenzene	5	ND		5	ND		5	NA		-	NA		-
Bromochloromethane	5	ND		5	ND		5	NA		-	ND		0.5
Bromodichloromethane	50	ND		5	ND		5	ND		5	ND		0.5
Bromoform	50	ND		5	ND		5	ND		5	ND		0.5
Bromomethane	5	ND		5	ND		5	ND		5	ND		0.5
Carbon disulfide	NE	NA		-	NA		-	ND		5	ND		0.5
Carbon tetrachloride	5	ND		5	ND		5	ND		5	ND		0.5
Chlorobenzene	5	ND		5	ND		5	ND		5	0.41	J	0.5
Chloroethane	5	ND		5	ND		5	ND		5	ND		0.5
Chloroform	7	ND		5	ND		5	ND		5	ND		0.5
Chloromethane	5	ND		5	ND		5	ND		5	ND		0.5
cis-1,2-Dichloroethylene	5	ND		5	ND		5	ND		5	1.2		0.5
cis-1,3-Dichloropropylene	0.4	ND		5	ND		5	ND		5	ND		0.5
Cyclohexane	NE	NA		-	NA		-	NA		-	ND		0.5
Dibromochloromethane	5	ND		5	ND		5	ND		5	ND		0.5
Dibromomethane	5	ND		5	ND		5	NA		-	NA		-
Dichlorodifluoromethane	5	ND		5	ND		5	ND		5	ND		0.5
Ethyl Benzene	5	ND		5	ND		5	ND		5	ND		0.5
Hexachlorobutadiene	0.5	ND		5	ND		5	NA		-	NA		-
Isopropylbenzene	5	ND		5	ND		5	ND		5	ND		0.5
Methyl acetate	NE	NA		-	NA		-	NA		-	ND		0.5
Methyl tert-butyl ether (MTBE)	10	ND		5	ND		5	ND		5	0.45	J	0.5
Methylcyclohexane	NE	NA		-	NA		-	NA		-	ND		0.5
Methylene chloride	5	3.4	B,J	10	6.5	J,B	10	ND		10	ND		2
Naphthalene	10	ND		5	ND		10	ND		10	NA		-
n-Butylbenzene	5	ND		5	ND		5	ND		5	NA		-
n-Propylbenzene	5	ND		5	ND		5	ND		5	NA		-
o-Xylene	5	ND		5	ND		5	ND		5	ND		0.5
p- & m- Xylenes	5	ND		10	ND		10	ND		10	ND		1
p-Isopropyltoluene	5	ND		5	ND		5	NA		-	NA		-
sec-Butylbenzene	5	ND		5	ND		5	ND		5	NA		-
Styrene	5	ND		5	ND		5	ND		5	ND		0.5
tert-Butylbenzene	5	ND		5	ND		5	ND		5	NA		-
Tetrachloroethylene	5	ND		5	ND		5	ND		5	ND		0.5
Toluene	5	ND		5	ND		5	ND		5	0.37	J	0.5
trans-1,2-Dichloroethylene	5	ND		5	ND		5	ND		5	ND		0.5
trans-1,3-Dichloropropylene	0.4	ND		5	ND		5	ND		5	ND		0.5
Trichloroethylene	5	ND		5	ND		5	ND		5	0.42	J	0.5
Trichlorofluoromethane	5	ND		5	ND		5	ND		5	ND		0.5
Vinyl acetate	NE	NA		-	NA		-	NA		-	NA		-
Vinyl chloride	2	ND		5	ND		5	ND		5	ND		0.5
Xylenes, Total	5	NA		-	ND		15	ND		15	ND		1.5
Total TICs	NE	NA		-	NA		-	ND		-	78.6		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration

**Table 10: Water - VOCs**

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

 Elevated concentrations in **Bold**

VOCs (USEPA Method 8260)	Guidance Level	MW-7 (2014-10-9)			MW-8 (2014-04-03)			MW-8 (2014-10-08)			MW-10 (2010-02-15)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	5	NA		-	NA		-	NA		-	ND		5
1,1,1-Trichloroethane	5	ND		0.5	ND		120	ND		0.5	ND		5
1,1,2,2-Tetrachloroethane	5	ND		0.5	ND		120	ND		0.5	ND		5
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ND		0.5	ND		120	ND		0.5	ND		5
1,1,2-Trichloroethane	1	ND		0.5	ND		120	ND		0.5	ND		5
1,1-Dichloroethane	5	0.23	J	0.5	ND		120	9.3		0.5	ND		5
1,1-Dichloroethylene	5	ND		0.5	ND		120	27		0.5	ND		5
1,1-Dichloropropylene	5	NA		-	NA		-	NA		-	ND		5
1,2,3-Trichlorobenzene	5	ND		0.5	ND		120	ND		0.5	ND		5
1,2,3-Trichloropropane	0.04	NA		-	NA		-	NA		-	ND		5
1,2,4-Trichlorobenzene	5	ND		0.5	ND		120	ND		0.5	ND		5
1,2,4-Trimethylbenzene	5	NA		-	NA		-	NA		-	ND		5
1,2-Dibromo-3-chloropropane	0.04	ND		0.5	ND		120	ND		0.5	ND		5
1,2-Dibromoethane	5	ND		0.5	ND		120	ND		0.5	ND		5
1,2-Dichlorobenzene	3	ND		0.5	ND		120	ND		0.5	ND		5
1,2-Dichloroethane	0.6	ND		0.5	ND		120	ND		0.5	ND		5
1,2-Dichloropropane	1	ND		0.5	ND		120	ND		0.5	ND		5
1,3,5-Trimethylbenzene	5	NA		-	NA		-	NA		-	ND		5
1,3-Dichlorobenzene	3	ND		0.5	ND		120	ND		0.5	ND		5
1,3-Dichloropropane	5	NA		-	NA		-	NA		-	ND		5
1,4-Dichlorobenzene	3	ND		0.5	ND		120	ND		0.5	NA		-
1,4-Dioxane	NE	NA		-	NA		-	NA		-	ND		5
2,2-Dichloropropane	5	NA		-	NA		-	NA		-	ND		5
2-Butanone	50	ND		0.5	ND		120	ND		0.5	ND		5
2-Chlorotoluene	5	NA		-	NA		-	NA		-	ND		5
2-Hexanone	50	ND		0.5	ND		120	ND		0.5	ND		5
4-Chlorotoluene	5	NA		-	NA		-	NA		-	ND		5
4-Methyl-2-pentanone	NE	ND		0.5	ND		120	ND		0.5	NA		-
Acetone	50	ND		2	420	J, B	500	ND		2	ND		5
Benzene	1	ND		0.5	ND		120	ND		0.5	ND		5
Bromobenzene	5	NA		-	NA		-	NA		-	ND		5
Bromochloromethane	5	ND		0.5	ND		120	ND		0.5	ND		5
Bromodichloromethane	50	ND		0.5	ND		120	ND		0.5	ND		5
Bromoform	50	ND		0.5	ND		120	ND		0.5	ND		5
Bromomethane	5	ND		0.5	ND		120	ND		0.5	NA		-
Carbon disulfide	NE	ND		0.5	ND		120	ND		0.5	ND		5
Carbon tetrachloride	5	ND		0.5	ND		120	ND		0.5	ND		5
Chlorobenzene	5	ND		0.5	ND		120	ND		0.5	ND		5
Chloroethane	5	1.9		0.5	ND		120	ND		0.5	ND		5
Chloroform	7	ND		0.5	ND		120	ND		0.5	ND		5
Chloromethane	5	ND		0.5	ND		120	ND		0.5	ND		5
cis-1,2-Dichloroethylene	5	3.4		0.5	2,300		120	2,700		1,000	ND		5
cis-1,3-Dichloropropylene	0.4	ND		0.5	ND		120	ND		0.5	ND		5
Cyclohexane	NE	ND		0.5	ND		120	ND		0.5	NA		-
Dibromochloromethane	5	ND		0.5	ND		120	ND		0.5	ND		5
Dibromomethane	5	NA		-	NA		-	NA		-	ND		5
Dichlorodifluoromethane	5	ND		0.5	ND		120	ND		0.5	ND		5
Ethyl Benzene	5	ND		0.5	ND		120	ND		0.5	ND		5
Hexachlorobutadiene	0.5	ND		0.5	NA		-	ND		0.5	ND		5
Isopropylbenzene	5	NA		-	ND		120	NA		-	ND		5
Methyl acetate	NE	ND		0.5	ND		120	ND		0.5	NA		-
Methyl tert-butyl ether (MTBE)	10	ND		0.5	ND		120	ND		0.5	ND		5
Methylcyclohexane	NE	ND		0.5	ND		120	ND		0.5	NA		-
Methylene chloride	5	ND		2	ND		500	ND		2	3.4	B, J	10
Naphthalene	10	NA		-	NA		-	NA		-	ND		5
n-Butylbenzene	5	NA		-	NA		-	NA		-	ND		5
n-Propylbenzene	5	NA		-	NA		-	NA		-	ND		5
o-Xylene	5	ND		0.5	ND		120	0.28	J	0.5	ND		5
p- & m- Xylenes	5	ND		1	ND		250	ND		1	ND		10
p-Isopropyltoluene	5	NA		-	NA		-	NA		-	ND		5
sec-Butylbenzene	5	NA		-	NA		-	NA		-	ND		5
Styrene	5	ND		0.5	ND		120	ND		0.5	ND		5
tert-Butylbenzene	5	NA		-	NA		-	NA		-	ND		5
Tetrachloroethylene	5	ND		0.5	ND		120	22		0.5	ND		5
Toluene	5	ND		0.5	ND		120	1.3		0.5	ND		5
trans-1,2-Dichloroethylene	5	ND		0.5	ND		120	39		0.5	ND		5
trans-1,3-Dichloropropylene	0.4	ND		0.5	ND		120	ND		0.5	ND		5
Trichloroethylene	5	ND		0.5	33,000		1,000	21,000		1,000	1.1	J	5
Trichlorofluoromethane	5	ND		0.5	ND		120	ND		0.5	ND		5
Vinyl acetate	NE	NA		-	NA		-	NA		-	ND		5
Vinyl chloride	2	0.98		0.5	ND		120	16		0.5	ND		5
Xylenes, Total	5	ND		1.5	ND		380	ND		1.5	NA		-
Total TICs	NE	NA		-	ND		-	NA		-	ND		5

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration

**Table 10: Water - VOCs**

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

 Elevated concentrations in **Bold**

VOCs (USEPA Method 8260)	Guidance Level	MW-10 (2012-03-16)			MW-12 (2010-02-15)			MW-12 (2014-10-09)			MW-13 (2012-02-15)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	5	ND		5	ND		5	NA		-	ND		5
1,1,1-Trichloroethane	5	ND		5	ND		5	ND		0.5	ND		5
1,1,2,2-Tetrachloroethane	5	ND		5	ND		5	ND		0.5	ND		5
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ND		5	ND		5	ND		0.5	ND		5
1,1,2-Trichloroethane	1	ND		5	ND		5	ND		0.5	ND		5
1,1-Dichloroethane	5	ND		5	ND		5	ND		0.5	ND		5
1,1-Dichloroethylene	5	ND		5	ND		5	ND		0.5	ND		5
1,1-Dichloropropylene	5	ND		5	ND		5	NA		-	ND		5
1,2,3-Trichlorobenzene	5	ND		10	ND		5	ND		0.5	ND		5
1,2,3-Trichloropropane	0.04	ND		5	ND		5	NA		-	ND		5
1,2,4-Trichlorobenzene	5	ND		10	ND		5	ND		0.5	ND		5
1,2,4-Trimethylbenzene	5	ND		5	ND		5	NA		-	ND		5
1,2-Dibromo-3-chloropropane	0.04	ND		10	ND		5	ND		0.5	ND		5
1,2-Dibromoethane	5	ND		5	ND		5	ND		0.5	ND		5
1,2-Dichlorobenzene	3	ND		5	ND		5	ND		0.5	ND		5
1,2-Dichloroethane	0.6	ND		5	ND		5	ND		0.5	ND		5
1,2-Dichloropropane	1	ND		5	ND		5	ND		0.5	ND		5
1,3,5-Trimethylbenzene	5	ND		5	ND		5	NA		-	ND		5
1,3-Dichlorobenzene	3	ND		5	ND		5	ND		0.5	ND		5
1,3-Dichloropropane	5	ND		5	ND		5	NA		-	ND		5
1,4-Dichlorobenzene	3	ND		5	NA		-	ND		0.5	NA		-
1,4-Dioxane	NE	ND		5	ND		5	NA		-	ND		5
2,2-Dichloropropane	5	ND		5	ND		5	NA		-	ND		5
2-Butanone	50	ND		10	ND		5	ND		0.5	ND		5
2-Chlorotoluene	5	ND		5	ND		5	NA		-	ND		5
2-Hexanone	50	NA		-	ND		5	ND		0.5	ND		5
4-Chlorotoluene	5	ND		5	ND		5	NA		-	ND		5
4-Methyl-2-pentanone	NE	NA		-	NA		-	ND		0.5	NA		-
Acetone	50	ND		10	ND		5	ND		2	ND		5
Benzene	1	ND		5	ND		5	ND		0.5	ND		5
Bromobenzene	5	ND		5	ND		5	NA		-	ND		5
Bromochloromethane	5	ND		5	ND		5	ND		0.5	ND		5
Bromodichloromethane	50	ND		5	ND		5	ND		0.5	ND		5
Bromoform	50	ND		5	ND		5	ND		0.5	ND		5
Bromomethane	5	ND		5	NA		-	ND		0.5	NA		-
Carbon disulfide	NE	NA		-	ND		5	ND		0.5	ND		5
Carbon tetrachloride	5	ND		5	ND		5	ND		0.5	ND		5
Chlorobenzene	5	ND		5	ND		5	ND		0.5	ND		5
Chloroethane	5	ND		5	ND		5	ND		0.5	ND		5
Chloroform	7	ND		5	ND		5	ND		0.5	ND		5
Chloromethane	5	ND		5	ND		5	ND		0.5	ND		5
cis-1,2-Dichloroethylene	5	ND		5	ND		5	<b>15</b>		0.5	ND		5
cis-1,3-Dichloropropylene	0.4	ND		5	ND		5	ND		0.5	ND		5
Cyclohexane	NE	NA		-	NA		-	ND		0.5	NA		-
Dibromochloromethane	5	ND		5	ND		5	ND		0.5	ND		5
Dibromomethane	5	ND		5	ND		5	NA		-	ND		5
Dichlorodifluoromethane	5	ND		5	ND		5	ND		0.5	ND		5
Ethyl Benzene	5	ND		5	ND		5	ND		0.5	ND		5
Hexachlorobutadiene	0.5	ND		5	ND		5	ND		0.5	ND		5
Isopropylbenzene	5	ND		5	ND		5	NA		-	ND		5
Methyl acetate	NE	NA		-	NA		-	ND		0.5	NA		-
Methyl tert-butyl ether (MTBE)	10	ND		5	ND		5	ND		0.5	ND		5
Methylcyclohexane	NE	NA		-	NA		-	ND		0.5	NA		-
Methylene chloride	5	<b>5.6</b>	J,B	10	<b>3</b>	B,J	10	ND		2	<b>3.9</b>	B,J	10
Naphthalene	10	ND		5	ND		5	NA		-	ND		5
n-Butylbenzene	5	ND		5	ND		5	NA		-	ND		6
n-Propylbenzene	5	ND		5	ND		5	NA		-	ND		7
o-Xylene	5	ND		5	ND		5	ND		0.5	ND		5
p- & m- Xylenes	5	ND		10	ND		10	ND		1	ND		10
p-Isopropyltoluene	5	ND		5	ND		5	NA		-	ND		5
sec-Butylbenzene	5	ND		5	ND		5	NA		-	ND		5
Styrene	5	ND		5	ND		5	ND		0.5	ND		5
tert-Butylbenzene	5	ND		5	ND		5	NA		-	ND		5
Tetrachloroethylene	5	ND		5	ND		5	ND		0.5	ND		5
Toluene	5	ND		5	ND		5	ND		0.5	ND		5
trans-1,2-Dichloroethylene	5	ND		5	ND		5	<b>1</b>		0.5	ND		5
trans-1,3-Dichloropropylene	0.4	ND		5	ND		5	ND		0.5	ND		5
Trichloroethylene	5	<b>0.86</b>	J	5	<b>2.5</b>	J	5	<b>7.1</b>	B	0.5	<b>15</b>		5
Trichlorofluoromethane	5	ND		5	ND		5	ND		0.5	ND		5
Vinyl acetate	NE	ND		5	ND		5	NA		-	ND		5
Vinyl chloride	2	ND		5	ND		5	<b>8.5</b>		0.5	ND		5
Xylenes, Total	5	ND		15	NA		-	ND		1.5	NA		-
Total TICs	NE	ND		5	ND		5	NA		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration

**Table 10: Water - VOCs**

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

Elevated concentrations in **Bold**

VOCs (USEPA Method 8260)	Guidance Level	MW-13 (2012-04-25)			MW-13 (2014-10-09)			MW-14 (2012-02-15)			MW-14 (2014-10-09)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	5	ND		5	NA		-	ND		5	NA		-
1,1,1-Trichloroethane	5	ND		5	ND		0.5	ND		5	ND		0.5
1,1,2,2-Tetrachloroethane	5	ND		5	ND		0.5	ND		5	ND		0.5
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ND		5	ND		0.5	ND		5	ND		0.5
1,1,2-Trichloroethane	1	ND		5	ND		0.5	ND		5	ND		0.5
1,1-Dichloroethane	5	ND		5	ND		0.5	ND		5	ND		0.5
1,1-Dichloroethylene	5	ND		5	ND		0.5	ND		5	ND		0.5
1,1-Dichloropropylene	5	ND		5	NA		-	ND		5	NA		-
1,2,3-Trichlorobenzene	5	ND		10	ND		0.5	ND		5	ND		0.5
1,2,3-Trichloropropane	0.04	ND		5	NA		-	ND		5	NA		-
1,2,4-Trichlorobenzene	5	ND		10	ND		0.5	ND		5	ND		0.5
1,2,4-Trimethylbenzene	5	ND		5	NA		-	ND		5	NA		-
1,2-Dibromo-3-chloropropane	0.04	ND		10	ND		0.5	ND		5	ND		0.5
1,2-Dibromoethane	5	ND		5	ND		0.5	ND		5	ND		0.5
1,2-Dichlorobenzene	3	ND		5	ND		0.5	ND		5	ND		0.5
1,2-Dichloroethane	0.6	ND		5	ND		0.5	ND		5	ND		0.5
1,2-Dichloropropane	1	ND		5	ND		0.5	ND		5	ND		0.5
1,3,5-Trimethylbenzene	5	ND		5	NA		-	ND		5	NA		-
1,3-Dichlorobenzene	3	ND		5	ND		0.5	ND		5	ND		0.5
1,3-Dichloropropane	5	ND		5	NA		-	ND		5	NA		-
1,4-Dichlorobenzene	3	ND		5	ND		0.5	NA		-	ND		0.5
1,4-Dioxane	NE	ND		5	NA		-	ND		5	NA		-
2,2-Dichloropropane	5	ND		5	NA		-	ND		5	NA		-
2-Butanone	50	ND		10	ND		0.5	ND		5	ND		0.5
2-Chlorotoluene	5	ND		5	NA		-	ND		5	NA		-
2-Hexanone	50	NA		-	ND		0.5	ND		5	ND		0.5
4-Chlorotoluene	5	ND		5	NA		-	ND		5	NA		-
4-Methyl-2-pentanone	NE	NA		-	ND		0.5	NA		-	ND		0.5
Acetone	50	ND		10	ND		2	ND		5	ND		2
Benzene	1	ND		5	ND		0.5	ND		5	ND		0.5
Bromobenzene	5	ND		5	NA		-	ND		5	NA		-
Bromochloromethane	5	ND		5	ND		0.5	ND		5	ND		0.5
Bromodichloromethane	50	ND		5	ND		0.5	ND		5	ND		0.5
Bromoform	50	ND		5	ND		0.5	ND		5	ND		0.5
Bromomethane	5	ND		5	ND		0.5	NA		-	ND		0.5
Carbon disulfide	NE	NA		-	ND		0.5	ND		5	ND		0.5
Carbon tetrachloride	5	ND		5	ND		0.5	ND		5	ND		0.5
Chlorobenzene	5	ND		5	ND		0.5	ND		5	ND		0.5
Chloroethane	5	ND		5	ND		0.5	ND		5	ND		0.5
Chloroform	7	ND		5	ND		0.5	ND		5	ND		0.5
Chloromethane	5	ND		5	ND		0.5	ND		5	ND		0.5
cis-1,2-Dichloroethylene	5	ND		5	ND		0.5	ND		5	ND		0.5
cis-1,3-Dichloropropylene	0.4	ND		5	ND		0.5	ND		5	ND		0.5
Cyclohexane	NE	NA		-	ND		0.5	NA		-	ND		0.5
Dibromochloromethane	5	ND		5	ND		0.5	ND		5	ND		0.5
Dibromomethane	5	ND		5	NA		-	ND		5	NA		-
Dichlorodifluoromethane	5	ND		5	ND		0.5	ND		5	ND		0.5
Ethyl Benzene	5	ND		5	ND		0.5	ND		5	ND		0.5
Hexachlorobutadiene	0.5	ND		5	ND		0.5	ND		5	ND		0.5
Isopropylbenzene	5	ND		5	NA		-	ND		5	NA		-
Methyl acetate	NE	NA		-	ND		0.5	NA		-	ND		0.5
Methyl tert-butyl ether (MTBE)	10	ND		5	ND		0.5	ND		5	ND		0.5
Methylcyclohexane	NE	NA		-	ND		0.5	NA		-	ND		0.5
Methylene chloride	5	<b>4.8</b>	J, B	10	ND		2	<b>3.6</b>	B, J	10	ND		2
Naphthalene	10	ND		5	NA		-	ND		5	NA		-
n-Butylbenzene	5	ND		6	NA		-	ND		6	NA		-
n-Propylbenzene	5	ND		7	NA		-	ND		7	NA		-
o-Xylene	5	ND		5	ND		0.5	ND		5	ND		0.5
p- & m- Xylenes	5	ND		10	ND		1	ND		10	ND		1
p-Isopropyltoluene	5	ND		5	NA		-	ND		5	NA		-
sec-Butylbenzene	5	ND		5	NA		-	ND		5	NA		-
Styrene	5	ND		5	ND		0.5	ND		5	ND		0.5
tert-Butylbenzene	5	ND		5	NA		-	ND		5	NA		-
Tetrachloroethylene	5	ND		5	ND		0.5	ND		5	ND		0.5
Toluene	5	ND		5	ND		0.5	ND		5	ND		0.5
trans-1,2-Dichloroethylene	5	ND		5	ND		0.5	ND		5	ND		0.5
trans-1,3-Dichloropropylene	0.4	ND		5	ND		0.5	ND		5	ND		0.5
Trichloroethylene	5	ND		5	<b>0.34</b>	J, B	0.5	ND		5	<b>0.27</b>	J, B	0.5
Trichlorofluoromethane	5	ND		5	ND		0.5	ND		5	ND		0.5
Vinyl acetate	NE	ND		5	NA		-	ND		5	NA		-
Vinyl chloride	2	ND		5	ND		0.5	ND		5	ND		0.5
Xylenes, Total	5	ND		15	ND		1.5	NA		-	ND		1.5
Total TICs	NE	ND		-	NA		-	NA		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration

**Table 10: Water - VOCs**

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

 Elevated concentrations in **Bold**

VOCs (USEPA Method 8260)	Guidance Level	MW-14A (2014-10-09)			MW-17 (2012-04-19)			MW-18 (2012-03-16)			MW-18 (2014-10-08)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	5	NA		-	NA			110		-	NA		-
1,1,1-Trichloroethane	5	ND		0.5	ND		5	ND		5	ND		0.5
1,1,2,2-Tetrachloroethane	5	ND		0.5	ND		5	ND		5	ND		0.5
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ND		0.5	ND		5	ND		5	ND		0.5
1,1,2-Trichloroethane	1	ND		0.5	ND		5	ND		5	ND		0.5
1,1-Dichloroethane	5	ND		0.5	ND		5	ND		5	ND		0.5
1,1-Dichloroethylene	5	ND		0.5	ND		5	ND		5	ND		0.5
1,1-Dichloropropylene	5	NA		-	NA			110		-	NA		-
1,2,3-Trichlorobenzene	5	ND		0.5	ND		10	ND		10	ND		0.5
1,2,3-Trichloropropane	0.04	NA		-	NA			110		-	NA		-
1,2,4-Trichlorobenzene	5	ND		0.5	ND		10	ND		10	ND		0.5
1,2,4-Trimethylbenzene	5	NA		-	NA			110		-	NA		-
1,2-Dibromo-3-chloropropane	0.04	ND		0.5	ND		10	ND		10	ND		0.5
1,2-Dibromoethane	5	ND		0.5	ND		5	ND		5	ND		0.5
1,2-Dichlorobenzene	3	ND		0.5	ND		5	ND		5	ND		0.5
1,2-Dichloroethane	0.6	ND		0.5	ND		5	ND		5	ND		0.5
1,2-Dichloropropane	1	ND		0.5	ND		5	ND		5	ND		0.5
1,3,5-Trimethylbenzene	5	NA		-	NA			110		-	NA		-
1,3-Dichlorobenzene	3	ND		0.5	ND		5	ND		5	ND		0.5
1,3-Dichloropropane	5	NA		-	NA			110		-	NA		-
1,4-Dichlorobenzene	3	ND		0.5	ND		5	ND		5	ND		0.5
1,4-Dioxane	NE	NA		-	NA			110		-	NA		-
2,2-Dichloropropane	5	NA		-	NA			110		-	NA		-
2-Butanone	50	ND		0.5	ND		10	ND		10	ND		0.5
2-Chlorotoluene	5	NA		-	NA			110		-	NA		-
2-Hexanone	50	ND		0.5	NA		-	NA		-	ND		0.5
4-Chlorotoluene	5	NA		-	NA			110		-	NA		-
4-Methyl-2-pentanone	NE	ND		0.5	NA		-	NA		-	ND		0.5
Acetone	50	ND		2	ND		10	ND		10	ND		2
Benzene	1	ND		0.5	ND		5	ND		5	0.94		0.5
Bromobenzene	5	NA		-	NA			110		-	NA		-
Bromochloromethane	5	ND		0.5	ND		5	ND		5	ND		0.5
Bromodichloromethane	50	ND		0.5	ND		5	ND		5	ND		0.5
Bromoform	50	ND		0.5	ND		5	ND		5	ND		0.5
Bromomethane	5	ND		0.5	ND		5	ND		5	ND		0.5
Carbon disulfide	NE	ND		0.5	NA		-	NA		-	ND		0.5
Carbon tetrachloride	5	ND		0.5	ND		5	ND		5	ND		0.5
Chlorobenzene	5	ND		0.5	ND		5	ND		5	0.8		0.5
Chloroethane	5	ND		0.5	ND		5	ND		5	ND		0.5
Chloroform	7	ND		0.5	ND		5	ND		5	ND		0.5
Chloromethane	5	ND		0.5	ND		5	ND		5	ND		0.5
cis-1,2-Dichloroethylene	5	ND		0.5	2.5	J	5	1.5	J	5	4.5		0.5
cis-1,3-Dichloropropylene	0.4	ND		0.5	ND		5	ND		5	ND		0.5
Cyclohexane	NE	ND		0.5	NA		-	NA		-	ND		0.5
Dibromochloromethane	5	ND		0.5	ND		5	ND		5	ND		0.5
Dibromomethane	5	NA		-	NA			110		-	NA		-
Dichlorodifluoromethane	5	ND		0.5	ND		5	ND		5	ND		0.5
Ethyl Benzene	5	ND		0.5	ND		5	ND		5	ND		0.5
Hexachlorobutadiene	0.5	ND		0.5	ND		5	ND		5	0.29	J	0.5
Isopropylbenzene	5	NA		-	NA			110		-	NA		-
Methyl acetate	NE	ND		0.5	NA		-	NA		-	ND		0.5
Methyl tert-butyl ether (MTBE)	10	ND		0.5	ND		5	0.81	J	5	1.2		0.5
Methylcyclohexane	NE	ND		0.5	NA		-	NA		-	ND		0.5
Methylene chloride	5	ND		2	5.3	J,B	10	5.8	J,B	10	ND		2
Naphthalene	10	NA		-	NA			110		-	NA		-
n-Butylbenzene	5	NA		-	NA			110		-	NA		-
n-Propylbenzene	5	NA		-	NA			110		-	NA		-
o-Xylene	5	ND		0.5	ND		5	ND		5	ND		0.5
p- & m- Xylenes	5	ND		1	ND		10	ND		10	ND		1
p-Isopropyltoluene	5	NA		-	NA			110		-	NA		-
sec-Butylbenzene	5	NA		-	NA			110		-	NA		-
Styrene	5	ND		0.5	ND		5	ND		5	ND		0.5
tert-Butylbenzene	5	NA		-	NA			110		-	NA		-
Tetrachloroethylene	5	ND		0.5	ND		5	ND		5	ND		0.5
Toluene	5	ND		0.5	ND		5	ND		5	ND		0.5
trans-1,2-Dichloroethylene	5	ND		0.5	ND		5	ND		5	ND		0.5
trans-1,3-Dichloropropylene	0.4	ND		0.5	ND		5	ND		5	ND		0.5
Trichloroethylene	5	0.24	J,B	0.5	7		5	3	J	5	16	B	0.5
Trichlorofluoromethane	5	ND		0.5	ND		5	ND		5	ND		0.5
Vinyl acetate	NE	NA		-	NA			110		-	NA		-
Vinyl chloride	2	ND		0.5	ND		5	ND		5	0.41	J	0.5
Xylenes, Total	5	ND		1.5	ND		15	ND		15	ND		1.5
Total TICs	NE	NA		-	NA			110		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration

**Table 10: Water - VOCs**

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

 Elevated concentrations in **Bold**

VOCs (USEPA Method 8260)	Guidance Level	MW-19 (2012-04-19)			MW-21 (2014-04-03)			MW-22 (2012-03-16)			MW-22 (2014-10-09)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	5	ND		5	NA		-	ND		5	NA		-
1,1,1-Trichloroethane	5	ND		5	ND		0.5	ND		5	ND		0.5
1,1,2,2-Tetrachloroethane	5	ND		5	ND		0.5	ND		5	ND		0.5
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ND		5	ND		0.5	ND		5	ND		0.5
1,1,2-Trichloroethane	1	ND		5	ND		0.5	ND		5	ND		0.5
1,1-Dichloroethane	5	ND		5	ND		0.5	ND		5	ND		0.5
1,1-Dichloroethylene	5	ND		5	ND		0.5	ND		5	ND		0.5
1,1-Dichloropropylene	5	ND		5	NA		-	ND		5	NA		-
1,2,3-Trichlorobenzene	5	ND		10	ND		0.5	ND		10	ND		0.5
1,2,3-Trichloropropane	0.04	ND		5	NA		-	ND		5	NA		-
1,2,4-Trichlorobenzene	5	ND		10	ND		0.5	ND		10	ND		0.5
1,2,4-Trimethylbenzene	5	ND		5	NA		-	ND		5	NA		-
1,2-Dibromo-3-chloropropane	0.04	ND		10	ND		0.5	ND		10	ND		0.5
1,2-Dibromoethane	5	ND		5	ND		0.5	ND		5	ND		0.5
1,2-Dichlorobenzene	3	ND		5	ND		0.5	ND		5	ND		0.5
1,2-Dichloroethane	0.6	ND		5	ND		0.5	ND		5	ND		0.5
1,2-Dichloropropane	1	ND		5	ND		0.5	ND		5	ND		0.5
1,3,5-Trimethylbenzene	5	ND		5	NA		-	ND		5	NA		-
1,3-Dichlorobenzene	3	ND		5	ND		0.5	ND		5	0.32	J	0.5
1,3-Dichloropropane	5	ND		5	NA		-	ND		5	NA		-
1,4-Dichlorobenzene	3	ND		5	ND		0.5	ND		5	ND		0.5
1,4-Dioxane	NE	ND		5	NA		-	ND		5	NA		-
2,2-Dichloropropane	5	ND		5	NA		-	ND		5	NA		-
2-Butanone	50	ND		10	12	E	0.5	ND		10	ND		0.5
2-Chlorotoluene	5	ND		5	NA		-	ND		5	NA		-
2-Hexanone	50	NA		-	ND		0.5	NA		-	ND		0.5
4-Chlorotoluene	5	ND		5	NA		-	ND		5	NA		-
4-Methyl-2-pentanone	NE	NA		-	3.5		0.5	NA		-	ND		0.5
Acetone	50	ND		10	9.9		2	3.1	J,B	10	ND		2
Benzene	1	ND		5	ND		0.5	ND		5	ND		0.5
Bromobenzene	5	ND		5	NA		-	ND		5	NA		-
Bromochloromethane	5	ND		5	ND		0.5	ND		5	ND		0.5
Bromodichloromethane	50	ND		5	ND		0.5	ND		5	ND		0.5
Bromoform	50	ND		5	ND		0.5	ND		5	ND		0.5
Bromomethane	5	ND		5	ND		0.5	ND		5	ND		0.5
Carbon disulfide	NE	NA		-	ND		0.5	NA		-	ND		0.5
Carbon tetrachloride	5	ND		5	ND		0.5	ND		5	ND		0.5
Chlorobenzene	5	ND		5	ND		0.5	ND		5	ND		0.5
Chloroethane	5	ND		5	ND		0.5	ND		5	ND		0.5
Chloroform	7	ND		5	ND		0.5	ND		5	ND		0.5
Chloromethane	5	ND		5	ND		0.5	ND		5	ND		0.5
cis-1,2-Dichloroethylene	5	1.8	J	5	1.2		0.5	ND		5	ND		0.5
cis-1,3-Dichloropropylene	0.4	ND		5	ND		0.5	ND		5	ND		0.5
Cyclohexane	NE	NA		-	ND		0.5	NA		-	ND		0.5
Dibromochloromethane	5	ND		5	ND		0.5	ND		5	ND		0.5
Dibromomethane	5	ND		5	NA		-	ND		5	NA		-
Dichlorodifluoromethane	5	ND		5	ND		0.5	ND		5	ND		0.5
Ethyl Benzene	5	1.4	J	5	ND		0.5	ND		5	ND		0.5
Hexachlorobutadiene	0.5	ND		5	NA		-	ND		5	ND		0.5
Isopropylbenzene	5	ND		5	ND		0.5	ND		5	NA		-
Methyl acetate	NE	NA		-	ND		0.5	NA		-	ND		0.5
Methyl tert-butyl ether (MTBE)	10	ND		5	0.33	J	0.5	ND		5	ND		0.5
Methylcyclohexane	NE	NA		-	ND		0.5	NA		-	ND		0.5
Methylene chloride	5	5.8	J,B	10	12	B	2	5.9	J,B	10	ND		2
Naphthalene	10	ND		5	NA		-	ND		5	NA		-
n-Butylbenzene	5	ND		6	NA		-	ND		6	NA		-
n-Propylbenzene	5	ND		7	NA		-	ND		7	NA		-
o-Xylene	5	0.92	J	5	ND		0.5	ND		5	ND		0.5
p- & m- Xylenes	5	ND		10	ND		1	ND		10	ND		1
p-Isopropyltoluene	5	ND		5	NA		-	ND		5	NA		-
sec-Butylbenzene	5	ND		5	NA		-	ND		5	NA		-
Styrene	5	ND		5	ND		0.5	ND		5	ND		0.5
tert-Butylbenzene	5	ND		5	NA		-	ND		5	NA		-
Tetrachloroethylene	5	ND		5	ND		0.5	ND		5	ND		0.5
Toluene	5	ND		5	0.54		0.5	ND		5	ND		0.5
trans-1,2-Dichloroethylene	5	ND		5	ND		0.5	ND		5	ND		0.5
trans-1,3-Dichloropropylene	0.4	ND		5	ND		0.5	ND		5	ND		0.5
Trichloroethylene	5	1.5	J	5	ND		0.5	ND		5	ND		0.5
Trichlorofluoromethane	5	ND		5	ND		0.5	ND		5	ND		0.5
Vinyl acetate	NE	ND		5	NA		-	ND		5	NA		-
Vinyl chloride	2	ND		5	1.6		0.5	ND		5	ND		0.5
Xylenes, Total	5	ND		15	ND		1.5	ND		15	ND		1.5
Total TICs	NE	NA			6,624			69		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration



**Table 10: Water - VOCs**

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

Elevated concentrations in **Bold**

VOCs (USEPA Method 8260)	Guidance Level	MW-23 (2012-09-24)			MW-24 (2012-09-24)			MW-27 (2012-09-28)			MW-28 (2013-08-16)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	5	ND		5	ND		5	ND		5	ND		5
1,1,1-Trichloroethane	5	ND		5	ND		5	ND		5	ND		5
1,1,2,2-Tetrachloroethane	5	ND		5	ND		5	ND		5	ND		5
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ND		5	ND		5	ND		5	ND		5
1,1,2-Trichloroethane	1	ND		5	ND		5	ND		5	ND		5
1,1-Dichloroethane	5	ND		5	ND		5	ND		5	ND		5
1,1-Dichloroethylene	5	ND		5	ND		5	ND		5	ND		5
1,1-Dichloropropylene	5	ND		5	ND		5	ND		5	ND		5
1,2,3-Trichlorobenzene	5	ND		10	ND		10	ND		10	ND		5
1,2,3-Trichloropropane	0.04	ND		5	ND		5	ND		5	ND		5
1,2,4-Trichlorobenzene	5	ND		10	ND		10	ND		10	ND		5
1,2,4-Trimethylbenzene	5	ND		5	ND		5	ND		5	ND		5
1,2-Dibromo-3-chloropropane	0.04	ND		10	ND		10	ND		10	ND		5
1,2-Dibromoethane	5	ND		5	ND		5	ND		5	ND		5
1,2-Dichlorobenzene	3	ND		5	ND		5	ND		5	ND		5
1,2-Dichloroethane	0.6	ND		5	ND		5	ND		5	ND		5
1,2-Dichloropropane	1	ND		5	ND		5	ND		5	ND		5
1,3,5-Trimethylbenzene	5	ND		5	ND		5	ND		5	ND		5
1,3-Dichlorobenzene	3	ND		5	ND		5	ND		5	ND		5
1,3-Dichloropropane	5	ND		5	ND		5	ND		5	ND		5
1,4-Dichlorobenzene	3	ND		5	ND		5	ND		5	ND		5
1,4-Dioxane	NE	ND		5	ND		5	ND		5	ND		5
2,2-Dichloropropane	5	ND		5	ND		5	ND		5	ND		5
2-Butanone	50	ND		10	ND		10	ND		10	ND		5
2-Chlorotoluene	5	ND		5	ND		5	ND		5	ND		5
2-Hexanone	50	NA		-	NA		-	NA		-	NA		-
4-Chlorotoluene	5	ND		5	ND		5	ND		5	ND		5
4-Methyl-2-pentanone	NE	NA		-	NA		-	NA		-	NA		-
Acetone	50	ND		10	ND		10	ND		10	ND		5
Benzene	1	ND		5	ND		5	ND		5	ND		5
Bromobenzene	5	ND		5	ND		5	ND		5	ND		5
Bromochloromethane	5	ND		5	ND		5	ND		5	ND		5
Bromodichloromethane	50	ND		5	ND		5	ND		5	ND		5
Bromoform	50	ND		5	ND		5	ND		5	ND		5
Bromomethane	5	ND		5	ND		5	ND		5	ND		5
Carbon disulfide	NE	NA		-	NA		-	NA		-	NA		-
Carbon tetrachloride	5	ND		5	ND		5	ND		5	ND		5
Chlorobenzene	5	ND		5	ND		5	ND		5	ND		5
Chloroethane	5	ND		5	ND		5	ND		5	ND		5
Chloroform	7	ND		5	ND		5	1	J	5	ND		5
Chloromethane	5	ND		5	ND		5	ND		5	ND		5
cis-1,2-Dichloroethylene	5	ND		5	ND		5	ND		5	ND		5
cis-1,3-Dichloropropylene	0.4	ND		5	ND		5	ND		5	ND		5
Cyclohexane	NE	NA		-	NA		-	NA		-	NA		-
Dibromochloromethane	5	ND		5	ND		5	ND		5	ND		5
Dibromomethane	5	ND		5	ND		5	ND		5	ND		5
Dichlorodifluoromethane	5	ND		5	ND		5	ND		5	ND		5
Ethyl Benzene	5	ND		5	ND		5	ND		5	ND		5
Hexachlorobutadiene	0.5	ND		5	ND		5	ND		5	ND		5
Isopropylbenzene	5	ND		5	ND		5	ND		5	ND		5
Methyl acetate	NE	NA		-	NA		-	NA		-	NA		-
Methyl tert-butyl ether (MTBE)	10	ND		5	ND		5	ND		5	ND		5
Methylcyclohexane	NE	NA		-	NA		-	NA		-	NA		-
Methylene chloride	5	ND		10	ND		10	ND		10	ND		5
Naphthalene	10	ND		5	ND		5	ND		5	ND		5
n-Butylbenzene	5	ND		6	ND		6	ND		6	ND		6
n-Propylbenzene	5	ND		7	ND		7	ND		7	ND		7
o-Xylene	5	ND		5	ND		5	ND		5	ND		5
p- & m- Xylenes	5	ND		10	ND		10	ND		10	ND		10
p-Isopropyltoluene	5	ND		5	ND		5	ND		5	ND		5
sec-Butylbenzene	5	ND		5	ND		5	ND		5	ND		5
Styrene	5	ND		5	ND		5	ND		5	ND		5
tert-Butylbenzene	5	ND		5	ND		5	ND		5	ND		5
Tetrachloroethylene	5	ND		5	ND		5	ND		5	ND		5
Toluene	5	ND		5	ND		5	ND		5	ND		5
trans-1,2-Dichloroethylene	5	ND		5	ND		5	ND		5	ND		5
trans-1,3-Dichloropropylene	0.4	ND		5	ND		5	ND		5	ND		5
Trichloroethylene	5	ND		5	ND		5	ND		5	ND		5
Trichlorofluoromethane	5	ND		5	ND		5	ND		5	ND		5
Vinyl acetate	NE	ND		5	ND		5	ND		5	ND		5
Vinyl chloride	2	ND		5	ND		5	ND		5	ND		5
Xylenes, Total	5	ND		15	ND		15	ND		15	ND		15
Total TICs	NE	5.6		-	ND		-	ND		-	ND		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration

**Table 10: Water - VOCs**

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

 Elevated concentrations in **Bold**

VOCs (USEPA Method 8260)	Guidance Level	MW-29 (2013-08-16)			MW-30 (2013-08-16)			MW-31 (2013-08-16)			MW-32 (2013-08-16)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	5	ND		5	ND		5	ND		5	ND		5
1,1,1-Trichloroethane	5	ND		5	ND		5	ND		5	ND		5
1,1,2,2-Tetrachloroethane	5	ND		5	ND		5	ND		5	ND		5
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ND		5	ND		5	ND		5	ND		5
1,1,2-Trichloroethane	1	ND		5	ND		5	ND		5	ND		5
1,1-Dichloroethane	5	ND		5	ND		5	ND		5	ND		5
1,1-Dichloroethylene	5	ND		5	ND		5	ND		5	ND		5
1,1-Dichloropropylene	5	ND		5	ND		5	ND		5	ND		5
1,2,3-Trichlorobenzene	5	ND		5	ND		5	ND		5	ND		5
1,2,3-Trichloropropane	0.04	ND		5	ND		5	ND		5	ND		5
1,2,4-Trichlorobenzene	5	ND		5	ND		5	ND		5	ND		5
1,2,4-Trimethylbenzene	5	ND		5	ND		5	ND		5	ND		5
1,2-Dibromo-3-chloropropane	0.04	ND		5	ND		5	ND		5	ND		5
1,2-Dibromoethane	5	ND		5	ND		5	ND		5	ND		5
1,2-Dichlorobenzene	3	ND		5	ND		5	ND		5	ND		5
1,2-Dichloroethane	0.6	ND		5	ND		5	ND		5	ND		5
1,2-Dichloropropane	1	ND		5	ND		5	ND		5	ND		5
1,3,5-Trimethylbenzene	5	ND		5	ND		5	ND		5	ND		5
1,3-Dichlorobenzene	3	ND		5	ND		5	ND		5	ND		5
1,3-Dichloropropane	5	ND		5	ND		5	ND		5	ND		5
1,4-Dichlorobenzene	3	ND		5	ND		5	ND		5	ND		5
1,4-Dioxane	NE	ND		5	ND		5	ND		5	ND		5
2,2-Dichloropropane	5	ND		5	ND		5	ND		5	ND		5
2-Butanone	50	ND		5	ND		5	ND		5	ND		5
2-Chlorotoluene	5	ND		5	ND		5	ND		5	ND		5
2-Hexanone	50	NA		-	NA		-	NA		-	NA		-
4-Chlorotoluene	5	ND		5	ND		5	ND		5	ND		5
4-Methyl-2-pentanone	NE	NA		-	NA		-	NA		-	NA		-
Acetone	50	ND		5	ND		5	ND		5	4.8	J,B	5
Benzene	1	ND		5	ND		5	ND		5	ND		5
Bromobenzene	5	ND		5	ND		5	ND		5	ND		5
Bromochloromethane	5	ND		5	ND		5	ND		5	ND		5
Bromodichloromethane	50	ND		5	ND		5	ND		5	ND		5
Bromoform	50	ND		5	ND		5	ND		5	ND		5
Bromomethane	5	ND		5	ND		5	ND		5	ND		5
Carbon disulfide	NE	NA		-	NA		-	NA		-	NA		-
Carbon tetrachloride	5	ND		5	ND		5	ND		5	ND		5
Chlorobenzene	5	ND		5	ND		5	ND		5	ND		5
Chloroethane	5	ND		5	ND		5	ND		5	ND		5
Chloroform	7	ND		5	5.4		5	ND		5	ND		5
Chloromethane	5	ND		5	ND		5	ND		5	ND		5
cis-1,2-Dichloroethylene	5	ND		5	ND		5	ND		5	25		5
cis-1,3-Dichloropropylene	0.4	ND		5	ND		5	ND		5	ND		5
Cyclohexane	NE	NA		-	NA		-	NA		-	NA		-
Dibromochloromethane	5	ND		5	ND		5	ND		5	ND		5
Dibromomethane	5	ND		5	ND		5	ND		5	ND		5
Dichlorodifluoromethane	5	ND		5	ND		5	ND		5	ND		5
Ethyl Benzene	5	ND		5	ND		5	ND		5	ND		5
Hexachlorobutadiene	0.5	ND		5	ND		5	ND		5	ND		5
Isopropylbenzene	5	ND		5	ND		5	ND		5	ND		5
Methyl acetate	NE	NA		-	NA		-	NA		-	NA		-
Methyl tert-butyl ether (MTBE)	10	6.3		5	ND		5	ND		5	ND		5
Methylcyclohexane	NE	NA		-	NA		-	NA		-	NA		-
Methylene chloride	5	ND		5	ND		5	ND		5	ND		5
Naphthalene	10	ND		5	ND		5	ND		5	ND		5
n-Butylbenzene	5	ND		6	ND		6	ND		6	ND		6
n-Propylbenzene	5	ND		7	ND		7	ND		7	ND		7
o-Xylene	5	ND		5	ND		5	ND		5	ND		5
p- & m- Xylenes	5	ND		10	ND		10	ND		10	ND		10
p-Isopropyltoluene	5	ND		5	ND		5	ND		5	ND		5
sec-Butylbenzene	5	ND		5	ND		5	ND		5	ND		5
Styrene	5	ND		5	ND		5	ND		5	ND		5
tert-Butylbenzene	5	ND		5	ND		5	ND		5	ND		5
Tetrachloroethylene	5	ND		5	ND		5	ND		5	ND		5
Toluene	5	ND		5	ND		5	ND		5	ND		5
trans-1,2-Dichloroethylene	5	ND		5	ND		5	ND		5	ND		5
trans-1,3-Dichloropropylene	0.4	ND		5	ND		5	ND		5	ND		5
Trichloroethylene	5	13		5	ND		5	ND		5	15		5
Trichlorofluoromethane	5	ND		5	ND		5	ND		5	ND		5
Vinyl acetate	NE	ND		5	ND		5	ND		5	ND		5
Vinyl chloride	2	ND		5	ND		5	ND		5	3.1	J	5
Xylenes, Total	5	ND		15	ND		15	ND		15	ND		15
Total TICs	NE	ND		-	ND		-	ND		-	ND		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration



**Table 10: Water - VOCs**

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

 Elevated concentrations in **Bold**

VOCs (USEPA Method 8260)	Guidance Level	MW-34 (2013-08-16)			MW-34 (2013-11-25)			MW-34 (2014-10-08)			MW-35 (2013-08-16)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	5	ND		5	ND		120	NA		-	ND		5
1,1,1-Trichloroethane	5	ND		5	ND		120	ND		50	ND		5
1,1,2,2-Tetrachloroethane	5	ND		5	NA		-	ND		50	ND		5
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ND		5	ND		120	ND		50	ND		5
1,1,2-Trichloroethane	1	ND		5	ND		120	ND		50	ND		5
1,1-Dichloroethane	5	ND		5	ND		120	ND		50	ND		5
1,1-Dichloroethylene	5	3.9	J	5	ND		120	ND		50	ND		5
1,1-Dichloropropylene	5	ND		5	ND		120	NA		-	ND		5
1,2,3-Trichlorobenzene	5	ND		5	NA		-	ND		50	ND		5
1,2,3-Trichloropropane	0.04	ND		5	ND		120	NA		-	ND		5
1,2,4-Trichlorobenzene	5	ND		5	NA		250	ND		50	ND		5
1,2,4-Trimethylbenzene	5	ND		5	ND		120	NA		-	ND		5
1,2-Dibromo-3-chloropropane	0.04	ND		5	ND		250	ND		50	ND		5
1,2-Dibromoethane	5	ND		5	ND		120	ND		50	ND		5
1,2-Dichlorobenzene	3	ND		5	NA		-	ND		50	ND		5
1,2-Dichloroethane	0.6	ND		5	ND		120	ND		50	ND		5
1,2-Dichloropropane	1	ND		5	ND		120	ND		50	ND		5
1,3,5-Trimethylbenzene	5	ND		5	ND		120	NA		-	ND		5
1,3-Dichlorobenzene	3	ND		5	NA		-	ND		50	ND		5
1,3-Dichloropropane	5	ND		5	ND		120	NA		-	ND		5
1,4-Dichlorobenzene	3	ND		5	NA		-	ND		50	ND		5
1,4-Dioxane	NE	ND		5	ND		120	NA		-	ND		5
2,2-Dichloropropane	5	ND		5	ND		120	NA		-	ND		5
2-Butanone	50	ND		5	ND		250	ND		50	ND		5
2-Chlorotoluene	5	ND		5	ND		120	NA		-	ND		5
2-Hexanone	50	NA		-	ND		120	ND		50	NA		-
4-Chlorotoluene	5	ND		5	ND		120	NA		-	ND		5
4-Methyl-2-pentanone	NE	NA		-	ND		250	ND		50	NA		-
Acetone	50	ND		5	ND		250	ND		200	13		5
Benzene	1	ND		5	ND		120	ND		50	ND		5
Bromobenzene	5	ND		5	ND		120	NA		-	ND		5
Bromochloromethane	5	ND		5	NA		-	ND		50	ND		5
Bromodichloromethane	50	ND		5	ND		120	ND		50	ND		5
Bromoform	50	ND		5	ND		120	ND		50	ND		5
Bromomethane	5	ND		5	ND		120	ND		50	ND		5
Carbon disulfide	NE	NA		-	ND		120	ND		50	NA		-
Carbon tetrachloride	5	ND		5	ND		120	ND		50	ND		5
Chlorobenzene	5	ND		5	ND		120	ND		50	ND		5
Chloroethane	5	ND		5	ND		120	ND		50	ND		5
Chloroform	7	ND		5	ND		120	ND		50	ND		5
Chloromethane	5	ND		5	ND		120	ND		50	ND		5
cis-1,2-Dichloroethylene	5	740		120	590		120	670		50	61		5
cis-1,3-Dichloropropylene	0.4	ND		5	ND		120	ND		50	ND		5
Cyclohexane	NE	NA		-	NA		-	ND		50	NA		-
Dibromochloromethane	5	ND		5	ND		120	ND		50	ND		5
Dibromomethane	5	ND		5	ND		120	NA		-	ND		5
Dichlorodifluoromethane	5	ND		5	ND		120	ND		50	ND		5
Ethyl Benzene	5	ND		5	ND		120	ND		50	ND		5
Hexachlorobutadiene	0.5	ND		5	ND		120	ND		50	ND		5
Isopropylbenzene	5	ND		5	ND		120	NA		-	ND		5
Methyl acetate	NE	NA		-	NA		-	ND		50	NA		-
Methyl tert-butyl ether (MTBE)	10	ND		5	ND		120	ND		50	ND		5
Methylcyclohexane	NE	NA		-	NA		-	ND		50	NA		-
Methylene chloride	5	ND		5	ND		250	ND		200	ND		5
Naphthalene	10	ND		5	ND		120	NA		-	ND		5
n-Butylbenzene	5	ND		6	ND		121	NA		-	ND		6
n-Propylbenzene	5	ND		7	ND		122	NA		-	ND		7
o-Xylene	5	ND		5	ND		120	ND		50	ND		5
p- & m- Xylenes	5	ND		10	ND		250	ND		100	ND		10
p-Isopropyltoluene	5	ND		5	ND		120	NA		-	ND		5
sec-Butylbenzene	5	ND		5	ND		120	NA		-	ND		5
Styrene	5	ND		5	ND		120	ND		50	ND		5
tert-Butylbenzene	5	ND		5	ND		120	NA		-	ND		5
Tetrachloroethylene	5	2.7	J	5	ND		120	ND		50	ND		5
Toluene	5	ND		5	ND		120	ND		50	ND		5
trans-1,2-Dichloroethylene	5	ND		5	ND		120	ND		50	ND		5
trans-1,3-Dichloropropylene	0.4	ND		5	ND		120	ND		50	ND		5
Trichloroethylene	5	2,600		120	2,300		120	3,000		50	160		5
Trichlorofluoromethane	5	ND		5	ND		120	ND		50	ND		5
Vinyl acetate	NE	ND		5	ND		120	NA		-	ND		5
Vinyl chloride	2	12		5	ND		120	ND		50	2.9	J	5
Xylenes, Total	5	ND		15	ND		380	ND		150	ND		15
Total TICs	NE	ND		-	ND		-	NA		-	6.7		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration

**Table 10: Water - VOCs**

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

 Elevated concentrations in **Bold**

VOCs (USEPA Method 8260)	Guidance Level	MW-36 (2014-12-23)			MW-36A (2014-12-23)			MW-37 (2014-12-23)			MW-38 (2014-10-08)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	5	NA		-	NA		-	NA		-	NA		-
1,1,1-Trichloroethane	5	ND		2.5	ND		2.5	ND		2.5	ND		1
1,1,2,2-Tetrachloroethane	5	ND		2.5	ND		2.5	ND		2.5	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ND		2.5	ND		2.5	ND		2.5	ND		1
1,1,2-Trichloroethane	1	ND		2.5	ND		2.5	ND		2.5	ND		1
1,1-Dichloroethane	5	ND		2.5	ND		2.5	ND		2.5	ND		1
1,1-Dichloroethylene	5	ND		2.5	ND		2.5	ND		2.5	ND		1
1,1-Dichloropropylene	5	NA		-	NA		-	NA		-	NA		-
1,2,3-Trichlorobenzene	5	NA		-	NA		-	NA		-	ND		1
1,2,3-Trichloropropane	0.04	NA		-	NA		-	NA		-	NA		-
1,2,4-Trichlorobenzene	5	ND		2.5	ND		2.5	ND		2.5	ND		1
1,2,4-Trimethylbenzene	5	ND		2.5	ND		2.5	ND		2.5	NA		-
1,2-Dibromo-3-chloropropane	0.04	ND		2.5	ND		2.5	ND		2.5	ND		1
1,2-Dibromoethane	5	ND		2.5	ND		2.5	ND		2.5	ND		1
1,2-Dichlorobenzene	3	NA		-	NA		-	NA		-	ND		1
1,2-Dichloroethane	0.6	ND		2.5	ND		2.5	ND		2.5	ND		1
1,2-Dichloropropane	1	ND		2.5	ND		2.5	ND		2.5	ND		1
1,3,5-Trimethylbenzene	5	ND		2.5	ND		2.5	ND		2.5	NA		-
1,3-Dichlorobenzene	3	NA		-	NA		-	NA		-	ND		1
1,3-Dichloropropane	5	NA		-	NA		-	NA		-	NA		-
1,4-Dichlorobenzene	3	NA		-	NA		-	NA		-	ND		1
1,4-Dioxane	NE	NA		-	NA		-	NA		-	NA		-
2,2-Dichloropropane	5	NA		-	NA		-	NA		-	NA		-
2-Butanone	50	ND		2.5	ND		2.5	ND		2.5	ND		1
2-Chlorotoluene	5	NA		-	NA		-	NA		-	NA		-
2-Hexanone	50	ND		2.5	ND		2.5	ND		2.5	ND		1
4-Chlorotoluene	5	NA		-	NA		-	NA		-	NA		-
4-Methyl-2-pentanone	NE	ND		2.5	ND		2.5	ND		2.5	ND		1
Acetone	50	ND		5	ND		5	ND		5	ND		4
Benzene	1	ND		2.5	ND		2.5	ND		2.5	ND		1
Bromobenzene	5	NA		-	NA		-	NA		-	NA		-
Bromochloromethane	5	ND		2.5	ND		2.5	ND		2.5	ND		1
Bromodichloromethane	50	NA		-	NA		-	NA		-	ND		1
Bromoform	50	ND		2.5	ND		2.5	ND		2.5	ND		1
Bromomethane	5	ND		2.5	ND		2.5	ND		2.5	ND		1
Carbon disulfide	NE	ND		2.5	ND		2.5	ND		2.5	ND		1
Carbon tetrachloride	5	ND		2.5	ND		2.5	ND		2.5	ND		1
Chlorobenzene	5	ND		2.5	ND		2.5	ND		2.5	ND		1
Chloroethane	5	ND		2.5	ND		2.5	ND		2.5	ND		1
Chloroform	7	ND		2.5	ND		2.5	ND		2.5	ND		1
Chloromethane	5	ND		2.5	ND		2.5	ND		2.5	ND		1
cis-1,2-Dichloroethylene	5	ND		2.5	ND		2.5	ND		2.5	3.5		1
cis-1,3-Dichloropropylene	0.4	ND		2.5	ND		2.5	ND		2.5	ND		1
Cyclohexane	NE	NA		-	NA		-	NA		-	ND		1
Dibromochloromethane	5	ND		2.5	ND		2.5	ND		2.5	ND		1
Dibromomethane	5	ND		2.5	ND		2.5	ND		2.5	NA		-
Dichlorodifluoromethane	5	ND		2.5	ND		2.5	ND		2.5	ND		1
Ethyl Benzene	5	ND		2.5	ND		2.5	ND		2.5	ND		1
Hexachlorobutadiene	0.5	NA		-	NA		-	NA		-	ND		1
Isopropylbenzene	5	ND		2.5	ND		2.5	ND		2.5	NA		-
Methyl acetate	NE	NA		-	NA		-	NA		-	ND		1
Methyl tert-butyl ether (MTBE)	10	ND		2.5	ND		2.5	ND		2.5	ND		1
Methylcyclohexane	NE	ND		2.5	ND		2.5	ND		2.5	ND		1
Methylene chloride	5	ND		2.5	ND		2.5	ND		2.5	ND		4
Naphthalene	10	ND		2.5	ND		2.5	ND		2.5	NA		-
n-Butylbenzene	5	ND		2.5	ND		2.5	ND		2.5	NA		-
n-Propylbenzene	5	ND		2.5	ND		2.5	ND		2.5	NA		-
o-Xylene	5	ND		2.5	ND		2.5	ND		2.5	ND		1
p- & m- Xylenes	5	ND		5	ND		5	ND		5	ND		2
p-Isopropyltoluene	5	NA		-	NA		-	NA		-	NA		-
sec-Butylbenzene	5	ND		2.5	ND		2.5	ND		2.5	NA		-
Styrene	5	ND		2.5	ND		2.5	ND		2.5	ND		1
tert-Butylbenzene	5	ND		2.5	ND		2.5	ND		2.5	NA		-
Tetrachloroethylene	5	ND		2.5	ND		2.5	ND		2.5	ND		1
Toluene	5	ND		2.5	ND		2.5	ND		2.5	ND		1
trans-1,2-Dichloroethylene	5	ND		2.5	ND		2.5	ND		2.5	ND		1
trans-1,3-Dichloropropylene	0.4	ND		2.5	ND		2.5	ND		2.5	ND		1
Trichloroethylene	5	ND		2.5	ND		2.5	ND		2.5	47	B	1
Trichlorofluoromethane	5	ND		2.5	ND		2.5	ND		2.5	ND		1
Vinyl acetate	NE	NA		-	NA		-	NA		-	NA		-
Vinyl chloride	2	ND		2.5	ND		2.5	ND		2.5	ND		1
Xylenes, Total	5	ND		7.5	ND		7.5	ND		7.5	ND		3
Total TICs	NE	ND		-	ND		-	ND		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration

**Table 10: Water - VOCs**

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

 Elevated concentrations in **Bold**

VOCs (USEPA Method 8260)	Guidance Level	MW-39 (2014-10-08)			MW-40 (2014-10-08)			MW-41 (2014-12-23)			MW-42 (2014-12-23)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	5	NA		-	NA		-	NA		-	NA		-
1,1,1-Trichloroethane	5	ND		5	ND		50	ND		2.5	ND		2.5
1,1,2,2-Tetrachloroethane	5	ND		5	ND		50	ND		2.5	ND		2.5
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ND		5	ND		50	ND		2.5	ND		2.5
1,1,2-Trichloroethane	1	ND		5	ND		50	ND		2.5	ND		2.5
1,1-Dichloroethane	5	ND		5	ND		50	ND		2.5	ND		2.5
1,1-Dichloroethylene	5	ND		5	ND		50	ND		2.5	ND		2.5
1,1-Dichloropropylene	5	NA		-	NA		-	NA		-	NA		-
1,2,3-Trichlorobenzene	5	ND		5	ND		50	NA		-	NA		-
1,2,3-Trichloropropane	0.04	NA		-	NA		-	NA		-	NA		-
1,2,4-Trichlorobenzene	5	ND		5	ND		50	ND		2.5	ND		2.5
1,2,4-Trimethylbenzene	5	NA		-	NA		-	ND		2.5	ND		2.5
1,2-Dibromo-3-chloropropane	0.04	ND		5	ND		50	ND		2.5	ND		2.5
1,2-Dibromoethane	5	ND		5	ND		50	ND		2.5	ND		2.5
1,2-Dichlorobenzene	3	ND		5	ND		50	NA		-	NA		-
1,2-Dichloroethane	0.6	ND		5	ND		50	ND		2.5	ND		2.5
1,2-Dichloropropane	1	ND		5	ND		50	ND		2.5	ND		2.5
1,3,5-Trimethylbenzene	5	NA		-	NA		-	ND		2.5	ND		2.5
1,3-Dichlorobenzene	3	ND		5	ND		50	NA		-	NA		-
1,3-Dichloropropane	5	NA		-	NA		-	NA		-	NA		-
1,4-Dichlorobenzene	3	ND		5	ND		50	NA		-	NA		-
1,4-Dioxane	NE	NA		-	NA		-	NA		-	NA		-
2,2-Dichloropropane	5	NA		-	NA		-	NA		-	NA		-
2-Butanone	50	ND		5	ND		50	ND		2.5	ND		2.5
2-Chlorotoluene	5	NA		-	NA		-	NA		-	NA		-
2-Hexanone	50	ND		5	ND		50	ND		2.5	ND		2.5
4-Chlorotoluene	5	NA		-	NA		-	NA		-	NA		-
4-Methyl-2-pentanone	NE	ND		5	ND		50	ND		2.5	ND		2.5
Acetone	50	ND		20	ND		200	ND		5	ND		5
Benzene	1	ND		5	ND		50	ND		2.5	ND		2.5
Bromobenzene	5	NA		-	NA		-	NA		-	NA		-
Bromochloromethane	5	ND		5	ND		50	ND		2.5	ND		2.5
Bromodichloromethane	50	ND		5	ND		50	NA		-	NA		-
Bromoform	50	ND		5	ND		50	ND		2.5	ND		2.5
Bromomethane	5	ND		5	ND		50	ND		2.5	ND		2.5
Carbon disulfide	NE	ND		5	ND		50	ND		2.5	ND		2.5
Carbon tetrachloride	5	ND		5	ND		50	ND		2.5	ND		2.5
Chlorobenzene	5	ND		5	ND		50	ND		2.5	ND		2.5
Chloroethane	5	ND		5	ND		50	ND		2.5	ND		2.5
Chloroform	7	ND		5	ND		50	ND		2.5	ND		2.5
Chloromethane	5	ND		5	ND		50	ND		2.5	ND		2.5
cis-1,2-Dichloroethylene	5	<b>33</b>		5	<b>530</b>		50	ND		2.5	ND		2.5
cis-1,3-Dichloropropylene	0.4	ND		5	ND		50	ND		2.5	ND		2.5
Cyclohexane	NE	ND		5	ND		50	NA		-	NA		-
Dibromochloromethane	5	ND		5	ND		50	ND		2.5	ND		2.5
Dibromomethane	5	NA		-	NA		-	ND		2.5	ND		2.5
Dichlorodifluoromethane	5	ND		5	ND		50	ND		2.5	ND		2.5
Ethyl Benzene	5	ND		5	ND		50	ND		2.5	ND		2.5
Hexachlorobutadiene	0.5	ND		5	ND		50	NA		-	NA		-
Isopropylbenzene	5	NA		-	NA		-	ND		2.5	ND		2.5
Methyl acetate	NE	ND		5	ND		50	NA		-	NA		-
Methyl tert-butyl ether (MTBE)	10	ND		5	ND		50	ND		2.5	ND		2.5
Methylcyclohexane	NE	ND		5	ND		50	ND		2.5	ND		2.5
Methylene chloride	5	ND		20	ND		200	ND		2.5	ND		2.5
Naphthalene	10	NA		-	NA		-	ND		2.5	ND		2.5
n-Butylbenzene	5	NA		-	NA		-	ND		2.5	ND		2.5
n-Propylbenzene	5	NA		-	NA		-	ND		2.5	ND		2.5
o-Xylene	5	ND		5	ND		50	ND		2.5	ND		2.5
p- & m- Xylenes	5	ND		10	ND		100	ND		5	ND		5
p-Isopropyltoluene	5	NA		-	NA		-	NA		-	NA		-
sec-Butylbenzene	5	NA		-	NA		-	ND		2.5	ND		2.5
Styrene	5	ND		5	ND		50	ND		2.5	ND		2.5
tert-Butylbenzene	5	NA		-	NA		-	ND		2.5	ND		2.5
Tetrachloroethylene	5	ND		5	ND		50	ND		2.5	ND		2.5
Toluene	5	ND		5	ND		50	ND		2.5	ND		2.5
trans-1,2-Dichloroethylene	5	ND		5	<b>25</b>	J	50	ND		2.5	ND		2.5
trans-1,3-Dichloropropylene	0.4	ND		5	ND		50	ND		2.5	ND		2.5
Trichloroethylene	5	<b>210</b>		5	<b>7,400</b>		120	ND		2.5	ND		2.5
Trichlorofluoromethane	5	ND		5	ND		50	ND		2.5	ND		2.5
Vinyl acetate	NE	NA		-	NA		-	NA		-	NA		-
Vinyl chloride	2	ND		5	ND		50	ND		2.5	ND		2.5
Xylenes, Total	5	ND		15	ND		150	ND		7.5	ND		7.5
Total TICs	NE	NA		-	NA		-	ND		-	ND		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration

**Table 10: Water - VOCs**

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

 Elevated concentrations in **Bold**

VOCs (USEPA Method 8260)	Guidance Level	Rinse Blank (2012-02-02)			Rinse Blank (2012-03-16)			Trip Blank (2012-02-01)			Trip Blank (2012-02-02)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	5	ND		5	ND		5	ND		5	ND		5
1,1,1-Trichloroethane	5	ND		5	ND		5	ND		5	ND		5
1,1,2,2-Tetrachloroethane	5	ND		5	ND		5	ND		5	ND		5
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ND		5	ND		5	ND		5	ND		5
1,1,2-Trichloroethane	1	ND		5	ND		5	ND		5	ND		5
1,1-Dichloroethane	5	ND		5	ND		5	ND		5	ND		5
1,1-Dichloroethylene	5	ND		5	ND		5	ND		5	ND		5
1,1-Dichloropropylene	5	ND		5	ND		5	ND		5	ND		5
1,2,3-Trichlorobenzene	5	ND		10	ND		10	ND		10	ND		10
1,2,3-Trichloropropane	0.04	ND		5	ND		5	ND		5	ND		5
1,2,4-Trichlorobenzene	5	ND		10	ND		10	ND		10	ND		10
1,2,4-Trimethylbenzene	5	ND		5	ND		5	ND		5	ND		5
1,2-Dibromo-3-chloropropane	0.04	ND		10	ND		10	ND		10	ND		10
1,2-Dibromoethane	5	ND		5	ND		5	ND		5	ND		5
1,2-Dichlorobenzene	3	ND		5	ND		5	ND		5	ND		5
1,2-Dichloroethane	0.6	ND		5	ND		5	ND		5	ND		5
1,2-Dichloropropane	1	ND		5	ND		5	ND		5	ND		5
1,3,5-Trimethylbenzene	5	ND		5	ND		5	ND		5	ND		5
1,3-Dichlorobenzene	3	ND		5	ND		5	ND		5	ND		5
1,3-Dichloropropane	5	ND		5	ND		5	ND		5	ND		5
1,4-Dichlorobenzene	3	ND		5	ND		5	ND		5	ND		5
1,4-Dioxane	NE	ND		5	ND		5	ND		5	ND		5
2,2-Dichloropropane	5	ND		5	ND		5	ND		5	ND		5
2-Butanone	50	ND		10	ND		10	ND		10	ND		10
2-Chlorotoluene	5	ND		5	ND		5	ND		5	ND		5
2-Hexanone	50	NA		-	NA		-	NA		-	NA		-
4-Chlorotoluene	5	ND		5	ND		5	ND		5	ND		5
4-Methyl-2-pentanone	NE	NA		-	NA		-	NA		-	NA		-
Acetone	50	ND		10	4.2	J,B	10	ND		10	ND		10
Benzene	1	ND		5	ND		5	ND		5	ND		5
Bromobenzene	5	ND		5	ND		5	ND		5	ND		5
Bromochloromethane	5	ND		5	ND		5	ND		5	ND		5
Bromodichloromethane	50	ND		5	ND		5	ND		5	ND		5
Bromoform	50	ND		5	ND		5	ND		5	ND		5
Bromomethane	5	ND		5	ND		5	ND		5	ND		5
Carbon disulfide	NE	NA		-	NA		-	NA		-	NA		-
Carbon tetrachloride	5	ND		5	ND		5	ND		5	ND		5
Chlorobenzene	5	ND		5	ND		5	ND		5	ND		5
Chloroethane	5	ND		5	ND		5	ND		5	ND		5
Chloroform	7	ND		5	ND		5	ND		5	ND		5
Chloromethane	5	ND		5	ND		5	ND		5	ND		5
cis-1,2-Dichloroethylene	5	ND		5	ND		5	ND		5	ND		5
cis-1,3-Dichloropropylene	0.4	ND		5	ND		5	ND		5	ND		5
Cyclohexane	NE	NA		-	NA		-	NA		-	NA		-
Dibromochloromethane	5	ND		5	ND		5	ND		5	ND		5
Dibromomethane	5	ND		5	ND		5	ND		5	ND		5
Dichlorodifluoromethane	5	ND		5	ND		5	ND		5	ND		5
Ethyl Benzene	5	ND		5	ND		5	ND		5	ND		5
Hexachlorobutadiene	0.5	ND		5	ND		5	ND		5	ND		5
Isopropylbenzene	5	ND		5	ND		5	ND		5	ND		5
Methyl acetate	NE	NA		-	NA		-	NA		-	NA		-
Methyl tert-butyl ether (MTBE)	10	ND		5	ND		5	ND		5	ND		5
Methylcyclohexane	NE	NA		-	NA		-	NA		-	NA		-
Methylene chloride	5	ND		10	5.8	J,B	10	ND		10	ND		10
Naphthalene	10	ND		5	ND		5	ND		5	ND		5
n-Butylbenzene	5	ND		6	ND		6	ND		6	ND		6
n-Propylbenzene	5	ND		7	ND		7	ND		7	ND		7
o-Xylene	5	ND		5	ND		5	ND		5	ND		5
p- & m- Xylenes	5	ND		10	ND		10	ND		10	ND		10
p-Isopropyltoluene	5	ND		5	ND		5	ND		5	ND		5
sec-Butylbenzene	5	ND		5	ND		5	ND		5	ND		5
Styrene	5	ND		5	ND		5	ND		5	ND		5
tert-Butylbenzene	5	ND		5	ND		5	ND		5	ND		5
Tetrachloroethylene	5	ND		5	ND		5	ND		5	ND		5
Toluene	5	ND		5	ND		5	ND		5	ND		5
trans-1,2-Dichloroethylene	5	ND		5	ND		5	ND		5	ND		5
trans-1,3-Dichloropropylene	0.4	ND		5	ND		5	ND		5	ND		5
Trichloroethylene	5	ND		5	ND		5	ND		5	ND		5
Trichlorofluoromethane	5	ND		5	ND		5	ND		5	ND		5
Vinyl acetate	NE	ND		5	ND		5	ND		5	ND		5
Vinyl chloride	2	ND		5	ND		5	ND		5	ND		5
Xylenes, Total	5	ND		15	ND		15	ND		15	ND		15
Total TICs	NE	NA		-	NA		-	NA		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration

**Table 10: Water - VOCs**

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

 Elevated concentrations in **Bold**

VOCs (USEPA Method 8260)	Guidance Level	Trip Blank (2012-02-10)			Trip Blank (2012-02-16)			Trip Blank (2012-03-16)			Trip Blank (2012-04-25)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	5	ND		5	ND		5	ND		5	ND		5
1,1,1-Trichloroethane	5	ND		5	ND		5	ND		5	ND		5
1,1,2,2-Tetrachloroethane	5	ND		5	ND		5	ND		5	ND		5
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ND		5	ND		5	ND		5	ND		5
1,1,2-Trichloroethane	1	ND		5	ND		5	ND		5	ND		5
1,1-Dichloroethane	5	ND		5	ND		5	ND		5	ND		5
1,1-Dichloroethylene	5	ND		5	ND		5	ND		5	ND		5
1,1-Dichloropropylene	5	ND		5	ND		5	ND		5	ND		5
1,2,3-Trichlorobenzene	5	ND		10	ND		10	ND		10	ND		10
1,2,3-Trichloropropane	0.04	ND		5	ND		5	ND		5	ND		5
1,2,4-Trichlorobenzene	5	ND		10	ND		10	ND		10	ND		10
1,2,4-Trimethylbenzene	5	ND		5	ND		5	ND		5	ND		5
1,2-Dibromo-3-chloropropane	0.04	ND		10	ND		10	ND		10	ND		10
1,2-Dibromoethane	5	ND		5	ND		5	ND		5	ND		5
1,2-Dichlorobenzene	3	ND		5	ND		5	ND		5	ND		5
1,2-Dichloroethane	0.6	ND		5	ND		5	ND		5	ND		5
1,2-Dichloropropane	1	ND		5	ND		5	ND		5	ND		5
1,3,5-Trimethylbenzene	5	ND		5	ND		5	ND		5	ND		5
1,3-Dichlorobenzene	3	ND		5	ND		5	ND		5	ND		5
1,3-Dichloropropane	5	ND		5	ND		5	ND		5	ND		5
1,4-Dichlorobenzene	3	ND		5	ND		5	ND		5	ND		5
1,4-Dioxane	NE	ND		5	ND		5	ND		5	ND		5
2,2-Dichloropropane	5	ND		5	ND		5	ND		5	ND		5
2-Butanone	50	ND		10	ND		10	ND		10	ND		10
2-Chlorotoluene	5	ND		5	ND		5	ND		5	ND		5
2-Hexanone	50	NA		-	NA		-	NA		-	NA		-
4-Chlorotoluene	5	ND		5	ND		5	ND		5	ND		5
4-Methyl-2-pentanone	NE	NA		-	NA		-	NA		-	NA		-
Acetone	50	4.6	J,B	10	8.4	J,B	10	3.4	J,B	10	3.1	J,B	10
Benzene	1	ND		5	ND		5	ND		5	ND		5
Bromobenzene	5	ND		5	ND		5	ND		5	ND		5
Bromochloromethane	5	ND		5	ND		5	ND		5	ND		5
Bromodichloromethane	50	ND		5	ND		5	ND		5	ND		5
Bromoform	50	ND		5	ND		5	ND		5	ND		5
Bromomethane	5	ND		5	ND		5	ND		5	ND		5
Carbon disulfide	NE	NA		-	NA		-	NA		-	NA		-
Carbon tetrachloride	5	ND		5	ND		5	ND		5	ND		5
Chlorobenzene	5	ND		5	ND		5	ND		5	ND		5
Chloroethane	5	ND		5	ND		5	ND		5	ND		5
Chloroform	7	ND		5	ND		5	ND		5	ND		5
Chloromethane	5	ND		5	ND		5	ND		5	ND		5
cis-1,2-Dichloroethylene	5	ND		5	ND		5	ND		5	ND		5
cis-1,3-Dichloropropylene	0.4	ND		5	ND		5	ND		5	ND		5
Cyclohexane	NE	NA		-	NA		-	NA		-	NA		-
Dibromochloromethane	5	ND		5	ND		5	ND		5	ND		5
Dibromomethane	5	ND		5	ND		5	ND		5	ND		5
Dichlorodifluoromethane	5	ND		5	ND		5	ND		5	ND		5
Ethyl Benzene	5	ND		5	ND		5	ND		5	ND		5
Hexachlorobutadiene	0.5	ND		5	ND		5	ND		5	ND		5
Isopropylbenzene	5	ND		5	ND		5	ND		5	ND		5
Methyl acetate	NE	NA		-	NA		-	NA		-	NA		-
Methyl tert-butyl ether (MTBE)	10	ND		5	ND		5	ND		5	ND		5
Methylcyclohexane	NE	NA		-	NA		-	NA		-	NA		-
Methylene chloride	5	ND		10	26	B	10	5.4	J,B	10	6.5	J,B	10
Naphthalene	10	ND		5	ND		5	ND		5	ND		5
n-Butylbenzene	5	ND		6	ND		6	ND		6	ND		6
n-Propylbenzene	5	ND		7	ND		7	ND		7	ND		7
o-Xylene	5	ND		5	ND		5	ND		5	ND		5
p- & m- Xylenes	5	ND		10	ND		10	ND		10	ND		10
p-Isopropyltoluene	5	ND		5	ND		5	ND		5	ND		5
sec-Butylbenzene	5	ND		5	ND		5	ND		5	ND		5
Styrene	5	ND		5	ND		5	ND		5	ND		5
tert-Butylbenzene	5	ND		5	ND		5	ND		5	ND		5
Tetrachloroethylene	5	ND		5	ND		5	ND		5	ND		5
Toluene	5	ND		5	ND		5	ND		5	ND		5
trans-1,2-Dichloroethylene	5	ND		5	ND		5	ND		5	ND		5
trans-1,3-Dichloropropylene	0.4	ND		5	ND		5	ND		5	ND		5
Trichloroethylene	5	ND		5	ND		5	ND		5	ND		5
Trichlorofluoromethane	5	ND		5	ND		5	ND		5	ND		5
Vinyl acetate	NE	ND		5	ND		5	ND		5	ND		5
Vinyl chloride	2	ND		5	ND		5	ND		5	ND		5
Xylenes, Total	5	ND		15	ND		15	ND		15	ND		15
Total TICs	NE	NA		-	NA		-	NA		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration

**Table 10: Water - VOCs**

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

 Elevated concentrations in **Bold**

VOCs (USEPA Method 8260)	Guidance Level	Trip Blank (2012-09-24)			Trip Blank (2012-09-28)			Trip Blank (2013-08-16)			Trip Blank (2014-04-03)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	5	ND		5	ND		5	ND		5	NA		-
1,1,1-Trichloroethane	5	ND		5	ND		5	ND		5	ND		0.5
1,1,2,2-Tetrachloroethane	5	ND		5	ND		5	ND		5	ND		0.5
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ND		5	ND		5	ND		5	ND		0.5
1,1,2-Trichloroethane	1	ND		5	ND		5	ND		5	ND		0.5
1,1-Dichloroethane	5	ND		5	ND		5	ND		5	ND		0.5
1,1-Dichloroethylene	5	ND		5	ND		5	ND		5	ND		0.5
1,1-Dichloropropylene	5	ND		5	ND		5	ND		5	NA		-
1,2,3-Trichlorobenzene	5	ND		10	ND		10	ND		5	ND		0.5
1,2,3-Trichloropropane	0.04	ND		5	ND		5	ND		5	NA		-
1,2,4-Trichlorobenzene	5	ND		10	ND		10	ND		5	ND		0.5
1,2,4-Trimethylbenzene	5	ND		5	ND		5	ND		5	NA		-
1,2-Dibromo-3-chloropropane	0.04	ND		10	ND		10	ND		5	ND		0.5
1,2-Dibromoethane	5	ND		5	ND		5	ND		5	ND		0.5
1,2-Dichlorobenzene	3	ND		5	ND		5	ND		5	ND		0.5
1,2-Dichloroethane	0.6	ND		5	ND		5	ND		5	ND		0.5
1,2-Dichloropropane	1	ND		5	ND		5	ND		5	ND		0.5
1,3,5-Trimethylbenzene	5	ND		5	ND		5	ND		5	NA		-
1,3-Dichlorobenzene	3	ND		5	ND		5	ND		5	ND		0.5
1,3-Dichloropropane	5	ND		5	ND		5	ND		5	NA		-
1,4-Dichlorobenzene	3	ND		5	ND		5	ND		5	ND		0.5
1,4-Dioxane	NE	ND		5	ND		5	ND		5	NA		-
2,2-Dichloropropane	5	ND		5	ND		5	ND		5	NA		-
2-Butanone	50	ND		10	ND		10	ND		5	ND		0.5
2-Chlorotoluene	5	ND		5	ND		5	ND		5	NA		-
2-Hexanone	50	NA		-	NA		-	NA		-	ND		0.5
4-Chlorotoluene	5	ND		5	ND		5	ND		5	NA		-
4-Methyl-2-pentanone	NE	NA		-	NA		-	NA		-	2		0.5
Acetone	50	ND		10	ND		10	7		5	ND		2
Benzene	1	ND		5	ND		5	ND		5	ND		0.5
Bromobenzene	5	ND		5	ND		5	ND		5	NA		-
Bromochloromethane	5	ND		5	ND		5	ND		5	ND		0.5
Bromodichloromethane	50	ND		5	ND		5	ND		5	ND		0.5
Bromoform	50	ND		5	ND		5	ND		5	ND		0.5
Bromomethane	5	ND		5	ND		5	ND		5	ND		0.5
Carbon disulfide	NE	NA		-	NA		-	NA		-	ND		0.5
Carbon tetrachloride	5	ND		5	ND		5	ND		5	ND		0.5
Chlorobenzene	5	ND		5	ND		5	ND		5	ND		0.5
Chloroethane	5	ND		5	ND		5	ND		5	ND		0.5
Chloroform	7	ND		5	ND		5	ND		5	ND		0.5
Chloromethane	5	ND		5	ND		5	ND		5	ND		0.5
cis-1,2-Dichloroethylene	5	ND		5	ND		5	ND		5	ND		0.5
cis-1,3-Dichloropropylene	0.4	ND		5	ND		5	ND		5	ND		0.5
Cyclohexane	NE	NA		-	NA		-	NA		-	ND		0.5
Dibromochloromethane	5	ND		5	ND		5	ND		5	ND		0.5
Dibromomethane	5	ND		5	ND		5	ND		5	NA		-
Dichlorodifluoromethane	5	ND		5	ND		5	ND		5	ND		0.5
Ethyl Benzene	5	ND		5	ND		5	ND		5	ND		0.5
Hexachlorobutadiene	0.5	ND		5	ND		5	ND		5	NA		-
Isopropylbenzene	5	ND		5	ND		5	ND		5	ND		0.5
Methyl acetate	NE	NA		-	NA		-	NA		-	ND		0.5
Methyl tert-butyl ether (MTBE)	10	ND		5	ND		5	ND		5	ND		0.5
Methylcyclohexane	NE	NA		-	NA		-	NA		-	ND		0.5
Methylene chloride	5	ND		10	ND		10	ND		5	4.4	B	2
Naphthalene	10	ND		5	ND		5	ND		5	NA		-
n-Butylbenzene	5	ND		6	ND		6	ND		6	NA		-
n-Propylbenzene	5	ND		7	ND		7	ND		7	NA		-
o-Xylene	5	ND		5	ND		5	ND		5	ND		0.5
p- & m- Xylenes	5	ND		10	ND		10	ND		10	ND		1
p-Isopropyltoluene	5	ND		5	ND		5	ND		5	NA		-
sec-Butylbenzene	5	ND		5	ND		5	ND		5	NA		-
Styrene	5	ND		5	ND		5	ND		5	ND		0.5
tert-Butylbenzene	5	ND		5	ND		5	ND		5	NA		-
Tetrachloroethylene	5	ND		5	ND		5	ND		5	ND		0.5
Toluene	5	ND		5	ND		5	ND		5	ND		0.5
trans-1,2-Dichloroethylene	5	ND		5	ND		5	ND		5	ND		0.5
trans-1,3-Dichloropropylene	0.4	ND		5	ND		5	ND		5	ND		0.5
Trichloroethylene	5	ND		5	ND		5	ND		5	ND		0.5
Trichlorofluoromethane	5	ND		5	ND		5	ND		5	ND		0.5
Vinyl acetate	NE	ND		5	ND		5	ND		5	NA		-
Vinyl chloride	2	ND		5	ND		5	ND		5	ND		0.5
Xylenes, Total	5	ND		15	ND		15	ND		15	ND		1.5
Total TICs	NE	ND		-	NA		-	ND		-	97		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration



**Table 10: Water - VOCs**

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

Elevated concentrations in **Bold**

VOCs (USEPA Method 8260)	Guidance Level	Trip Blank (2014-07-30)			Trip Blank (2014-09-22)			Trip Blank (2014-09-23)			Trip Blank (2014-09-24)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	5	NA		-	NA		-	NA		-	NA		-
1,1,1-Trichloroethane	5	ND		2.5	ND		2.5	ND		2.5	ND		2.5
1,1,2,2-Tetrachloroethane	5	ND		2.5	ND		2.5	ND		2.5	ND		2.5
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ND		2.5	ND		2.5	ND		2.5	ND		2.5
1,1,2-Trichloroethane	1	ND		2.5	ND		2.5	ND		2.5	ND		2.5
1,1-Dichloroethane	5	ND		2.5	ND		2.5	ND		2.5	ND		2.5
1,1-Dichloroethylene	5	ND		2.5	ND		2.5	ND		2.5	ND		2.5
1,1-Dichloropropylene	5	NA		-	NA		-	NA		-	NA		-
1,2,3-Trichlorobenzene	5	NA		-	NA		-	NA		-	NA		-
1,2,3-Trichloropropane	0.04	NA		-	NA		-	NA		-	NA		-
1,2,4-Trichlorobenzene	5	ND		2.5	ND		2.5	ND		2.5	ND		2.5
1,2,4-Trimethylbenzene	5	ND		2.5	ND		2.5	ND		2.5	ND		2.5
1,2-Dibromo-3-chloropropane	0.04	ND		2.5	ND		2.5	ND		2.5	ND		2.5
1,2-Dibromoethane	5	ND		2.5	ND		2.5	ND		2.5	ND		2.5
1,2-Dichlorobenzene	3	NA		-	NA		-	NA		-	NA		-
1,2-Dichloroethane	0.6	ND		2.5	ND		2.5	ND		2.5	ND		2.5
1,2-Dichloropropane	1	ND		2.5	ND		2.5	ND		2.5	ND		2.5
1,3,5-Trimethylbenzene	5	ND		2.5	ND		2.5	ND		2.5	ND		2.5
1,3-Dichlorobenzene	3	NA		-	NA		-	NA		-	NA		-
1,3-Dichloropropane	5	NA		-	NA		-	NA		-	NA		-
1,4-Dichlorobenzene	3	NA		-	NA		-	NA		-	NA		-
1,4-Dioxane	NE	NA		-	NA		-	NA		-	NA		-
2,2-Dichloropropane	5	NA		-	NA		-	NA		-	NA		-
2-Butanone	50	ND		2.5	ND		2.5	ND		2.5	ND		2.5
2-Chlorotoluene	5	NA		-	NA		-	NA		-	NA		-
2-Hexanone	50	ND		2.5	ND		2.5	ND		2.5	ND		2.5
4-Chlorotoluene	5	ND		2.5	ND			ND			ND		
4-Methyl-2-pentanone	NE	ND		2.5	ND		2.5	ND		2.5	ND		2.5
Acetone	50	4.7		2.5	ND		5	ND		5	ND		5
Benzene	1	ND		2.5	ND		2.5	ND		2.5	ND		2.5
Bromobenzene	5	NA		-	NA		-	NA		-	NA		-
Bromochloromethane	5	NA		-	NA		-	NA		-	NA		-
Bromodichloromethane	50	ND		2.5	ND		2.5	ND		2.5	ND		2.5
Bromoform	50	ND		2.5	ND		2.5	ND		2.5	ND		2.5
Bromomethane	5	NA		-	NA		-	NA		-	NA		-
Carbon disulfide	NE	ND		2.5	ND		2.5	ND		2.5	ND		2.5
Carbon tetrachloride	5	NA		-	NA		-	NA		-	NA		-
Chlorobenzene	5	ND		2.5	ND		2.5	ND		2.5	ND		2.5
Chloroethane	5	ND		2.5	ND		2.5	ND		2.5	ND		2.5
Chloroform	7	NA		-	NA		-	NA		-	NA		-
Chloromethane	5	ND		2.5	ND		2.5	ND		2.5	ND		2.5
cis-1,2-Dichloroethylene	5	NA		-	NA		-	NA		-	NA		-
cis-1,3-Dichloropropylene	0.4	ND		2.5	ND		2.5	ND		2.5	ND		2.5
Cyclohexane	NE	NA		-	NA		-	NA		-	NA		-
Dibromochloromethane	5	ND		2.5	ND		2.5	ND		2.5	ND		2.5
Dibromomethane	5	NA		-	NA		-	NA		-	NA		-
Dichlorodifluoromethane	5	ND		2.5	ND		2.5	ND		2.5	ND		2.5
Ethyl Benzene	5	ND		2.5	ND		2.5	ND		2.5	ND		2.5
Hexachlorobutadiene	0.5	NA		-	NA		-	NA		-	NA		-
Isopropylbenzene	5	ND		5	ND		2.5	ND		2.5	ND		2.5
Methyl acetate	NE	NA		-	NA		-	NA		-	NA		-
Methyl tert-butyl ether (MTBE)	10	ND		2.5	ND		2.5	ND		2.5	ND		2.5
Methylcyclohexane	NE	NA		-	NA		-	NA		-	NA		-
Methylene chloride	5	ND		2.5	ND		2.5	ND		2.5	ND		2.5
Naphthalene	10	ND		2.5	ND		2.5	ND		2.5	ND		2.5
n-Butylbenzene	5	ND		2.5	ND		2.5	ND		2.5	ND		2.5
n-Propylbenzene	5	ND		2.5	ND		2.5	ND		2.5	ND		2.5
o-Xylene	5	ND		2.5	ND		2.5	ND		2.5	ND		2.5
p- & m- Xylenes	5	ND		2.5	ND		5	ND		5	ND		5
p-Isopropyltoluene	5	NA		-	NA		-	NA		-	NA		-
sec-Butylbenzene	5	ND		2.5	ND		2.5	ND		2.5	ND		2.5
Styrene	5	ND		2.5	ND		2.5	ND		2.5	ND		2.5
tert-Butylbenzene	5	ND		2.5	ND		2.5	ND		2.5	ND		2.5
Tetrachloroethylene	5	ND		5	ND		2.5	ND		2.5	ND		2.5
Toluene	5	ND		5	ND		2.5	ND		2.5	ND		2.5
trans-1,2-Dichloroethylene	5	ND		5	ND		2.5	ND		2.5	ND		2.5
trans-1,3-Dichloropropylene	0.4	ND		5	ND		2.5	ND		2.5	ND		2.5
Trichloroethylene	5	ND		5	ND		2.5	ND		2.5	ND		2.5
Trichlorofluoromethane	5	ND		5	ND		2.5	ND		2.5	ND		2.5
Vinyl acetate	NE	NA		-	NA		-	NA		-	NA		-
Vinyl chloride	2	ND		5	ND		2.5	ND		2.5	ND		2.5
Xylenes, Total	5	ND		5	ND		7.5	ND		7.5	ND		7.5
Total TICs	NE	ND		-	NA		-	NA		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration

**Table 10: Water - VOCs**

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

Elevated concentrations in **Bold**

VOCs (USEPA Method 8260)	Guidance Level	Trip Blank (2014-10-08)			Trip Blank (2014-10-09)			Trip Blank (2014-12-10)			Trip Blank (2014-12-23)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,1,1,2-Tetrachloroethane	5	NA		-	NA		-	NA		-	NA		-
1,1,1-Trichloroethane	5	ND		0.2	ND		0.2	ND		2.5	ND		2.5
1,1,2,2-Tetrachloroethane	5	ND		0.2	ND		0.2	ND		2.5	ND		2.5
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ND		0.2	ND		0.2	ND		2.5	ND		2.5
1,1,2-Trichloroethane	1	ND		0.2	ND		0.2	ND		2.5	ND		2.5
1,1-Dichloroethane	5	ND		0.2	ND		0.2	ND		2.5	ND		2.5
1,1-Dichloroethylene	5	ND		0.2	ND		0.2	ND		2.5	ND		2.5
1,1-Dichloropropylene	5	NA		-	NA		-	NA		-	NA		-
1,2,3-Trichlorobenzene	5	ND		0.2	ND		0.2	NA		-	NA		-
1,2,3-Trichloropropane	0.04	NA		-	NA		-	NA		-	NA		-
1,2,4-Trichlorobenzene	5	ND		0.2	ND		0.2	ND		2.5	ND		2.5
1,2,4-Trimethylbenzene	5	NA		-	NA		-	ND		2.5	ND		2.5
1,2-Dibromo-3-chloropropane	0.04	ND		0.2	ND		0.2	ND		2.5	ND		2.5
1,2-Dibromoethane	5	ND		0.2	ND		0.2	ND		2.5	ND		2.5
1,2-Dichlorobenzene	3	ND		0.2	ND		0.2	NA		-	NA		-
1,2-Dichloroethane	0.6	ND		0.2	ND		0.2	ND		2.5	ND		2.5
1,2-Dichloropropane	1	ND		0.2	ND		0.2	ND		2.5	ND		2.5
1,3,5-Trimethylbenzene	5	NA		-	NA		-	ND		2.5	ND		2.5
1,3-Dichlorobenzene	3	ND		0.2	ND		0.2	NA		-	NA		-
1,3-Dichloropropane	5	NA		-	NA		-	NA		-	NA		-
1,4-Dichlorobenzene	3	ND		0.2	ND		0.2	NA		-	NA		-
1,4-Dioxane	NE	NA		-	NA		-	NA		-	NA		-
2,2-Dichloropropane	5	NA		-	NA		-	NA		-	NA		-
2-Butanone	50	ND		0.2	ND		0.2	ND		5	ND		2.5
2-Chlorotoluene	5	NA		-	NA		-	NA		-	NA		-
2-Hexanone	50	ND		0.2	ND		0.2	ND		2.5	ND		2.5
4-Chlorotoluene	5	ND			ND			ND			ND		
4-Methyl-2-pentanone	NE	ND		0.2	ND		0.2	ND		2.5	ND		2.5
Acetone	50	ND		1	ND		0.2	ND		5	ND		5
Benzene	1	ND		0.2	ND		0.2	ND		2.5	ND		2.5
Bromobenzene	5	NA		-	NA		-	NA		-	NA		-
Bromochloromethane	5	ND		0.2	ND		0.2	NA		-	NA		-
Bromodichloromethane	50	ND		0.2	ND		0.2	ND		2.5	ND		2.5
Bromoform	50	ND		0.2	ND		0.2	ND		2.5	ND		2.5
Bromomethane	5	NA		-	NA		-	NA		-	NA		-
Carbon disulfide	NE	ND		0.2	ND		0.2	ND		2.5	ND		2.5
Carbon tetrachloride	5	NA		-	NA		-	NA		-	NA		-
Chlorobenzene	5	ND		0.2	ND		0.2	ND		2.5	ND		2.5
Chloroethane	5	ND		0.2	ND		0.2	ND		2.5	ND		2.5
Chloroform	7	NA		-	NA		-	NA		-	NA		-
Chloromethane	5	ND		0.2	ND		0.2	ND		2.5	ND		2.5
cis-1,2-Dichloroethylene	5	NA		-	NA		-	NA		-	NA		-
cis-1,3-Dichloropropylene	0.4	ND		0.2	ND		0.2	ND		2.5	ND		2.5
Cyclohexane	NE	ND		0.2	ND		0.2	NA		-	NA		-
Dibromochloromethane	5	ND		0.2	ND		0.2	ND		2.5	ND		2.5
Dibromomethane	5	NA		-	NA		-	NA		-	NA		-
Dichlorodifluoromethane	5	ND		0.2	ND		0.2	ND		2.5	ND		2.5
Ethyl Benzene	5	ND		0.2	ND		0.2	ND		2.5	ND		2.5
Hexachlorobutadiene	0.5	NA		-	NA		-	NA		-	NA		-
Isopropylbenzene	5	ND		0.2	ND		0.2	ND		2.5	ND		2.5
Methyl acetate	NE	ND		0.2	ND		0.2	NA		-	NA		-
Methyl tert-butyl ether (MTBE)	10	ND		0.2	ND		0.2	ND		2.5	ND		2.5
Methylcyclohexane	NE	ND		0.2	ND		0.2	NA		-	NA		-
Methylene chloride	5	ND		1	ND		1	ND		2.5	ND		2.5
Naphthalene	10	NA		-	NA		-	ND		2.5	ND		2.5
n-Butylbenzene	5	NA		-	NA		-	ND		2.5	ND		2.5
n-Propylbenzene	5	NA		-	NA		-	ND		2.5	ND		2.5
o-Xylene	5	ND		0.2	ND		0.2	ND		2.5	ND		2.5
p- & m- Xylenes	5	ND		0.5	ND		0.5	ND		5	ND		5
p-Isopropyltoluene	5	NA		-	NA		-	NA		-	NA		-
sec-Butylbenzene	5	NA		-	NA		-	ND		2.5	ND		2.5
Styrene	5	ND		0.2	ND		0.2	ND		2.5	ND		2.5
tert-Butylbenzene	5	NA		-	NA		-	ND		2.5	ND		2.5
Tetrachloroethylene	5	ND		0.2	ND		0.2	ND		2.5	ND		2.5
Toluene	5	ND		0.2	ND		0.2	ND		2.5	ND		2.5
trans-1,2-Dichloroethylene	5	ND		0.2	ND		0.2	ND		2.5	ND		2.5
trans-1,3-Dichloropropylene	0.4	ND		0.2	ND		0.2	ND		2.5	ND		2.5
Trichloroethylene	5	ND		0.2	ND		0.2	ND		2.5	ND		2.5
Trichlorofluoromethane	5	ND		0.2	ND		0.2	ND		2.5	ND		2.5
Vinyl acetate	NE	NA		-	NA		-	NA		-	NA		-
Vinyl chloride	2	ND		0.2	ND		0.2	ND		2.5	ND		2.5
Xylenes, Total	5	ND		0.6	ND		0.6	ND		7.5	ND		7.5
Total TICs	NE	NA		-	NA		-	ND		-	ND		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration



**Table 11: Water - SVOCs**

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

 Elevated concentrations in **Bold**

SVOCs (USEPA Method 8270)	Guidance Level	MW-3 (2010-02-15)			MW-3 (2012-04-25)			MW-3 (2013-11-25)			MW-10 (2010-02-15)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,2,4-Trichlorobenzene	5	ND		5.13	ND		5	ND		5.13	ND		5.13
1,2-Dichlorobenzene	3	ND		5.13	ND		5	ND		5.13	ND		5.13
1,3-Dichlorobenzene	3	ND		5.13	ND		5	ND		5.13	ND		5.13
1,4-Dichlorobenzene	3	ND		5.13	ND		5	ND		5.13	ND		5.13
2,4,5-Trichlorophenol	NE	ND		5.13	ND		5	ND		5.13	ND		5.13
2,4,6-Trichlorophenol	NE	ND		5.13	ND		5	ND		5.13	ND		5.13
2,4-Dichlorophenol	5	ND		5.13	ND		5	ND		5.13	ND		5.13
2,4-Dimethylphenol	50	ND		5.13	ND		5	ND		5.13	ND		5.13
2,4-Dinitrophenol	10	ND		10.3	ND		10	ND		10.3	ND		10.3
2,4-Dinitrotoluene	5	ND		5.13	ND		5	ND		5.13	ND		5.13
2,6-Dinitrotoluene	5	ND		5.13	ND		5	ND		5.13	ND		5.13
2-Chloronaphthalene	10	ND		5.13	ND		5	ND		5.13	ND		5.13
2-Chlorophenol	NE	ND		5.13	ND		5	ND		5.13	ND		5.13
2-Methylnaphthalene	NE	ND		5.13	ND		5	ND		5.13	ND		5.13
2-Methylphenol	NE	ND		5.13	ND		5	ND		5.13	ND		5.13
2-Nitroaniline	5	ND		5.13	ND		5	ND		5.13	ND		5.13
2-Nitrophenol	NE	ND		5.13	ND		5	ND		5.13	ND		5.13
3- & 4-Methylphenols	NE	NA		-	ND		5	ND		5.13	NA		-
3,3'-Dichlorobenzidine	5	ND		5.13	ND		5	ND		5.13	ND		5.13
3-Nitroaniline	5	ND		5.13	ND		5	ND		5.13	ND		5.13
4,6-Dinitro-2-methylphenol	NE	ND		10.3	ND		10	ND		10.3	ND		10.3
4-Bromophenyl phenyl ether	NE	ND		5.13	ND		5	ND		5.13	ND		5.13
4-Chloro-3-methylphenol	NE	ND		5.13	ND		5	ND		5.13	ND		5.13
4-Chloroaniline	5	ND		5.13	ND		5	ND		5.13	ND		5.13
4-Chlorophenyl phenyl ether	NE	ND		5.13	ND		5	ND		5.13	ND		5.13
4-Nitroaniline	5	ND		5.13	ND		5	ND		5.13	ND		5.13
4-Nitrophenol	5	ND		5.13	ND		5	ND		5.13	ND		5.13
Acenaphthene	20	ND		5.13	ND		5	ND		5.13	ND		5.13
Acenaphthylene	NE	ND		5.13	ND		5	ND		5.13	ND		5.13
Aniline	5	ND		5.13	ND		5	NA		-	ND		5.13
Anthracene	50	ND		5.13	ND		5	ND		5.13	ND		5.13
Benzo(a)anthracene	0.002	ND		5.13	ND		5	ND		5.13	ND		5.13
Benzo(a)pyrene	NE	ND		5.13	ND		5	ND		5.13	ND		5.13
Benzo(b)fluoranthene	0.002	ND		5.13	ND		5	ND		5.13	ND		5.13
Benzo(g,h,i)perylene	NE	ND		5.13	ND		5	ND		5.13	ND		5.13
Benzo(k)fluoranthene	0.002	ND		5.13	ND		5	ND		5.13	ND		5.13
Benzoic acid	NE	ND		5.13	NA		-	ND		10.3	ND		5.13
Benzyl alcohol	NE	ND		5.13	ND		5	ND		5.13	ND		5.13
Benzyl butyl phthalate	50	ND		5.13	ND		5	ND		5.13	ND		5.13
Bis(2-chloroethoxy)methane	5	ND		5.13	ND		5	ND		5.13	ND		5.13
Bis(2-chloroethyl)ether	1	ND		5.13	ND		5	ND		5.13	ND		5.13
Bis(2-chloroisopropyl)ether	NE	ND		5.13	ND		5	ND		5.13	ND		5.13
Bis(2-ethylhexyl)phthalate	5	ND		5.13	<b>5.1</b>		5	ND		5.13	ND		5.13
Chrysene	0.002	ND		5.13	ND		5	ND		5.13	ND		5.13
Dibenzo(a,h)anthracene	NE	ND		5.13	ND		5	ND		5.13	ND		5.13
Dibenzofuran	NE	ND		5.13	ND		5	ND		5.13	ND		5.13
Diethyl phthalate	50	ND		5.13	ND		5	ND		5.13	ND		5.13
Dimethyl phthalate	50	ND		5.13	ND		5	ND		5.13	ND		5.13
Di-n-butyl phthalate	50	ND		5.13	ND		5	ND		5.13	ND		5.13
Di-n-octyl phthalate	50	ND		5.13	ND		5	ND		5.13	ND		5.13
Fluoranthene	50	ND		5.13	ND		5	ND		5.13	ND		5.13
Fluorene	50	ND		5.13	ND		5	ND		5.13	ND		5.13
Hexachlorobenzene	0.04	ND		5.13	ND		5	ND		5.13	ND		5.13
Hexachlorobutadiene	0.5	ND		5.13	ND		5	ND		5.13	ND		5.13
Hexachlorocyclopentadiene	5	ND		5.13	ND		5	ND		5.13	ND		5.13
Hexachloroethane	5	ND		5.13	ND		5	ND		5.13	ND		5.13
Indeno(1,2,3-cd)pyrene	0.002	ND		5.13	ND		5	ND		5.13	ND		5.13
Isophorone	50	ND		5.13	ND		5	ND		5.13	ND		5.13
Naphthalene	10	ND		5.13	ND		5	ND		5.13	ND		5.13
Nitrobenzene	0.4	ND		5.13	ND		5	ND		5.13	ND		5.13
N-Nitrosodimethylamine	50	ND		5.13	ND		5	NA		-	ND		5.13
N-nitroso-di-n-propylamine	NE	ND		5.13	ND		5	ND		5.13	ND		5.13
N-Nitrosodiphenylamine	50	ND		5.13	ND		5	ND		5.13	ND		5.13
Pentachlorophenol	1	ND		5.13	ND		5	ND		5.13	ND		5.13
Phenanthrene	50	ND		5.13	ND		5	ND		5.13	ND		5.13
Phenol	1	ND		5.13	ND		5	ND		5.13	ND		5.13
Pyrene	50	ND		5.13	ND		5	ND		5.13	ND		5.13
Pyridine	50	ND		5.13	ND		5	NA		-	ND		5.13
Total TICs	NE	NA		-	NA		-	ND		5.13	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration

Table 11: Water - SVOCs

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

Elevated concentrations in **Bold**

SVOCs (USEPA Method 8270)	Guidance Level	MW-10 (2012-03-16)			MW-12 (2010-02-15)			MW-13 (2010-02-15)			MW-13 (2012-03-16)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,2,4-Trichlorobenzene	5	ND		5.26	ND		5.13	ND		5.41	ND		5.41
1,2-Dichlorobenzene	3	ND		5.26	ND		5.13	ND		5.41	ND		5.41
1,3-Dichlorobenzene	3	ND		5.26	ND		5.13	ND		5.41	ND		5.41
1,4-Dichlorobenzene	3	ND		5.26	ND		5.13	ND		5.41	ND		5.41
2,4,5-Trichlorophenol	NE	NA		-	ND		5.13	ND		5.41	NA		-
2,4,6-Trichlorophenol	NE	NA		-	ND		5.13	ND		5.41	NA		-
2,4-Dichlorophenol	5	NA		-	ND		5.13	ND		5.41	NA		-
2,4-Dimethylphenol	50	NA		-	ND		5.13	ND		5.41	NA		-
2,4-Dinitrophenol	10	NA		-	ND		10.3	ND		10.8	NA		-
2,4-Dinitrotoluene	5	ND		5.26	ND		5.13	ND		5.41	ND		5.41
2,6-Dinitrotoluene	5	ND		5.26	ND		5.13	ND		5.41	ND		5.41
2-Chloronaphthalene	10	ND		5.26	ND		5.13	ND		5.41	ND		5.41
2-Chlorophenol	NE	NA		-	ND		5.13	ND		5.41	NA		-
2-Methylnaphthalene	NE	ND		5.26	ND		5.13	ND		5.41	ND		5.41
2-Methylphenol	NE	NA		-	ND		5.13	ND		5.41	NA		-
2-Nitroaniline	5	ND		5.26	ND		5.13	ND		5.41	ND		5.41
2-Nitrophenol	NE	NA		-	ND		5.13	ND		5.41	NA		-
3- & 4-Methylphenols	NE	NA		-	NA		-	NA		-	NA		-
3,3'-Dichlorobenzidine	5	ND		5.26	ND		5.13	ND		5.41	ND		5.41
3-Nitroaniline	5	ND		5.26	ND		5.13	ND		5.41	ND		5.41
4,6-Dinitro-2-methylphenol	NE	NA		-	ND		10.3	ND		10.8	NA		-
4-Bromophenyl phenyl ether	NE	ND		5.26	ND		5.13	ND		5.41	ND		5.41
4-Chloro-3-methylphenol	NE	NA		-	ND		5.13	ND		5.41	NA		-
4-Chloroaniline	5	ND		5.26	ND		5.13	ND		5.41	ND		5.41
4-Chlorophenyl phenyl ether	NE	ND		5.26	ND		5.13	ND		5.41	ND		5.41
4-Nitroaniline	5	NA		-	ND		5.13	ND		5.41	NA		-
4-Nitrophenol	5	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Acenaphthene	20	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Acenaphthylene	NE	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Aniline	5	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Anthracene	50	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Benzo(a)anthracene	0.002	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Benzo(a)pyrene	NE	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Benzo(b)fluoranthene	0.002	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Benzo(g,h,i)perylene	NE	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Benzo(k)fluoranthene	0.002	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Benzoic acid	NE	NA		-	ND		5.13	ND		5.41	NA		-
Benzyl alcohol	NE	NA		-	ND		5.13	ND		5.41	NA		-
Benzyl butyl phthalate	50	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Bis(2-chloroethoxy)methane	5	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Bis(2-chloroethyl)ether	1	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Bis(2-chloroisopropyl)ether	NE	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Bis(2-ethylhexyl)phthalate	5	<b>12.5</b>		5.26	ND		5.13	<b>3.57</b>	J	5.41	ND		5.41
Chrysene	0.002	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Dibenzo(a,h)anthracene	NE	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Dibenzofuran	NE	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Diethyl phthalate	50	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Dimethyl phthalate	50	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Di-n-butyl phthalate	50	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Di-n-octyl phthalate	50	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Fluoranthene	50	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Fluorene	50	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Hexachlorobenzene	0.04	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Hexachlorobutadiene	0.5	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Hexachlorocyclopentadiene	5	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Hexachloroethane	5	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Indeno(1,2,3-cd)pyrene	0.002	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Isophorone	50	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Naphthalene	10	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Nitrobenzene	0.4	ND		5.26	ND		5.13	ND		5.41	ND		5.41
N-Nitrosodimethylamine	50	ND		5.26	ND		5.13	ND		5.41	ND		5.41
N-nitroso-di-n-propylamine	NE	ND		5.26	ND		5.13	ND		5.41	ND		5.41
N-Nitrosodiphenylamine	50	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Pentachlorophenol	1	NA		-	ND		5.13	ND		5.41	NA		-
Phenanthrene	50	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Phenol	1	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Pyrene	50	ND		5.26	ND		5.13	ND		5.41	ND		5.41
Pyridine	50	NA		-	ND		5.13	ND		5.41	NA		-
Total TICs	NE	NA		-	NA		-	NA		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration

Table 11: Water - SVOCs

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

Elevated concentrations in **Bold**

SVOCs (USEPA Method 8270)	Guidance Level	MW-14 (2010-02-15)			MW-17 (2012-04-19)			MW-18 (2012-03-16)			MW-19 (2012-03-16)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,2,4-Trichlorobenzene	5	ND		5.56	ND		5.13	ND		5.41	ND		5.13
1,2-Dichlorobenzene	3	ND		5.56	ND		5.13	ND		5.41	ND		5.13
1,3-Dichlorobenzene	3	ND		5.56	ND		5.13	ND		5.41	ND		5.13
1,4-Dichlorobenzene	3	ND		5.56	ND		5.13	ND		5.41	ND		5.13
2,4,5-Trichlorophenol	NE	ND		5.56	ND		5.13	NA		-	NA		-
2,4,6-Trichlorophenol	NE	ND		5.56	ND		5.13	NA		-	NA		-
2,4-Dichlorophenol	5	ND		5.56	ND		5.13	NA		-	NA		-
2,4-Dimethylphenol	50	ND		5.56	ND		5.13	NA		-	NA		-
2,4-Dinitrophenol	10	ND		11.1	ND		10.3	NA		-	NA		-
2,4-Dinitrotoluene	5	ND		5.56	ND		5.13	ND		5.41	ND		5.13
2,6-Dinitrotoluene	5	ND		5.56	ND		5.13	ND		5.41	ND		5.13
2-Chloronaphthalene	10	ND		5.56	ND		5.13	ND		5.41	ND		5.13
2-Chlorophenol	NE	ND		5.56	ND		5.13	NA		-	NA		-
2-Methylnaphthalene	NE	ND		5.56	ND		5.13	ND		5.41	ND		5.13
2-Methylphenol	NE	ND		5.56	ND		5.13	NA		-	NA		-
2-Nitroaniline	5	ND		5.56	ND		5.13	ND		5.41	ND		5.13
2-Nitrophenol	NE	ND		5.56	ND		5.13	NA		-	NA		-
3- & 4-Methylphenols	NE	NA		-	ND		5.13	NA		-	NA		-
3,3'-Dichlorobenzidine	5	ND		5.56	ND		5.13	ND		5.41	ND		5.13
3-Nitroaniline	5	ND		5.56	ND		5.13	ND		5.41	ND		5.13
4,6-Dinitro-2-methylphenol	NE	ND		11.1	ND		10.3	NA		-	NA		-
4-Bromophenyl phenyl ether	NE	ND		5.56	ND		5.13	ND		5.41	ND		5.13
4-Chloro-3-methylphenol	NE	ND		5.56	ND		5.13	NA		-	NA		-
4-Chloroaniline	5	ND		5.56	ND		5.13	ND		5.41	ND		5.13
4-Chlorophenyl phenyl ether	NE	ND		5.56	ND		5.13	ND		5.41	ND		5.13
4-Nitroaniline	5	ND		5.56	ND		5.13	NA		-	NA		-
4-Nitrophenol	5	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Acenaphthene	20	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Acenaphthylene	NE	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Aniline	5	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Anthracene	50	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Benzo(a)anthracene	0.002	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Benzo(a)pyrene	NE	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Benzo(b)fluoranthene	0.002	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Benzo(g,h,i)perylene	NE	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Benzo(k)fluoranthene	0.002	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Benzoic acid	NE	ND		5.56	NA		-	NA		-	NA		-
Benzyl alcohol	NE	ND		5.56	ND		5.13	NA		-	NA		-
Benzyl butyl phthalate	50	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Bis(2-chloroethoxy)methane	5	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Bis(2-chloroethyl)ether	1	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Bis(2-chloroisopropyl)ether	NE	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Bis(2-ethylhexyl)phthalate	5	ND		5.56	<b>10.8</b>		5.13	ND		5.41	<b>39.6</b>		5.13
Chrysene	0.002	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Dibenzo(a,h)anthracene	NE	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Dibenzofuran	NE	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Diethyl phthalate	50	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Dimethyl phthalate	50	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Di-n-butyl phthalate	50	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Di-n-octyl phthalate	50	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Fluoranthene	50	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Fluorene	50	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Hexachlorobenzene	0.04	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Hexachlorobutadiene	0.5	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Hexachlorocyclopentadiene	5	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Hexachloroethane	5	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Indeno(1,2,3-cd)pyrene	0.002	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Isophorone	50	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Naphthalene	10	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Nitrobenzene	0.4	ND		5.56	ND		5.13	ND		5.41	ND		5.13
N-Nitrosodimethylamine	50	ND		5.56	ND		5.13	ND		5.41	ND		5.13
N-nitroso-di-n-propylamine	NE	ND		5.56	ND		5.13	ND		5.41	ND		5.13
N-Nitrosodiphenylamine	50	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Pentachlorophenol	1	ND		5.56	ND		5.13	NA		-	NA		-
Phenanthrene	50	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Phenol	1	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Pyrene	50	ND		5.56	ND		5.13	ND		5.41	ND		5.13
Pyridine	50	ND		5.56	ND		5.13	NA		-	NA		-
Total TICs	NE	NA		-	NA		-	32		-	6		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration

**Table 11: Water - SVOCs**

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

Elevated concentrations in **Bold**

SVOCs (USEPA Method 8270)	Guidance Level	MW-22 (2012-03-16)			MW-23 (2012-09-24)			MW-24 (2012-09-24)			MW-27 (2012-09-28)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,2,4-Trichlorobenzene	5	ND		5.13	ND		5.26	ND		5.41	ND		5.41
1,2-Dichlorobenzene	3	ND		5.13	ND		5.26	ND		5.41	ND		5.41
1,3-Dichlorobenzene	3	ND		5.13	ND		5.26	ND		5.41	ND		5.41
1,4-Dichlorobenzene	3	ND		5.13	ND		5.26	ND		5.41	ND		5.41
2,4,5-Trichlorophenol	NE	NA		-	ND		5.26	ND		5.41	ND		5.41
2,4,6-Trichlorophenol	NE	NA		-	ND		5.26	ND		5.41	ND		5.41
2,4-Dichlorophenol	5	NA		-	ND		5.26	ND		5.41	ND		5.41
2,4-Dimethylphenol	50	NA		-	ND		5.26	ND		5.41	ND		5.41
2,4-Dinitrophenol	10	NA		-	ND		10.5	ND		10.8	ND		10.8
2,4-Dinitrotoluene	5	ND		5.13	ND		5.26	ND		5.41	ND		5.41
2,6-Dinitrotoluene	5	ND		5.13	ND		5.26	ND		5.41	ND		5.41
2-Chloronaphthalene	10	ND		5.13	ND		5.26	ND		5.41	ND		5.41
2-Chlorophenol	NE	NA		-	ND		5.26	ND		5.41	ND		5.41
2-Methylnaphthalene	NE	ND		5.13	ND		5.26	ND		5.41	ND		5.41
2-Methylphenol	NE	NA		-	ND		5.26	ND		5.41	ND		5.41
2-Nitroaniline	5	ND		5.13	ND		5.26	ND		5.41	ND		5.41
2-Nitrophenol	NE	NA		-	ND		5.26	ND		5.41	ND		5.41
3- & 4-Methylphenols	NE	NA		-	ND		5.26	ND		5.41	ND		5.41
3,3'-Dichlorobenzidine	5	ND		5.13	ND		5.26	ND		5.41	ND		5.41
3-Nitroaniline	5	ND		5.13	ND		5.26	ND		5.41	ND		5.41
4,6-Dinitro-2-methylphenol	NE	NA		-	ND		10.5	ND		10.8	ND		10.8
4-Bromophenyl phenyl ether	NE	ND		5.13	ND		5.26	ND		5.41	ND		5.41
4-Chloro-3-methylphenol	NE	NA		-	ND		5.26	ND		5.41	ND		5.41
4-Chloroaniline	5	ND		5.13	ND		5.26	ND		5.41	ND		5.41
4-Chlorophenyl phenyl ether	NE	ND		5.13	ND		5.26	ND		5.41	ND		5.41
4-Nitroaniline	5	NA		-	ND		5.26	ND		5.41	ND		5.41
4-Nitrophenol	5	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Acenaphthene	20	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Acenaphthylene	NE	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Aniline	5	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Anthracene	50	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Benzo(a)anthracene	0.002	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Benzo(a)pyrene	NE	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Benzo(b)fluoranthene	0.002	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Benzo(g,h,i)perylene	NE	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Benzo(k)fluoranthene	0.002	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Benzoic acid	NE	NA		-	NA		-	NA		-	NA		-
Benzyl alcohol	NE	NA		-	ND		5.26	ND		5.41	ND		5.41
Benzyl butyl phthalate	50	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Bis(2-chloroethoxy)methane	5	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Bis(2-chloroethyl)ether	1	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Bis(2-chloroisopropyl)ether	NE	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Bis(2-ethylhexyl)phthalate	5	<b>1,750</b>		5.13	<b>9.55</b>		5.26	ND		5.41	<b>12.6</b>		5.41
Chrysene	0.002	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Dibenzo(a,h)anthracene	NE	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Dibenzofuran	NE	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Diethyl phthalate	50	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Dimethyl phthalate	50	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Di-n-butyl phthalate	50	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Di-n-octyl phthalate	50	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Fluoranthene	50	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Fluorene	50	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Hexachlorobenzene	0.04	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Hexachlorobutadiene	0.5	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Hexachlorocyclopentadiene	5	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Hexachloroethane	5	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Indeno(1,2,3-cd)pyrene	0.002	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Isophorone	50	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Naphthalene	10	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Nitrobenzene	0.4	ND		5.13	ND		5.26	ND		5.41	ND		5.41
N-Nitrosodimethylamine	50	ND		5.13	ND		5.26	ND		5.41	ND		5.41
N-nitroso-di-n-propylamine	NE	ND		5.13	ND		5.26	ND		5.41	ND		5.41
N-Nitrosodiphenylamine	50	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Pentachlorophenol	1	NA		-	ND		5.26	ND		5.41	ND		5.41
Phenanthrene	50	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Phenol	1	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Pyrene	50	ND		5.13	ND		5.26	ND		5.41	ND		5.41
Pyridine	50	NA		-	ND		5.26	ND		5.41	ND		5.41
Total TICs	NE	NA		-	NA		-	NA		-	NA		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration

**Table 11: Water - SVOCs**

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

 Elevated concentrations in **Bold**

SVOCs (USEPA Method 8270)	Guidance Level	MW-28 (2013-08-16)			MW-29 (2013-08-16)			MW-30 (2013-08-16)			MW-31 (2013-08-16)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,2,4-Trichlorobenzene	5	ND		5.26	ND		5.26	ND		5.26	ND		5.41
1,2-Dichlorobenzene	3	ND		5.26	ND		5.26	ND		5.26	ND		5.41
1,3-Dichlorobenzene	3	ND		5.26	ND		5.26	ND		5.26	ND		5.41
1,4-Dichlorobenzene	3	ND		5.26	ND		5.26	ND		5.26	ND		5.41
2,4,5-Trichlorophenol	NE	ND		5.26	ND		5.26	ND		5.26	ND		5.41
2,4,6-Trichlorophenol	NE	ND		5.26	ND		5.26	ND		5.26	ND		5.41
2,4-Dichlorophenol	5	ND		5.26	ND		5.26	ND		5.26	ND		5.41
2,4-Dimethylphenol	50	ND		5.26	ND		5.26	ND		5.26	ND		5.41
2,4-Dinitrophenol	10	ND		10.5	ND		10.5	ND		10.5	ND		10.8
2,4-Dinitrotoluene	5	ND		5.26	ND		5.26	ND		5.26	ND		5.41
2,6-Dinitrotoluene	5	ND		5.26	ND		5.26	ND		5.26	ND		5.41
2-Chloronaphthalene	10	ND		5.26	ND		5.26	ND		5.26	ND		5.41
2-Chlorophenol	NE	ND		5.26	ND		5.26	ND		5.26	ND		5.41
2-Methylnaphthalene	NE	ND		5.26	ND		5.26	ND		5.26	ND		5.41
2-Methylphenol	NE	ND		5.26	ND		5.26	ND		5.26	ND		5.41
2-Nitroaniline	5	ND		5.26	ND		5.26	ND		5.26	ND		5.41
2-Nitrophenol	NE	ND		5.26	ND		5.26	ND		5.26	ND		5.41
3- & 4-Methylphenols	NE	ND		5.26	ND		5.26	ND		5.26	ND		5.41
3,3'-Dichlorobenzidine	5	ND		5.26	ND		5.26	ND		5.26	ND		5.41
3-Nitroaniline	5	ND		5.26	ND		5.26	ND		5.26	ND		5.41
4,6-Dinitro-2-methylphenol	NE	ND		10.5	ND		10.5	ND		10.5	ND		10.8
4-Bromophenyl phenyl ether	NE	ND		5.26	ND		5.26	ND		5.26	ND		5.41
4-Chloro-3-methylphenol	NE	ND		5.26	ND		5.26	ND		5.26	ND		5.41
4-Chloroaniline	5	ND		5.26	ND		5.26	ND		5.26	ND		5.41
4-Chlorophenyl phenyl ether	NE	ND		5.26	ND		5.26	ND		5.26	ND		5.41
4-Nitroaniline	5	ND		5.26	ND		5.26	ND		5.26	ND		5.41
4-Nitrophenol	5	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Acenaphthene	20	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Acenaphthylene	NE	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Aniline	5	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Anthracene	50	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Benzo(a)anthracene	0.002	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Benzo(a)pyrene	NE	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Benzo(b)fluoranthene	0.002	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Benzo(g,h,i)perylene	NE	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Benzo(k)fluoranthene	0.002	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Benzoic acid	NE	NA		-	NA		-	NA		-	NA		-
Benzyl alcohol	NE	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Benzyl butyl phthalate	50	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Bis(2-chloroethoxy)methane	5	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Bis(2-chloroethyl)ether	1	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Bis(2-chloroisopropyl)ether	NE	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Bis(2-ethylhexyl)phthalate	5	ND		5.26	<b>209</b>	B	26.3	ND		26.3	ND		5.41
Chrysene	0.002	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Dibenzo(a,h)anthracene	NE	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Dibenzofuran	NE	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Diethyl phthalate	50	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Dimethyl phthalate	50	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Di-n-butyl phthalate	50	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Di-n-octyl phthalate	50	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Fluoranthene	50	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Fluorene	50	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Hexachlorobenzene	0.04	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Hexachlorobutadiene	0.5	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Hexachlorocyclopentadiene	5	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Hexachloroethane	5	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Indeno(1,2,3-cd)pyrene	0.002	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Isophorone	50	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Naphthalene	10	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Nitrobenzene	0.4	ND		5.26	ND		5.26	ND		5.26	ND		5.41
N-Nitrosodimethylamine	50	ND		5.26	ND		5.26	ND		5.26	ND		5.41
N-nitroso-di-n-propylamine	NE	ND		5.26	ND		5.26	ND		5.26	ND		5.41
N-Nitrosodiphenylamine	50	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Pentachlorophenol	1	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Phenanthrene	50	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Phenol	1	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Pyrene	50	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Pyridine	50	ND		5.26	ND		5.26	ND		5.26	ND		5.41
Total TICs	NE	ND		-	ND		-	ND		-	ND		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration



**Table 11: Water - SVOCs**

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

 Elevated concentrations in **Bold**

SVOCs (USEPA Method 8270)	Guidance Level	MW-32 (2013-08-16)			MW-34 (2013-08-16)			MW-34 (2013-11-25)			MW-35 (2013-08-16)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
1,2,4-Trichlorobenzene	5	ND		5.13	ND		5.13	ND		25.6	ND		5.13
1,2-Dichlorobenzene	3	ND		5.13	ND		5.13	ND		25.6	ND		5.13
1,3-Dichlorobenzene	3	ND		5.13	ND		5.13	ND		25.6	ND		5.13
1,4-Dichlorobenzene	3	ND		5.13	ND		5.13	ND		25.6	ND		5.13
2,4,5-Trichlorophenol	NE	ND		5.13	ND		5.13	ND		25.6	ND		5.13
2,4,6-Trichlorophenol	NE	ND		5.13	ND		5.13	ND		25.6	ND		5.13
2,4-Dichlorophenol	5	ND		5.13	ND		5.13	ND		25.6	ND		5.13
2,4-Dimethylphenol	50	ND		5.13	ND		5.13	ND		25.6	ND		5.13
2,4-Dinitrophenol	10	ND		10.3	ND		10.3	ND		51.3	ND		10.3
2,4-Dinitrotoluene	5	ND		5.13	ND		5.13	ND		25.6	ND		5.13
2,6-Dinitrotoluene	5	ND		5.13	ND		5.13	ND		25.6	ND		5.13
2-Chloronaphthalene	10	ND		5.13	ND		5.13	ND		25.6	ND		5.13
2-Chlorophenol	NE	ND		5.13	ND		5.13	ND		25.6	ND		5.13
2-Methylnaphthalene	NE	ND		5.13	ND		5.13	ND		25.6	ND		5.13
2-Methylphenol	NE	ND		5.13	ND		5.13	ND		25.6	ND		5.13
2-Nitroaniline	5	ND		5.13	ND		5.13	ND		25.6	ND		5.13
2-Nitrophenol	NE	ND		5.13	ND		5.13	ND		25.6	ND		5.13
3- & 4-Methylphenols	NE	ND		5.13	ND		5.13	ND		25.6	ND		5.13
3,3'-Dichlorobenzidine	5	ND		5.13	ND		5.13	ND		25.6	ND		5.13
3-Nitroaniline	5	ND		5.13	ND		5.13	ND		25.6	ND		5.13
4,6-Dinitro-2-methylphenol	NE	ND		10.3	ND		10.3	ND		51.3	ND		10.3
4-Bromophenyl phenyl ether	NE	ND		5.13	ND		5.13	ND		25.6	ND		5.13
4-Chloro-3-methylphenol	NE	ND		5.13	ND		5.13	ND		25.6	ND		5.13
4-Chloroaniline	5	ND		5.13	ND		5.13	ND		25.6	ND		5.13
4-Chlorophenyl phenyl ether	NE	ND		5.13	ND		5.13	ND		25.6	ND		5.13
4-Nitroaniline	5	ND		5.13	ND		5.13	ND		25.6	ND		5.13
4-Nitrophenol	5	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Acenaphthene	20	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Acenaphthylene	NE	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Aniline	5	ND		5.13	ND		5.13	NA		-	ND		5.13
Anthracene	50	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Benzo(a)anthracene	0.002	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Benzo(a)pyrene	NE	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Benzo(b)fluoranthene	0.002	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Benzo(g,h,i)perylene	NE	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Benzo(k)fluoranthene	0.002	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Benzoic acid	NE	NA		-	NA		-	ND		51.3	NA		-
Benzyl alcohol	NE	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Benzyl butyl phthalate	50	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Bis(2-chloroethoxy)methane	5	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Bis(2-chloroethyl)ether	1	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Bis(2-chloroisopropyl)ether	NE	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Bis(2-ethylhexyl)phthalate	5	ND		5.13	ND		5.13	<b>59</b>		25.6	<b>5.99</b>	<b>B</b>	5.13
Chrysene	0.002	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Dibenzo(a,h)anthracene	NE	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Dibenzofuran	NE	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Diethyl phthalate	50	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Dimethyl phthalate	50	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Di-n-butyl phthalate	50	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Di-n-octyl phthalate	50	ND		5.13	<b>6.51</b>		5.13	<b>87.1</b>		25.6	ND		5.13
Fluoranthene	50	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Fluorene	50	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Hexachlorobenzene	0.04	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Hexachlorobutadiene	0.5	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Hexachlorocyclopentadiene	5	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Hexachloroethane	5	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Indeno(1,2,3-cd)pyrene	0.002	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Isophorone	50	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Naphthalene	10	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Nitrobenzene	0.4	ND		5.13	ND		5.13	ND		25.6	ND		5.13
N-Nitrosodimethylamine	50	ND		5.13	ND		5.13	NA		-	ND		5.13
N-nitroso-di-n-propylamine	NE	ND		5.13	ND		5.13	ND		25.6	ND		5.13
N-Nitrosodiphenylamine	50	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Pentachlorophenol	1	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Phenanthrene	50	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Phenol	1	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Pyrene	50	ND		5.13	ND		5.13	ND		25.6	ND		5.13
Pyridine	50	ND		5.13	ND		5.13	NA		-	ND		5.13
Total TICs	NE	ND		-	ND		-	ND		-	ND		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration

**Table 11: Water - SVOCs**

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

 Elevated concentrations in **Bold**

SVOCs (USEPA Method 8270)	Guidance Level	MW-36 (2014-12-23)			MW-36A (2014-12-23)			MW-37 (2014-12-23)			MW-41 (2014-12-23)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL			
1,2,4-Trichlorobenzene	5	ND		5	ND		5	ND		5	ND		5
1,2-Dichlorobenzene	3	ND		5	ND		5	ND		5	ND		5
1,3-Dichlorobenzene	3	ND		5	ND		5	ND		5	ND		5
1,4-Dichlorobenzene	3	ND		5	ND		5	ND		5	ND		5
2,4,5-Trichlorophenol	NE	ND		5	ND		5	ND		5	ND		5
2,4,6-Trichlorophenol	NE	ND		5	ND		5	ND		5	ND		5
2,4-Dichlorophenol	5	ND		5	ND		5	ND		5	ND		5
2,4-Dimethylphenol	50	ND		5	ND		5	ND		5	ND		5
2,4-Dinitrophenol	10	ND		5	ND		5	ND		5	ND		5
2,4-Dinitrotoluene	5	ND		5	ND		5	ND		5	ND		5
2,6-Dinitrotoluene	5	ND		5	ND		5	ND		5	ND		5
2-Chloronaphthalene	10	ND		5	ND		5	ND		5	ND		5
2-Chlorophenol	NE	ND		5	ND		5	ND		5	ND		5
2-Methylnaphthalene	NE	ND		5	ND		5	ND		5	ND		5
2-Methylphenol	NE	ND		5	ND		5	ND		5	ND		5
2-Nitroaniline	5	ND		5	ND		5	ND		5	ND		5
2-Nitrophenol	NE	ND		5	ND		5	ND		5	ND		5
3- & 4-Methylphenols	NE	ND		5	ND		5	ND		5	ND		5
3,3'-Dichlorobenzidine	5	ND		5	ND		5	ND		5	ND		5
3-Nitroaniline	5	ND		5	ND		5	ND		5	ND		5
4,6-Dinitro-2-methylphenol	NE	ND		5	ND		5	ND		5	ND		5
4-Bromophenyl phenyl ether	NE	ND		5	ND		5	ND		5	ND		5
4-Chloro-3-methylphenol	NE	ND		5	ND		5	ND		5	ND		5
4-Chloroaniline	5	ND		5	ND		5	ND		5	ND		5
4-Chlorophenyl phenyl ether	NE	ND		5	ND		5	ND		5	ND		5
4-Nitroaniline	5	ND		5	ND		5	ND		5	ND		5
4-Nitrophenol	5	ND		5	ND		5	ND		5	ND		5
Acenaphthene	20	ND		0.05	ND		0.05	ND		0.05	ND		0.05
Acenaphthylene	NE	ND		0.05	ND		0.05	ND		0.05	ND		0.05
Aniline	5	NA		-	NA		-	NA		-	NA		-
Anthracene	50	ND		0.05	ND		0.05	ND		0.05	ND		0.05
Benzo(a)anthracene	0.002	ND		0.05	ND		0.05	ND		0.05	ND		0.05
Benzo(a)pyrene	NE	ND		0.05	ND		0.05	ND		0.05	ND		0.05
Benzo(b)fluoranthene	0.002	ND		0.05	ND		0.05	ND		0.05	ND		0.05
Benzo(g,h,i)perylene	NE	ND		0.05	ND		0.05	ND		0.05	ND		0.05
Benzo(k)fluoranthene	0.002	ND		0.05	ND		0.05	ND		0.05	ND		0.05
Benzoic acid	NE	ND		50	ND		50	ND		50	ND		50
Benzyl alcohol	NE	ND		5	ND		5	ND		5	ND		5
Benzyl butyl phthalate	50	ND		5	ND		5	ND		5	ND		5
Bis(2-chloroethoxy)methane	5	ND		5	ND		5	ND		5	ND		5
Bis(2-chloroethyl)ether	1	ND		5	ND		5	ND		5	ND		5
Bis(2-chloroisopropyl)ether	NE	ND		5	ND		5	ND		5	ND		5
Bis(2-ethylhexyl)phthalate	5	1.25		0.5	1.07		0.5	15		5	1.27		0.5
Chrysene	0.002	ND		0.05	ND		0.05	ND		0.05	ND		0.05
Dibenzo(a,h)anthracene	NE	ND		0.05	ND		0.05	ND		0.05	ND		0.05
Dibenzofuran	NE	ND		5	ND		5	ND		5	ND		5
Diethyl phthalate	50	ND		5	ND		5	ND		5	ND		5
Dimethyl phthalate	50	ND		5	ND		5	ND		5	ND		5
Di-n-butyl phthalate	50	ND		5	ND		5	ND		5	ND		5
Di-n-octyl phthalate	50	ND		5	ND		5	ND		5	ND		5
Fluoranthene	50	ND		0.05	ND		0.05	ND		0.05	ND		0.05
Fluorene	50	ND		0.05	ND		0.05	ND		0.28	ND		0.05
Hexachlorobenzene	0.04	ND		0.02	ND		0.02	ND		0.02	ND		0.02
Hexachlorobutadiene	0.5	ND		0.5	ND		0.5	ND		0.5	ND		0.5
Hexachlorocyclopentadiene	5	ND		2.5	ND		2.5	ND		2.5	ND		2.5
Hexachloroethane	5	ND		0.5	ND		0.5	ND		0.5	ND		0.5
Indeno(1,2,3-cd)pyrene	0.002	ND		0.05	ND		0.05	ND		0.05	ND		0.05
Isophorone	50	ND		2.5	ND		2.5	ND		2.5	ND		2.5
Naphthalene	10	ND		0.05	ND		0.05	ND		0.05	ND		0.05
Nitrobenzene	0.4	ND		0.25	ND		0.25	ND		0.25	ND		0.25
N-Nitrosodimethylamine	50	ND		-	ND		-	ND		-	ND		-
N-nitroso-di-n-propylamine	NE	ND		2.5	ND		2.5	ND		2.5	ND		2.5
N-Nitrosodiphenylamine	50	ND		2.5	ND		2.5	ND		2.5	ND		2.5
Pentachlorophenol	1	ND		0.25	ND		0.25	ND		0.25	ND		0.25
Phenanthrene	50	ND		0.05	ND		0.05	ND		0.05	ND		0.05
Phenol	1	ND		2.5	ND		2.5	ND		2.5	ND		2.5
Pyrene	50	ND		0.05	ND		0.05	ND		0.05	ND		0.05
Pyridine	50	ND		-	ND		-	ND		-	ND		-
Total TICs	NE	ND		-	ND		-	ND		-	ND		-

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration

**Table 12: Water - Metals**

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

Elevated concentrations in **Bold**

TAL Metals (Various Methods)	Guidance Level	MW-3 (2013-11-25)			MW-13 (2012-03-16)			MW-13 (2012-04-25)			MW-18 (2012-03-16)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
Aluminum	NE	ND		0.01	2.67		0.01	1.92		0.01	3.43		0.01
Antimony	0.003	ND		0.005	ND		0.005	ND		0.005	ND		0.005
Arsenic	0.025	ND		0.004	ND		0.01	ND		0.01	ND		0.01
Barium	1	0.033		0.01	0.033		0.01	0.04		0.01	0.25		0.01
Beryllium	0.003	ND		0.001	ND		0.001	ND		0.001	ND		0.001
Cadmium	0.005	ND		0.003	ND		0.003	ND		0.003	ND		0.003
Calcium	NE	93.3		0.05	9.94		0.02	10.3		0.02	113		0.02
Chromium	0.05	0.025		0.005	0.006		0.005	ND		0.005	0.019		0.005
Cobalt	0.005	ND		0.005	ND		0.005	ND		0.005	0.005		0.005
Copper	0.2	ND		0.003	0.017		0.005	0.01		0.005	0.034		0.005
Iron	0.3*	ND		0.02	8.84	B	0.01	5.8		0.01	9.93	B	0.01
Lead	0.025	ND		0.003	0.01		0.003	0.01		0.003	0.005		0.003
Magnesium	35	39.4		0.05	2.3		0.02	2.04		0.02	46.3		0.02
Manganese	0.3*	0.038		0.005	0.352		0.005	0.232		0.005	1.62		0.005
Mercury	0.0007	ND		0.0002	ND		0.0002	ND		0.0002	ND		0.0002
Nickel	0.1	ND		0.005	0.008		0.005	ND		0.005	0.013		0.005
Potassium	NE	5.55		0.05	1.75		0.05	1.52		0.05	8.48		0.05
Selenium	0.01	ND		0.01	ND		0.01	ND		0.01	ND		0.01
Silver	0.05	ND		0.005	ND		0.005	ND		0.005	ND		0.005
Sodium	20	41.2		0.1	105		0.1	109		0.1	80.6		0.1
Thallium	0.0005	ND		0.005	ND		0.01	ND		0.01	ND		0.01
Vanadium	0.014	ND		0.01	ND		0.01	ND		0.01	ND		0.01
Zinc	2	ND		0.01	0.1		0.02	0.116		0.02	0.06		0.02

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration



**Table 12: Water - Metals**

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

Elevated concentrations in **Bold**

TAL Metals (Various Methods)	Guidance Level	MW-22 (2012-04-25)			MW-23 (2012-09-24)			MW-24 (2012-09-24)			MW-27 (2012-09-28)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
Aluminum	NE	ND		0.01	0.102		0.01	0.055		0.01	0.066		0.01
Antimony	0.003	ND		0.005	ND		0.005	ND		0.005	ND		0.005
Arsenic	0.025	ND		0.01	ND		0.01	ND		0.01	ND		0.01
Barium	1	0.098		0.01	0.063		0.01	0.047		0.01	0.088		0.01
Beryllium	0.003	ND		0.001	ND		0.001	ND		0.001	ND		0.001
Cadmium	0.005	ND		0.003	ND		0.003	ND		0.003	ND		0.003
Calcium	NE	106		0.02	104		0.02	47.3		0.02	65.1		0.02
Chromium	0.05	ND		0.005	ND		0.005	ND		0.005	ND		0.005
Cobalt	0.005	ND		0.005	ND		0.005	ND		0.005	ND		0.005
Copper	0.2	ND		0.005	ND		0.005	ND		0.005	ND		0.005
Iron	0.3*	9.38		0.01	0.214		0.01	0.159		0.01	0.151		0.01
Lead	0.025	ND		0.003	0.015		0.003	ND		0.003	ND		0.003
Magnesium	35	24.1		0.02	45.2	B	0.02	8.11	B	0.02	16.8		0.02
Manganese	0.3*	3.58		0.005	0.044		0.005	1.2		0.005	0.17		0.005
Mercury	0.0007	ND		0.0002	ND		0.0002	ND		0.0002	ND		0.0002
Nickel	0.1	ND		0.005	ND		0.005	ND		0.005	ND		0.005
Potassium	NE	4.45		0.05	3.64		0.05	3.32		0.05	5.41		0.05
Selenium	0.01	ND		0.01	ND		0.01	ND		0.01	ND		0.01
Silver	0.05	ND		0.005	ND		0.005	ND		0.005	ND		0.005
Sodium	20	311		0.1	47.3		0.1	178		0.1	34.9		0.1
Thallium	0.0005	ND		0.01	ND		0.01	ND		0.01	ND		0.01
Vanadium	0.014	ND		0.01	ND		0.01	ND		0.01	ND		0.01
Zinc	2	ND		0.02	ND		0.02	ND		0.02	ND		0.02

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration

**Table 12: Water - Metals**

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

Elevated concentrations in **Bold**

TAL Metals (Various Methods)	Guidance Level	MW-28 (2013-08-16)			MW-29 (2013-08-16)			MW-30 (2013-08-16)			MW-31 (2013-08-16)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
Aluminum	NE	0.031		0.01	ND		0.01	0.088		0.01	ND		0.01
Antimony	0.003	ND		0.005	ND		0.005	ND		0.005	ND		0.005
Arsenic	0.025	ND		0.004	ND		0.004	ND		0.004	ND		0.004
Barium	1	0.092		0.01	0.096		0.01	0.029		0.01	0.105		0.01
Beryllium	0.003	ND		0.001	ND		0.001	ND		0.001	ND		0.001
Cadmium	0.005	ND		0.003	ND		0.003	ND		0.003	ND		0.003
Calcium	NE	109		0.05	128		0.05	41		0.05	95.2		0.05
Chromium	0.05	ND		0.005	ND		0.005	ND		0.005	ND		0.005
Cobalt	0.005	ND		0.005	ND		0.005	ND		0.005	ND		0.005
Copper	0.2	0.005		0.003	ND		0.003	ND		0.003	ND		0.003
Iron	0.3*	0.041		0.02	8.72		0.02	0.11		0.02	0.052		0.02
Lead	0.025	ND		0.003	ND		0.003	ND		0.003	ND		0.003
Magnesium	35	34.7		0.05	55.2		0.05	6.01		0.05	25.8		0.05
Manganese	0.3*	0.071		0.005	0.647		0.005	0.173		0.005	0.138		0.005
Mercury	0.0007	ND		0.05	ND		0.05	ND		0.05	ND		0.05
Nickel	0.1	ND		0.005	ND		0.005	ND		0.005	0.018		0.005
Potassium	NE	6.58		0.05	5.28		0.05	2.62		0.05	2.7		0.05
Selenium	0.01	0.011		0.01	ND		0.01	ND		0.01	ND		0.01
Silver	0.05	ND		0.005	ND		0.005	ND		0.005	ND		0.005
Sodium	20	153		0.1	53.6		0.1	137		0.1	63.4		0.1
Thallium	0.0005	ND		0.005	ND		0.005	ND		0.005	ND		0.005
Vanadium	0.014	ND		0.01	ND		0.01	ND		0.01	ND		0.01
Zinc	2	ND		0.01	ND		0.01	ND		0.01	ND		0.01

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration

**Table 12: Water - Metals**

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

Elevated concentrations in **Bold**

TAL Metals (Various Methods)	Guidance Level	MW-32 (2013-08-16)			MW-34 (2013-08-16)			MW-34 (2013-11-25)			MW-35 (2013-08-16)		
		Result	Flag	RL	Result	Flag	RL	Result	Flag	RL	Result	Flag	RL
Aluminum	NE	0.1		0.01	0.107		0.01	0.018		0.01	1.04		0.01
Antimony	0.003	ND		0.005	ND		0.005	ND		0.005	ND		0.005
Arsenic	0.025	ND		0.004	ND		0.004	ND		0.004	ND		0.004
Barium	1	0.424		0.01	0.076		0.01	0.093		0.01	0.067		0.01
Beryllium	0.003	ND		0.001	ND		0.001	ND		0.001	ND		0.001
Cadmium	0.005	ND		0.003	ND		0.003	ND		0.003	ND		0.003
Calcium	NE	99.7		0.05	124		0.05	140		0.05	230		0.05
Chromium	0.05	ND		0.005	ND		0.005	ND		0.005	0.006		0.005
Cobalt	0.005	ND		0.005	0.007		0.005	ND		0.005	0.009		0.005
Copper	0.2	ND		0.003	ND		0.003	ND		0.003	ND		0.003
Iron	0.3*	31.9		0.02	1.61		0.02	0.899		0.02	2.92		0.02
Lead	0.025	ND		0.003	0.003		0.003	ND		0.003	0.004		0.003
Magnesium	35	25.4		0.05	21.2		0.05	24.5		0.05	80.1		0.05
Manganese	0.3*	1.98		0.005	5.7		0.005	4.32		0.005	3.75		0.005
Mercury	0.0007	ND		0.05	ND		0.05	ND		0.0002	ND		0.05
Nickel	0.1	ND		0.005	0.011		0.005	0.006		0.005	0.017		0.005
Potassium	NE	4.32		0.05	8.22		0.05	5.95		0.05	7.74		0.05
Selenium	0.01	ND		0.01	0.01		0.01	0.016		0.01	ND		0.01
Silver	0.05	ND		0.005	ND		0.005	ND		0.005	ND		0.005
Sodium	20	135		0.1	168		0.1	160		0.1	72.7		0.1
Thallium	0.0005	ND		0.005	ND		0.005	ND		0.005	ND		0.005
Vanadium	0.014	ND		0.01	ND		0.01	ND		0.01	ND		0.01
Zinc	2	ND		0.01	ND		0.01	ND		0.01	0.07		0.01

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration

**Table 12: Water - Metals**

Data in µg/L

Guidance: NYSDEC TOGS 1.1.1

Elevated concentrations in **Bold**

TAL Metals (Various Methods)	Guidance Level	Rinse Blank (2012-02-02)		
		Result	Flag	RL
Aluminum	NE	ND		0.01
Antimony	0.003	ND		0.005
Arsenic	0.025	ND		0.01
Barium	1	ND		0.01
Beryllium	0.003	ND		0.001
Cadmium	0.005	ND		0.003
Calcium	NE	ND		0.02
Chromium	0.05	ND		0.005
Cobalt	0.005	ND		0.005
Copper	0.2	ND		0.005
Iron	0.3*	ND		0.01
Lead	0.025	ND		0.003
Magnesium	35	ND		0.02
Manganese	0.3*	ND		0.005
Mercury	0.0007	ND		0.0002
Nickel	0.1	ND		0.005
Potassium	NE	ND		0.05
Selenium	0.01	ND		0.01
Silver	0.05	ND		0.005
Sodium	20	0.14		0.1
Thallium	0.0005	ND		0.01
Vanadium	0.014	ND		0.01
Zinc	2	ND		0.02

RL = Reporting Limit ND = Not Detected NE = Not Established NA = Not Analyzed

Flags: J = Below RL B = Detected in laboratory blank

E = Estimated concentration

**Table 13: Water - Detected VOC and SVOC TICs**

Data in µg/L

VOCs - TICs (USEPA Method 8260)	MW-4 (2012-03-16)		MW-10 (2012-03-16)		MW-18 (2012-03-16)		MW-21 (2012-03-16)	
	Result	Flag	Result	Flag	Result	Flag	Result	Flag
1,1-difluoro Ethane			7	JN	11	JN		
dimethylhexanone isomers	11	J						
ethyl 1-hexanol isomer							6,300	
ethyl hexanol isomer	5.5	J						
methy Heptanone isomers	13	J						
methyl Hexanone isomers	15	J						
methyl Pentane isomer								
Octamethyl cyclotetrasiloxane								
Octanone isomer	6.1	J						
sulfur dioxide			52	JN	67	JN		
Tetrahydrofuran	28	JN					200	
Undecane isomer							62	
Unknown							62	
Total TICs	78.6		59		78		6,624	

VOCs - TICs (USEPA Method 8260)	MW-22 (2012-03-16)		MW-23 (2012-09-24)		MW-35 (2013-08-16)		Trip Blank (2014-04-03)	
	Result	Flag	Result	Flag	Result	Flag	Result	Flag
1,1-difluoro Ethane	13	JN						
dimethylhexanone isomers								
ethyl 1-hexanol isomer							97	J
ethyl hexanol isomer								
methy Heptanone isomers								
methyl Hexanone isomers								
methyl Pentane isomer					6.7			
Octamethyl cyclotetrasiloxane			5.6	JN				
Octanone isomer								
sulfur dioxide	56	JN						
Tetrahydrofuran								
Undecane isomer								
Unknown								
Total TICs	69		5.6		6.7		97	

SVOCs - TICs (USEPA Method 8270)	MW-18 (2012-03-16)		MW-18 (2012-03-16)		MW-18 (2012-03-16)		MW-19 (2012-04-19)	
	Result	Flag	Result	Flag	Result	Flag	Result	Flag
methyl Heptanol isomer	27	JN	27	JN	27	JN		
triphenylphosphine oxide	5	JN	5	JN	5	JN	6	JN
Total TICs	32		32		32		6	

SVOCs - TICs (USEPA Method 8270)	MW-42 (2014-12-23)	
	Result	Flag
tetramethylurea	4.96	
Total TICs	4.96	

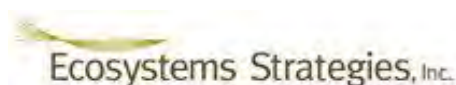
**Table 14: Summary of Sample Collection and Laboratory Submission**

SOIL	Quantity
<i>Soil Borings Installed</i>	61
<i>Converted to Monitoring Wells</i>	24
<b>Total Samples Submitted</b>	<b>86</b>
Breakdown by Sample Analysis Grouping	Number of Samples
VOCs, SVOCs, TAL metals	14
VOCs, SVOCs	27
SVOCs, TAL metals	1
VOCs	31
SVOCs	6
SVOCs (base-neutral)	7
Breakdown by Analyte Category	Number of Samples
VOCs	72
SVOCs	55
TAL metals	15
VOC Tics	40
SVOC TICs	26

GROUNDWATER	Quantity
<i>New Monitoring Wells Installed</i>	25
<i>New and Existing Wells Sampled</i>	30
<b>Total Samples Submitted</b>	<b>45</b>
Breakdown by Sample Analysis Grouping	Number of Samples
VOCs, SVOCs, TAL metals	13
VOCs, SVOCs	13
SVOCs, TAL metals	1
VOCs, TAL metals	1
TAL metals	1
VOCs	15
SVOCs	1
Breakdown by Analyte Category	Number of Samples
VOCs	42
SVOCs	28
TAL metals	16
VOC Tics	35
SVOC TICs	15

**Table 15: LNAPL - Historical Gauging Data**

Data recorded using an oil/water interface probe, unit of measure = foot.  
All depth measurements from top of PVC well casing.



SB09110 RIR June 2015

Well ID	May-15	Apr-15	Mar-15	Jan-15	Sep-14
MW – 4	0.44	—	0.56	—	1.75
MW – 5	2.41	2.55	3.1	4.4	4.79
MW – 6	##	##	##	##	##
MW – 7	ND	1.94	1.79	##	2.01
MW – 8	ND	ND	ND	—	ND
MW – 12	ND	ND	ND	—	ND
MW – 13	ND	ND	ND	—	ND
MW – 14	ND	ND	ND	ND	ND
MW – 15	1.21	1.56	1.67	1.71	2.19
MW – 16	0.15	0.03	0.08	0.02	—
MW – 20	2.79	3.84	4.38	5.13	1.87
MW – 21	2.77	2.98	3.46	3.23	3.62
MW – 22	0.84	0.74	1.33	1.27	1.03
MW – 23	ND	ND	ND	ND	ND
MW – 24	ND	ND	ND	ND	ND
MW – 25	3.24	3.36	1.07	1.03	3.16
MW – 26	3.33	3.64	4.14	4.11	3.84
MW – 27	ND	ND	ND	ND	ND
MW – 28	ND	ND	ND	ND	ND
MW – 29	ND	ND	ND	ND	ND
MW – 30	ND	ND	ND	ND	ND
MW – 31	ND	ND	ND	ND	ND
MW – 32	ND	ND	ND	ND	ND
MW – 34	ND	ND	ND	ND	ND
MW – 35	ND	ND	ND	ND	ND
MW – 36	ND	ND	ND	ND	ND
MW – 37	ND	ND	ND	ND	ND
MW – 38	ND	ND	ND	—	ND
MW – 39	ND	ND	ND	ND	ND
MW – 40	ND	ND	ND	ND	ND
MW – 41	ND	ND	ND	ND	not installed
MW – 42	ND	ND	ND	ND	not installed
RW – 1	ND	ND	ND	ND	ND
RW – 2	5.44	2.82	4.19	4.52	4.52
RW – 3	2.23	1.81	3.28	3.41	3.5
RW – 4	3.53	3.53	1.43	1.35	2.78
RW – 5	4.75	0.7	0.85	0.91	0.85
RW – 6	2.35	0.71	1.19	1.14	0.71
RW – 8*	—	2.14	2.93	2.92	4.01
RW – 9	4.79	4.28	5.68	5.65	4.81
RW – 10	3.95	3.65	4.96	5.04	3.93
RW – 11	3.67	3	3.87	3.97	4.43
RW – 12*	—	—	—	—	—

Note: Data from March to May 2015 provided by FPM Group, LTD.

## = LNAPL observed, depth not recorded    — = Data not recorded    est = Estimated value  
\* = Well equipped with automated product recovery system

IHWD ID: 224136

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**Table 15: LNAPL - Historical Gauging Data**

Data recorded using an oil/water interface probe, unit of measure = foot.  
All depth measurements from top of PVC well casing.



SB09110 RIR June 2015

Well ID	Aug-14	Jul-14	Jun-14	Apr-14	Mar-14
MW – 4	1.9	1.24	Trace	0.01	ND
MW – 5	5.03	1.97	3.39	3.14	2.80
MW – 6	##	##	##	—	2.84
MW – 7	2.16	0.60	0.01	0.17	0.17
MW – 8	ND	ND	ND	ND	ND
MW – 12	—	ND	ND	ND	ND
MW – 13	—	ND	ND	ND	ND
MW – 14	ND	ND	ND	ND	ND
MW – 15	2.32	##	0.45	0.61	0.30
MW – 16	0.03	0.99	Trace	0.01	0.01
MW – 20	1.71	2.92	2.06	1.47	2.90
MW – 21	4.64	4.90	1.99	2.69	2.47
MW – 22	1.02	0.54	0.85	0.74	0.86
MW – 23	ND	ND	ND	ND	ND
MW – 24	ND	ND	ND	ND	ND
MW – 25	4.02	3.65	3.48	3.91	3.75
MW – 26	3.7	4.50	3.02	2.71	3.48
MW – 27	ND	ND	ND	ND	ND
MW – 28	ND	ND	ND	ND	ND
MW – 29	ND	ND	ND	ND	ND
MW – 30	ND	ND	ND	ND	ND
MW – 31	ND	ND	ND	ND	ND
MW – 32	ND	ND	ND	ND	ND
MW – 34	ND	ND	ND	ND	ND
MW – 35	ND	ND	ND	ND	ND
MW – 36	ND	not installed	not installed	not installed	not installed
MW – 37	ND	not installed	not installed	not installed	not installed
MW – 38	not installed	not installed	not installed	not installed	not installed
MW – 39	not installed	not installed	not installed	not installed	not installed
MW – 40	not installed	not installed	not installed	not installed	not installed
MW – 41	not installed	not installed	not installed	not installed	not installed
MW – 42	not installed	not installed	not installed	not installed	not installed
RW – 1	ND	ND	ND	ND	ND
RW – 2	4.53	4.52	0.11	1.30	3.05
RW – 3	3.45	3.56	4.12	1.58	2.90
RW – 4	2.88	##	2.86	1.81	3.25
RW – 5	0.43	0.17	0.17	0.12	0.93
RW – 6	0.64	0.78	0.79	0.45	1.28
RW – 8*	4.48	##	2.95	0.65	1.47
RW – 9	4.59	4.92	4.14	1.02	2.90
RW – 10	3.74	3.57	3.18	3.38	3.89
RW – 11	4.42	4.46	3.87	2.03	2.54
RW – 12*	—	—	—	—	—

Note: Data from Ma Note: Data from March to May 2015 provided by FPM Group, LTD.

## = LNAPL observed, depth not recorded — = Data not recorded est = Estimated value  
\* = Well equipped with automated product recovery system

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**Table 15: LNAPL - Historical Gauging Data**

Data recorded using an oil/water interface probe, unit of measure = foot.  
All depth measurements from top of PVC well casing.



SB09110 RIR June 2015

Well ID	Feb-14	Jan-14	Dec-13	Nov-13	Oct-13
MW – 4	0.23	0.22	0.30	0.66	0.78
MW – 5	2.98	—	6.46	7.17	5.54
MW – 6	3.43	—	2.89	2.76	2.00
MW – 7	—	—	4.78	4.70	4.00
MW – 8	—	—	ND	ND	ND
MW – 12	—	—	ND	ND	ND
MW – 13	—	—	ND	ND	ND
MW – 14	—	—	ND	ND	ND
MW – 15	0.38	—	3.11	3.19	3.34
MW – 16	0.10	—	0.23	0.22	0.19
MW – 20	2.58	4.19	5.07	4.90	4.11
MW – 21	2.48	3.37	3.13	3.72	4.66
MW – 22	0.75	1.22	1.07	0.69	0.50
MW – 23	ND	ND	ND	ND	ND
MW – 24	—	—	ND	ND	ND
MW – 25	—	—	5.66	5.56	4.01
MW – 26	3.80	4.34	4.44	4.47	4.62
MW – 27	—	—	ND	ND	ND
MW – 28	ND	ND	ND	ND	ND
MW – 29	ND	ND	ND	ND	ND
MW – 30	—	—	ND	ND	ND
MW – 31	—	—	ND	ND	ND
MW – 32	—	—	ND	ND	ND
MW – 34	ND	ND	ND	ND	ND
MW – 35	ND	ND	ND	ND	ND
MW – 36	not installed	not installed	not installed	not installed	not installed
MW – 37	not installed	not installed	not installed	not installed	not installed
MW – 38	not installed	not installed	not installed	not installed	not installed
MW – 39	not installed	not installed	not installed	not installed	not installed
MW – 40	not installed	not installed	not installed	not installed	not installed
MW – 41	not installed	not installed	not installed	not installed	not installed
MW – 42	not installed	not installed	not installed	not installed	not installed
RW – 1	ND	ND	ND	ND	ND
RW – 2	2.31	2.80	3.19	5.09	3.86
RW – 3	2.28	4.60 (est)	3.60	3.33	1.68
RW – 4	3.27	2.45	2.67	2.30	1.46
RW – 5	0.43	0.52	0.60	0.79	0.54
RW – 6	0.96	0.41	0.94	1.30	0.67
RW – 8*	0.86	2.37	2.46	3.92	4.13
RW – 9	2.71	4.34	5.25	4.88	3.08
RW – 10	3.48	3.80	3.81	3.99	4.11
RW – 11	2.59	3.66	4.27	5.48	2.65
RW – 12*	—	—	—	—	—

Note: Data from Ma Note: Data from March to May 2015 provided by FPM Group, LTD.

**Table 15: LNAPL - Historical Gauging Data**

Data recorded using an oil/water interface probe, unit of measure = foot.  
All depth measurements from top of PVC well casing.



SB09110 RIR June 2015

Well ID	Sep-13	Aug-13	Jul-13	Apr-13	Mar-13
MW – 4	##	3.49	2.22	0.59	0.67
MW – 5	##	5.08	3.92	3.00	2.39
MW – 6	##	2.42	2.82	—	—
MW – 7	##	2.77	1.06	1.92	4.92
MW – 8	ND	ND	ND	ND	ND
MW – 12	ND	ND	ND	ND	ND
MW – 13	ND	ND	ND	ND	ND
MW – 14	ND	ND	ND	ND	ND
MW – 15	##	2.14	0.70	—	0.32
MW – 16	##	0.05	0.07	0.02	0.01
MW – 20	##	3.33	1.37	3.32	1.20
MW – 21	##	4.37	3.66	3.38	3.43
MW – 22	##	1.12	0.86	0.50	0.62
MW – 23	ND	ND	ND	ND	ND
MW – 24	ND	ND	ND	ND	ND
MW – 25	##	4.41	3.58	3.96	3.96
MW – 26	##	4.18	3.69	2.86	2.33
MW – 27	ND	ND	ND	ND	ND
MW – 28	ND	ND	ND	ND	ND
MW – 29	ND	ND	ND	ND	ND
MW – 30	ND	ND	not installed	not installed	not installed
MW – 31	ND	ND	not installed	not installed	not installed
MW – 32	ND	ND	not installed	not installed	not installed
MW – 34	ND	ND	not installed	not installed	not installed
MW – 35	ND	ND	not installed	not installed	not installed
MW – 36	not installed	not installed	not installed	not installed	not installed
MW – 37	not installed	not installed	not installed	not installed	not installed
MW – 38	not installed	not installed	not installed	not installed	not installed
MW – 39	not installed	not installed	not installed	not installed	not installed
MW – 40	not installed	not installed	not installed	not installed	not installed
MW – 41	not installed	not installed	not installed	not installed	not installed
MW – 42	not installed	not installed	not installed	not installed	not installed
RW – 1	ND	ND	ND	—	ND
RW – 2	##	4.07	2.96	2.92	3.48
RW – 3	##	2.96	1.44	3.90	3.20
RW – 4	##	2.75	1.08	3.06	3.15
RW – 5	##	0.69	0.51	2.62	—
RW – 6	##	0.10	0.08	0.45	0.50
RW – 8*	##	4.59	3.64	—	—
RW – 9	##	4.09	2.37	4.40	2.62
RW – 10	##	4.11	3.55	—	—
RW – 11	##	3.91	3.49	3.15	2.67
RW – 12*	—	—	—	—	—

Note: Data from Ma Note: Data from March to May 2015 provided by FPM Group, LTD.

## = LNAPL observed, depth not recorded — = Data not recorded est = Estimated value  
\* = Well equipped with automated product recovery system

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**Table 15: LNAPL - Historical Gauging Data**

Data recorded using an oil/water interface probe, unit of measure = foot.  
All depth measurements from top of PVC well casing.



SB09110 RIR June 2015

Well ID	Feb-13	Jan-13	Dec-12	Nov-12	Oct-12
MW – 4	0.44	0.44	0.80	0.31	0.33
MW – 5	4.32	3.00	4.11	3.50	3.41
MW – 6	—	—	—	—	3.49
MW – 7	5.45	1.30	1.36	2.00	1.84
MW – 8	ND	ND	ND	ND	ND
MW – 12	ND	ND	ND	ND	ND
MW – 13	ND	ND	ND	ND	ND
MW – 14	ND	ND	ND	ND	ND
MW – 15	1.07	—	1.56	0.99	0.76
MW – 16	0.10	0.25	0.20	ND	0.24
MW – 20	1.10	1.35	1.38	3.39	3.15
MW – 21	3.75	4.10	4.23	2.89	2.04
MW – 22	1.15	1.20	0.18	0.21	0.18
MW – 23	ND	ND	ND	ND	ND
MW – 24	ND	ND	ND	ND	ND
MW – 25	4.34	3.70	2.82	7.86	4.40
MW – 26	1.00	2.45	1.62	—	2.61
MW – 27	ND	ND	ND	0.99	ND
MW – 28	ND	ND	not installed	not installed	not installed
MW – 29	ND	ND	not installed	not installed	not installed
MW – 30	not installed	not installed	not installed	not installed	not installed
MW – 31	not installed	not installed	not installed	not installed	not installed
MW – 32	not installed	not installed	not installed	not installed	not installed
MW – 34	not installed	not installed	not installed	not installed	not installed
MW – 35	not installed	not installed	not installed	not installed	not installed
MW – 36	not installed	not installed	not installed	not installed	not installed
MW – 37	not installed	not installed	not installed	not installed	not installed
MW – 38	not installed	not installed	not installed	not installed	not installed
MW – 39	not installed	not installed	not installed	not installed	not installed
MW – 40	not installed	not installed	not installed	not installed	not installed
MW – 41	not installed	not installed	not installed	not installed	not installed
MW – 42	not installed	not installed	not installed	not installed	not installed
RW – 1	ND	ND	ND	ND	ND
RW – 2	3.75	4.20	2.52	1.92	1.50
RW – 3	3.34	3.70	3.58	2.84	3.50
RW – 4	3.00	3.05	2.95	—	3.45
RW – 5	—	—	2.35	3.00	1.88
RW – 6	0.21	0.40	0.15	0.90	0.22
RW – 8*	—	—	—	—	—
RW – 9	3.11	3.50	3.08	3.83	2.98
RW – 10	—	—	—	—	—
RW – 11	3.11	3.50	2.93	4.49	2.58
RW – 12*	—	—	—	—	—

Note: Data from Ma Note: Data from March to May 2015 provided by FPM Group, LTD.



## **APPENDIX C**

### ***Soil Boring Logs***

# Soil Boring Log

<b>SB-60</b> Interior E of RW-9	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110</div>						
	DATE: 2012-02-01      DRILLER (RIG) Todd Syska (6620DT Geoprobe, 4' macro-core)						
	ESI STAFF: R. Hooker      WEATHER: Overcast, windy, 50s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
0 – 4'	Dark brown SAND (VT), over brown Silty SAND (F), likely fill	dry	0.0	ND	ND	ND	
4 – 8'	Reddish brown SAND (F) Field evidence of contamination starts at 7.5'	dry	0.8	Yes	Yes	ND	
8 – 12'	Reddish brown SAND (VT), NAPL at tip (12')	moist	1.0	Yes	Yes	Yes	
12 – 16'	SAND (C), NAPL 12' to 14'  ***** Saturated at 14' *****	wet	0.0	Yes	Yes	Yes	(12-14')
16 – 20'	SAND (C), water with sheen	wet	0.0	ND	ND	ND	
	***** End of Boring at 20' *****						
<b>Notes</b> <b>Fill Materials</b> Likely fill from surface to approximately 4'  <b>Field Evidence of Contamination</b> @7.5' – odors and staining begin @ 12' to 14' – LNAPL saturated soil  <b>Saturated Soils</b> Beneath LNAPL at 14"							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>SB-60B</b> Interior E of RW-9	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110</div>						
	DATE: 2012-02-13      DRILLER (RIG)      Soil Testing (rotary auger/hammer, 2' split spoon)						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
<b>0 – 2'</b>	Gray SAND (VT) with Gravel and trace Silt, likely fill	dry	0.0	ND	ND	ND	
<b>2 – 4'</b>	No recovery	---	---	---	---	---	
<b>4 – 6'</b>	Brown SAND (F-M) with Gravel, brown SILT, brown SAND (F)	dry	0.0	ND	ND	ND	
<b>6 – 8'</b>	Gray SILT with trace Sand (F)	dry	0.0	Yes	Yes	ND	<b>(6-8')</b>
<b>8 – 10'</b>	Brown SAND (F-M) with Gravel	moist	0.0	Yes	Yes	ND	<b>(8-10')</b>
<b>10 – 12'</b>	Gray and brown SAND (VF), trace Silt						
<b>Notes</b>	***** End of Boring at 12' *****						
	<b>Fill Materials</b> Likely fill from surface to 2' <b>Field Evidence of Contamination</b> @ 6' to 12' – odors and gray staining <b>Saturated Soils</b> Not encountered						

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>SB-61</b> <i>Interior NE of RW-8</i>	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;"><i>ESI FILE SB09110</i></div>						
	DATE: 2012-02-01      DRILLER (RIG) Todd Syska (6620DT Geoprobe, 4' macro-core)						
	ESI STAFF: R. Hooker      WEATHER: Overcast, windy, 50s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
0 – 4'	Black SAND (VT), yellowish brown SAND (F), likely fill	dry	0.0	ND	ND	ND	
4 – 8'	Yellowish brown SAND (VT) with rock fragments	dry	0.8	ND	ND	ND	
8 – 12'	Grayish brown SAND (VT), NAPL at 11.5 to 12'	moist	1.0	ND	ND	Yes	
12 – 16'	Grayish brown SAND (VT), NAPL 12 to 15' ***** Saturated at 15' ***** ***** End of Boring at 16' *****	wet	0.0	Yes	ND	Yes	(12-14')
<b>Notes</b>	<p><b>Fill Materials</b></p> <p>Likely fill from surface to approximately 16'</p> <p><b>Field Evidence of Contamination</b></p> <p>@ 11.5' to 15' – LNAPL saturated soil</p> <p>@ 12' to 15' – slight odor</p> <p><b>Saturated Soils</b></p> <p>Beneath LNAPL at 15'</p>						

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>SB-62</b> <i>Interior</i> <i>WSW of RW-5</i>	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b>							<i>ESI File</i> <i>SB09110</i>
	DATE: 2012-02-01		DRILLER (RIG) Todd Syska (6620DT Geoprobe, 4' macro-core)					
	ESI STAFF: R. Hooker		WEATHER: Overcast, windy, 50s F					
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")		MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>							
<b>0 – 4'</b>	Refusal (on concrete), no recovery  ***** End of Boring at approximately 3.5' *****		---	---	---	---	---	<b>none</b>
<b>Notes</b>	<b>Field Evidence of Contamination</b>  No evidence of contamination, based on no significant PID readings at borehole							

**ND** (non-detect)   **PID** (photoionization detector)   **ppm** (parts per million)   **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine)   **F** (fine)   **M** (medium)   **C** (coarse)   **VT** (variable texture)



# Soil Boring Log

<b>SB-63</b> <i>Interior</i> <i>SE of RW-6</i>	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b>							<i>ESI FILE</i> <i>SB09110</i>
	DATE: 2012-02-01      DRILLER (RIG) Todd Syska (6620DT Geoprobe, 4' macro-core)							
	ESI STAFF: R. Hooker      WEATHER: Overcast, windy, 50s F							
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED	
	<b>SOIL / MATERIAL DESCRIPTION</b>							
0 – 4'	Brown SAND (F-M) with gravel, ash, coal (?), trace wood, obvious fill	dry	1.0	Yes	ND	ND		
4 – 8'	Brown SAND (VT), perched water @4'	wet	0.0	Yes	ND	ND		
8 – 12'	Brown Sandy SILT, perched water @10'	wet	0.0	ND	ND	ND		
12 – 16'	Brown Sandy SILT ***** Saturated at 14' ***** ***** End of Boring at 16' *****	wet	0.0	Yes	ND	ND	(12-14')	
Notes	<b>Fill Materials</b> Fill from surface to approximately 4' <b>Field Evidence of Contamination</b> @ 12' to 16' – strong odor <b>Saturated Soils</b> @14', perched water @4' and @10'							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>SB-64</b> <i>Interior S of MW-4</i>	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;"><i>ESI File SB09110</i></div>						
	DATE: 2012-02-01      DRILLER (RIG) Todd Syska (6620DT Geoprobe, 4' macro-core)						
	ESI STAFF: R. Hooker      WEATHER: Overcast, windy, 50s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
<b>0 – 4'</b>	Refusal (on concrete), no recovery  ***** End of Boring at approximately 2" *****	---	---	---	---	---	<b>none</b>
<b>Notes</b>	<b>Field Evidence of Contamination</b>  No evidence of contamination, based on no significant PID readings at borehole						

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine)    **F** (fine)    **M** (medium)    **C** (coarse)    **VT** (variable texture)

# Soil Boring Log

<b>SB-65</b> <i>Interior NW of MW-3</i>	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;"><i>ESI FILE SB09110</i></div>						
	DATE: 2012-04-19      DRILLER (RIG) Todd Syska (6620DT Geoprobe, 4' macro-core)						
	ESI STAFF: R. Hooker      WEATHER: Clear, calm, 50-60s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
0 – 4'	Brown SAND (F-M)	dry	0.3	ND	ND	ND	
4 – 8'	Brown SAND (F-M)	dry	0.2	ND	ND	ND	
8 – 12'	Brown SAND (VT)	moist	0.2	ND	ND	ND	(8-12')
12 – 16'	Brown SAND (F) over Gray SAND (C), over Brown Sandy CLAY ***** Saturated at 14.5' ***** ***** End of Boring at 16' *****	wet	0.2	ND	ND	ND	
<b>Notes</b>	<b>Fill Materials</b> Obvious fill not noted <b>Field Evidence of Contamination</b> None <b>Saturated Soils</b> @14.5'						

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>SB-66</b> <i>Interior</i> <i>NE of MW-22</i>	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b>							<i>ESI FILE</i> <i>SB09110</i>
	DATE: 2012-04-19      DRILLER (RIG) Todd Syska (6620DT Geoprobe, 4' macro-core)							
	ESI STAFF: R. Hooker      WEATHER: Clear, calm, 50-60s F							
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED	
	<b>SOIL / MATERIAL DESCRIPTION</b>							
0 – 4'	Brown SAND (F)	dry	0.0	ND	ND	ND		
4 – 8'	Brown SAND (F)	moist	6.0	Yes	ND	ND		
8 – 12'	Brown SAND (F)	moist	2.1	Yes	ND	ND		
12 – 16'	Brown SAND (F) over Brown CLAY ***** Saturated at 15' ***** ***** End of Boring at 16' *****	wet	2.1	ND	Yes	ND	(12-16')	
<b>Notes</b>	<b>Fill Materials</b> Obvious fill not noted <b>Field Evidence of Contamination</b> @ 4' to 12' – odor @ 12' to 16' – black staining <b>Saturated Soils</b> @ 15'							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>SB-67</b> <i>Building Interior ESE of RW-2</i>	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;"><i>ESI FILE SB09110</i></div>						
	DATE: 2012-02-02      DRILLER (RIG) Todd Syska (6620DT Geoprobe, 4' macro-core)						
	ESI STAFF: R. Hooker      WEATHER: Clear to overcast, light wind, 40s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
0 – 4'	Black to Brown SAND (F, dense), likely fill	dry	0.0	ND	ND	ND	
4 – 8'	Gray-Green Silty SAND (F)	dry	0.6	Yes	ND	ND	
8 – 12'	Gray Silty SAND (VF)	moist	1.0	Yes	ND	ND	
12 – 16'	Gray SAND (F) over Gray SAND (C) ***** Saturated at 15' ***** ***** End of Boring at 16' *****	wet	0.0	Yes	ND	Yes	<b>(12-14')</b>
<b>Notes</b>	<b>Fill Materials</b> Likely fill from surface to approximately 4' <b>Field Evidence of Contamination</b> @ 4' to 12' – odor @ 14' to 15' – LNAPL <b>Saturated Soils</b> Beneath LNAPL at 15'						

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>SB-68</b> Building Interior, W of RW-3	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110</div>						
	DATE: 2012-02-01      DRILLER (RIG) Todd Syska (6620DT Geoprobe, 4' macro-core)						
	ESI STAFF: R. Hooker      WEATHER: Overcast, windy, 50s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
0 – 4'	Concrete and Brick fragments, obvious fill	dry	0.0	ND	ND	ND	
4 – 8'	No recovery	---	---	---	---	---	
8 – 12'	Gray-Brown SAND (C)	moist	0.0	Yes	ND	ND	
12 – 16'	Gray-Brown SAND (C) ***** Saturated at 15' ***** ***** End of Boring at 16' *****	wet	0.0	Yes	Yes	Yes	(12-13.5')
Notes	<b>Fill Materials</b> Fill from surface to approximately 4' <b>Field Evidence of Contamination</b> @ 8' to 16' – odor @ 13.5' to 14' – LNAPL <b>Saturated Soils</b> Beneath LNAPL at 14'						

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine)    **F** (fine)    **M** (medium)    **C** (coarse)    **VT** (variable texture)

# Soil Boring Log

<b>SB-69</b> <i>Interior NW of MW-35</i>	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;"><i>ESI FILE SB09110</i></div>						
	DATE: 2012-02-01      DRILLER (RIG) Todd Syska (6620DT Geoprobe, 4' macro-core)						
	ESI STAFF: R. Hooker      WEATHER: Overcast, windy, 50s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
<b>0 – 4'</b>	Brown SAND (F-M)	dry	0.0	ND	ND	ND	
<b>4 – 8'</b>	Brown SAND (F-M)	moist	0.0	ND	ND	ND	
<b>8 – 12'</b>	Brown to Tan SAND (F-M)  ***** End of Boring at 12' *****	moist	0.0	ND	ND	ND	
<b>Notes</b>	<b>Fill Materials</b> Obvious fill not noted  <b>Field Evidence of Contamination</b> None  <b>Saturated Soils</b> Not encountered						

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>SB-70</b> <i>Building Interior, dock E of IHWDS, W of MW-40</i> (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWDS Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110.55</div>						
	DATE: 2012-02-01      DRILLER (RIG) Todd Syska (6620DT Geoprobe, 4' macro-core) ESI STAFF: R. Hooker      WEATHER: Overcast, windy, 50s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
<b>0 – 4'</b>	Refusal (on concrete), no recovery  ***** End of Boring at approximately 2" *****	---	---	---	---	---	<b>none</b>
<b>Notes</b>	<b>Field Evidence of Contamination</b>  No evidence of contamination, based on no significant PID readings at borehole						



# Soil Boring Log

<b>SB-72</b> <i>Franklin St sidewalk (W)</i>	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;"><i>ESI FILE SB09110</i></div>						
	DATE: 2012-02-10      DRILLER (RIG)      Soil Testing (rotary auger/hammer, 2' split spoon)						
SHEET 1 OF 1		ESI STAFF: R. Hooker      WEATHER: Clear, light wind, 30-40s F					
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	SOIL / MATERIAL DESCRIPTION						
0 – 2'	Brown SAND (VF) with trace Gravel and Silt	dry	0.0	ND	ND	ND	
2 – 4'	Brown SILT with Clay and Sand (VF)	dry	0.0	ND	ND	ND	
4 – 6'	Brown SILT with Sand (VF)	dry	0.0	ND	ND	ND	
6 – 8'	Brown Silty CLAY	dry	0.0	ND	ND	ND	
8 – 10'	Brown SAND (VF-F) with Gravel and Silt	moist	0.0	ND	ND	Yes	
10 – 12'	Brown SAND (VF) and SILT	moist	0.0	ND	Yes	Yes	
12 – 14'	Brown SAND (VF) and SILT	wet	0.0	ND	ND	ND	(13')
	***** Saturated at 13', End of Boring at 14' *****						
<b>Notes</b> <b>Fill Materials</b> Obvious fill not noted <b>Field Evidence of Contamination</b> @ 9' to 12' – NAPL, @ 12' odor <b>Saturated Soils</b> @ 13'							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>SB-73</b> Franklin/Dupont St, sidewalk (NE)		<b>Remedial Investigation Report</b> Former NuHart Plastic Manufacturing, Brooklyn, New York NYSDEC IHWD Site No. 224136						ESI FILE SB09110
		DATE: 2012-02-16		DRILLER (RIG)		Soil Testing (rotary auger/hammer, 2' split spoon)		
SHEET 1 OF 1		ESI STAFF: R. Hooker		WEATHER: Overcast, light wind, low-40s F				
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")		MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	SOIL / MATERIAL DESCRIPTION							
0 – 2'	TOP SOIL, Brown SAND (VF-F) with Silt and Clay		dry	0.0	ND	ND	ND	
2 – 4'	Brown, Silty CLAY with trace Sand		dry	0.0	ND	ND	ND	
4 – 6'	Brown SAND (VF-F) with Silt		dry	0.0	ND	ND	ND	
6 – 8'	Brown CLAY and SILT with Sand (VF)		moist	0.0	ND	ND	ND	
8 – 10'	Brown SILT and SAND (VF) over Gray SAND (F-M) with trace Silt		wet	0.0	Yes	ND	ND	
10 – 12'	Brown and Gray SAND (F-M) with Gravel		moist	0.0	ND	ND	Yes	
12 – 14'	Brown and Gray SAND (F-M) with trace Sand (C) and Silt		wet	0.0	Yes	ND	ND	(13.5')
	***** Saturated at 13.5', End of Boring at 14' *****							
<b>Notes</b> <b>Fill Materials</b> Obvious fill not noted <b>Field Evidence of Contamination</b> @ 10' to 12' – NAPL, @ 9' and 13.5' odor <b>Saturated Soils</b> @ 9' perched, @13.5' saturated								

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>SB-74</b> Clay Street, sidewalk (S)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b>							ESI FILE SB09110
	DATE: 2012-02-16		DRILLER (RIG)		Soil Testing (rotary auger/hammer, 2' split spoon)			
SHEET 1 OF 1		ESI STAFF: R. Hooker		WEATHER: Overcast, light wind, low-40s F				
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")		MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	SOIL / MATERIAL DESCRIPTION							
0 – 2'	Brown SAND (F-M) with Gravel, ash and brick (fill) over Brown SAND (F-M) with Silt		dry	0.0	ND	ND	ND	
2 – 4'	Brown SAND (F-M) with Gravel		dry	0.0	ND	ND	ND	
4 – 6'	Brown SILT with Sand (F) with trace wood		dry	0.0	ND	ND	ND	
6 – 8'	Brown SAND (VF) with Silt		dry	0.0	ND	ND	ND	
8 – 10'	Brown SAND (VF-M) with Gravel		wet	0.0	ND	ND	ND	
10 – 12'	Brown SILT with Sand (VF)		moist	0.0	ND	ND	ND	
12 – 14'	Brown SAND (VF) and SILT over Brown SILT with Sand (VF)		wet	0.0	ND	ND	ND	(13')
	***** Saturated at 13', End of Boring at 14' *****							
<b>Notes</b>								
<b>Fill Materials</b> Fill from surface to approximately 1.5'								
<b>Field Evidence of Contamination</b> none								
<b>Saturated Soils</b> @ 9.5' perched, @13' saturated								

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>SB-77A</b> <i>Building Interior, loading dock E of IHWDS</i> (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWDS Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110.55</div>						
	DATE: 2012-02-01      DRILLER (RIG) Todd Syska (6620DT Geoprobe, 4' macro-core) ESI STAFF: R. Hooker      WEATHER: Overcast, windy, 50s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
<b>0 – 4'</b>	Brown SAND (F) with brick dust, Fill	dry	1.8	ND	ND	ND	
<b>4 – 8'</b>	Brown SAND (F-M)	dry	2.8	ND	ND	ND	
<b>8 – 12'</b>	Brown SAND (M) over Brown CLAY	moist	5.1	ND	ND	ND	
<b>12 – 16'</b>	Brown CLAY with Sand  ***** End of Boring at 16' *****	moist	0.5	ND	ND	ND	
<b>Notes</b> <b>Fill Materials</b> Fill from surface to approximately 4' <b>Field Evidence of Contamination</b> Low level PID readings <b>Saturated Soils</b> Not encountered							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>SB-78A</b> <i>Building Interior, loading dock E of IHWDS</i> (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWDS Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110.55</div>						
	DATE: 2012-02-01      DRILLER (RIG) Todd Syska (6620DT Geoprobe, 4' macro-core) ESI STAFF: R. Hooker      WEATHER: Overcast, windy, 50s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
<b>0 – 4'</b>	Brown SAND (M) with concrete dust, Fill	dry	0.2	ND	ND	ND	
<b>4 – 8'</b>	Brown SAND (M)	dry	0.2	ND	ND	ND	
<b>8 – 12'</b>	Brown CLAY, very firm	dry	0.2	ND	ND	ND	
<b>12 – 16'</b>	Brown CLAY with Sand, very firm  ***** End of Boring at 16' *****	dry	0.0	ND	ND	ND	
<b>Notes</b> <div style="margin-left: 40px;"> <b>Fill Materials</b>          Fill from surface to approximately 4'  <b>Field Evidence of Contamination</b>          Low level PID readings  <b>Saturated Soils</b>          Not encountered       </div>							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>2SB-2</b> Building Interior, E of MW-34	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110</div>						
	DATE: 2013-08-01      DRILLER (RIG) Zebra (6620DT Geoprobe, 5' macro-core)						
(SHEET 1 OF 1)	ESI STAFF: A. Atkinson      WEATHER: Overcast to rain, light wind, low-70s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	SOIL / MATERIAL DESCRIPTION						
0 – 5'	Brown SAND (M), concrete dust and rock fragments, Brown Sandy LOAM (Fill)	dry	0.0	ND	Yes	ND	(0-5')
5 – 10'	Brown SAND (F-M)	moist	0.0	ND	ND	ND	
10 – 15'	Brown Clayey SAND (F-M) ***** Saturated at 13' ***** ***** End of Boring at 15' *****	wet	0.0	ND	ND	ND	(10-15')
Notes	<b>Fill Materials</b> Fill from surface to approximately 5' <b>Field Evidence of Contamination</b> @ 1.5' – Black staining <b>Saturated Soils</b> @ 13'						

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>2SB-3</b> Building Interior, E of MW-34 N of MW-35	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110</div>						
	DATE: 2013-08-01      DRILLER (RIG) Zebra (6620DT Geoprobe, 5' macro-core)						
(SHEET 1 OF 1)	ESI STAFF: A. Atkinson      WEATHER: Overcast to rain, light wind, low-70s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	SOIL / MATERIAL DESCRIPTION						
0 – 5'	Brown SAND (M) (Fill)	dry	0.0	ND	Yes	ND	
5 – 10'	Brown SAND (M), concrete fragments (Fill)	moist	0.0	ND	ND	ND	
10 – 15'	Brown SAND (M) over Brown and Gray Silty CLAY ***** Saturated at 12' ***** ***** End of Boring at 15' *****	wet	0.0	ND	ND	ND	(10-15')
Notes	<b>Fill Materials</b> Fill from surface to approximately 10' <b>Field Evidence of Contamination</b> @ 1.5' – Black staining <b>Saturated Soils</b> @ 12'						

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>2SB-4</b> <i>Building Interior, SE of MW-4, W of MW-35</i>	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;"><i>ESI FILE SB09110</i></div>						
	DATE: 2013-08-01      DRILLER (RIG) Zebra (6620DT Geoprobe, 5' macro-core)						
(SHEET 1 OF 1)	ESI STAFF: A. Atkinson      WEATHER: Overcast to rain, light wind, low-70s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	SOIL / MATERIAL DESCRIPTION						
<b>0 – 5'</b>	Brown SAND (M) (Fill?)	dry	0.0	ND	ND	ND	<b>(0-5')</b>
<b>5 – 10'</b>	Brown SAND (M)	moist	0.0	ND	ND	ND	
<b>10 – 15'</b>	Brown SAND (M) over Brown Silty CLAY ***** Saturated at 12' ***** ***** End of Boring at 15' *****	wet	0.0	ND	ND	ND	<b>(10-15')</b>
<div> <b>Notes</b>      <b>Fill Materials</b>  Potential fill from surface to approximately 5'  <b>Field Evidence of Contamination</b>  None  <b>Saturated Soils</b>  @ 12' </div>							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)



# Soil Boring Log

<b>2SB-5</b> <i>Building Interior,  W of MW-35</i>  (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;"><i>ESI FILE SB09110.55</i></div>						
	DATE: 2013-08-01      DRILLER (RIG) Zebra (6620DT Geoprobe, 5' macro-core) ESI STAFF: A. Atkinson      WEATHER: Overcast to rain, light wind, low-70s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
<b>0 – 5'</b>	Gray and Black SAND (VT) (fill?) over Brown SAND (M)	dry	0.0	ND	ND	ND	
<b>5 – 10'</b>	Brown SAND (M)	moist	0.0	ND	ND	ND	
<b>10 – 15'</b>	Brown SAND (M) over Silty CLAY (14-15')  ***** Saturated at 12' *****	wet	102	ND	ND	Yes	<b>(10-15')</b>
<b>15 – 20'</b>	Brown Silty CLAY over Brown SAND (M) (14-15')  ***** End of Boring at 20' *****	wet	7.2	ND	ND	ND	
<b>Notes</b>	<b>Fill Materials</b> Potential fill from surface to approximately 5' <b>Field Evidence of Contamination</b> @ 12' (groundwater interface) – Sheen and peak PID reading of 102 <b>Saturated Soils</b> @ 12'						

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>2SB-6</b> <i>Building Interior, SW of MW-35</i>  (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110.55</div>						
	DATE: 2013-08-01      DRILLER (RIG) Zebra (6620DT Geoprobe, 5' macro-core) ESI STAFF: A. Atkinson      WEATHER: Overcast to rain, light wind, low-70s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
0 – 5'	Brown SAND (M) (Fill?)	dry	0.0	ND	ND	ND	
5 – 10'	Brown SAND (M)	moist	0.0	ND	ND	ND	
10 – 15'	Reddish-Brown SAND (M) and Brown SAND (F) over Brown Silty CLAY ***** Saturated at 12' ***** ***** End of Boring at 15' *****	wet	0.0	ND	ND	ND	(10-15')
Notes	<b>Fill Materials</b> Potential fill from surface to approximately 5' <b>Field Evidence of Contamination</b> None <b>Saturated Soils</b> @ 12'						

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture: VF** (very fine)    **F** (fine)    **M** (medium)    **C** (coarse)    **VT** (variable texture)

# Soil Boring Log

<b>2SB-7</b> <i>Building Interior, S of MW-40</i>  (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;"><i>ESI FILE SB09110.55</i></div>						
	DATE: 2013-08-01      DRILLER (RIG) Zebra (6620DT Geoprobe, 5' macro-core) ESI STAFF: A. Atkinson      WEATHER: Overcast to rain, light wind, low-70s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
0 – 5'	Brown SAND (M) (Fill?)	dry	0.0	ND	ND	ND	
5 – 10'	Brown SAND (M)	moist	0.0	ND	ND	ND	
10 – 15'	Brown SAND (M) over Brown Silty CLAY over lenses of Dark SAND (VT) and Gray Sandy CLAY ***** Saturated at 12' ***** ***** End of Boring at 15' *****	wet	0.0	ND	ND	ND	(10-15')
Notes	<b>Fill Materials</b> Potential fill from surface to approximately 5' <b>Field Evidence of Contamination</b> None <b>Saturated Soils</b> @ 12'						

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>2SB-8</b> <i>Building Interior, S of MW-40</i>  (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110.55</div>						
	DATE: 2013-08-01      DRILLER (RIG) Zebra (6620DT Geoprobe, 5' macro-core) ESI STAFF: A. Atkinson      WEATHER: Overcast to rain, light wind, low-70s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
0 – 5'	Brown SAND (M) (Fill?)	dry	0.0	ND	ND	ND	
5 – 10'	Brown SAND (M)	moist	0.0	ND	ND	ND	
10 – 15'	Brown SAND (M) over Brown Silty CLAY over lenses of Brown to Gray SAND (VT), SILT and Silty CLAY ***** Saturated at 12' ***** ***** End of Boring at 15' *****	wet	0.0	ND	ND	ND	(10-15')
Notes	<b>Fill Materials</b> Potential fill from surface to approximately 5' <b>Field Evidence of Contamination</b> None <b>Saturated Soils</b> @ 12'						

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>2SB-10</b> <i>Building Interior SE of MW-19</i>  (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;"><i>ESI FILE SB09110.55</i></div>						
	DATE: 2013-08-01      DRILLER (RIG) Zebra (6620DT Geoprobe, 5' macro-core) ESI STAFF: A. Atkinson      WEATHER: Overcast to rain, light wind, low-70s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
0 – 5'	Brown SAND (C) with coal fragments over Brown SILT (Fill)	dry	0.0	ND	ND	ND	
5 – 10'	Brown SILT and SILTY CLAY over Gray SAND (VT) and Silty CLAY ***** Saturated at 6' *****  ***** End of Boring at 10' *****	wet	0.0	ND	ND	ND	
Notes	<b>Fill Materials</b> Fill from surface to approximately 5'  <b>Field Evidence of Contamination</b> None  <b>Saturated Soils</b> @ 6'  <b>OTHER</b> Boring completed to install soil vapor probe						

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine)    **F** (fine)    **M** (medium)    **C** (coarse)    **VT** (variable texture)

# Soil Boring Log

<b>2SB-11</b> <i>Building Interior, SW of MW-40</i>  (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;"><i>ESI FILE SB09110.55</i></div>						
	DATE: 2013-08-01      DRILLER (RIG) Zebra (6620DT Geoprobe, 5' macro-core) ESI STAFF: A. Atkinson      WEATHER: Overcast to rain, light wind, low-70s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
0 – 5'	Brown SAND (M) (Fill?)	dry	0.0	ND	ND	ND	
5 – 10'	Brown SAND (M)	moist	0.0	ND	ND	ND	
10 – 15'	Reddish-Brown SAND (M) over Brown and Brownish-Gray Silty CLAY  ***** End of Boring at 15' *****	moist	0.0	ND	ND	ND	(10-15')
Notes	<b>Fill Materials</b> Potential fill from surface to approximately 5' <b>Field Evidence of Contamination</b> None <b>Saturated Soils</b> Not encountered						

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>2SB-12</b> <i>Building Interior,  E of MW-4</i>  (SHEET 1 OF 1)	<div style="text-align: center;"> <b>Remedial Investigation Report</b>  <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b>  <b>NYSDEC IHWD Site No. 224136</b> </div> <div style="text-align: right;"> <i>ESI FILE  SB09110.55</i> </div>						
	DATE: 2013-11-25      DRILLER (RIG) Manual borings, Geoprobe, 2' barrel ESI STAFF: A. Atkinson      WEATHER: Clear, light wind, mid-20s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
<b>0 – 2'</b>	Brown SAND (F-M)	dry	0.0	ND	ND	ND	(0-2')
	***** End of Boring at 2' *****						
<b>Notes</b>	<b>Fill Materials</b> Obvious fill not noted  <b>Saturated Soils</b> Not encountered  <b>Field Evidence of Contamination</b> Not encountered						

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture: VF** (very fine)    **F** (fine)    **M** (medium)    **C** (coarse)    **VT** (variable texture)

# Soil Boring Log

<b>2SB-13</b> <i>Building Interior,  SW of MW-4</i>  (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;"><i>ESI FILE SB09110.55</i></div>						
	DATE: 2013-11-25      DRILLER (RIG) Manual borings, Geoprobe, 2' barrel ESI STAFF: A. Atkinson      WEATHER: Clear, light wind, mid-20s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
<b>0 – 2'</b>	Brown SAND (F-M)  ***** End of Boring at 2' *****	dry	0.0	ND	ND	ND	<b>(0-2')</b>
<b>Notes</b>	<p><b>Fill Materials</b>  Obvious fill not noted</p> <p><b>Saturated Soils</b>  Not encountered</p> <p><b>Field Evidence of Contamination</b>  Not encountered</p>						

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture: VF** (very fine)    **F** (fine)    **M** (medium)    **C** (coarse)    **VT** (variable texture)



# Soil Boring Log

<b>2SB-14</b> <i>Building Interior, NE of MW-34</i>  (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;"><i>ESI FILE SB09110.55</i></div>						
	DATE: 2013-11-25      DRILLER (RIG) Manual borings, Geoprobe, 2' barrel ESI STAFF: A. Atkinson      WEATHER: Clear, light wind, mid-20s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
0 - 2'	Brown SAND (F-M)   ***** End of Boring at 2' *****	dry	0.0	ND	ND	ND	(0-2')
<b>Notes</b>	<b>Fill Materials</b> Obvious fill not noted  <b>Saturated Soils</b> Not encountered  <b>Field Evidence of Contamination</b> Not encountered						
	Empty space for additional notes						

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture: VF** (very fine)    **F** (fine)    **M** (medium)    **C** (coarse)    **VT** (variable texture)

# Soil Boring Log

<b>2SB-15</b> <i>Building Interior,  NW of MW-34</i>  (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;"><i>ESI FILE SB09110.55</i></div>						
	DATE: 2013-11-25      DRILLER (RIG) Manual borings, Geoprobe, 2' barrel ESI STAFF: A. Atkinson      WEATHER: Clear, light wind, mid-20s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
<b>0 – 2'</b>	Brown SAND (F-M)  ***** End of Boring at 2' *****	dry	0.0	ND	ND	ND	<b>(0-2')</b>
<b>Notes</b>	<p><b>Fill Materials</b>  Obvious fill not noted</p> <p><b>Saturated Soils</b>  Not encountered</p> <p><b>Field Evidence of Contamination</b>  Not encountered</p>						

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture: VF** (very fine)    **F** (fine)    **M** (medium)    **C** (coarse)    **VT** (variable texture)

# Soil Boring Log

<b>3SB-3A</b> Clay Street, sidewalk (S) (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110.55</div>						
	DATE: 2014-09-22      DRILLER (RIG) Zebra (6620DT Geoprobe, 5' macro-core) ESI STAFF: S. Spitzer      WEATHER: Overcast, light wind, mid-60s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE SIDEWALK (3-4")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
0 – 5'	Brown M SAND	dry	0.0	ND	ND	ND	(0-5')
5 – 10'	Brown SAND (M-C)	moist	0.0	ND	ND	ND	
10 – 15'	Brown SAND (M-C), some Brown CLAY below 11' ***** Saturated at 11' ***** ***** End of Boring at 15' (refusal)*****	wet	107	ND	ND	ND	(10-15')
<b>Notes</b> <b>Fill Materials</b> Obvious fill not noted <b>Saturated Soils</b> @ 11 - 15' <b>Field Evidence of Contamination</b> Elevated PID reading at groundwater interface, no other obvious contamination observed <b>OTHER</b> Located 2' west of MW-08, refusal at 15', offset 2' west to complete 3SB-03B							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine)    **F** (fine)    **M** (medium)    **C** (coarse)    **VT** (variable texture)

# Soil Boring Log

<b>3SB-3B</b> Clay Street, sidewalk (S) (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110.55</div>						
	DATE: 2014-09-22      DRILLER (RIG) Zebra (6620DT Geoprobe, 5' macro-core) ESI STAFF: S. Spitzer      WEATHER: Overcast, light wind, mid-60s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE SIDEWALK (3-4")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
0 – 15'	***** Push pre-probe rod to 15', no recovery *****	n/a	0.0	ND	n/a	n/a	
15 – 20'	Brown C SAND, Gravelly, some Clayey	wet	18	ND	ND	ND	(15-20')
20 – 25'	(20-21.5') Brown M SAND, some Gravel	wet	0.0	ND	ND	ND	
	(21.5-25') Red and Gray, dense CLAY  ***** End of Boring at 25' *****	dry	0.0	ND	ND	ND	
Notes	<b>Fill Materials</b> Obvious fill not noted from 15 – 25' <b>Saturated Soils</b> @ 15 – 21.5', then dry, dense confining layer of clay to 25' <b>Field Evidence of Contamination</b> Low-level PID reading in upper saturated soil, no other obvious contamination observed <b>OTHER</b> Offset boring extended to complete boring 3SB-03A, pre-drill to 15'						

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>3SB-4</b> Clay Street, sidewalk (S) (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110.55</div>						
	DATE: 2014-09-22      DRILLER (RIG) Zebra (6620DT Geoprobe, 5' macro-core) ESI STAFF: S. Spitzer      WEATHER: Overcast, light wind, mid-60s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE SIDEWALK (3-4")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
<b>0 – 5'</b>	Brown M SAND	dry	0.0	ND	ND	ND	<b>(0-5')</b>
<b>5 – 10'</b>	Brown SAND (M-C)	moist	0.0	ND	ND	ND	
<b>10 – 15'</b>	Brown M(some)-C SAND ***** Saturated at 11' *****	wet	30	ND	ND	ND	
<b>15 – 20'</b>	Brown C SAND, Gravely, some Silty	wet	38	ND	ND	ND	<b>(15-20')</b>
<b>20 – 25'</b>	(20-21.5') Brown M SAND, some Gravel	wet	0.0	ND	ND	ND	<b>(20-25')</b>
	(21.5-25') Red and Gray, dense CLAY  ***** End of Boring at 25' *****	dry	0.0	ND	ND	ND	
<b>Notes</b> <b>Fill Materials</b> Obvious fill not noted <b>Saturated Soils</b> @ 11 – 21.5', then dry, dense confining layer of clay to 25' <b>Field Evidence of Contamination</b> Elevated PID readings in saturated soils, no other obvious contamination observed							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>3SB-5</b> Clay Street, sidewalk (S) (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110.55</div>						
	DATE: 2014-09-22      DRILLER (RIG) Zebra (6620DT Geoprobe, 5' macro-core) ESI STAFF: S. Spitzer      WEATHER: Overcast, light wind, mid-60s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE SIDEWALK (3-4")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
<b>0 – 5'</b>	Brown SAND (F) over Brown SILT	dry	0.0	ND	ND	ND	<b>(0-5')</b>
<b>5 – 10'</b>	Brown SAND (F), almost dry	moist	0.0	ND	ND	ND	
<b>10 – 15'</b>	Brown CLAY, SAND (F)	moist	11	ND	ND	ND	
<b>15 – 20'</b>	Brown CLAY, little SAND (F)	moist	0.0	ND	ND	ND	<b>(15-20')</b>
<b>20 – 25'</b>	Red, Brown and Gray CLAY, dense, almost dry  ***** End of Boring at 25' *****	dry	0.0	ND	ND	ND	<b>(20-25')</b>
<b>Notes</b> <b>Fill Materials</b> Obvious fill not noted <b>Saturated Soils</b> Not noted, moist soil between 10 – 20', then dense almost dry layer of clay to 25' <b>Field Evidence of Contamination</b> Low-level PID readings in moist soils near presumed groundwater interface, no other obvious contamination observed							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>3SB-6</b> <i>Building Interior,  SW of MW-34</i>  (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;"><i>ESI FILE  SB09110.55</i></div>						
	DATE: 2014-09-24      DRILLER (RIG) Zebra (6620DT Geoprobe, 5' macro-core) ESI STAFF: S. Spitzer      WEATHER: Clear to overcast, light wind, mid-60s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
0 – 20'	***** Push pre-probe rod to 20', no recovery *****	n/a	0.0	ND	n/a	n/a	
20 – 25'	Gray, CLAY, dense and dry (crumbles easily)	dry	4.7	ND	ND	ND	(20-25')
25 – 30'	Gray, CLAY, with Red layers, trace gravel, dense and dry (crumbles easily)  ***** End of Boring at 30' *****	dry	1.1	ND	ND	ND	(25-30')
Notes	<b>Fill Materials</b> Obvious fill not noted <b>Saturated Soils</b> Not noted, dense dry layer of clay to 30' <b>Field Evidence of Contamination</b> Minimal low-level PID readings, no other obvious contamination observed <b>OTHER</b> Offset boring extended to provide additional deep soil data in the vicinity of MW-34						

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>3SB-7</b> <i>Building Interior,          NNE of MW-34</i> (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;"><i>ESI FILE SB09110.55</i></div>						
	DATE: 2014-09-24      DRILLER (RIG) Zebra (6620DT Geoprobe, 5' macro-core) ESI STAFF: S. Spitzer      WEATHER: Clear to overcast, light wind, mid-60s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
<b>0 – 5'</b>	Brown SAND (F), almost dry	moist	5.5	ND	ND	ND	<b>(0-5')</b>
<b>5 – 10'</b>	Brown SAND (F-M), almost dry	moist	3.4	ND	ND	ND	
<b>10 – 15'</b>	Brown SAND (F-M), Clayey, increasing moisture at 14-15'	moist	27	ND	ND	ND	<b>(10-15')</b>
<b>15 – 18'</b>	Brown SAND (F-M), Clayey over Brown Clay, Sandy, rock at tip of corer  ***** End of Boring at 18' (refusal) *****	moist	21	ND	ND	ND	
<b>Notes</b> <b>Fill Materials</b> Obvious fill not noted <b>Saturated Soils</b> Not noted, moist soil between 14 – 18' <b>Field Evidence of Contamination</b> Elevated PID readings noted at borehole (68 ppm) and in moist soils (peak 27 ppm), no other obvious contamination observed <b>OTHER</b> Refusal at 18', likely on rock inclusion							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture: VF** (very fine)    **F** (fine)    **M** (medium)    **C** (coarse)    **VT** (variable texture)



# Soil Boring Log

<b>3SB-8</b> <i>Building Interior, NE of MW-34</i>  (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b>							ESI FILE SB09110.55
	DATE: 2014-09-24		DRILLER (RIG) Zebra (6620DT Geoprobe, 5' macro-core)					
	ESI STAFF: S. Spitzer		WEATHER: Clear to overcast, light wind, mid-60s F					
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")		MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	SOIL / MATERIAL DESCRIPTION							
0 – 5'	Brown SAND (F), almost dry		moist	3.4	ND	ND	ND	(0-5') [duplicate collected]
5 – 10'	Brown SAND (F-M), almost dry		moist	2.7	ND	ND	ND	
10 – 15'	Brown SAND (F-M), Clayey, increasing moisture at 14-15'		moist	5.6	ND	ND	ND	
15 – 20'	(15-17') Brown SAND (M-C) (17-20') Brown SAND (M-C), Clayey over Gray CLAY, Sandy, some gravel ***** Saturated at 15' *****		wet	75	ND	ND	ND	(15-20')
20 – 25'	Surface fall-in over Gray CLAY, dense and dry (crumbles easily)  ***** End of Boring at 25' *****		dry	3.7	ND	ND	ND	
<b>Notes</b> <p><b>Fill Materials</b></p> <p>Obvious fill not noted</p> <p><b>Saturated Soils</b></p> <p>@ 15 – 20', then dry, dense confining layer of clay to 25'</p> <p><b>Field Evidence of Contamination</b></p> <p>Elevated PID readings noted at borehole (79 ppm) and in saturated soils (75 ppm), no other obvious contamination observed</p> <p><b>OTHER</b></p> <p>Duplicate sample (3SB-Dup) collected at the 0-5' interval</p>								

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine)    **F** (fine)    **M** (medium)    **C** (coarse)    **VT** (variable texture)

# Soil Boring Log

<b>3SB-9</b> <i>Building Interior, S of MW-8</i>  (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110.55</div>						
	DATE: 2014-09-24      DRILLER (RIG) Zebra (6620DT Geoprobe, 5' macro-core) ESI STAFF: S. Spitzer      WEATHER: Clear to overcast, light wind, mid-60s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
0 – 5'	Brown SAND (F), some Gravel, almost dry	moist	5	ND	ND	ND	(0-5') [duplicate collected]
5 – 10'	Brown SAND (F-M), some Gravel, almost dry	moist	3.9	ND	ND	ND	
10 – 15'	Brown Clayey SAND (F-M), increasing moisture at 14-15'	moist	8	ND	ND	ND	
15 – 20'	(15-17') Brown SAND (M-C) (17-20') Brown Clayey SAND (M-C) over Gray Sandy CLAY, some gravel ***** Saturated at 15' *****	wet	42	ND	ND	ND	(15-20')
20 – 25'	Surface fall-in over Gray CLAY, dense and dry (crumbles easily)  ***** End of Boring at 25' *****	dry	ND	ND	ND	ND	(20-25')
<b>Notes</b> <b>Fill Materials</b> Obvious fill not noted  <b>Saturated Soils</b> @ 15 – 20', then dry, dense confining layer of clay to 25'  <b>Field Evidence of Contamination</b> Elevated PID readings noted at borehole (32 ppm) and in saturated soils (42 ppm), no other obvious contamination observed  <b>OTHER</b> Duplicate sample (3SB-Dup) collected at the 0-5' interval							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine)    **F** (fine)    **M** (medium)    **C** (coarse)    **VT** (variable texture)

# Soil Boring Log

<b>MW-17</b> Clay Street, sidewalk (S)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b>							ESI FILE SB09110
	DATE: 2012-02-15		DRILLER (RIG)		Soil Testing (rotary auger/hammer, 2' split spoon)			
(SHEET 1 OF 1)	ESI STAFF: R. Hooker		WEATHER: Overcast, light wind, low-40s F					
BORING INTERVAL	SURFACE MATERIAL: CONCRETE SIDEWALK (3-4")		MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	SOIL / MATERIAL DESCRIPTION							
0 – 2'	Gray SAND (F-M) with trace Gravel and Silt		dry	0.0	ND	ND	ND	
2 – 4'	Brown SAND (VF) with trace Silt		dry	0.0	ND	ND	ND	
4 – 6'	Brown SILT, trace Sand (VF)		dry	0.0	ND	ND	ND	
6 – 8'	Brown SILT, trace Sand (VF) and Clay		moist	0.0	ND	ND	ND	
8 – 10'	Brown SILT, trace Sand (VF) and Clay		moist	0.0	ND	ND	ND	
10 – 12'	Brown SILT, trace Sand (VF) and Clay		moist	0.0	ND	ND	ND	
12 – 14'	Brown SILT, trace Sand (VF) and Clay		moist	0.0	ND	ND	ND	(14')
14 – 16'	Brown SILT, some Clay, lenses of Sand (F)		wet	0.0	ND	ND	ND	
	***** End of Soil Recovery at 16' *****							
<b>Notes</b> <b>Fill Materials</b> Obvious fill not noted <b>Field Evidence of Contamination</b> None <b>Saturated Soils</b> @ 15' <b>OTHER</b> Auger 16' to 20', installed 2" monitoring well, screen from 5-20', flush mount with steel cover								

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>MW-18</b> <b>(SB-76)</b> Clay Street, sidewalk (S) (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHW Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110</div>						
	DATE: 2012-02-15      DRILLER (RIG)      Soil Testing (rotary auger/hammer, 2' split spoon)						
	ESI STAFF: R. Hooker      WEATHER: Overcast, light wind, low-40s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE SIDEWALK (3-4")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
0 – 2'	Brown SAND (F-M) with trace Gravel and Silt, ash and concrete, fill	dry	0.0	ND	ND	ND	
2 – 4'	Brown SAND (F-M) with trace Gravel and Silt	dry	0.0	ND	ND	ND	
4 – 6'	Brown SAND (F), trace Silt	dry	0.0	ND	ND	ND	
6 – 8'	Brown SAND (F-M) with some Sand (C) and Gravel (F)	dry	0.0	ND	ND	ND	
8 – 10'	Brown SILT, some Clay, lenses of Sand (F)	moist	0.0	ND	ND	ND	
10 – 12'	Brown SILT, some Clay, lenses of Sand (F)	moist	0.0	ND	ND	ND	
12 – 14'	Brown SILT, some Clay, lenses of Sand (F)	moist	0.0	ND	ND	ND	<b>(15')</b>
14 – 16'	Brown SILT, some Clay, lenses of Sand (F)	wet	0.0	ND	ND	ND	
	***** End of Soil Recovery at 16' *****						
<b>Notes</b> <b>Fill Materials</b> Fill from surface to approximately 1.5' <b>Field Evidence of Contamination</b> None <b>Saturated Soils</b> @ 15' <b>OTHER</b> Auger 16' to 20', installed 2" monitoring well, screen from 5-20', flush mount with steel cover							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine)    **F** (fine)    **M** (medium)    **C** (coarse)    **VT** (variable texture)

# Soil Boring Log

<b>MW-19</b> <i>Building Interior, Spill Site</i>	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b>							<i>ESI FILE SB09110</i>		
	DATE: 2012-02-02      DRILLER (RIG)      Soil Testing (rotary auger/hammer, 2' split spoon)									
SHEET 1 OF 1		ESI STAFF: R. Hooker      WEATHER: Clear to overcast, light wind, 40s F								
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")		MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED		
	<b>SOIL / MATERIAL DESCRIPTION</b>									
<b>0 – 2'</b>	Brown SAND (VT) with Silt, Gravel (F), concrete and ash, obvious fill		dry	0.0	ND	ND	ND			
<b>2 – 4'</b>	Brown SAND (F-M) with Silt		dry	0.0	ND	ND	ND			
<b>4 – 6'</b>	Brown SILT and SAND (VF)		moist	0.0	ND	Yes	ND			
<b>6 – 8'</b>	Brown and Gray CLAY and SILT		moist	0.0	Yes	Yes	ND			
<b>8 – 10'</b>	Brown and Gray CLAY and SILT, Brown SILT with Clay		moist	22.0	Yes	Yes	ND			
<b>10 – 12'</b>	Gray SILT with some Sand (VF)		wet	36.2	Yes	Yes	Yes	<b>(10-12')</b>		
<b>12 – 14'</b>	Gray SILT with some Sand (VF)		wet	32.2	Yes	Yes	Yes			
<b>14 – 16'</b>	Brown Clayey SILT with some Sand (VF)		wet	7.1	Yes	ND	ND			
<b>16 – 18'</b>	Brown SILT with trace Sand (VF)		wet	0.0	Yes	ND	ND			
<b>18 – 20'</b>	Gray Clayey SILT with some Sand (VF)		wet	0.0	Yes	ND	ND			
<table border="0"> <tr> <td style="vertical-align: top; width: 100px;"><b>Notes</b></td> <td> <b>Fill Materials</b>            Fill from surface to approximately 6'   <b>Field Evidence of Contamination</b>            @ 4' to 20' – odors and/or staining, @ 10' to 14' NAPL   <b>Saturated Soils</b>            @ 11'   <b>OTHER</b>            Installed 2" monitoring well, screen from 5-20', flush mount with steel cover         </td> </tr> </table>									<b>Notes</b>	<b>Fill Materials</b> Fill from surface to approximately 6'  <b>Field Evidence of Contamination</b> @ 4' to 20' – odors and/or staining, @ 10' to 14' NAPL  <b>Saturated Soils</b> @ 11'  <b>OTHER</b> Installed 2" monitoring well, screen from 5-20', flush mount with steel cover
<b>Notes</b>	<b>Fill Materials</b> Fill from surface to approximately 6'  <b>Field Evidence of Contamination</b> @ 4' to 20' – odors and/or staining, @ 10' to 14' NAPL  <b>Saturated Soils</b> @ 11'  <b>OTHER</b> Installed 2" monitoring well, screen from 5-20', flush mount with steel cover									

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine)    **F** (fine)    **M** (medium)    **C** (coarse)    **VT** (variable texture)

# Soil Boring Log

<b>MW-20</b> <b>(SB-75)</b> Dupont Street, sidewalk (S)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110</div>						
	DATE: 2012-02-16      DRILLER (RIG)      Soil Testing (rotary auger/hammer, 2' split spoon)						
(SHEET 1 OF 1)		ESI STAFF: R. Hooker      WEATHER: Overcast, light wind, low-40s F					
BORING INTERVAL	SURFACE MATERIAL: CONCRETE SIDEWALK (3-4")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	SOIL / MATERIAL DESCRIPTION						
0 – 2'	Brown SAND (VF) with Silt	dry	0.0	ND	ND	ND	
2 – 4'	Brown SAND (VF) with Silt	dry	0.0	ND	ND	ND	
4 – 6'	Tan SAND (F-C) with Gravel	dry	0.0	ND	ND	ND	
6 – 8'	Light Brown SAND (F-C) with Gravel	dry	0.0	ND	ND	ND	
8 – 10'	Light Brown SAND (F-C) with Gravel	moist	0.0	ND	ND	ND	
10 – 12'	Gray SAND (F-C) with Gravel	wet	0.0	Yes	ND	ND	
12 – 14'	No recovery	-	-	-	-	-	
14 – 16'	Brown SAND (VF-M) with trace Silt	wet	0.0	Yes	ND	Yes	
	***** End of Soil Recovery at 16' *****						
<b>Notes</b> <b>Fill Materials</b> Obvious fill not noted <b>Field Evidence of Contamination</b> @ 10' to 16' – odors, @16' NAPL <b>Saturated Soils</b> @ 10' <b>OTHER</b> Auger 16' to 20', installed 2" monitoring well, screen from 5-20', flush mount with steel cover							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>MW-21</b> <i>Building Interior</i>	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHW Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110</div>						
	DATE: 2012-02-10      DRILLER (RIG)      Soil Testing (rotary auger/hammer, 2' split spoon)						
(SHEET 1 OF 1)	ESI STAFF: R. Hooker      WEATHER: Clear, light wind, 30-40s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	SOIL / MATERIAL DESCRIPTION						
0 – 2'	Brown SAND (F-M), some Gravel (F), ash/wood (Fill)	dry	0.0	ND	ND	ND	
2 – 4'	Brown SAND (F-M), some Gravel, Fill	dry	0.0	ND	ND	ND	
4 – 6'	Brown SILT, some Sand (VF)	moist	0.0	ND	ND	ND	
6 – 8'	No recovery	---	---	---	---	---	
8 – 10'	Brown SAND (F-M), some Silt	moist	0.0	ND	ND	ND	
10 – 12'	Brown-Gray Sandy SILT	moist	0.0	ND	ND	ND	
12 – 14'	Brown and Gray Sandy SILT, some Clay ***** Saturated at 13' *****	wet	1.0	Yes	ND	Yes	(14')
14 – 16'	Gray-Brown Clayey SILT over SAND (VF) ***** End of Soil Recovery at 16' *****	wet	0.0	Yes	ND	Yes	
<b>Notes</b> <b>Fill Materials</b> Fill from surface to approximately 4' <b>Field Evidence of Contamination</b> @ 13' to 16' – odors and NAPL <b>Saturated Soils</b> @ 13' <b>OTHER</b> Auger 16' to 20', installed 2" monitoring well, screen from 5-20', flush mount with steel cover							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>MW-22</b> <b>(SB-71)</b> <i>Building Interior</i>	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b>							<i>ESI FILE</i> <i>SB09110</i>
	DATE: 2012-02-10		DRILLER (RIG)		Soil Testing (rotary auger/hammer, 2' split spoon)			
SHEET 1 OF 1		ESI STAFF: R. Hooker		WEATHER: Clear, light wind, 30-40s F				
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")		MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	SOIL / MATERIAL DESCRIPTION							
0 – 2'	Brown SAND (VT) with Gravel, brick, concrete and ash, obvious fill		dry	0.0	ND	ND	ND	
2 – 4'	Brown SAND (VT) with Gravel, brick, concrete and ash, obvious fill		dry	0.0	ND	ND	ND	
4 – 6'	Brown SAND (VT) with Gravel, brick, concrete and ash, obvious fill		dry	0.0	ND	ND	ND	
6 – 8'	No recovery		dry	0.0	ND	ND	ND	
8 – 10'	Brown SAND (F-M), some Gravel (F), trace Silt		moist	0.0	ND	ND	ND	
10 – 12'	Brown SAND (F-M) ***** Saturated at 10' *****		wet	0.0	Yes	ND	ND	
12 – 14'	Gray SAND (F-C), some Gravel (F) ***** End of Soil Recovery at 14' *****		wet	1.0	ND	ND	Yes	(14')
<b>Notes</b> <p><b>Fill Materials</b>  Fill from surface to approximately 6'</p> <p><b>Field Evidence of Contamination</b>  @ 10' to 12' – odors, @ 12' to 16' NAPL</p> <p><b>Saturated Soils</b>  @ 10'</p> <p><b>OTHER</b>  Refusal at 7', offset 2' to complete, auger 14' to 20', installed 2" monitoring well, screen from 5-20', flush mount with steel cover</p>								

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine)    **F** (fine)    **M** (medium)    **C** (coarse)    **VT** (variable texture)



# Soil Boring Log

<b>MW-23</b> Franklin Street, sidewalk (E)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110</div>						
	DATE: 2012-07-25      DRILLER (RIG)      Soil Testing (rotary auger/hammer, 2' split spoon)						
SHEET 1 OF 1	ESI STAFF: M. Pentz      WEATHER: Clear, light wind, low-70s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE SIDEWALK (3-4")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	SOIL / MATERIAL DESCRIPTION						
0 – 2'	Brown SAND (F-M) and SILT with Gravel, brick, obvious fill	dry	0.0	ND	ND	ND	
2 – 4'	Brown SAND (F-M) and SILT with Gravel, brick, obvious fill	dry	0.0	ND	ND	ND	
4 – 6'	Brown SAND (VF-M)	dry	0.0	ND	ND	ND	
6 – 8'	Brown SAND (VF-M)	dry	0.0	ND	ND	ND	
8 – 10'	Brown SAND (VF-M)	moist	0.0	ND	ND	ND	
10 – 12'	Brown SAND (VF-M) ***** Saturated at 10.5' *****	wet	0.0	ND	ND	ND	(10-12')
12 – 14'	Brown SAND (VF-M) ***** End of Soil Recovery at 16' *****	wet	0.0	ND	ND	ND	
<b>Notes</b> <b>Fill Materials</b> Fill from surface to approximately 4' <b>Field Evidence of Contamination</b> None <b>Saturated Soils</b> @ 10.5' <b>OTHER</b> Auger 14' to 20', installed 2" monitoring well, screen from 8-18', flush mount with steel cover							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>MW-24</b> Corner of Franklin and Dupont (SW), sidewalk		<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b>						ESI FILE SB09110
		DATE: 2012-07-25      DRILLER (RIG)      Soil Testing (rotary auger/hammer, 2' split spoon)						
SHEET 1 OF 1		ESI STAFF: M. Pentz      WEATHER: Clear, light wind, low-70s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE SIDEWALK (3-4")		MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	SOIL / MATERIAL DESCRIPTION							
0 – 5'	Tailings: Brown SAND (F-M), SILT, GRAVEL (F-C)		dry	0.0	ND	ND	ND	
5 – 7'	Brown SAND (F-M) with Silt and Gravel (F-C)		moist	0.0	ND	ND	ND	
7 – 9'	Brown SAND (F-M) with Silt and Gravel (F-C)		moist	0.0	ND	ND	ND	
9 – 11'	Brown SAND (VF-M) ***** Saturated at 10.5' *****		wet	0.0	ND	ND	ND	(7-9')
11 – 13'	Brown SAND (VF-M)		wet	0.0	ND	ND	ND	
13 – 15'	Brown SAND (VF-M) ***** End of Soil Recovery at 15' *****		wet	0.0	ND	ND	ND	
<b>Notes</b> <b>Fill Materials</b> Obvious fill not noted <b>Field Evidence of Contamination</b> None <b>Saturated Soils</b> @ 9' <b>OTHER</b> Refusal at 3.5', offset to complete well, auger to 5', sample soil from 5' to 15', auger to 20', installed 2" monitoring well, screen from 8-18', flush mount with steel cover								

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>MW-25</b> Corner of Franklin and Dupont (NW), sidewalk		<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b>						ESI FILE SB09110
		DATE: 2012-07-25      DRILLER (RIG)      Soil Testing (rotary auger/hammer, 2' split spoon)						
SHEET 1 OF 1		ESI STAFF: M. Pentz      WEATHER: Clear, light wind, low-70s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE SIDEWALK (3-4")		MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	SOIL / MATERIAL DESCRIPTION							
0 – 2'	Brown SAND (F-C), SILT, GRAVEL (F-C), brick, obvious fill		dry	0.0	ND	ND	ND	
2 – 4'	Brown SAND (F-C), SILT, GRAVEL (F-C), brick, obvious fill		dry	26.3	ND	ND	ND	
4 – 6'	Brown SAND (F-C), SILT, GRAVEL (F-C), brick, obvious fill		dry	43.3	ND	ND	ND	
6 – 8'	Brown SILT with Sand (F-M)		dry	43.0	ND	ND	ND	
8 – 10'	Brown SILT with Sand (F-M)		very moist	112	ND	ND	ND	
10 – 12'	Brown SAND (F-C) with some Gravel (F) ***** Saturated at 10' *****		wet	232	ND	ND	Yes	(10-12')
12 – 14'	Brown SAND (F-C) with some Gravel (F) ***** End of Soil Recovery at 14' *****		wet	344	ND	ND	Yes	
<b>Notes</b> <b>Fill Materials</b> Fill from surface to approximately 6' <b>Field Evidence of Contamination</b> @ 2' to 14' increasing PID readings, @ 10' to 14' NAPL <b>Saturated Soils</b> @ 10' <b>OTHER</b> Auger 14' to 20', installed 2" monitoring well, screen from 8-18', flush mount with steel cover								

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>MW-26</b> Corner of Franklin and Dupont (SE), sidewalk (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110.55</div>						
	DATE: 2012-09-24      DRILLER (RIG) Soil Testing (rotary auger/hammer, 2' split spoon) ESI STAFF: M. Pentz      WEATHER: Partly cloudy, light wind, 80s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE SIDEWALK (3-4")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
<b>0 – 10'</b>	Tailings: 0 to 1.5' fill (asphalt, brick, SAND/GRAVEL)	dry	0.0	ND	ND	ND	
	Tailings: 1.5 to 10' Brown SILT, SAND (F-C) and GRAVEL (F-C)	dry	0.0	ND	ND	ND	
<b>10 – 12'</b>	Brown SAND (F-C), some Silt and Gravel (F-C)  ***** Saturated at 10' *****	wet	2.4	ND	ND	Yes	<b>(10-12')</b>
<b>12 – 14'</b>	Brown SAND (F-C), some Silt and Gravel (F-C)	wet	4.2	ND	ND	Yes	
<b>14 – 16'</b>	Brown SAND (F-C), some Silt and Gravel (F-C)  ***** End of Soil Recovery at 16' *****	wet	0.0	ND	ND	ND	
<b>Notes</b> <div style="margin-left: 20px;"> <b>Fill Materials</b>          Fill from surface to approximately 1.5'   <b>Field Evidence of Contamination</b>          @ 2' to 14' increasing PID readings, @ 10' to 14' NAPL   <b>Saturated Soils</b>          @ 10'   <b>OTHER</b>          Auger to 10', sample soil from 10' to 16', auger to 20', installed 2" monitoring well,          screen from 10-20', flush mount with steel cover       </div>							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>MW-27</b> Dupont Street, sidewalk (S) (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> ESI FILE SB09110.55						
	DATE: 2012-09-24      DRILLER (RIG) Soil Testing (rotary auger/hammer, 2' split spoon) ESI STAFF: M. Pentz      WEATHER: Partly cloudy, light wind, 80s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE SIDEWALK (3-4")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
0 – 10'	Tailings: Brown SILT, SAND (F-C) and GRAVEL (F-C)	dry	0.0	ND	ND	ND	
10 – 12'	Brown SAND (VF-C), some Silt	wet	0.0	ND	ND	ND	(10-12')
12 – 14'	Brown SAND (VF-C), some Silt  ***** Saturated at 12' *****	wet	0.0	ND	ND	ND	
14 – 16'	Brown SAND (VF-C), some Silt  ***** End of Soil Recovery at 16' *****	wet	0.0	ND	ND	ND	
<b>Notes</b> <b>Fill Materials</b> Obvious fill not noted <b>Field Evidence of Contamination</b> None <b>Saturated Soils</b> @ 12' <b>OTHER</b> Auger to 10', sample soil from 10' to 16', auger to 20', installed 2" monitoring well, screen from 10-20', flush mount with steel cover							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>MW-28</b> Franklin Street, sidewalk (E)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b>							ESI FILE SB09110
	DATE: 2013-01-08		DRILLER (RIG)		Soil Testing (rotary auger/hammer, 2' split spoon)			
SHEET 1 OF 1		ESI STAFF: M. Pentz		WEATHER: Clear, windy, 30-40s				
BORING INTERVAL	SURFACE MATERIAL: CONCRETE SIDEWALK (3-4")		MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	SOIL / MATERIAL DESCRIPTION							
0 – 5'	Tailings: Brown SAND (F-C), some GRAVEL (F)		dry	0.0	ND	ND	ND	
5 – 7'	Brown SAND (F-C)		moist	0.0	ND	ND	ND	
7 – 10'	Tailings: Brown SAND (F-C)		moist	0.0	ND	ND	ND	
10 – 12'	Brown SAND (VF-F) and SILT, some Gravel (F) ***** Saturated at 11' *****		wet	0.0	ND	ND	ND	(10-12')
12 – 15'	Tailings: Brown SAND (VF-F), SILT, some Gravel (F)		wet	0.0	ND	ND	ND	
15 – 17'	Brown SAND (VF-M) ***** End of Soil Recovery at 17' *****		wet	0.0	ND	ND	ND	
<b>Notes</b> <p><b>Fill Materials</b></p> <p>Obvious fill not noted</p> <p><b>Field Evidence of Contamination</b></p> <p>None</p> <p><b>Saturated Soils</b></p> <p>@ 11'</p> <p><b>OTHER</b></p> <p>Auger to 5', sample soil 5' to 7', 10' to 12' and 15' to 17' (auger in between and from 17' to 20'), installed 2" monitoring well, screen from 10-20', flush mount with steel cover</p>								

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>MW-29</b> <i>Dupont Street,  sidewalk (S)</i>	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b>							<i>ESI FILE  SB09110</i>
	DATE: 2013-01-08		DRILLER (RIG)		Soil Testing (rotary auger/hammer, 2' split spoon)			
SHEET 1 OF 1		ESI STAFF: M. Pentz		WEATHER:		Clear, light wind, upper 30s to lower 40s F		
BORING INTERVAL	SURFACE MATERIAL: CONCRETE SIDEWALK (3-4")		MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	SOIL / MATERIAL DESCRIPTION							
0 – 2'	Brown SAND (F-M), some Sand (C) and Gravel (F)		dry	0.0	ND	ND	ND	
2 – 4'	Brown SAND (F-M), some Sand (C) and Gravel (F)		dry	0.0	ND	ND	ND	
4 – 6'	No recovery		dry	0.0	ND	ND	ND	
6 – 8'	Brown SAND (M) with trace Silt		dry	0.0	ND	ND	ND	
8 – 10'	Brown SAND (M-C) with some Gravel (F) and trace Silt		moist	0.0	ND	ND	ND	
10 – 12'	Brown SAND (F-M) with some Sand (C) and Gravel (F), with trace Silt ***** Saturated at 11' ***** ***** End of Soil Recovery at 12' *****		wet	0.0	ND	ND	ND	(10-12')
<b>Notes</b> <div> <b>Fill Materials</b>  Obvious fill not noted  <b>Field Evidence of Contamination</b>  None  <b>Saturated Soils</b>  @ 11'  <b>OTHER</b>  Auger 12' to 20', installed 2" monitoring well, screen from 10-20', flush mount with steel cover </div>								

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>MW-30</b> <i>Dupont Street,  sidewalk (N)</i>  (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110.55</div>						
	DATE: 2013-07-31      DRILLER (RIG) Zebra (6620DT Geoprobe, 5' macro-core) ESI STAFF: A. Atkinson      WEATHER: Clear to partly cloudy, calm, 70s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE SIDEWALK (3-4")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
<b>0 – 5'</b>	Brown SAND (F-M) with Silt	dry	0.0	ND	ND	ND	
<b>5 – 10'</b>	Brown SAND (F-M) with Silt	Sl. moist	0.0	ND	ND	ND	
<b>10 – 15'</b>	Brown SAND (M-C), trace Silt  ***** Saturated at 10' *****	wet	0.0	ND	ND	ND	<b>(10-15')</b>
<b>15 – 20'</b>	Poor recovery, Gray and Brown SAND (C)  ***** End of Boring at 20' *****	wet	0.0	ND	ND	ND	
<b>Notes</b> <b>Fill Materials</b> Obvious fill not noted <b>Saturated Soils</b> @ 10" <b>Field Evidence of Contamination</b> None <b>OTHER</b> Installed 2" monitoring well, screen (pre-packed) from 5-20', flush mount with steel cover							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)



# Soil Boring Log

<b>MW-31</b> Commercial St, sidewalk (S) (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110.55</div>						
	DATE: 2013-07-31      DRILLER (RIG) Zebra (6620DT Geoprobe, 5' macro-core) ESI STAFF: A. Atkinson      WEATHER: Clear to partly cloudy, calm, 70s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE SIDEWALK (3-4")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
<b>0 – 5'</b>	Brown SAND (F-M) with Silt	dry	0.0	ND	ND	ND	
<b>5 – 10'</b>	5 to 7': Brown SAND (F-M) with Silt	Sl. moist	0.0	ND	ND	ND	
	7 to 10': Yellowish-Brown Silty CLAY	moist	0.0	ND	ND	ND	
<b>10 – 15'</b>	Brown SAND (M-C), some Silt  ***** Saturated at 10' *****	wet	0.0	ND	ND	ND	<b>(10-15')</b>
<b>15 – 20'</b>	Poor recovery, Gray and Brown SAND (C)  ***** End of Boring at 20' *****	wet	0.0	ND	ND	ND	
<b>Notes</b> <b>Fill Materials</b> Obvious fill not noted <b>Saturated Soils</b> @ 10" <b>Field Evidence of Contamination</b> None <b>OTHER</b> Installed 2" monitoring well, screen (pre-packed) from 8-18', flush mount with steel cover							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>MW-32</b> Franklin Street, sidewalk (W) (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110.55</div>						
	DATE: 2013-07-31      DRILLER (RIG) Zebra (6620DT Geoprobe, 5' macro-core) ESI STAFF: A. Atkinson      WEATHER: Clear to partly cloudy, calm, 70s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE SIDEWALK (3-4")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
<b>0 – 5'</b>	0 to 3': Brown SAND (F-M) with Silt 3 to 5': Yellowish-Brown Silty CLAY	dry	0.0	ND	ND	ND	<b>(0-5')</b>
<b>5 – 10'</b>	Yellowish-Brown Silty CLAY	Sl. moist	0.0	ND	ND	ND	
<b>10 – 15'</b>	10 to 13': Yellowish-Brown Silty CLAY 13 to 15': Dark SAND (M-C) ***** Saturated at 12.5' *****	wet wet	0.0 0.0	ND Yes	ND Yes	ND ND	<b>(10-15')</b>
<b>15 – 20'</b>	Poor recovery, Gray and Brown SAND (C) over dense Reddish Brown CLAY ***** End of Boring at 20' *****	wet	0.0	ND	ND	ND	
<b>Notes</b> <b>Fill Materials</b> Obvious fill not noted <b>Saturated Soils</b> @ 12.5" <b>Field Evidence of Contamination</b> None <b>OTHER</b> Installed 2" monitoring well, screen (pre-packed) from 10-20', flush mount with steel cover							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>MW-34</b> <b>(2SB-1)</b> <i>Building Interior, NE of MW-4</i>	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;"><i>ESI FILE SB09110</i></div>						
	DATE: 2013-08-01      DRILLER (RIG) Zebra (6620DT Geoprobe, 5' macro-core)						
(SHEET 1 OF 1)	ESI STAFF: A. Atkinson      WEATHER: Overcast to rain, light wind, low-70s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	SOIL / MATERIAL DESCRIPTION						
<b>0 – 5'</b>	Brown SAND (M), Fill?	dry	0.0	ND	ND	ND	
<b>5 – 10'</b>	Brown SAND (M)	moist	0.0	ND	ND	ND	
<b>10 – 15'</b>	Brown SAND (M-C) over Brown Silty CLAY  ***** Saturated at 12' *****	wet	0.0	ND	ND	ND	<b>(10-15')</b>
<b>15 – 20'</b>	Brown Silty CLAY  ***** End of Boring at 20' *****	wet	0.0	ND	ND	ND	<b>(15-20')</b>
<b>Notes</b>	<b>Fill Materials</b> Potential fill from surface to approximately 5' <b>Field Evidence of Contamination</b> None <b>Saturated Soils</b> @ 12' <b>OTHER</b> Installed 2" monitoring well, screen (pre-pack) from 10-20', stick-up casing						

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine)    **F** (fine)    **M** (medium)    **C** (coarse)    **VT** (variable texture)

# Soil Boring Log

<b>MW-35</b> <b>(2SB-9)</b> <i>Building Interior</i>	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;"><i>ESI FILE</i> SB09110</div>						
	DATE: 2013-08-01      DRILLER (RIG) Zebra (6620DT Geoprobe, 5' macro-core)						
(SHEET 1 OF 1)	ESI STAFF: A. Atkinson      WEATHER: Overcast to rain, light wind, low-70s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	SOIL / MATERIAL DESCRIPTION						
0 – 5'	Brown SAND (M), Fill?	dry	0.0	ND	ND	ND	(0-5')
5 – 10'	Brown SAND (M)	moist	0.0	ND	ND	ND	
10 – 15'	Brown SAND (M-C) over lenses of Brown Sandy CLAY, Brown SAND (C) and Brown Silty CLAY	moist	0.0	ND	ND	Yes	(10-15')
15 – 20'	Brown Silty CLAY ***** Saturated at 16' ***** ***** End of Boring at 20' *****	wet	0.0	ND	ND	Yes	
Notes	<b>Fill Materials</b> Potential fill from surface to approximately 5' <b>Field Evidence of Contamination</b> @ 14' and 16' – Thin layers of oil <b>Saturated Soils</b> @ 16' <b>OTHER</b> Installed 2" monitoring well, screen (pre-pack) from 10-20', stick-up casing						

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>MW-36</b> Dupont Street, sidewalk (S) (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> Former NuHart Plastic Manufacturing, Brooklyn, New York NYSDEC IHWD Site No. 224136 ESI FILE SB09110.55						
	DATE: 2014-07-30      DRILLER (RIG) HPI (5410 truck Geoprobe, 5' macro-core) ESI STAFF: S. Spitzer      WEATHER: Clear, light wind, 60-70s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE SIDEWALK (3-4")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
<b>0 – 4'</b>	Brown M SAND	slight	0.0	ND	ND	ND	
<b>4 – 8'</b>	Brown Loamy SAND, some Silty LOAM	slight	0.0	ND	ND	ND	
<b>8 – 12'</b>	(8-10') Brown Silty LOAM	slight	0.0	ND	ND	ND	
	(10-12') Brown Sandy LOAM over Tan SAND (C)	moist	0.0	ND	ND	ND	<b>(11-12')</b>
<b>12 – 16'</b>	Tan SAND (C), some Gravel (F), loose (poor recovery)	wet	0.0	ND	ND	ND	
<b>16 – 20'</b>	Tan SAND (C), some Gravel (F), loose (poor recovery)	wet	0.0	ND	ND	ND	
	***** End of Boring at 20' *****						
<b>Notes</b> <b>Fill Materials</b> Obvious fill not noted <b>Saturated Soils</b> @ 12' <b>Field Evidence of Contamination</b> None <b>OTHER</b> Installed 2" monitoring well, screen from 10-20', flush mount with steel cover							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>MW-37</b> Franklin Street, sidewalk (W) (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> Former NuHart Plastic Manufacturing, Brooklyn, New York NYSDEC IHWD Site No. 224136 ESI FILE SB09110.55						
	DATE: 2014-07-30      DRILLER (RIG) HPI (5410 truck Geoprobe, 5' macro-core) ESI STAFF: S. Spitzer      WEATHER: Clear, light wind, 60-70s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE SIDEWALK (3-4")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
0 – 4'	Brown M SAND	slight	0.0	ND	ND	ND	
4 – 8'	Brown Loamy SAND, some Silty LOAM	slight	0.0	ND	ND	ND	
8 – 12'	(8-10') Brown Silty LOAM	slight	0.0	ND	ND	ND	
	(10-12') Brown Sandy LOAM over Tan SAND (C)	moist	0.0	ND	ND	ND	(11-12')
12 – 16'	Tan SAND (C), some Gravel (F), loose (poor recovery)	wet	0.0	ND	ND	ND	
16 – 20'	Tan SAND (C), some Gravel (F), loose (poor recovery) ***** End of Boring at 20' *****	wet	0.0	ND	ND	ND	
<b>Notes</b> <b>Fill Materials</b> Obvious fill not noted <b>Saturated Soils</b> @ 12' <b>Field Evidence of Contamination</b> None <b>OTHER</b> Installed 2" monitoring well, screen from 10-20', flush mount with steel cover							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>MW-38</b> Clay Street, sidewalk (N) (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> ESI FILE SB09110.55						
	DATE: 2014-09-23      DRILLER (RIG) Zebra (6620DT Geoprobe, 5' macro-core) ESI STAFF: S. Spitzer      WEATHER: Slight haze, light wind, 60-70s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE SIDEWALK (3-4")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
0 – 5'	Brown M SAND, almost dry	moist	0.0	ND	ND	ND	(0-5')
5 – 10'	Brown SAND (M-C), almost dry	moist	0.0	ND	ND	ND	
10 – 15'	Brown C SAND, some Gravel  ***** Saturated soil *****	wet	0.0	ND	ND	ND	(10-15')
15 – 20'	(15-18') Brown SAND (M-C) (18-20') Brown Clayey SAND (F)	wet	0.0	ND	ND	ND	
20 – 25'	(20-22') Brown Clayey SAND (F) (22-25') Red and Gray Silty CLAY, SAND (F), almost dry ***** End of Boring at 25' *****	wet	ND	ND	ND	ND	
<b>Notes</b> <b>Fill Materials</b> Obvious fill not noted <b>Saturated Soils</b> @ 15 – 22', then dry, dense confining layer of clay to 25' <b>Field Evidence of Contamination</b> None <b>OTHER</b> Installed 2" monitoring well, screen from 5-20', flush mount with steel cover							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>MW-39</b> Clay Street, sidewalk (N) (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110.55</div>						
	DATE: 2014-09-23      DRILLER (RIG) Zebra (6620DT Geoprobe, 5' macro-core) ESI STAFF: S. Spitzer      WEATHER: Slight haze, light wind, 60-70s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE SIDEWALK (3-4")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
0 – 5'	Brown and Tan Silty SAND (F)	dry	0.0	ND	ND	ND	(0-5')
5 – 10'	Brown F-M SAND (approximately 9-10') Field evidence of petroleum contamination noted at corer tip	dry moist	0.0 109	ND Yes	ND Yes	ND ND	
10 – 15'	Brown Clayey SAND (F-M), distinct petroleum impacted 2" layer near 10'  ***** Saturated soil at 10' *****	wet	56	Yes	Yes	ND	(10-11')
15 – 20'	Brown Clayey SAND (F-M) Bottom layer of Gray Sandy CLAY	wet moist	0.0	ND	ND	ND	
20 – 25'	(20-22') Brown Silty CLAY, SAND (F) (22-25') Red and Gray Silty CLAY, almost dry  ***** End of Boring at 25' *****	moist moist	ND ND	ND ND	ND ND	ND ND	
<b>Notes</b> <b>Fill Materials</b> Obvious fill not noted <b>Saturated Soils</b> @ 10 – 15 to 20', then dry, dense confining layer of clay to 25' <b>Field Evidence of Contamination</b> Likely thin layer of petroleum contamination observed at groundwater interface, boring extended near former filling station at north side of street, near gasoline fill ports <b>OTHER</b> Installed 2" monitoring well, screen from 5-20', flush mount with steel cover							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)



# Soil Boring Log

<b>MW-40</b> <i>Building Interior, loading dock E of IHWDS</i> (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWDS Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110.55</div>						
	DATE: 2014-09-24      DRILLER (RIG) Zebra (6620DT Geoprobe, 5' macro-core) ESI STAFF: S. Spitzer      WEATHER: Clear to overcast, light wind, mid-60s F						
BORING INTERVAL	SURFACE MATERIAL: CONCRETE BUILDING SLAB (4-8")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
<b>0 – 5'</b>	Brown M SAND, some Gravel	dry	4.6	ND	ND	ND	<b>(0-5')</b>
<b>5 – 10'</b>	Brown SAND (F-M)	dry	0.0	ND	ND	ND	
	(near corer tip) Brown SAND (M-C), some Silt and Clay	moist	0.0	ND	ND	ND	
<b>10 – 15'</b>	Brown SAND (M-C), some Silt and Silty Clay, over SAND (M-C), Clayey	moist	2	ND	ND	ND	
<b>15 – 20'</b>	Brown Clayey SAND (M-C), over Brown to Gray Silty CLAY, Sandy	moist	2.6	ND	ND	ND	<b>(15-20')</b>
<b>20 – 25'</b>	Gray with some Red Silty CLAY, dense and dry (crumbles easily)	dry	ND	ND	ND	ND	
	***** End of Boring at 25' *****						
<p><b>Notes</b>      <b>Fill Materials</b></p> <p style="padding-left: 40px;">Obvious fill not noted</p> <p><b>Saturated Soils</b></p> <p style="padding-left: 40px;">Not noted, moist soil between 10 – 20"</p> <p><b>Field Evidence of Contamination</b></p> <p style="padding-left: 40px;">Minimal PID readings noted in moist soil, no other obvious contamination observed</p> <p><b>OTHER</b></p> <p style="padding-left: 40px;">Boring extended in loading dock at approximately 4' below surrounding floor level, installed 2" monitoring well, screen from 5-20', flush mount with steel cover</p>							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)

# Soil Boring Log

<b>MW-41</b> Greenpoint Playground (S) (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110.55</div>						
	DATE: 2014-12-10      DRILLER (RIG) AES (6620DT Geoprobe, 5' macro-core) ESI STAFF: S. Spitzer      WEATHER: Overcast, variable wind, 30s F						
BORING INTERVAL	SURFACE MATERIAL: ASPHALT PAVEMENT (3-4")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
0 – 5'	Brown, Silty SAND (F)	moist	0.0	ND	ND	ND	
5 – 10'	Brown, Silty CLAY, some Sand  ***** Saturated soil at 10' *****	moist	0.0	ND	ND	ND	(8-10')
10 – 15'	Brown, Silty CLAY	wet	0.0	ND	ND	ND	
15 – 20'	Brown, SAND (C)  ***** End of Boring at 20' *****	wet	0.0	ND	ND	ND	
<b>Notes</b> <b>Fill Materials</b> Obvious fill not noted <b>Saturated Soils</b> @ 10' <b>Field Evidence of Contamination</b> None <b>OTHER</b> Installed 2" monitoring well, screen from 8-18', flush mount with steel cover							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture: VF** (very fine)    **F** (fine)    **M** (medium)    **C** (coarse)    **VT** (variable texture)

# Soil Boring Log

<b>MW-42</b> Greenpoint Playground (N) (SHEET 1 OF 1)	<b>Remedial Investigation Report</b> <b>Former NuHart Plastic Manufacturing, Brooklyn, New York</b> <b>NYSDEC IHWD Site No. 224136</b> <div style="text-align: right;">ESI FILE SB09110.55</div>						
	DATE: 2014-12-10      DRILLER (RIG) AES (6620DT Geoprobe, 5' macro-core) ESI STAFF: S. Spitzer      WEATHER: Overcast, variable wind, 30s F						
BORING INTERVAL	SURFACE MATERIAL: ASPHALT PAVEMENT (3-4")	MOISTURE	PID (ppm)	ODORS	STAINING	NAPL	SAMPLES COLLECTED
	<b>SOIL / MATERIAL DESCRIPTION</b>						
0 – 5'	Brown, Silty SAND (F)	moist	0.0	ND	ND	ND	
5 – 10'	Brown, Silty CLAY, some Sand  ***** Saturated soil at 10' *****	moist	0.0	ND	ND	ND	(8-10')
10 – 15'	Brown, Silty CLAY	wet	0.0	ND	ND	ND	
15 – 20'	Brown, SAND (C)  ***** End of Boring at 20' *****	wet	0.0	ND	ND	ND	
<b>Notes</b> <b>Fill Materials</b> Obvious fill not noted <b>Saturated Soils</b> @ 10' <b>Field Evidence of Contamination</b> None <b>OTHER</b> Installed 2" monitoring well, screen from 8-18', flush mount with steel cover							

**ND** (non-detect)    **PID** (photoionization detector)    **ppm** (parts per million)    **NAPL** (non-aqueous phase liquid)  
**Texture:** **VF** (very fine) **F** (fine) **M** (medium) **C** (coarse) **VT** (variable texture)



## **APPENDIX D**

### ***Driller's Well Construction Logs***

<b>SOILTESTING, INC.</b> 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: <b>Ecosystems Strategies Inc.</b>		SHEET <u>1</u> OF <u>1</u>	
	PROJECT NO. <b>E6-9026-12</b>		HOLE NO. <b>MW-17</b>	
	PROJECT NAME <b>Former Nu Hart Manufacturing</b>		BORING LOCATIONS per Plan	
FOREMAN - DRILLER <b>TP/tb</b>	LOCATION <b>280 Franklin Street Brooklyn, New York</b>			
INSPECTOR <b>Richard</b>	CASING TYPE <b>HSA</b>	SAMPLER SS	CORE BAR	OFFSET
GROUND WATER OBSERVATIONS AT <u>  </u> FT AFTER <u>  </u> HOURS AT <u>  </u> FT AFTER <u>  </u> HOURS	SIZE I.D.	<b>4 1/4"</b>	<b>1 3/8"</b>	DATE START <b>2/15/12</b>
	HAMMER WT.		<b>140#</b>	DATE FINISH <b>2/15/12</b>
	HAMMER FALL		<b>30"</b>	SURFACE ELEV.
				GROUND WATER ELEV.

DEPTH	CASING BLOWS PER FOOT	SAMPLE					BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6 6 - 12 12 - 18		CORE TIME PER FT (MIN)	DENSITY OR CONSIST	STRATA CHANGE DEPTH	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
		NO	Type	PEN	REC	DEPTH @ BOT						
5		1	ss	24"	15"	2'0"	3	6		dry		4" CONCRETE
							5	6		loose	2'0"	drk gry FM SAND,silt,lit F gravel
		2	ss	24"	20"	4'0"	9	8		dry		brn VF SAND,sm silt
							8	7		loose		brn VF F SAND,lit silt
		3	ss	24"	20"	6'0"	7	8		dry	5'0"	
10							8	10		loose		brn SILT,lit VF sand
		4	ss	24"	19"	8'0"	10	10		l moist		brn gry SILT,sm clay
							9	9		stiff		brn SILT,sm clay,tr VF sand (lenses)
		5	ss	24"	22"	10'0"	7	9		l moist		
							10	11		stiff		SAME
15		6	ss	24"	20"	12'0"	3	6		moist		brn SILT,sm clay,lit VF sand
							9	9		stiff		
		7	ss	24"	20"	14'0"	6	7		moist		brn SILT,sm clay,lit VF sand
							9	10		stiff		brn SILT,lit clay,VF sand
		8	ss	24"	22"	16'0"	3	6		moist/wet		brn gry SILT,sm (lenses) VF sand,lit clay
20							9	12		stiff		
		9	ss	24"	16"	18'0"	11	13		moist		
							18	20		v stiff		
											20'0"	
												E.O.B. 20'0" / Set well
25												
30												
35												
40												

**NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.**

GROUND SURFACE TO        FT. USED        CASING THEN        CASING TO        FT. **HOLE NO. MW-17**

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST  
 WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS C = COARSE  
 SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER M = MEDIUM  
 PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50% F = FINE



Phone  
(203) 262-9328

Telefax  
(203) 264-3414

WHITE PLAINS, N.Y.  
(914) 946-4850

# SOILTESTING, INC.

90 DONOVAN ROAD - OXFORD, CONN. 06478-1028

GEOTECHNICAL / ENVIRONMENTAL SUBSURFACE INVESTIGATIONS - Test Borings - Core Drilling  
Monitoring Wells - Recovery Wells - Direct Push/Probe Sampling  
UNDERPINNING - HELICAL PILES - SOIL NAILS

CLIENT: Ecosystems Strategies

JOB #: E6-9026-12

Monitor Well # MW-17

Top of Casing Elevation	0'	Stick Up Vented Locking Steel Cap	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
		Drive/over w/Bolting Cover	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
		Protective Steel Casing	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Ground Surface Elevation	0'	Mounded Backfill	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
	0'	Concrete Collar	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
	12"	Backfill Material			
	3'0"	Formation			
		Type of Casing Screen			
		2" SCH 40 PVC			
Borehole Diameter	8"	I.D.	2.067"	O.D.	2.375"
		Joint Type	thd'd F.J.		
	1'0"	Impermeable Backfill			
		Bentonite Chips			
	1'0"	Backfill Material			
		#1 Silica Sand			
		Screen Packing			
		#1 Silica Sand			
Well Point Elevation	20'0"	Filter Fabric	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
	15'0"	If yes, Type			
		Screen Slot Size	.010		
Bottom of Boring Elevation	20'0"	Backfill Material			
	0'	Refusal	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	

Screen 15'

Riser 5'

Plug 1

Slip Cap

Silica Sand 450#

Powdered Bentonite

Bentonite Pellets

Bentonite Chips 1/2 bag

Concrete Mix 1 bag

Portland Cement 1/4 bag

Locking Exp. Plug 1

Lock

D/O 1

S/U



<b>SOILTESTING, INC.</b> 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: <b>Ecosystems Strategies Inc.</b>	SHEET <u>1</u> OF <u>1</u>
	PROJECT NO. <b>E6-9026-12</b>	HOLE NO. <b>MW-18</b>
	PROJECT NAME <b>Former Nu Hart Manufacturing</b>	BORING LOCATIONS per Plan
FOREMAN - DRILLER <b>TP/tb</b>	LOCATION <b>280 Franklin Street Brooklyn, New York</b>	
INSPECTOR <b>Richard</b>	TYPE SIZE I.D. HAMMER WT. HAMMER FALL	CASING HSA SAMPLER SS CORE BAR 4 1/4"    1 3/8" 140#    BIT 30"
GROUND WATER OBSERVATIONS AT <u>12</u> FT AFTER <u>0</u> HOURS AT <u>  </u> FT AFTER <u>  </u> HOURS		OFFSET DATE START                      2/15/12 DATE FINISH                      2/15/12 SURFACE ELEV. GROUND WATER ELEV.

DEPTH	CASING BLOWS PER FOOT	SAMPLE					BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6   6 - 12   12- 18			CORE TIME PER FT (MIN)	DENSITY OR CONSIST	STRATA CHANGE DEPTH	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
		NO	Type	PEN	REC	DEPTH @ BOT					MOIST	ELEV	
5		1	ss	18"	12"	2'0"		4			dry	1'0"	6.5" CONCRETE/drk brn blk FM SAND,sm ash,F gravel,lit concrete
							7	12			loose		brn FM SAND,sm silt,lit F gravel
		2	ss	24"	18"	4'0"	10	15			dry		lt brn F SAND
							8	16			compact		lit brn F SAND,tr silt
		3	ss	24"	12"	6'0"	7	8			dry		lt brn VF F SAND,tr M-C sand
10							8	9			loose		
		4	ss	24"	20"	8'0"	8	7			l moist	8'0"	lt brn F SAND,lit M sand,tr F gravel
							9	8			loose		lt brn FM SAND,lit C sand,tr silt,F gravel
		5	ss	24"	22"	10'0"	10	6			l moist		brn SILT,clay,sm VF sand (layers)
							9	10			stiff		
15		6	ss	24"	20"	12'0"	3	4			moist		
							6	9			stiff		
		7	ss	24"	20"	14'0"	9	9			moist		brn SILT,sm clay,lit (layers) VF sand
							12	14			stiff		
		8	ss	24"	20"	16'0"	12	17			moist/wet		
20							17	18			v stiff		
		9	ss	24"	20"	18'0"	12	18			moist/wet		brn SILT,sm lenses,VF sand
							23	24			v stiff		
												20'0"	
25													
30													
35													
40													

**NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.**

GROUND SURFACE TO _____ FT.	USED _____	CASING THEN _____	CASING TO _____ FT.	HOLE NO. <b>MW-18</b>
A = AUGER    UP = UNDISTURBED PISTON    T = THINWALL    V = VANE TEST WOR = WEIGHT OF RODS    WOH = WEIGHT OF HAMMER & RODS SS = SPLIT TUBE SAMPLER    H.S.A. = HOLLOW STEM AUGER PROPORTIONS USED: TRACE = 0 - 10%    LITTLE = 10 - 20%    SOME = 20 - 35%    AND = 35 - 50%				
			C = COARSE	
			M = MEDIUM	
			F = FINE	



Phone  
(203) 262-9328

Telefax  
(203) 264-3414

WHITE PLAINS, N.Y.  
(914) 946-4850

# SOILTESTING, INC.

90 DONOVAN ROAD - OXFORD, CONN. 06478-1028

GEOTECHNICAL / ENVIRONMENTAL SUBSURFACE INVESTIGATIONS - Test Borings - Core Drilling  
Monitoring Wells - Recovery Wells - Direct Push/Probe Sampling  
UNDERPINNING - HELICAL PILES - SOIL NAILS

CLIENT: Ecosystems Strategies

JOB #: E6-9026-12

Monitor Well # MW-18

Top of Casing Elevation	0'	Stick Up Vented Locking Steel Cap	Yes	<input checked="" type="checkbox"/>	No
		Drive/over w/Bolting Cover	<input checked="" type="checkbox"/>	Yes	No
		Protective Steel Casing	<input checked="" type="checkbox"/>	Yes	No
Ground Surface Elevation	0'	Mounded Backfill		Yes	<input checked="" type="checkbox"/> No
	0'	Concrete Collar	<input checked="" type="checkbox"/>	Yes	No
	12"	Backfill Material			
	3'0"	Formation			
Borehole Diameter	8"	Type of Casing Screen			
		2" SCH 40 PVC			
		I.D. 2.067" o.D. 2.375"			
		Joint Type			thd'd F.J.
	1'0"	Impermeable Backfill			
		Bentonite Chips			
	1'0"	Backfill Material			#1 Silica Sand
		Screen Packing			#1 Silica Sand
Well Point Elevation	20'0"	Filter Fabric		Yes	<input checked="" type="checkbox"/> No
	15'0"	If yes, Type			
		Screen Slot Size			.010
Bottom of Boring Elevation	20'0"	Backfill Material			N/A
	0'	Refusal		Yes	<input checked="" type="checkbox"/> No

Screen 15'  
Riser 5'  
Plug 1  
Slip Cap  
Silica Sand 450#  
Powdered Bentonite

Bentonite Pellets  
Bentonite Chips 1/2 bag  
Concrete Mix 1 bag  
Portland Cement 1/4 bag

Locking Exp. Plug 1  
Lock  
D/O 1  
SIU



<b>SOILTESTING, INC.</b> 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850		CLIENT: <b>Ecosystems Strategies Inc.</b>		SHEET <u>1</u> OF <u>1</u>	
		PROJECT NO. <b>E6-9026-12</b>		HOLE NO. <b>MW-19</b>	
PROJECT NAME <b>Former Nu Hart Manufacturing</b>		BORING LOCATIONS per Plan			
FOREMAN - DRILLER <b>TP/djd</b>		LOCATION <b>280 Franklin Street Brooklyn, New York</b>			
INSPECTOR		CASING	SAMPLER	CORE BAR	OFFSET
		TYPE	HSA	SS	DATE START 2/2/12
GROUND WATER OBSERVATIONS		SIZE I.D.	4 1/4"	1 3/8"	DATE FINISH 2/2/12
AT 10 FT AFTER 0 HOURS		HAMMER WT.		140#	SURFACE ELEV.
AT FT AFTER HOURS		HAMMER FALL		30"	GROUND WATER ELEV.

DEPTH	CASING BLOWS PER FOOT	SAMPLE				BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6 6 - 12 12 - 18	CORE TIME PER FT (MIN)	DENSITY OR CONSIST	STRATA CHANGE DEPTH	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.	
		NO	Type	PEN	REC			DEPTH @ BOT	MOIST		ELEV
5		1	ss	18"	11"	2'0"	9			7" CONCRETE/drk brn/brn F-C SAND & SILT,sm F gravel, lit bldg rubble,ash.concrete	
						10	9		1'0"		
		2	ss	24"	18"	4'0"	7	6		2'0"	brn/tan SILT & VF F SAND
						7	13		4'0"	brn FM SAND,sm silt	
		3	ss	24"	16"	6'0"	11	7			brn/lt gry SILT & VF SAND
10						8	8				
		4	ss	24"	18"	8'0"	6	7		brn/lt gry CLAY & SILT,tr VF sand	
						8	11				
		5	ss	24"	20"	10'0"	8	9		10'6"	SAME cobbles at 10' (strong odor) lt brn orng SILT,sm clay
		6	ss	24"	18"	12'0"	4	4		13'0"	gry SILT,lit VF sand (oily substance)
15						5	6			SAME	
		7	ss	24"	18"	14'0"	7	9			lt brn CLAYEY SILT,tr VF sand
						13	18				
		8	ss	24"	20"	16'0"	5	5			brn SILT,tr VF sand
						9	13				
20		9	ss	24"	19"	18'0"	10	11			gry CLAYEY SILT,lit to tr VF sand
						15	16				
		10	ss	24"	20"	20'0"	7	11		20'0"	
						21	31				
25										E.O.B. 20'0"	

**NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.**

GROUND SURFACE TO \_\_\_\_\_ FT. USED \_\_\_\_\_ CASING THEN \_\_\_\_\_ CASING TO \_\_\_\_\_ FT. **HOLE NO. MW-19**

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST  
 WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS C = COARSE  
 SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER M = MEDIUM  
 PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50% F = FINE



Phone  
(203) 262-9328

Telefax  
(203) 264-3414

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(914) 946-4850

# SOILTESTING, INC.

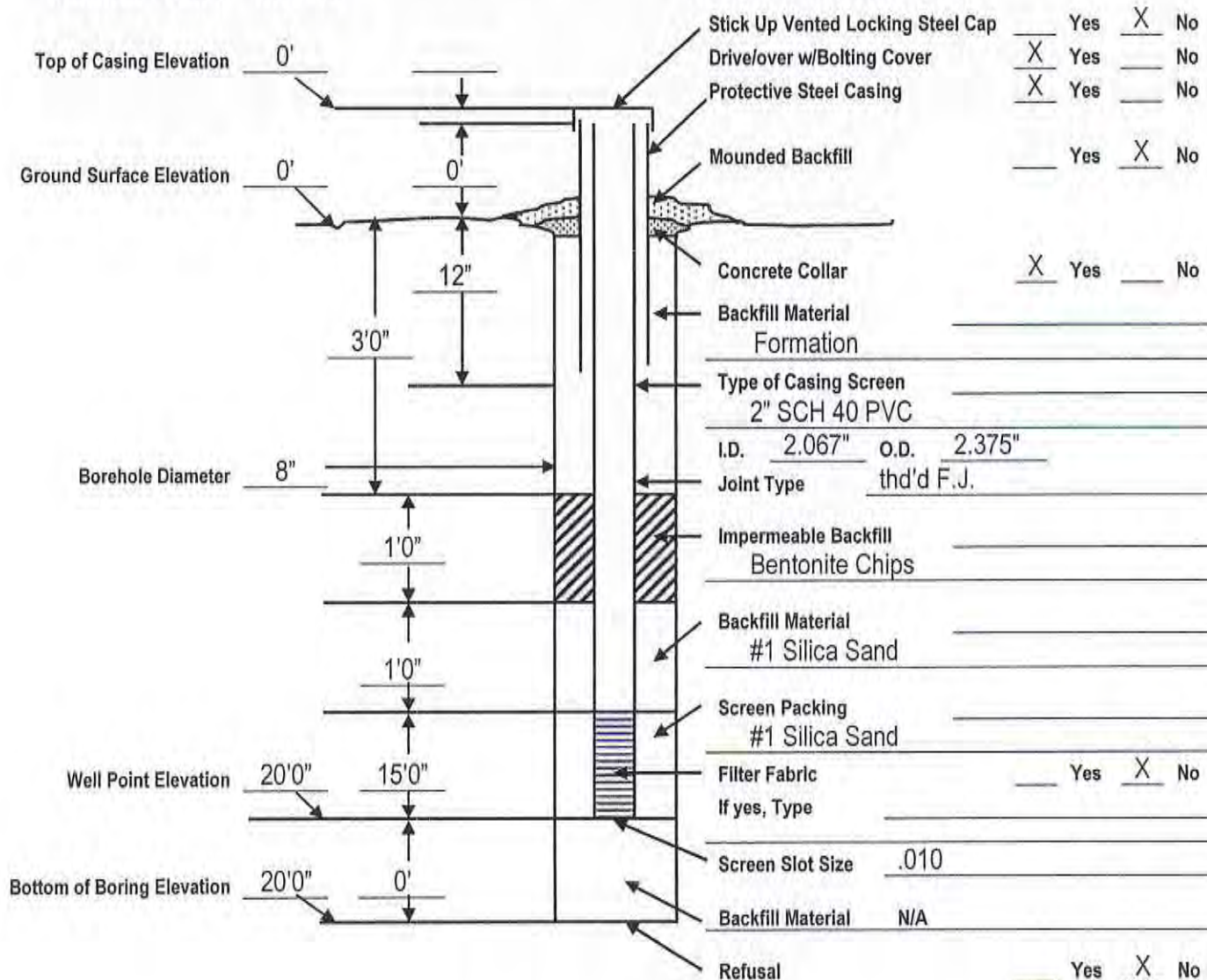
90 DONOVAN ROAD - OXFORD, CONN. 06478-1028

GEOTECHNICAL / ENVIRONMENTAL SUBSURFACE INVESTIGATIONS - Test Borings - Core Drilling  
Monitoring Wells - Recovery Wells - Direct Push/Probe Sampling  
UNDERPINNING - HELICAL FILES - SOIL NAILS

CLIENT: Ecosystems Strategies

JOB #: E6-9026-12

Monitor Well # MW-19



Screen 15'  
Riser 5'  
Plug 1

Slip Cap  
Silica Sand 550#

Powdered Bentonite \_\_\_\_\_

Bentonite Pellets \_\_\_\_\_  
Bentonite Chips 1/2 bag  
Concrete Mix 1 bag  
Portland Cement \_\_\_\_\_

Locking Exp. Plug 1  
Lock \_\_\_\_\_  
D/O 1  
S/U \_\_\_\_\_



<b>SOILTESTING, INC.</b> 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: <b>Ecosystems Strategies Inc.</b>		SHEET <u>1</u> OF <u>1</u> HOLE NO. <b>MW-20</b>	
	PROJECT NO. <b>E6-9026-12</b>			
	PROJECT NAME <b>Former Nu Hart Manufacturing</b>		BORING LOCATIONS per Plan	
FOREMAN - DRILLER <b>TP/tb</b>	LOCATION <b>280 Franklin Street          Brooklyn, New York</b>			
INSPECTOR <b>Richard</b>	TYPE HSA	CASING HSA	SAMPLER SS	CORE BAR BIT
GROUND WATER OBSERVATIONS AT <u>12</u> FT AFTER <u>0</u> HOURS AT <u>  </u> FT AFTER <u>  </u> HOURS	SIZE I.D. 4 1/4"	HAMMER WT. 140#		HAMMER FALL 30"
		OFFSET DATE START 2/16/12 DATE FINISH 2/16/12 SURFACE ELEV. GROUND WATER ELEV.		

DEPTH	CASING BLOWS PER FOOT	SAMPLE					BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6 6 - 12 12- 18		CORE TIME PER FT (MIN)	DENSITY OR CONSIST  MOIST	STRATA CHANGE DEPTH  ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
		NO	Type	PEN	REC	DEPTH @ BOT						
5		1	ss	24"	14"	2'0"	4	4		dry		4" CONCRETE brn VF F SAND,lit silt brn VF SAND & SILT  tan VF F SAND,lit M-C sand,tr F gravel  lt brn F-M SAND,sm C sand,lit F gravel
		2	ss	24"	8"	4'0"	3	4		v loose		
							4	8		dry		
							9	12		loose		
		3	ss	24"	17"	6'0"	6	6		dry		
10							6	5		loose		
		4	ss	24"	18"	8'0"	6	4		dry		
							6	5		loose		
		5	ss	24"	16"	10'0"	8	6		moist		
							5	10		loose		
15		6	ss	24"	12"	12'0"	6	12		wet		gry FMC SAND,lit F gravel (fuel odor) SAME brn VF FM SAND,tr silt (strong fuel odor)
							8	8		compact		
		7	ss	24"	18"	14'0"	9	12		wet		
							13	15		compact		
20												
25												E.O.B. 20'0"
30												
35												
40												

**NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.**

GROUND SURFACE TO _____ FT.	USED _____ CASING	THEN _____ CASING TO _____ FT.	HOLE NO. <b>MW-20</b>
A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50%			
		C = COARSE M = MEDIUM F = FINE	



Phone  
(203) 262-9328

Telefax  
(203) 264-3414

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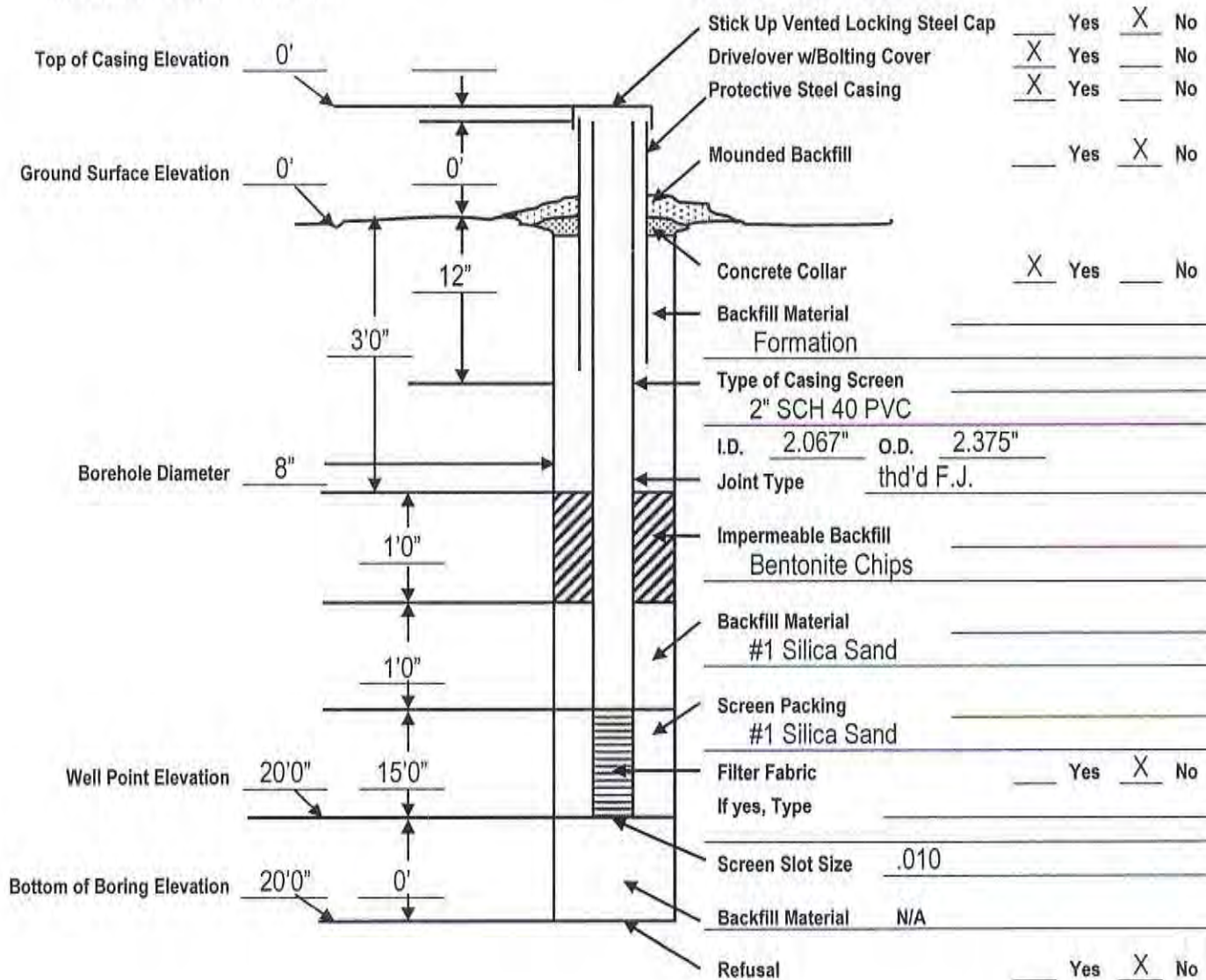
90 DONOVAN ROAD - OXFORD, CONN. 06478-1028

GEOTECHNICAL / ENVIRONMENTAL SUBSURFACE INVESTIGATIONS - Test Borings - Core Drilling  
Monitoring Wells - Recovery Wells - Direct Push/Probe Sampling  
UNDERPINNING - HELICAL PILES - SOIL NAILS

CLIENT: Ecosystems Strategies

JOB #: E6-9026-12

Monitor Well # MW-20



Screen 15'

Riser 5'

Plug 1

Slip Cap \_\_\_\_\_

Silica Sand 500#

Powdered Bentonite \_\_\_\_\_

Bentonite Pellets \_\_\_\_\_

Bentonite Chips 1/2 bag

Concrete Mix 1 1/2 bags

Portland Cement \_\_\_\_\_

Locking Exp. Plug 1

Lock \_\_\_\_\_

D/O 1

S/U \_\_\_\_\_



<b>SOILTESTING, INC.</b> 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: <b>Ecosystems Strategies Inc.</b>		SHEET <u>1</u> OF <u>1</u> HOLE NO. <b>MW-21</b>	
	PROJECT NO. <b>E6-9026-12</b>			
	PROJECT NAME <b>Former Nu Hart Manufacturing</b>		BORING LOCATIONS per Plan	
FOREMAN - DRILLER <b>TP/tb</b>	LOCATION <b>280 Franklin Street          Brooklyn, New York</b>			
INSPECTOR <b>Richard</b>	TYPE HSA	CASING HSA	SAMPLER SS	CORE BAR BIT
GROUND WATER OBSERVATIONS AT <u>13</u> FT AFTER <u>0</u> HOURS AT <u>  </u> FT AFTER <u>  </u> HOURS	SIZE I.D. 4 1/4"	1 3/8"		DATE START 2/10/12
	HAMMER WT. 140#		DATE FINISH 2/13/12	
	HAMMER FALL 30"		SURFACE ELEV. 2/13/12	
			GROUND WATER ELEV.	

DEPTH	CASING BLOWS PER FOOT	SAMPLE					BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6 6 - 12 12 - 18			CORE TIME PER FT (MIN)	DENSITY OR CONSIST	STRATA CHANGE DEPTH	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
		NO	Type	PEN	REC	DEPTH @ BOT							
5		1	ss	24"	13"	2'0"	3	6			dry		4" CONCRETE
							17	18			compact		brn FM SAND, sm F gravel, lit ash, blk carbon, tr wood
		2	ss	24"	9"	4'0"	17	18			dry		brn F SAND, sm M sand, lit F gravel
							16	15			compact	4'0"	
		3	ss	24"	14"	6'0"	6	4			l moist		brn SILT, lit VF sand
10							10	17			stiff		
		4	ss	24"	0"	8'0"	22	13			moist		no recovery - push F gravel, tr cobbles
							19	17			moist		
		5	ss	24"	17"	10'0"	18	8			v stiff	9'0"	rusty brn FM SAND, lit silt, C sand
							7	12			moist		
15											stiff		
		6	ss	24"	18"	12'0"	4	5			moist/wet		brn gry SILT, lit VF sand
							7	8			stiff		gry SILT, lit clay, VF-F sand
		7	ss	24"	16"	14'0"	9	9			moist/wet		gry brn SILT, sm clay, lit FM sand
							10	10			stiff		
20													gry brn SILT, lit clay, VF sand (strong product odor)
												20'0"	
25													
30													
35													
40													

**NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.**

GROUND SURFACE TO \_\_\_\_\_ FT. USED \_\_\_\_\_ CASING THEN \_\_\_\_\_ CASING TO \_\_\_\_\_ FT. **HOLE NO. MW-21**

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST  
 WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS C = COARSE  
 SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER M = MEDIUM  
 PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50% F = FINE



Phone  
(203) 262-9328

Telefax  
(203) 264-3414

WHITE PLAINS, N.Y.  
(914) 946-4850

# SOILTESTING, INC.

90 DONOVAN ROAD - OXFORD, CONN. 06478-1028

GEOTECHNICAL / ENVIRONMENTAL SUBSURFACE INVESTIGATIONS - Test Borings - Core Drilling  
Monitoring Wells - Recovery Wells - Direct Push/Probe Sampling  
UNDERPINNING - HELICAL PILES - SOIL NAILS

CLIENT: Ecosystems Strategies

JOB #: E6-9026-12

Monitor Well # MW-21

Top of Casing Elevation	0'	Stick Up Vented Locking Steel Cap	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
		Drive/over w/Bolting Cover	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
		Protective Steel Casing	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Ground Surface Elevation	0'	Mounded Backfill	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	0'	Concrete Collar	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
	12"	Backfill Material		
	3'0"	Formation		
Borehole Diameter	8"	Type of Casing Screen		
		2" SCH 40 PVC		
		I.D. 2.067" O.D. 2.375"		
		Joint Type	thd'd F.J.	
	1'0"	Impermeable Backfill		
		Bentonite Chips		
	1'0"	Backfill Material		
		#1 Silica Sand		
		Screen Packing		
		#1 Silica Sand		
Well Point Elevation	20'0"	Filter Fabric	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	15'0"	If yes, Type		
Bottom of Boring Elevation	20'0"	Screen Slot Size	.010	
	0'	Backfill Material	N/A	
		Refusal	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Screen 15'  
Riser 5'  
Plug 1

Slip Cap  
Silica Sand 550#

Powdered Bentonite

Bentonite Pellets  
Bentonite Chips 1/2 bag  
Concrete Mix 1 bag  
Portland Cement

Locking Exp. Plug 1  
Lock  
D/O 1  
S/U



<b>SOILTESTING, INC.</b> 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850		CLIENT: <b>Ecosystems Strategies Inc.</b>		SHEET <u>1</u> OF <u>1</u>							
		PROJECT NO. <b>E6-9026-12</b>		HOLE NO. <b>MW-22, MW-22A</b>							
FOREMAN - DRILLER <b>TP/tb</b>		PROJECT NAME <b>Former Nu Hart Manufacturing</b>		BORING LOCATIONS per Plan							
		LOCATION <b>280 Franklin Street Brooklyn, New York</b>									
INSPECTOR		CASING	SAMPLER	CORE BAR	OFFSET						
GROUND WATER OBSERVATIONS AT <u>12</u> FT AFTER <u>0</u> HOURS AT <u>  </u> FT AFTER <u>  </u> HOURS		TYPE	HSA	SS	DATE START 2/10/12						
		SIZE I.D.	4 1/4"	1 3/8"	DATE FINISH 2/10/12						
		HAMMER WT.		140#	BIT	SURFACE ELEV.					
		HAMMER FALL		30"		GROUND WATER ELEV.					
DEPTH	CASING BLOWS PER FOOT	SAMPLE					BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6 6 - 12 12- 18	CORE TIME PER FT (MIN)	DENSITY OR CONSIST	STRATA CHANGE DEPTH	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
		NO	Type	PEN	REC	DEPTH @ BOT					
5		1	ss	18"	8"	2'0"	6		dry		6" CONCRETE red brn FM SAND, sm C sand, lit F gravel, tr brick, concrete, ash brn FMC SAND, lit F gravel, trick, concrete (fill)  SAME  Auger refusal
		2	ss	24"	4"	4'0"	5	6	loose		
						6	7	dry			
		3	ss	19"	3"	5'7"	5	6	loose		
10						10	50/1"				7'0"
GROUND WATER OBSERVATIONS AT <u>12</u> FT AFTER <u>0</u> HOURS AT <u>  </u> FT AFTER <u>  </u> HOURS											E.O.B. 7'0"
0											MW-22A Offset 2'
5											5'0"
10		1	ss	24"	11"	10'0"	10	11	dry/moist		brn FM SAND  brn FM SAND, sm F gravel, lit C sand, tr silt  brn FM SAND, lit C sand (odor)  gry FMC SAND, lit F gravel (fuel odor)
									compact		
		2	ss	24"	18"	12'0"	9	10	wet		
									compact		
15							13	9	wet		20'0"
		3	ss	24"	18"	14'0"	12	9	loose		
							7	6			
20											E.O.B. 20'0" / Set well
25											
<b>NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.</b>											
GROUND SURFACE TO <u>      </u> FT. USED <u>      </u> CASING THEN <u>      </u> CASING TO <u>      </u> FT.											HOLE NO. MW-22, MW-22A
A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS C = COARSE SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER M = MEDIUM PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50% F = FINE											



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# SOILTESTING, INC.

90 DONOVAN ROAD - OXFORD, CONN. 06478-1028

GEOTECHNICAL / ENVIRONMENTAL SUBSURFACE INVESTIGATIONS - Test Borings - Core Drilling  
Monitoring Wells - Recovery Wells - Direct Push/Probe Sampling  
UNDERPINNING - HELICAL PILES - SOIL NAILS

Monitor Well # MW-22A

CLIENT: Ecosystems Strategies

JOB #: E6-9026-12

Top of Casing Elevation	0'	Stick Up Vented Locking Steel Cap	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
		Drive/over w/Bolting Cover	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
		Protective Steel Casing	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Ground Surface Elevation	0'	Mounded Backfill	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	0'	Concrete Collar	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
	12"	Backfill Material		
	3'0"	Formation		
Borehole Diameter	8"	Type of Casing Screen		
		2" SCH 40 PVC		
	1'0"	I.D. 2.067" o.D. 2.375"		
		Joint Type	thd'd F.J.	
	1'0"	Impermeable Backfill		
		Bentonite Chips		
	1'0"	Backfill Material		
		#1 Silica Sand		
	15'0"	Screen Packing		
		#1 Silica Sand		
Well Point Elevation	20'0"	Filter Fabric	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
		If yes, Type		
	20'0"	Screen Slot Size	.010	
Bottom of Boring Elevation	0'	Backfill Material	N/A	
		Refusal	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Screen 15'

Riser 5'

Plug 1

Slip Cap

Silica Sand 550#

Powdered Bentonite

Bentonite Pellets

Bentonite Chips 1/2 bag

Concrete Mix 1 1/2 bags

Portland Cement 1/4 bag

Locking Exp. Plug 1

Lock

D/O 1

S/U



<b>SOILTESTING, INC.</b> 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850							CLIENT: <b>Ecosystems Strategies Inc.</b>							SHEET <u>1</u> OF <u>1</u> HOLE NO. MW-23		
							PROJECT NO. <b>E23-9127-12</b>									
							PROJECT NAME <b>280 Franklin Street</b>							BORING LOCATIONS per Plan		
FOREMAN - DRILLER <b>PD/pe</b>							LOCATION <b>Brooklyn, New York</b>									
INSPECTOR							TYPE CASING HSA SAMPLER SS CORE BAR							OFFSET		
GROUND WATER OBSERVATIONS							SIZE I.D. 4 1/4" 1 3/8"							DATE START 7/28/12		
AT 10'6" FT AFTER 0 HOURS							HAMMER WT. 140# BIT							DATE FINISH 7/28/12		
AT ___ FT AFTER ___ HOURS							HAMMER FALL 30"							SURFACE ELEV.		
														GROUND WATER ELEV.		
DEPTH	CASING BLOWS PER FOOT	SAMPLE					BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE)			CORE TIME PER FT (MIN)	DENSITY OR CONSIST	STRATA CHANGE DEPTH	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.			
		NO	Type	PEN	REC	DEPTH @ BOT	0 - 6	6 - 12	12 - 18		MOIST	ELEV				
5		1	ss	18"	10"	2'0"		2			dry/moist loose	0'4"	CONCRETE			
							2	9					brn FM SAND,SILT,F-C GRAVEL,lit cobbles,brick			
		2	ss	24"	12"	4'0"		7								
							6	6								
		3	ss	24"	16"	6'0"		3				5'0"				
10							2	2			dry/moist compact					
		4	ss	24"	16"	8'0"		3			loose		lt brn VF FM SAND			
							3	2								
		5	ss	24"	10"	10'0"		2			moist		lt brn VF FM SAND			
							2	1			loose					
15											wet/v mst		brn gry brn FM SAND			
		6	ss	24"	18"	12'0"		1			v loose					
							1	1								
		7	ss	24"	18"	14'0"		1			wet/v mst					
							2	2			v loose					
20													SAME			
25																
30																
35																
40																

**NOTE:** Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.

GROUND SURFACE

Phone  
(203) 262-9328

Telefax  
(203) 264-3414

WHITE PLAINS, N.Y.  
(914) 946-4850



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90 DONOVAN ROAD - OXFORD, CONN. 06478-1028

GEOTECHNICAL / ENVIRONMENTAL SUBSURFACE INVESTIGATIONS - Test Borings - Core Drilling  
Monitoring Wells - Recovery Wells - Direct Push/Probe Sampling  
UNDERPINNING - HELICAL PILES - SOIL NAILS

CLIENT: Ecosystems Strategies Inc.

JOB #: E23-9127-12

Monitor Well # MW-23

Top of Casing Elevation	0'	Stick Up Vented Locking Steel Cap	Yes	No
		Drive/over w/Bolting Cover	<input checked="" type="checkbox"/> Yes	No
		Protective Steel Casing	<input checked="" type="checkbox"/> Yes	No
Ground Surface Elevation	0'	Mounded Backfill	Yes	<input checked="" type="checkbox"/> No
	0'	Concrete Collar	<input checked="" type="checkbox"/> Yes	No
	1'0"	Backfill Material		
	4'0"	Formation		
Borehole Diameter	8"	Type of Casing Screen		
		2" SCH 40 PVC		
		I.D. 2.067" O.D. 2.375"		
		Joint Type	thd'd F.J.	
	2'0"	Impermeable Backfill		
		Bentonite Chips		
	2'0"	Backfill Material		
		#1 Silica Sand		
	2'0"	Screen Packing		
		#1 Silica Sand		
Well Point Elevation	18'0"	Filter Fabric	Yes	<input checked="" type="checkbox"/> No
	10'0"	If yes, Type		
		Screen Slot Size	.010	
Bottom of Boring Elevation	20'0"	Backfill Material		
	20'0"	Refusal	Yes	<input checked="" type="checkbox"/> No

Screen 10'  
Riser 10'  
Plug 1  
Slip Cap  
Silica Sand 400#  
Powdered Bentonite

Bentonite Pellets  
Bentonite Chips 2/3 bag  
Concrete Mix 1 1/3 bags  
Portland Cement

Locking Exp. Plug 1  
Lock  
D/O 6"  
S/U





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GEOTECHNICAL / ENVIRONMENTAL SUBSURFACE INVESTIGATIONS - Test Borings - Core Drilling  
Monitoring Wells - Recovery Wells - Direct Push/Probe Sampling  
UNDERPINNING - HELICAL PILES - SOIL NAILS

CLIENT: Ecosystems Strategies Inc.

JOB #: E23-9127-12

Monitor Well # MW-24

Top of Casing Elevation	0'	Stick Up Vented Locking Steel Cap	<input type="checkbox"/> Yes	<input type="checkbox"/> No
		Drive/over w/Bolting Cover	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
		Protective Steel Casing	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Ground Surface Elevation	0'	Mounded Backfill	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	0'	Concrete Collar	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
	1'0"	Backfill Material		
	4'0"	Formation		
Borehole Diameter	8"	Type of Casing Screen		
		2" SCH 40 PVC		
		I.D. 2.067" o.d. 2.375"		
		Joint Type		thd'd F.J.
	2'0"	Impermeable Backfill		
		Bentonite Chips		
	2'0"	Backfill Material		
		#1 Silica Sand		
	2'0"	Screen Packing		
		#1 Silica Sand		
Well Point Elevation	18'0"	Filter Fabric	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	10'0"	If yes, Type		
Bottom of Boring Elevation	20'0"	Screen Slot Size		.010
	20'0"	Backfill Material		
		Refusal	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Screen 10'  
Riser 10'  
Plug 1  
Slip Cap  
Silica Sand 400#  
Powdered Bentonite

Bentonite Pellets  
Bentonite Chips 2/3 bag  
Concrete Mix 1 1/3 bags  
Portland Cement

Locking Exp. Plug 1  
Lock  
D/O 6"  
S/U



<b>SOILTESTING, INC.</b> 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: <b>Ecosystems Strategies Inc.</b>			SHEET <u>1</u> OF <u>1</u> HOLE NO. <b>MW-25</b>	
	PROJECT NO. <b>E23-9127-12</b>			BORING LOCATIONS per Plan	
	PROJECT NAME <b>280 Franklin Street</b>				
FOREMAN - DRILLER <b>PD/pe</b>	LOCATION <b>Brooklyn, New York</b>			OFFSET DATE START <b>7/28/12</b> DATE FINISH <b>7/28/12</b> SURFACE ELEV. GROUND WATER ELEV.	
INSPECTOR	TYPE SIZE I.D. HAMMER WT. HAMMER FALL	CASING <b>HSA</b> <b>4 1/4"</b>	SAMPLER <b>SS</b> <b>1 3/8"</b> <b>140#</b>		
GROUND WATER OBSERVATIONS AT <u>11'0"</u> FT AFTER <u>0</u> HOURS AT <u>  </u> FT AFTER <u>  </u> HOURS					

DEPTH	CASING BLOWS PER FOOT	SAMPLE					BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6 6 - 12 12- 18			CORE TIME PER FT (MIN)	DENSITY OR CONSIST	STRATA CHANGE DEPTH	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
		NO	Type	PEN	REC	DEPTH @ BOT							
		MOIST	ELEV										
5		1	ss	18"	10"	2'0"		12			moist	0'6"	CONCRETE
							6	3			compact		brn drk brn SILT,FMC SAND,F-C GRAVEL,lit brick frags, cobbles
		2	ss	24"	12"	4'0"		4	3		moist		
							3	4			loose		
		3	ss	24"	14"	6'0"	2	3			moist		
							2	2			loose		
		4	ss	24"	12"	8'0"	3	4			moist		brn SILT,sm FM sand
						4	5			loose			
10		5	ss	24"	20"	10'0"	4	5			v moist	9'0"	
							6	10			compact		drk gry VF F SAND & SILT
		6	ss	24"	22"	12'0"	3	4			wet	10'6"	gry gry brn VF F SAND & SILT
							3	3			loose		gry brn FMC SAND,lit F gravel
		7	ss	24"	19"	14'0"	2	3			wet		
15							3	3			loose		
20												20'0"	
													E.O.B. 20'0"
25													
30													
35													
40													

**NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.**

GROUND SURFACE TO <u>      </u> FT. USED <u>      </u> CASING THEN <u>      </u> CASING TO <u>      </u> FT.		<b>HOLE NO. MW-25</b>
A = AUGER    UP = UNDISTURBED PISTON    T = THINWALL    V = VANE TEST WOR = WEIGHT OF RODS    WOH = WEIGHT OF HAMMER & RODS    C = COARSE SS = SPLIT TUBE SAMPLER    H.S.A. = HOLLOW STEM AUGER    M = MEDIUM PROPORTIONS USED: TRACE = 0 - 10%    LITTLE = 10 - 20%    SOME = 20 - 35%    AND = 35 - 50%    F = FINE		

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# SOILTESTING, INC.

90 DONOVAN ROAD - OXFORD, CONN. 06478-1028

GEOTECHNICAL / ENVIRONMENTAL SUBSURFACE INVESTIGATIONS - Test Borings - Core Drilling  
Monitoring Wells - Recovery Wells - Direct Push/Probe Sampling  
UNDERPINNING - HELICAL PILES - SOIL NAILS

CLIENT: Ecosystems Strategies Inc.

JOB #: E23-9127-12

Monitor Well # MW-25

Top of Casing Elevation	0'	Stick Up Vented Locking Steel Cap	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Drive/over w/Bolting Cover	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Protective Steel Casing	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Ground Surface Elevation	0'	Mounded Backfill	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	0'	Concrete Collar	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	1'0"	Backfill Material	
	4'0"	Formation	
		Type of Casing Screen	
		2" SCH 40 PVC	
Borehole Diameter	8"	I.D. 2.067" o.D. 2.375"	
		Joint Type	thd'd F.J.
	2'0"	Impermeable Backfill	
		Bentonite Chips	
	2'0"	Backfill Material	
		#1 Silica Sand	
	2'0"	Screen Packing	
		#1 Silica Sand	
Well Point Elevation	18'0"	Filter Fabric	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	10'0"	If yes, Type	
		Screen Slot Size	.010
Bottom of Boring Elevation	20'0"	Backfill Material	
	20'0"	Refusal	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Screen 10'  
Riser 10'  
Plug 1  
Slip Cap  
Silica Sand 400#  
Powdered Bentonite

Bentonite Pellets  
Bentonite Chips 2/3 bag  
Concrete Mix 1 1/3 bags  
Portland Cement

Locking Exp. Plug 1  
Lock  
D/O 6"  
S/U



<b>SOILTESTING, INC.</b> 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: <b>Ecosystems Strategies</b>	SHEET <u>1</u> OF <u>1</u>
	PROJECT NO. <b>E46-9205-12</b>	HOLE NO. <b>M-26</b>
	PROJECT NAME <b>Dupont Street</b>	BORING LOCATIONS per Plan
FOREMAN - DRILLER <b>PD/Joe</b>	LOCATION <b>Brooklyn, New York</b>	
INSPECTOR	TYPE SIZE I.D. HAMMER WT. HAMMER FALL	CASING HSA SAMPLER SS CORE BAR 1 3/8" 140# BIT 30"
GROUND WATER OBSERVATIONS AT <u>10'6"</u> FT AFTER <u>0</u> HOURS AT <u>  </u> FT AFTER <u>  </u> HOURS		OFFSET DATE START <b>9/24/12</b> DATE FINISH <b>9/24/12</b> SURFACE ELEV. GROUND WATER ELEV.

DEPTH	CASING BLOWS PER FOOT	SAMPLE					BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6 6 - 12 12- 18	CORE TIME PER FT (MIN)	DENSITY OR CONSIST	STRATA CHANGE DEPTH	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
		NO	Type	PEN	REC	DEPTH @ BOT					
									MOIST	ELEV	
5									wet compact wet dense	0'8"	CONCRETE
										1'6"	Process stone cobbles,asphalt,brick frags Brn FM SAND, SILT, F-C GRAVEL
								red brn lt brn SILT, FMC SAND, F-C GRAVEL,lt cobbles			
										10'0"	
		1	ss	24"	10"	12'0"	4	5			
							6	9			
		2	ss	24"	10"	14'0"	9	15			brn lt brn FMC SAND,lt silt,F-C gravel
							29	34			
		3	ss	24"	18"	16'0"	15	18			
						17	19				
10										20'0"	
20											E.O.B. 20'0"
25											
30											(A hole / Concrete @ 1'6" obstruction 8" sidewalk)
35											
40											

**NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.**

GROUND SURFACE TO _____ FT.	USED _____ CASING	THEN _____ CASING TO _____ FT.	<b>HOLE NO. M-26</b>
-----------------------------	-------------------	--------------------------------	----------------------

A = AUGER    UP = UNDISTURBED PISTON    T = THINWALL    V = VANE TEST  
 WOR = WEIGHT OF RODS    WOH = WEIGHT OF HAMMER & RODS    C = COARSE  
 SS = SPLIT TUBE SAMPLER    H.S.A. = HOLLOW STEM AUGER    M = MEDIUM  
 PROPORTIONS USED: TRACE = 0 - 10%    LITTLE = 10 - 20%    SOME = 20 - 35%    AND = 35 - 50%    F = FINE

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GEOTECHNICAL / ENVIRONMENTAL SUBSURFACE INVESTIGATIONS - Test Borings - Core Drilling  
Monitoring Wells - Recovery Wells - Direct Push/Probe Sampling  
UNDERPINNING - HELICAL PILES - SOIL NAILS

Monitor Well # MW 26

CLIENT: Ecosystems Strategies

JOB #: E46-9205-12

Top of Casing Elevation	0'	Stick Up Vented Locking Steel Cap	<input type="checkbox"/> Yes	<input type="checkbox"/> No
		Drive/over w/Bolting Cover	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
		Protective Steel Casing	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Ground Surface Elevation	0'	Mounded Backfill	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	0'	Concrete Collar	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
	1'0"	Backfill Material		
	6'0"	Formation		
Borehole Diameter	8"	Type of Casing Screen		
		2" SCH 40 PVC		
		I.D. 2.067" o.D. 2.375"		
		Joint Type	thd'd F.J.	
	2'0"	Impermeable Backfill		
		Bentonite Chips		
	2'0"	Backfill Material		
		#1 Silica Sand		
	2'0"	Screen Packing		
		#1 Silica Sand		
Well Point Elevation	20'0"	Filter Fabric	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	10'0"	If yes, Type		
		Screen Slot Size	.010	
Bottom of Boring Elevation	20'0"	Backfill Material	N/A	
	0'	Refusal	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Screen 10'  
Riser 10'  
Plug 1  
Slip Cap  
Silica Sand 400#  
Powdered Bentonite

Bentonite Pellets  
Bentonite Chips 1/2  
Concrete Mix 1  
Portland Cement

Locking Exp. Plug 1  
Lock  
D/O 6"  
S/U



<b>SOILTESTING, INC.</b> 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850		CLIENT: <b>Ecosystems Strategies</b>				SHEET <u>1</u> OF <u>1</u>				
		PROJECT NO. <b>E46-9205-12</b>				HOLE NO. <b>MW-27</b>				
		PROJECT NAME <b>Dupont Street</b>				BORING LOCATIONS per Plan				
FOREMAN - DRILLER <b>PD/Joe</b>		LOCATION <b>Brooklyn, New York</b>								
INSPECTOR		CASING    SAMPLER    CORE BAR TYPE        HSA        SS SIZE I.D.    4 1/4"    1 3/8" HAMMER WT.        140#    BIT HAMMER FALL        30"				OFFSET DATE START        9/24/12 DATE FINISH        9/24/12 SURFACE ELEV. GROUND WATER ELEV.				
GROUND WATER OBSERVATIONS AT <u>12</u> FT AFTER <u>0</u> HOURS AT <u>  </u> FT AFTER <u>  </u> HOURS										
DEPTH	CASING BLOWS PER FOOT	SAMPLE				BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6 6 - 12 12 - 18	CORE TIME PER FT (MIN)	DENSITY OR CONSIST  MOIST	STRATA CHANGE DEPTH  ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
		NO	Type	PEN	REC					
5								v moist compact wet compact wet compact	0'6"	CONCRETE  brn org brn SILT,FMC SAND,lit F-C gravel  brn org brn FMC SAND, F-C GRAVEL,sm silt,lit cobble  lt brn brn VF FMC SAND,lit silt  SAME
10									20'0"	E.O.B. 20'0"          (A hole 6" Concrete core [10"] refusal 4' obstruction)
15										
20										
25										
30										
35										
	40									

**NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.**

GROUND SURFACE TO \_\_\_\_\_ FT. USED \_\_\_\_\_ CASING THEN \_\_\_\_\_ CASING TO \_\_\_\_\_ FT. **HOLE NO. MW-27**

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST

WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS C = COARSE

SS = SPLIT TUBE SAMPLER H.S.A

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Telefax  
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Monitoring Wells - Recovery Wells - Direct Push/Probe Sampling  
UNDERPINNING - HELICAL PILES - SOIL NAILS

CLIENT: Ecosystems Strategies

JOB #: E46-9205-12

Monitor Well # MW 27

Top of Casing Elevation	0'	Stick Up Vented Locking Steel Cap	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Drive/over w/Bolting Cover	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Protective Steel Casing	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Ground Surface Elevation	0'	Mounded Backfill	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	0'	Concrete Collar	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	1'0"	Backfill Material	
	6'0"	Formation	
		Type of Casing Screen	
		2" SCH 40 PVC	
Borehole Diameter	8"	I.D. 2.067" O.D. 2.375"	
		Joint Type	thd'd F.J.
	2'0"	Impermeable Backfill	
		Bentonite Chips	
	2'0"	Backfill Material	
		#1 Silica Sand	
	2'0"	Screen Packing	
		#1 Silica Sand	
Well Point Elevation	20'0"	Filter Fabric	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	10'0"	If yes, Type	
		Screen Slot Size	.010
Bottom of Boring Elevation	20'0"	Backfill Material	N/A
	0'	Refusal	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Screen 10'  
Riser 10'  
Plug 1  
Slip Cap  
Silica Sand 400#  
Powdered Bentonite

Bentonite Pellets  
Bentonite Chips 1/2  
Concrete Mix 1  
Portland Cement

Locking Exp. Plug 1  
Lock  
D/O 6"  
S/U



<b>SOILTESTING, INC.</b> 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: <b>Ecosystems Strategies</b>		SHEET <u>1</u> OF <u>1</u>	
	PROJECT NO. <b>E1-9289-13</b>		HOLE NO. <b>B-28</b>	
	PROJECT NAME <b>Dupont &amp; Franklin Streets</b>		BORING LOCATIONS per Plan	
FOREMAN - DRILLER <b>PD/jm</b>	LOCATION <b>Brooklyn, New York</b>			
INSPECTOR	TYPE	CASING <b>HSA</b>	SAMPLER <b>SS</b>	CORE BAR
GROUND WATER OBSERVATIONS	SIZE I.D.	4 1/4"		1 3/8"
AT <u>11</u> FT AFTER <u>0</u> HOURS	HAMMER WT.	140#		BIT
AT <u>  </u> FT AFTER <u>  </u> HOURS	HAMMER FALL	30"		
		OFFSET		
		DATE START		1/15/13
		DATE FINISH		1/15/13
		SURFACE ELEV.		
		GROUND WATER ELEV.		

DEPTH	CASING BLOWS PER FOOT	SAMPLE					BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6   6 - 12   12- 18			CORE TIME PER FT (MIN)	DENSITY OR CONSIST	STRATA CHANGE DEPTH	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
		NO	Type	PEN	REC	DEPTH @ BOT							
											MOIST	ELEV	
5										moist dense	0'8"	5" CONCRETE / 3" GRAVEL	
											brn FMC SAND,lit F gravel		
	1	ss	24"	18"	7'0"	12	14				lt brn FM SAND,tr C sand		
						18	22				lt brn MC SAND,tr F sand		
10										moist dense			
	2	ss	24"	12"	12'0"	13	19				brn VF F SAND & SILT,lit MC sand,tr F gravel		
						18	21						
15										wet compact			
	3	ss	24"	12"	17'0"	3	5				brn VF F SAND,sm silt,tr M sand		
						7	9						
20										20'0"			
											E.O.B. 20'0"		

**NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.**

GROUND SURFACE TO        FT. USED        CASING THEN        CASING TO        FT. **HOLE NO. B-28**

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST

WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS C = COARSE

SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER M = MEDIUM

PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50% F = FINE

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Monitoring Wells - Recovery Wells - Direct Push/Probe Sampling  
UNDERPINNING - HELICAL PILES - SOIL NAILS

CLIENT: Ecosystems Strategies

Proposed Injection Well # MW-28

JOB #: E1-9289-13

Top of Casing Elevation	0'	Stick Up Vented Locking Steel Cap	Yes	<input checked="" type="checkbox"/>	No
Existing Ground Surface Elevation	0'	Drive/over w/Bolting Cover	<input checked="" type="checkbox"/>	Yes	No
	0'	Mounded Backfill	Yes	<input checked="" type="checkbox"/>	No
Water table level estimated at 1' below existing ground surface	6'0"	Concrete Collar	<input checked="" type="checkbox"/>	Yes	No
	2'0"	Backfill Material	Formation		
Borehole Diameter	8"	Type of Casing Screen	2" SCH 80 PVC		
	2'0"	I.D.	2.067"	O.D.	2.375"
	2'0"	Joint Type	thd'd F.J.		
	2'0"	Impermeable Backfill	Bentonite Chips		
Well Point Elevation	20'0"	Backfill Material	#2 Silica Sand		
	10'0"	Screen Packing	#2 Silica Sand		
	0'	Filter Fabric	Yes	<input checked="" type="checkbox"/>	No
Bottom of Boring Elevation	20'0"	If yes, Type			
		Screen Slot Size	.010		
		Backfill Material	N/A		
		Refusal	Yes	<input checked="" type="checkbox"/>	No

Screen 10'  
Riser 10'  
Plug 1  
Slip Cap  
Silica Sand 400#  
Powdered Bentonite

Bentonite Pellets  
Bentonite Chips ½ bag  
Concrete Mix 1 bag  
Portland Cement ½ bag

Locking Exp. Plug 1  
Lock  
D/O 1  
S/U



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	PROJECT NO. <b>E1-9289-13</b>	HOLE NO. <b>MW-29</b>
	PROJECT NAME <b>Dupont &amp; Franklin Streets</b>	BORING LOCATIONS per Plan
FOREMAN - DRILLER <b>MD/pe</b>	LOCATION <b>Brooklyn, New York</b>	
INSPECTOR	TYPE SIZE I.D. HAMMER WT. HAMMER FALL	CASING HSA SAMPLER SS CORE BAR 4 1/4"    1 3/8" 140#    BIT 30"
GROUND WATER OBSERVATIONS AT <u>11</u> FT AFTER <u>0</u> HOURS AT <u>  </u> FT AFTER <u>  </u> HOURS		OFFSET DATE START            1/8/13 DATE FINISH           1/8/13 SURFACE ELEV. GROUND WATER ELEV.

DEPTH	CASING BLOWS PER FOOT	SAMPLE					BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6   6 - 12   12- 18			CORE TIME PER FT (MIN)	DENSITY OR CONSIST	STRATA CHANGE DEPTH	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
		NO	Type	PEN	REC	DEPTH @ BOT					MOIST	ELEV	
5		1	ss	18"	12"	2'0"	—	4			dry	0'6"	CONCRETE
							7	6		compact		brn FM SAND, lit C sand, tr F gravel	
		2	ss	24"	13"	4'0"	4	3		dry		SAME	
							4	6		loose			
		3	ss	24"	0"	6'0"	7	9		dry		No recovery	
							7	8		compact			
10		4	ss	24"	12"	8'0"	7	8		dry		lt brn M SAND, tr silt	
							7	9		compact			
		5	ss	24"	15"	10'0"	6	7		dry		lt brn M-C SAND, lit F gravel, tr silt	
							7	4		compact			
		6	ss	24"	13"	12'0"	2	3		wet			
							3	4		loose		brn FM SAND, sm C sand, lit F gravel, tr silt	
15													
20											20'0"		
													E.O.B. 20'0" - Set well at 20'
25													
30													
35													
40													

**NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.**

GROUND SURFACE TO _____ FT.	USED _____	CASING	THEN _____	CASING TO _____ FT.	HOLE NO. <b>MW-29</b>
A = AUGER    UP = UNDISTURBED PISTON    T = THINWALL    V = VANE TEST WOR = WEIGHT OF RODS    WOH = WEIGHT OF HAMMER & RODS    C = COARSE SS = SPLIT TUBE SAMPLER    H.S.A. = HOLLOW STEM AUGER    M = MEDIUM PROPORTIONS USED: TRACE = 0 - 10%    LITTLE = 10 - 20%    SOME = 20 - 35%    AND = 35 - 50%    F = FINE					

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Monitoring Wells - Recovery Wells - Direct Push/Probe Sampling  
UNDERPINNING - HELICAL PILES - SOIL NAILS

CLIENT: Ecosystems Strategies

JOB #: E1-9289-13

Proposed Injection Well # MW-29

Top of Casing Elevation	0'	Stick Up Vented Locking Steel Cap	___ Yes	<u>X</u> No
Existing Ground Surface Elevation	0'	Drive/over w/Bolting Cover	<u>X</u> Yes	___ No
	0'	Mounded Backfill	___ Yes	<u>X</u> No
	12"	Concrete Collar	<u>X</u> Yes	___ No
Water table level estimated at 1' below existing ground surface	6'0"	Backfill Material	Formation	
	2'0"	Type of Casing Screen	2" SCH 80 PVC	
Borehole Diameter	8"	I.D.	2.067"	O.D. 2.375"
	2'0"	Joint Type	thd'd F.J.	
	2'0"	Impermeable Backfill	Bentonite Chips	
	2'0"	Backfill Material	#2 Silica Sand	
	2'0"	Screen Packing	#2 Silica Sand	
Well Point Elevation	20'0"	Filter Fabric	___ Yes	<u>X</u> No
	20'0"	If yes, Type		
Bottom of Boring Elevation	20'0"	Screen Slot Size	.010	
	0'	Backfill Material	N/A	
		Refusal	___ Yes	___ No

Screen 10'  
Riser 10'  
Plug 1  
Slip Cap  
Silica Sand 350#  
Powdered Bentonite

Bentonite Pellets  
Bentonite Chips 1/2 bag  
Concrete Mix 1 bag  
Portland Cement

Locking Exp. Plug 1  
Lock  
D/O 1  
S/U



# ZEBRA: Daily Project Report

Project Day & Date: 7/31/13

ZEBRA Office: Jackson Crew Base: \_\_\_\_\_

Z#: \_\_\_\_\_ ZEBRA Unit #/Type: \_\_\_\_\_

PROJECT NAME: \_\_\_\_\_

PROJECT LOCATION: 280 Franklin ST Brooklyn NY

CLIENT/OFFICE: ecosystemsstrategies

Client Project # \_\_\_\_\_

Client PM: \_\_\_\_\_ Client Site Contact: \_\_\_\_\_

Name/Company	Start	Arrive	Leave	Finish	Total Site Time	OT	Client Int'l
Marc		7:00	2:00				
Steve		7:00	2:00				
Other Personnel On Site:							

## Description of Work (detailed):

1) 20' installed 3 pre-packs 2"
2) 18' with 10' screen
3) 17' with 10' screen
Soil Sampled each well first

## APP DGW:

MATERIALS	QTY. USED	UNIT	EQUIPMENT	
MC Liners	9'	Liners	Air Knife / Vac Ex	
Expendable Points		Points	Core Drill / Generator / Demo Saw	
"x 5' PVC Screen		PC's	Decon Pads	
"x 5' PVC Riser		PC's	Pump / Type _____	
PVC Points		Points	Steam / Pressure Washer	
Flush Mount Well Box/J-Plug		Boxes	Trailer (Decon / Utility)	
Tubing		Rolls	OTHER:	
Sand		Bags		
Bentonite/Hole Plug		Bags	2"x5' prepack screens	6
Asphalt/Blacktop		Bags	2"x5' casing	6
Portland Cement/Concrete		Bags		
Drums (55 Gal.)			6" manholes	3
			sealant	2

## Probe Tools Damaged / Lost:

Number of Points	Number of Samples	Soils	GW	Soil Vapor	Wells Installed Describe:

Field Verification: [Signature]

ZEBRA: \_\_\_\_\_

CLIENT (Print): Adel Alkhatib

(Sign): A. Alkhatib

# ZEBRA: Daily Project Report

Project Day & Date: 8/1/13

ZEBRA Office: Jackson Crew Base: \_\_\_\_\_

Z#: \_\_\_\_\_ ZEBRA Unit #/Type: \_\_\_\_\_

PROJECT NAME: \_\_\_\_\_

PROJECT LOCATION: 280 Franklin St Brooklyn NY

CLIENT/OFFICE: ecosystemsstrategies

Client Project # \_\_\_\_\_

Client PM: \_\_\_\_\_ Client Site Contact: \_\_\_\_\_

Name/Company	Start	Arrive	Leave	Finish	Total Site Time	OT	Client Int'l
Marc		7:00	2:00				
Steve		7:00	2:00				
Other Personnel On Site:							

## Description of Work (detailed):

installed 2 2" pre-pack wells to 22'
7 soil samples from 10'-15'

## APP DGW:

MATERIALS	QTY. USED	UNIT	EQUIPMENT	
MC Liners	7	Liners	Air Knife / Vac Ex	
Expendable Points		Points	Core Drill / Generator / Demo Saw	
2"x 5' PVC Screen		PC's	Decon Pads	
2"x 5' PVC Riser		PC's	Pump / Type _____	
PVC Points		Points	Steam / Pressure Washer	
Flush Mount Well Box/J-Plug		Boxes	Trailer (Decon / Utility)	
Tubing		Rolls	OTHER:	
Sand	1	Bags	2"x 5' pre-pack screens	4
Bentonite/Hole Plug	3	Bags	2"x 5' casing	6
Asphalt/Blacktop		Bags		
Portland Cement/Concrete		Bags	2" plugs	2
Drums (55 Gal.)			2" plugs	2

## Probe Tools Damaged / Lost:

Number of Points	Number of Samples	Soils	GW	Soil Vapor	Wells Installed Describe:

Field Verification: [Signature]

ZEBRA: \_\_\_\_\_ CLIENT (Print): [Signature]

(Sign): A. Atkinson





## **APPENDIX E**

### ***Previous Environmental Reports***



**ADVANCED SITE RESTORATION, LLC**  
ENVIRONMENTAL SERVICES

***Spill # 0601852***  
***Underground Tank Closure Report***  
***49-55 Dupont St., Brooklyn, New York 11222***



*Prepared on Behalf of:*  
**49 Dupont Realty Corporation**

*Prepared By:*  
**Alberto Baruffi**  
**Advanced Site Restoration, LLC**

**July 2006**

---

**Alberto Baruffi**  
**Project Professional**

---

**Steve Muller**  
**Project Manager**

---

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2. Foam Application
3. Sampling Results Summary

**1. Submittal Information**

NYSDEC Spill Number  
SPILL # 0601852

NYSDEC Case Manager:  
Raphael Katani

Site Owner:  
49 Dupont Realty Corporation

Location of Subject Property:  
47-55 Dupont St.  
Brooklyn N.Y. 11222

## **2. Scope of Project**

This Underground Storage Tank Closure Report documents the results of the investigation and closure of seventeen (17) underground storage tanks (USTs) at the subject site. This investigation was conducted by Advanced Site Restoration, LLC (ASR), contracted by the 49 Dupont Realty Corp. to oversee the tank closure activities.

This report details the filling of underground storage tanks in accordance with New York State Department of Environmental Conservation (NYSDEC), Spill Prevention Operations Technology Series (SPOTS) Memo #14, Site Assessments at Bulk Storage Facilities (August 1994). The scope of this report includes the following:

- Review of the New York State regulatory agency records for the site and the immediate surrounding area;
- Collection of soil samples throughout the site and in close proximity of the underground storage tanks (UST's) for laboratory testing.
- Explanation of the means to close out the seventeen (17) UST's on site.
- Summary of the analytical findings respective to the NYSDEC TAGM 4046, Allowable Soil Concentrations.

### 3. General Site Data

Site Description: The subject site is New York City Tax Block is 2487 and the Tax Lots 1, 10, 12, 17, 18, 20, 21, 57, 72, and 78. The current owner since 1983, is the 49 Dupont Realty Corporation.

The subject site is a former manufacturing facility. The New York City Department of Finance Occupancy Code is "F-9, Factory Industrial." According to a Sanborn Map Report from Environmental Data Resources, industrial activity at the subject site dates as far back as 1887.

Historic use of the site has included manufacturing, office, storage, shipping and receiving. Specifically, the site has been a plastic manufacturing facility since approximately 1950. According to *FPM Group* who completed a Phase I Site Assessment for the subject site, the commercial uses prior to 1950 included a boiler shop for Logan Ironworks, two stable buildings, a gas and light fixture factory, a sheet metal works, a soap manufacturer, a water proofing manufacturer, and a scrap metal facility.

The North American Industry Classification System (NAICS) listing for the subject site is "Plastic Fitting and Plastic Manufacturing". The factory at the subject site was most recently used to manufacture vinyl sheeting. It had been used as such a facility for the greater part of the 20<sup>th</sup> Century. As of 2004, the factory ended its manufacturing operations. The subject site is currently being used by NuHart & Company to store vinyl products. The in-situ environmental remediation currently being performed by ASR began in May 2006. A full Phase II Site Investigation is currently underway as required for future redevelopment.

According to the United States Geological Survey (USGS) Brooklyn, New York 7.5 Minute Series Topographical Map, the Site is situated at an approximate elevation of 13 feet above mean sea level. The location of the Site is shown on the Site Location Map, Figure 1, Appendix A.

In September of 2004, a visual reconnaissance of the site was performed by *RTP Environmental Associates* (RTP). Suspicion of asbestos was reported throughout the site. Four (4) silos used to store poly vinyl chloric acid were observed on the west side of the property. RTP reported a drum storage area with drums containing petroleum products. Plasticizers were also found in several areas of the subject site in drums and in concrete lined piping trenches. Currently, all asbestos issues are being addressed by a licensed asbestos abatement company. The on-site contamination, including that of plasticizers is being fully delineated in preparation for environmental remediation.

There are a number of Underground Storage Tanks (USTs) at the subject site. Overall, the installation of UST's at the subject site had not been thoroughly documented. Perhaps this is due to the time frame and the multiple uses of the property. As a result, past environmental reports have not been consistent in terms of the number of tanks on site, their sizes, or their contents.

ASR field activities have confirmed the locations of these tanks, their sizes and their contents. Field activities include drilling, calculating the foam used to fill up the tanks, and fingerprint samples from within the tanks.

An EDR Report is attached as Appendix H.

A total of seventeen (17) tanks were found to be on site containing the following:

- Fuel oil
- Plasticizers
- Acetone
- Methyl tert butyl ketone

In July of 2006, ASR filed a CBS report with the NYSDEC, see Appendix B.

Surrounding Land Use: The surrounding use of the site is a mix of commercial, residential, manufacturing, and recreational. There are a number of mixed use lots with both residential and manufacturing. To the north of the site is a warehouse and a hardware store beyond which is an automotive lot (as seen in Appendix A, Figure 2-Aerial Photograph). To the east down Clay Street and Dupont Street are several multi-family residential units. To the south across Dupont Street there are apartments and more residential units. To the west is a New York City Park.

Sensitive Receptor Survey: Inside the facility at the subject site, numerous sewer vents can be seen on both the north and south sides. In addition there is the possibility that a bottom drain(s) is located beneath a series of pits at the subject site. This means that subsurface soils and groundwater may have been impacted by discharge from the facility. The East River is 200 meters to the west of the site. As mentioned in the Surrounding Land Use Section, there are residential units to the east and the south of the subject site. These residential units are directly adjacent to the site.

An EDR Report is Attached as Appendix H.



#### **4.0 Regional Geology/Hydrogeology**

The subject site is located in Brooklyn, New York. The elevation of the site, as presented on the United States Geologic Survey (USGS), Manhattan Quadrangle Map (1995), is approximately 13 feet above sea level (Figure 1, Appendix A). The subject site lies within an area classified as Urban Land. This soil type consists of urbanized areas where the majority of surface is covered with buildings, roads, driveways, parking lots, and other manmade structures.

A USGS Survey of Water Table Elevation concluded that the elevation of the water table at the subject site was approximately five (5) feet above Mean Sea Level. The direction of groundwater flow is most likely to the west-southwest.

## **5.0 Previous Investigations/Historical Review**

The subject site is classified as a Small Quantity, RCRA Hazardous Waste Generator.

As previously mentioned, RTP Environmental Associates, Inc. of 400 Post Road, Westbury New York, conducted a Preliminary Phase I Site Assessment. The report mentioned issues such as the need to:

- Identify environmental concerns regarding the 10,000 gallon USTs
- Test the integrity of certain tanks
- Clean the inside of the building
- Get the building up to code with NYC Building Dept.
- Perform additional environmental investigations
- Identify the means of demolition and waste disposal

As stated in the Conclusion section of the RTP report, the main area of "potential environmental concern" within the property are the tanks and the piping/vent lines associated with them.

In addition to the aforementioned report, FPM Group of 909 Marconi Avenue, Ronkonkoma New York, conducted a Phase I Environmental Site Assessment in April 2005. This report was much more detailed than the previous. As in the RTP report, this more recent report identified several Areas of Concern. They include:

- UST's, both known and suspected
- Oil-Water Separator
- Sub grade pipe chaseways (trenches)
- Loading Dock Drain
- Drum Storage Area
- Printing Press Pits
- Asbestos
- Silos
- Freight Elevator
- Oil Stained Walls
- Groundwater and soil gas (site wide)

## **6.0 On Site Activities**

As stated in the previous section, there are a number of environmental concerns associated with the subject site. ASR utilized all available resources including sub contractors specializing in certain areas of remediation to address these issues. The oil stained trenches with suspected hydrocarbon and plasticizers mentioned in previous reports were thoroughly addressed. ASR personnel shoveled out sludge, dirt, and product into 55 gallon DOT Ring Top Drums. These drums were sampled and can be seen in Appendix A- Figure 6- Photographs, along with the contaminated trenches. To address residual staining, ASR personnel applied the L-10, surfactant to the bottom of the trenches, shoveled, swept, and used squeegees to clean the trench bottom, walls, and oil/water separators. Please see Appendix A, Figure 6 –Photographs to view some of the drums and trenches.

All known tanks have been properly closed out as stated in Section 7.0 Underground Tank Closure Methodology, in more detail.

The known asbestos throughout the site will be abated by a licensed asbestos abatement company.

Removal of the boilers and silos will be performed by a licensed demolition company.

All waste was properly disposed of. Please see Section 9-Waste Disposal.

## 7.0 Underground Tank Closure Methodology

The following table is a list of all the tanks present at the subject site. All information is based on the best available data to the consultant, Advanced Site Restoration.

**Table 1 - List of Tanks**

<b>TANK #</b>	<b>SIZE (gal)</b>	<b>CONTENT</b>	<b>BLOCK 2487, LOT:</b>
1	10,000	#2 Fuel Oil	18
2	10,000	#2 Fuel Oil	20
3	1,500	#2 Fuel Oil	20
4	1,500	Methyl Tert Butyl Ketone	21
5	1,500	Acetone	21
6	6,000	DINP/DOP	72
7	6,000	DINP/DOP	72
8	10,000	711 (Diundecyl Phthalate)	78
9	10,000	711 (Diundecyl Phthalate)	78
10	5000	Extra Super Hecla Oil	1
11	5000	Extra Super Hecla Oil	1
12	5000	Extra Super Hecla Oil	1
13	5000	Extra Super Hecla Oil	1
14	10,000	DINP/DOP	1
15	6,000	DINP/DOP	1
16	6,000	Plasticizer	10
17	1,500	Plasticizer	1

\*The MSDS sheets for these products are attached as Appendix D

The goal of the on site activities conducted by Advanced Site Restoration, on the USTs, was to get permanent closure of the tanks. In order to do so, the following steps had to be followed in accordance with Section 613.9, Part B, in the NYSDEC Petroleum Bulk Storage Regulations:

- I. "Liquid and sludge must be removed from the tank and the connecting lines. Any waste products removed must be disposed of in accordance with all applicable state and federal requirements."
- II. "The tank must be rendered free of petroleum vapors. Provisions must be made for natural breathing of the tank, to ensure that the tank remains vapor free."
- III. "All connecting lines must be disconnected and removed or securely capped or plugged. Manways must be securely fastened in place."
- IV. "Aboveground tanks must be stenciled with the date of permanent closure."
- V. "Underground Storage Tanks must either be filled with a solid inert material (such as sand or concrete slurry) or removed."
- VI. "Aboveground tanks must be protected from floatation in accordance with good engineering practice"

As a means to close out all if seventeen (17) known UST's on site, following the aforementioned regulations, ASR retained Tridon Industries Inc. to perform a "Closure In Place." In order to do so, Tridon Industries used the Polymaster R 501 product, a foam that can be used to fill tanks and seal them. The foam is a solid inert material. According to Polymaster, the foam is made from aminoplast, tri-polymer, kiln-dried resin and it retains less moisture than similar products. A Tridon flyer on tank closure can be viewed as Appendix E. In addition, Polymaster provided the following information on their product.

**Thermal R-Values**

Standard 105 lb.density 12" CMU wall – R-20.1 based on ASTM C-236

Standard 105 lb.density 8" CMU wall – R-11.01 based on ASTM C-236

**Acoustical Values**

45-50 dB loss – ASTM E413-73

**Flame Classification**

Class I

**Water Resistance**

Perms per inch: 6.631

Surface Absorption: <1% by volume

**Environmentally Green**

**Biodegradable**

**No CFC's**

**No ozone depleting off-gassing**

**No container disposal**

Preparation of Tanks: Prior to the application of the Polymaster product, all of the tanks had to be cleaned of any remaining product inside. After the tanks were opened up, they were inspected by ASR personnel to determine their status. Any product discovered in the tanks was sampled. If there was no noticeable product, the tank was gauged for fumes using an Lumidor Impact Pro atmospheric monitor (Serial # ZEL0500471, Configured Feb. 2006). Next the tanks were vented for fumes and gauged again after twenty and thirty minutes. After the environment inside the tank was deemed safe, ASR personnel entered the tanks to clean any stains and remaining product. Please see Appendix F- Confined Space Entry Permits.

ASR utilized the services of Fenley & Nicol Environmental and Milro Environmental Associates when significant product was present. In June of 2006, Fenley & Nicol personnel advanced a Vacuum truck on site to pump out the first round of tanks. 2810 gallons and 1737 gallons of Fuel Oil Mixture were removed from the tank bottoms. On June 29, 2006 Milro removed 400 gallons of waste oil and sludge from a tanks. On July 12, 2006, Milro returned to the site and drew 500 gallons Tank # 17 and one other tank. All tank bottoms were put into 55 gallon DOT ring top drums to be properly disposed of.

The next step in the preparation of the tanks, was to manually clean out of the tanks utilizing Confined Space Entry Certified personnel to do so. Certified personnel from Advanced Site Restoration and Fenley & Nicol entered the tanks via tripod and harness. After being lowered into the tanks, the personnel used squeegees and brushes to clean the upper area of the tank down to the bottom. Product was collected from the bottom of the tanks and removed. All product removed was stored in 55 gallon, DOT Ring Top Drums. Any residual contamination was collected with absorption pads. This procedure was used as a protocol for all of the tanks at the subject site. Please see Appendix A, Figure 6 –Photographs to view the tripod and harness as well as cleaned tanks.

Disposal Manifests may be viewed as Appendix B.

No visual signs of leaking or damaged tanks were observed by personnel inside the tanks.

Tank Fill: After proper cleaning and disposal of tank bottoms, each tank was filled with the Polymaster product. The following table displays the amount of Polymaster Foam applied to each tank. In addition, the estimated volume was calculated based on the multiple of 60 given by Tridon Industries. The estimated volume is at or near the sizes listed in Table 1.

**Table 2**

<b>TANK #</b>	<b>FOAM APPLIED (GAL)</b>	<b>Estimated Volume (GAL)</b>
1	200	12,000
2	200	12,000
3	25	1,500
4	25	1,500
5	25	1,500
6	116.5	7,000
7	116.5	7,000
8	200	12,000
9	166	10,000
10	75	4,500
11	75	4,500
12	66.5	4,000
13	66.5	4,000
14	200	12,000
15	133	8,000
16	200	12,000
17	100	6,000



## **8.0 Site Investigation & Sampling Results**

In order to determine the extent of which historical use has impacted the environmental quality of the site, ASR retained Longshore Environmental Inc. to advance a geo-probe throughout the subject site. Soil samples were taken around groundwater interface and stored in 4 oz and 8 oz jars. All samples were submitted to York Analytical Laboratories Inc. for analysis. The analytical protocol was to test samples for the presence of contaminants using EPA Methods 8260 and 8270 BN. Given the historic use of the subject site, the suspected contamination was that of oil and plasticizers. These types of contaminants fall under those the 8270 BN sampling method, The analytical results would later confirm the detection of the types of contaminants that were believed to be on site.

As seen in Table 2, Sampling Results Summary, Phthalates (plasticizers) were detected throughout the site as suspected. In fact, Phthalates make up the overwhelming majority of contaminants detected on site. Specifically, Bis (2-ethylhexyl) phthalate and Di-n-octylphthalate were detected at concentrations below and above their applicable NYSDEC TAGM 4046, Allowable Soil Concentrations throughout the site. Napthalene was also detected throughout the site in excess of the "NYSDEC TAGM 4046, Allowable Soil Concentrations".

Analysis of samples taken at groundwater interface beside the oil tanks indicated the presence of Anthracene, Benzo (a) anthracene, Benzo (a) pyrene, Benzo (b) fluoranthene, Benzo (k) fluoranthene, Chyresene, Phenanthrene and Isophorone. These compounds are common constituents of oil. Very few Volatile Organic Compounds were detected on site as seen in Table 3.

The laboratory analytical results from the subject site were able to give the consultants at Advanced Site Restoration a good idea of the extent of the contamination. Given the results, various "zones" if you will, can be observed. The determination of these zones is important when devising a plan for further on and off site delineation (Please see Recommendations, in Section 10.) Generally, the Phthalates on site appear in high concentrations around groundwater interface on the northwest section of the building. The highest concentrations of Phthalates were detected in SB-6. It appears that these Phthalates are below a shallow area of soil where some elevated levels of VOC's were detected. The highest concentrations of SVOC's were detected in SB-39 next to Tank #15 and Tank #17. The highest concentrations of VOC's were detected in SB-14, next to Tank #2 and Tank #3.

**Table 3 Sampling Results Summary**

<b>Soil Boring</b>	<b>Total VOC</b>	<b>Total SVOC</b>	<b>Total Phthalates</b>
1 (1'-5')	ND	ND	ND
1 (5'-10')	ND	ND	ND
2 (1'-5')	ND	ND	ND
2 (10'-12')	1700	ND	ND
3 (1'-5')	ND	ND	ND
3 (5'-10')	ND	190	190
4 (1'-5')	25	52,700	ND
4 (13'-15')	ND	340,000	340,000
5 (1'-5')	17	38,500	ND
5 (10'-12')	657	510,000	510,000
6 (1'-5')	228	20,340	ND
6 (14'-16')	ND	12,000,000	12,000,000
7 (1'-5')	17	35,510	
7 (11'-13')	ND	6,800	6,800
8	ND	280	280
9	ND	170	170
10	ND	ND	ND
11	ND	260	260
12	ND	ND	ND
13	ND	370	370
14	40,500	32,900	0
15	ND	ND	ND
16	ND	300	300
17	ND	4,580	ND
18	ND	ND	ND
19	ND	ND	ND
20	ND	ND	ND
21	ND	ND	ND
23	ND	2,200	380
24	ND	30,000	30,000
32	ND	1,500	,1500
34	217	651,000	651,000
36	ND	1,200	1,200
37	ND	108,300	108,300

**ASR** **ADVANCED SITE RESTORATION, LLC**

38a	ND	3,500	3,500
38b	ND	1,000	1,000
39	2,470	238,200	ND
44	493	20,000,000	20,000,000
46	ND	670	340
48	ND	4800	4800
49	ND	1,250	550
50	ND	4,920	4,700
51	ND	45,000	45,000
52	ND	11,490	3,860
56	ND	ND	ND
57	ND	58,800	58,800
58	ND	320	320
59	ND	ND	ND

In addition to sampling the geo probe soil borings, ASR also took samples from inside some of the UST's. The purpose of this sampling was to determine the chemical constituents of product in the tanks. Analysis of a water sample from inside Tank #3 indicated the detection of Benzene and Napthalene at 22ppb and 76 ppb respectively. Analysis of a water sample from inside Tank #4 indicated no detection of any contaminants according to EPA Method's 8260 and 8270 BN. In Tank #5, 65,000 ppb of Toluene was detected. Tank # 12 was sampled for a fingerprint ID. The laboratory results state that "no oil pattern was present"

On June 26, 2006 ASR personnel drew a sample of product from inside of Tank #17. The sample was submitted to York Analytical Laboratories Inc. to identify the constituents of the product. The results of this analysis matched what was found throughout the site. Bis (2-ethylhexyl) phthalate and Di-n-octylphthalate were detected 2,800,000 ppb and 2,700,000 ppb respectively. In addition, 2-Methylnapthalene and Napthalene were detected at 820,000 ppb and 200,000 ppb respectively.

## **9.0 Waste Disposal**

All waste was properly disposed of by the applicable regulations.

**Tank Bottoms:** The waste at the bottom of the UST's labeled "Fuel Oil Mixture" was taken off site by Fenley & Nicol Environmental Inc. to their facility at:

Fenley & Nicol Environmental  
445 Brook Ave  
Deer Park, N.Y. 11729

The waste at the bottom of the UST's labeled "Waste Oil and Sludges" was taken off site by Milro Associates to:

NY Oil Recovery  
94 Hausman St,  
Brooklyn, N.Y. 11222

**Trenches:** The waste from the bottom of the trenches was cleaned out and stored in DOT Ring Top drums on site. A total of 66 drums were generated.

**Soil Disposal:** All soil was stored in DOT Ring Top drums on site. All drums were labeled with their contents for future disposal.

All available disposal manifests can be seen as Appendix B.

## **10.0 Summary & Conclusions**

On behalf of, 49 Dupont Realty Corporation has prepared this Underground Storage Tank Closure Report to present the documentation of the UST Closure in Place.

Sampling & Analysis-Throughout June of 2006, ASR advanced roughly forty one (41) geo probe soil borings at the subject site. Soil samples were taken at groundwater interface, and submitted to a certified laboratory for analysis using EPA Methods 8260 and 8270 BN.

UST Documentation & Closure- Using all available resources, ASR compiled a list of the UST's on site, (See Table 1.) ASR prepared the tanks for filling using confined space-certified personnel. On June 20-21, 2006 and July 3 and July 17, 2006, ASR retained Tridon Industries to fill all of the UST's on site using the Polymaster R 501 product, a foam that can be used to fill tanks and seal them.

## **10.1 Recommendations**

Based on the results of the tank closure and the preliminary site investigation ASR recommends the following:

- Install groundwater monitoring wells on site and off site as needed based on the delineation of the plumes(s) on site. See Appendix A- Figure 3. Proposed Monitoring Well Location Map.
- Survey the site to develop a Groundwater Gradient Map.
- Start a sampling and monitoring program both on and off site.
- Evaluate program to determine any clean zones, hot zones, and movement of product. Based on the evaluation, further delineation may be required.
- Based on the delineation study a Remedial Action Plan (RAP) will be developed and submitted to the NYSDEC for approval.



TOPO! map printed on 06/13/06 from "Northeast.tpo" and "Untitled.tpg"

73°59.000' W

73°58.000' W

73°57.000' W

WGS84 73°56.000' W

40°45.000' N

40°45.000' N

40°44.000' N

40°44.000' N

40°43.000' N

40°43.000' N



73°59.000' W

73°58.000' W

73°57.000' W

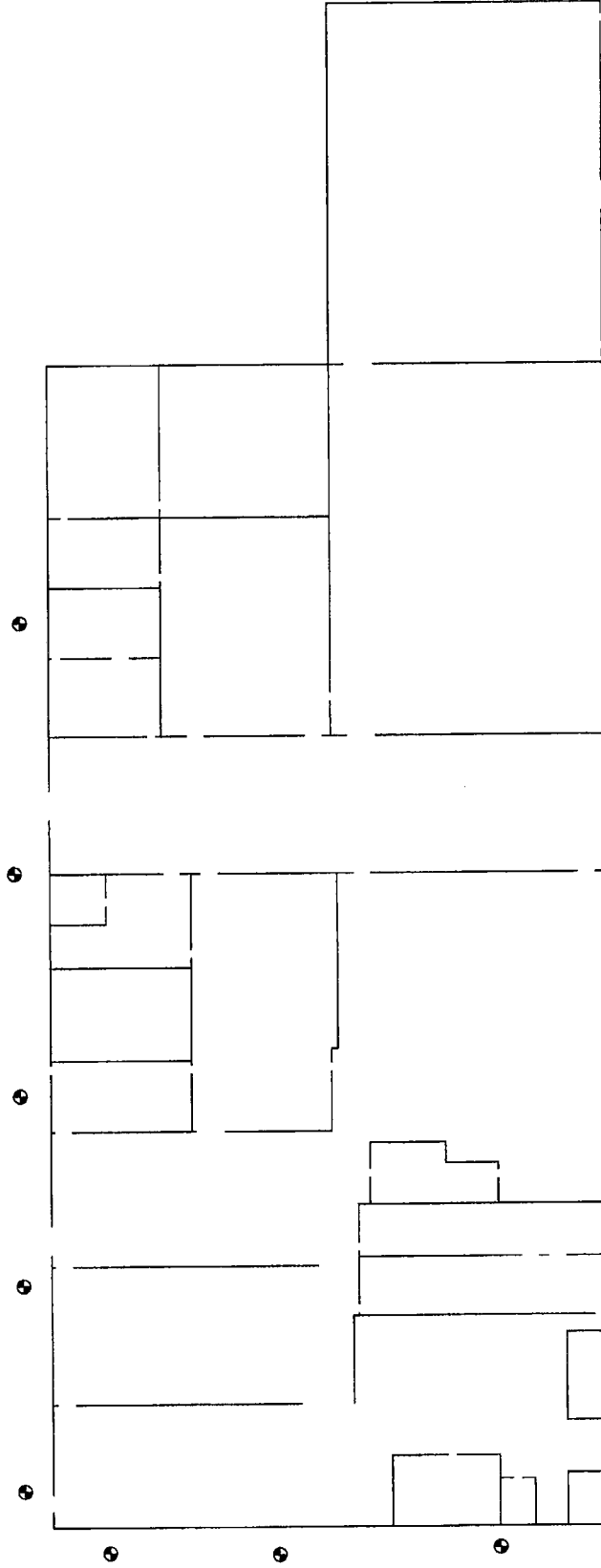
WGS84 73°56.000' W



Map created with TOPO!® ©2002 National Geographic (www.nationalgeographic.com/topo)



CLAY STREET



Du PONT STREET

North

Not to Scale



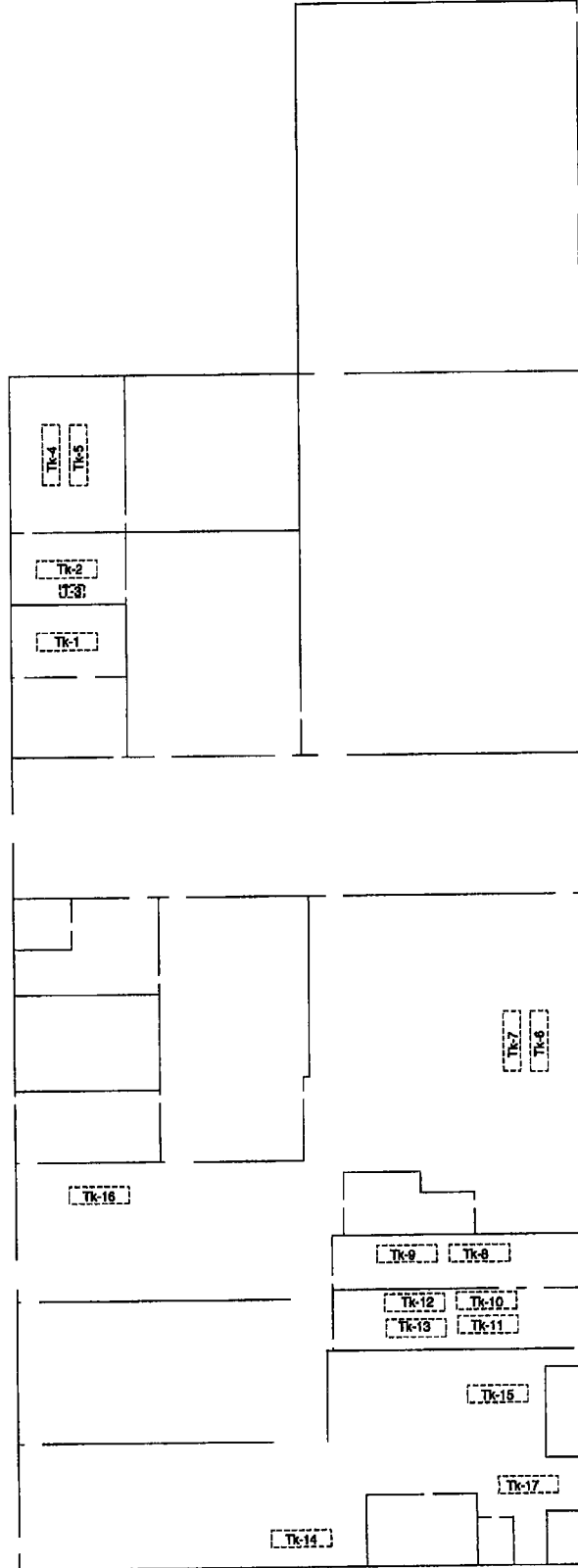
ADVANCED Site Restoration, LLC.  
Environmental Services

62 William St., 3rd Floor, New York, NY 10005  
Tel: 212-809-1110 Fax: 212-809-1779 Info@askasr.com

Figure - 3  
Site Map with Proposed Well Locations  
Rev. 06/20/06

NuHart & Company, Inc.  
49 - 55 Dupont Street  
Brooklyn, New York

CLAY STREET



DUPONT STREET

North

Not to Scale



62 William St., 3rd Floor, New York, NY 10005  
Tel: 212-809-1110 Fax: 212-809-1779 Info@askasr.com

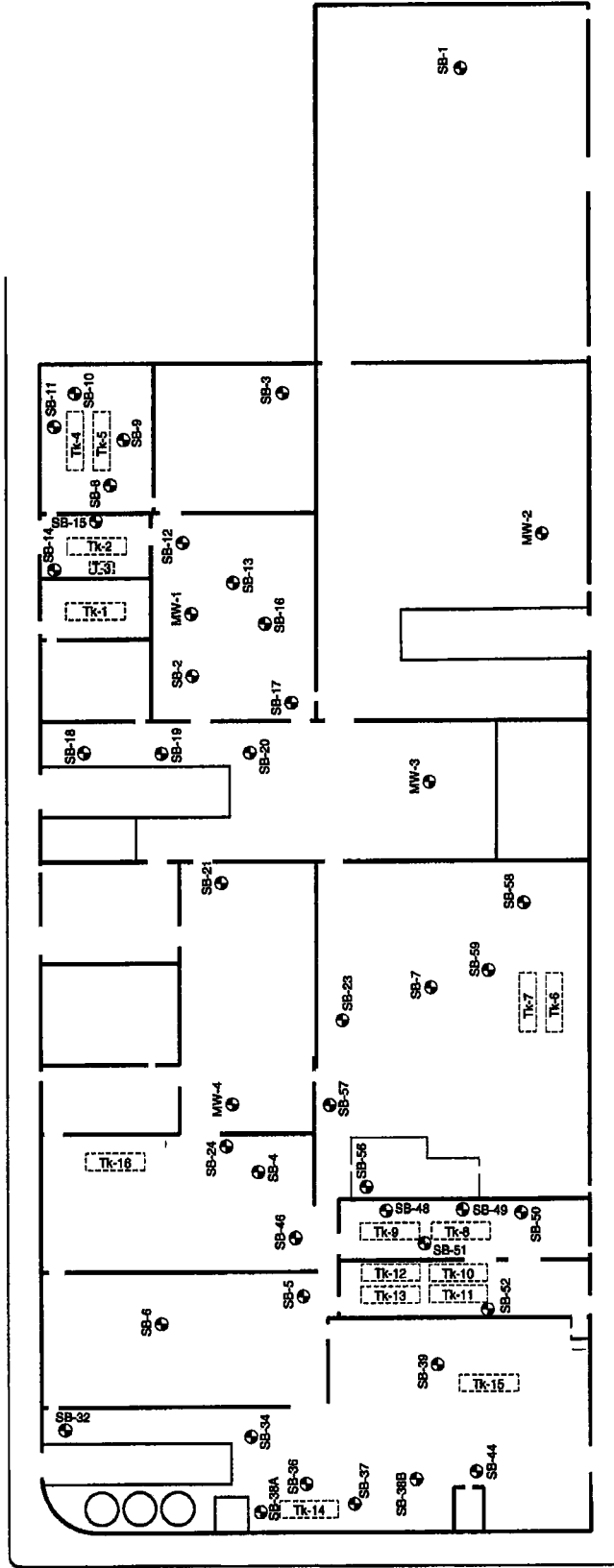
Figure - 4  
UST Location Map

SWM

Rev. 06/20/06

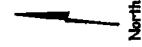
NuHart & Company, Inc.  
49 - 55 Dupont Street  
Brooklyn, New York

CLAY STREET



FRANKLIN AVENUE

Du PONT STREET



Not to Scale

MW-2 Location of Groundwater Monitoring Well  
 SB-22 Location of Geoprobe Soil Boring



ADVANCED Site Restoration, LLC.  
 Environmental Services

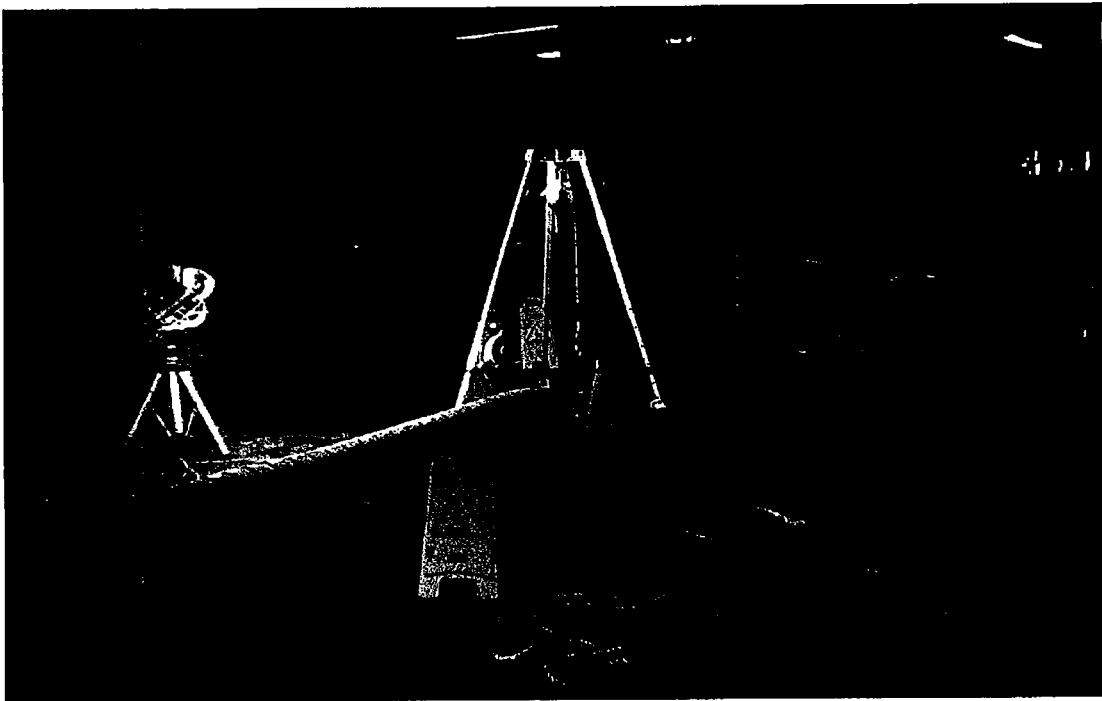
62 William St., 3rd Floor, New York, NY 10005  
 Tel: 212-809-1110 Fax: 212-809-1779 info@askasr.com

SWM

Figure - 5  
 Boring Location Map

Rev: 06/20/06  
 05/11/06

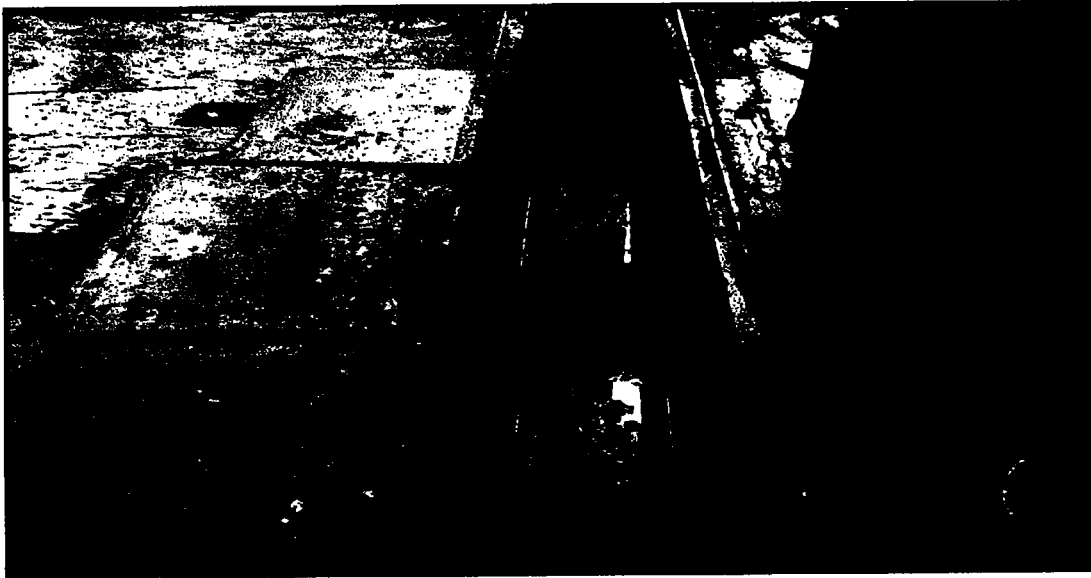
NuHart & Company, Inc.  
 49 - 55 Dupont Street  
 Brooklyn, New York



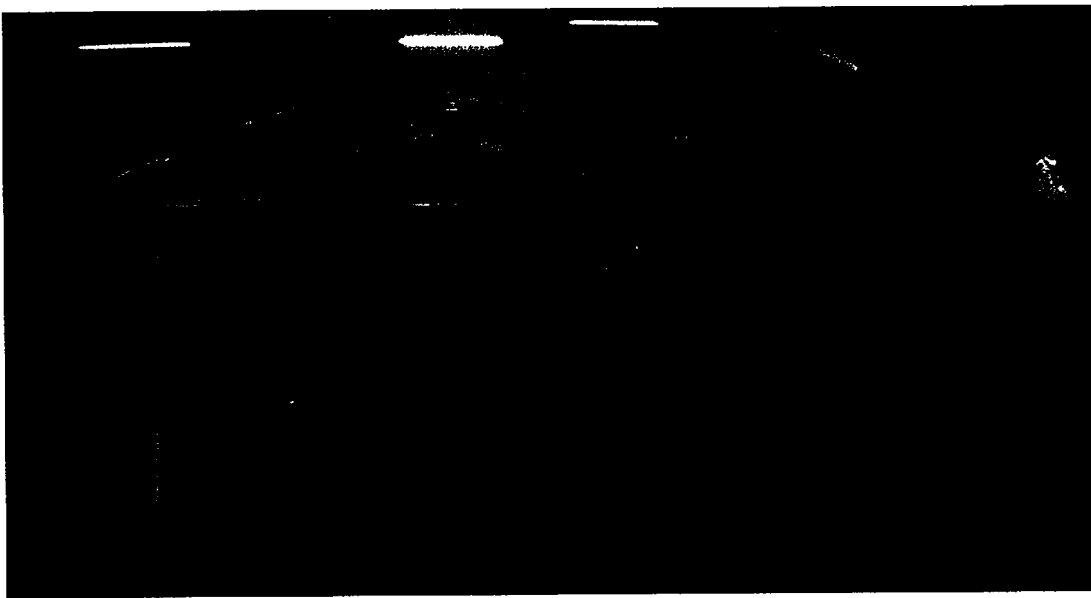
*Tank #8 with confined space entry set up*



*ASR personnel being lowered into pit with harness*



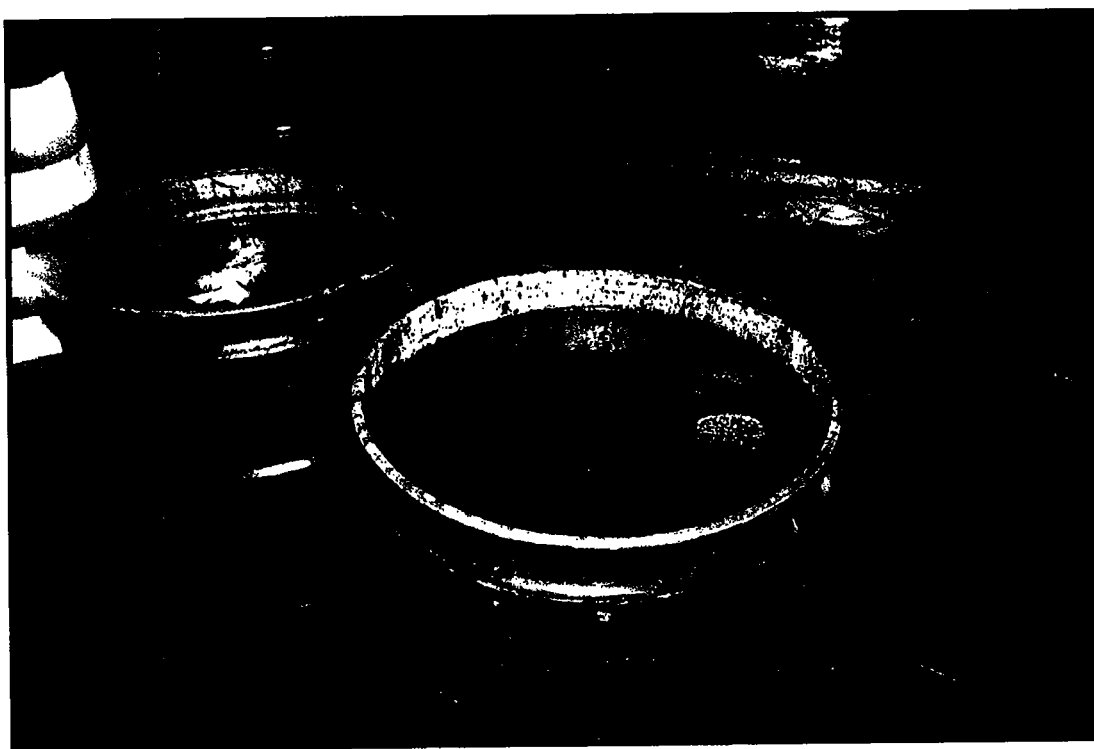
*The condition of the trenches prior to cleaning*



*Typical trench seen throughout the site*

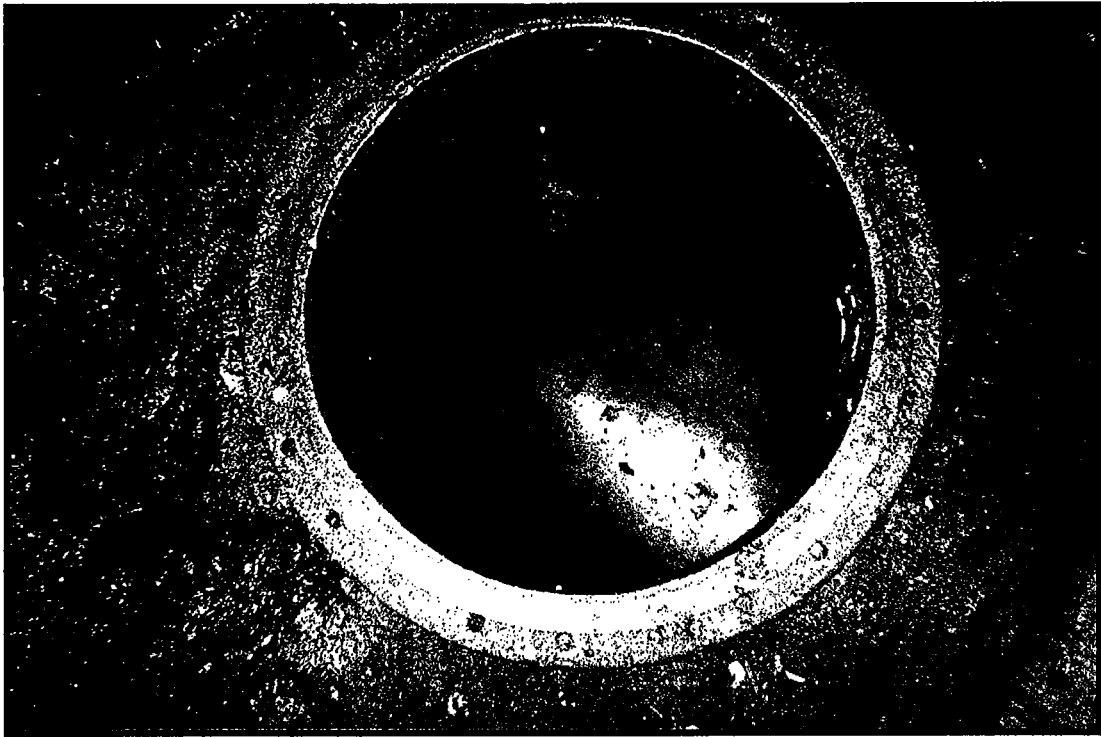


*Storage of 55 gallon drums on site*



*Drums filled with oil from tanks*

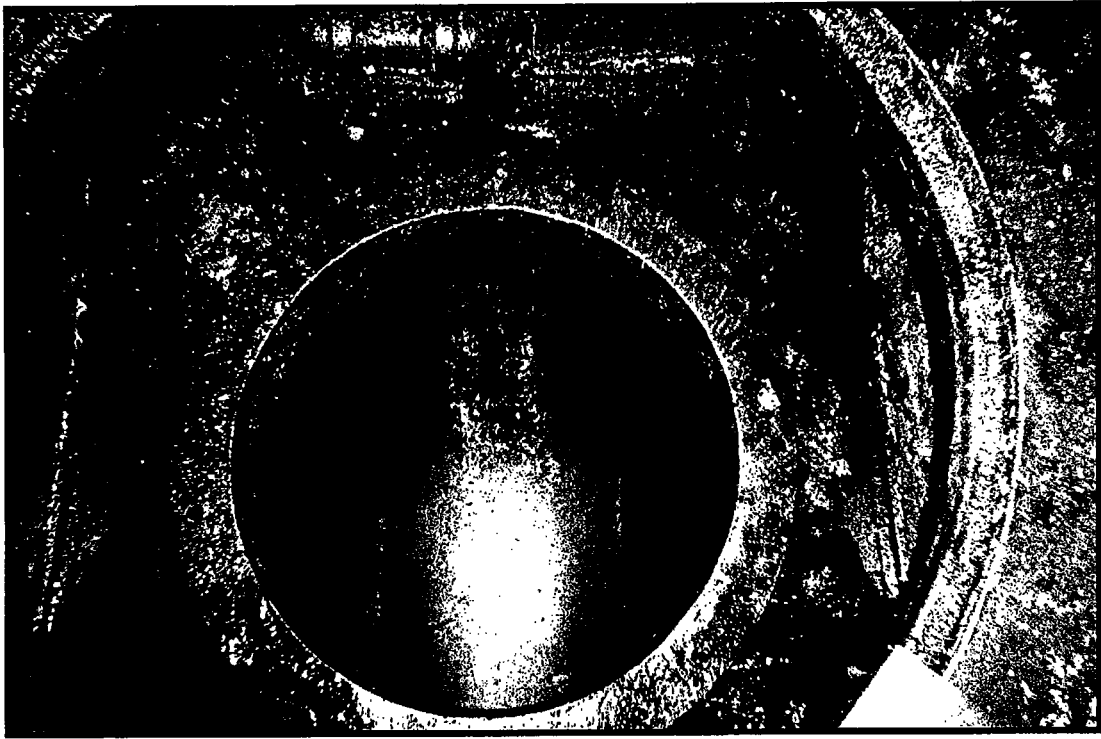




*Tank after cleaning*



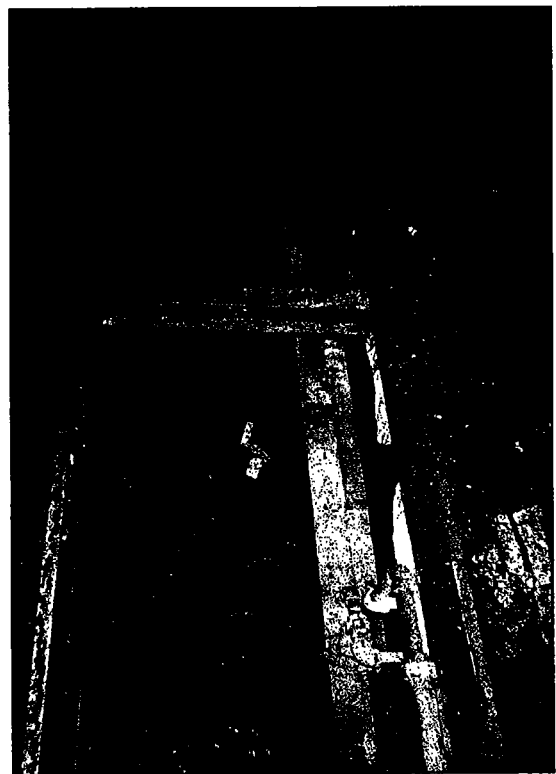
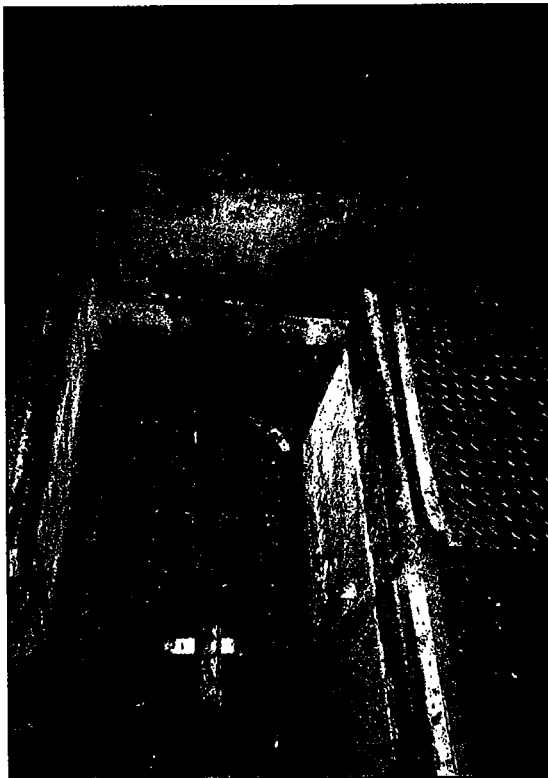
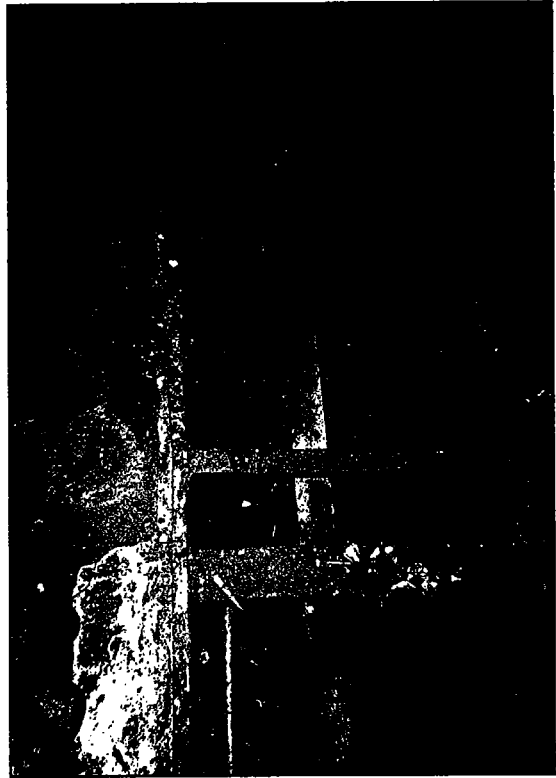
*Tank after cleaning*



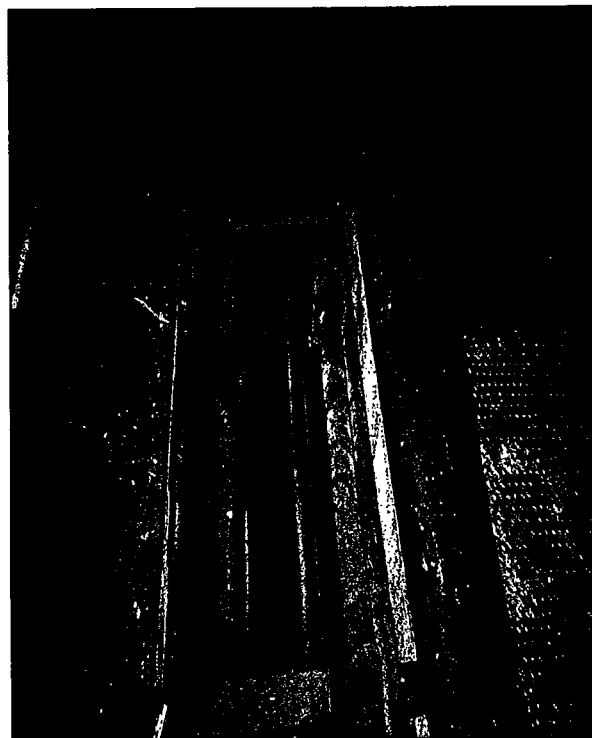
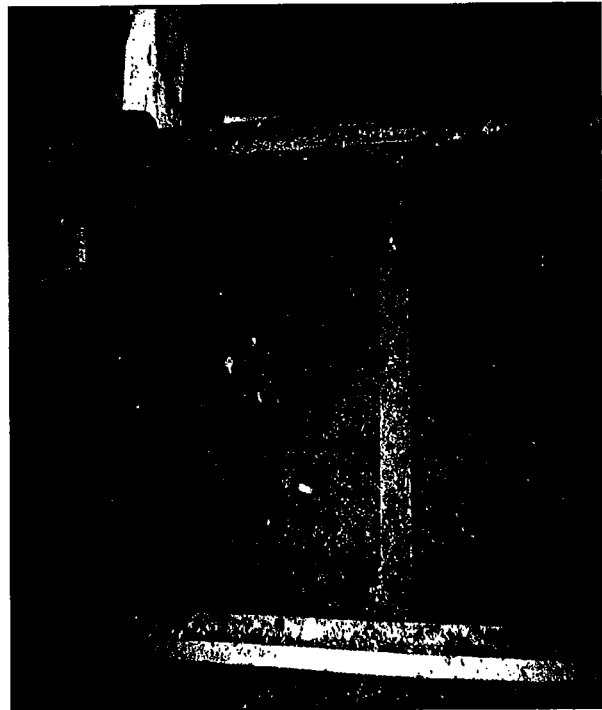
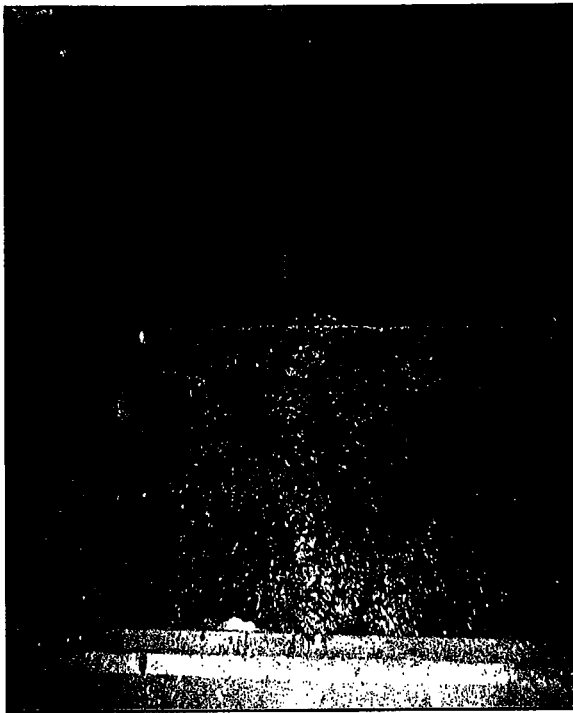
*Tank after cleaning*



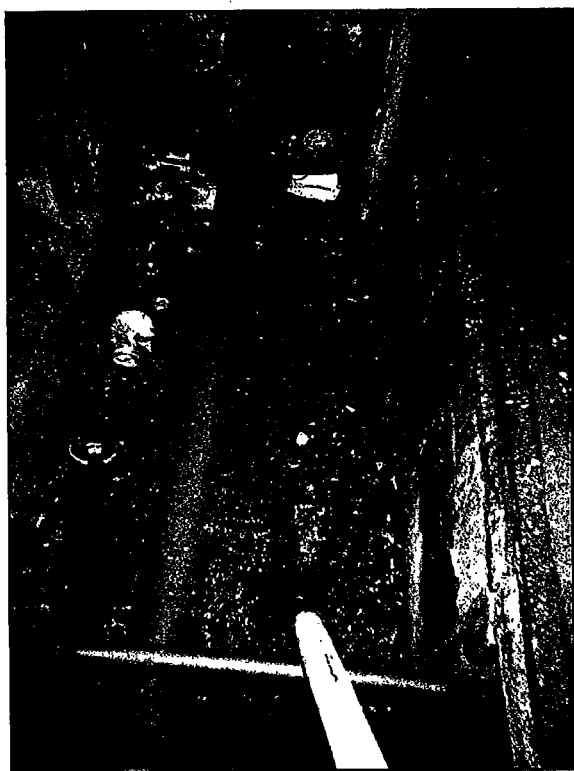
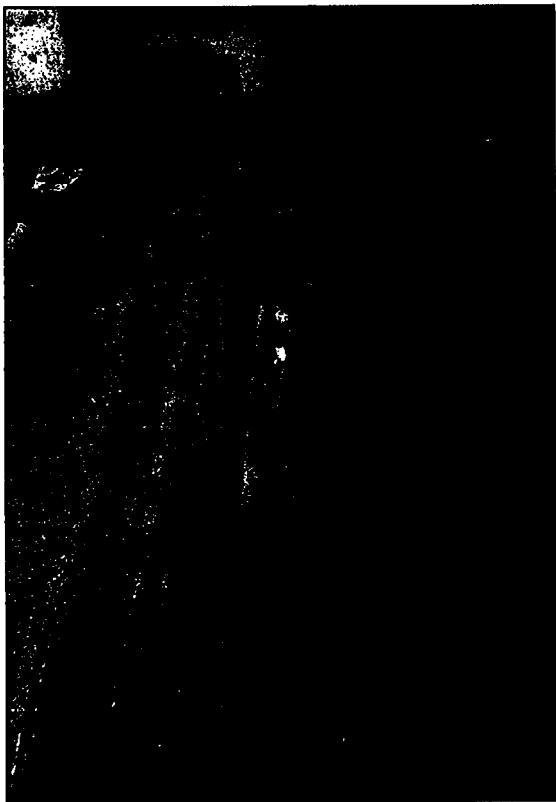
*Tank after cleaning*



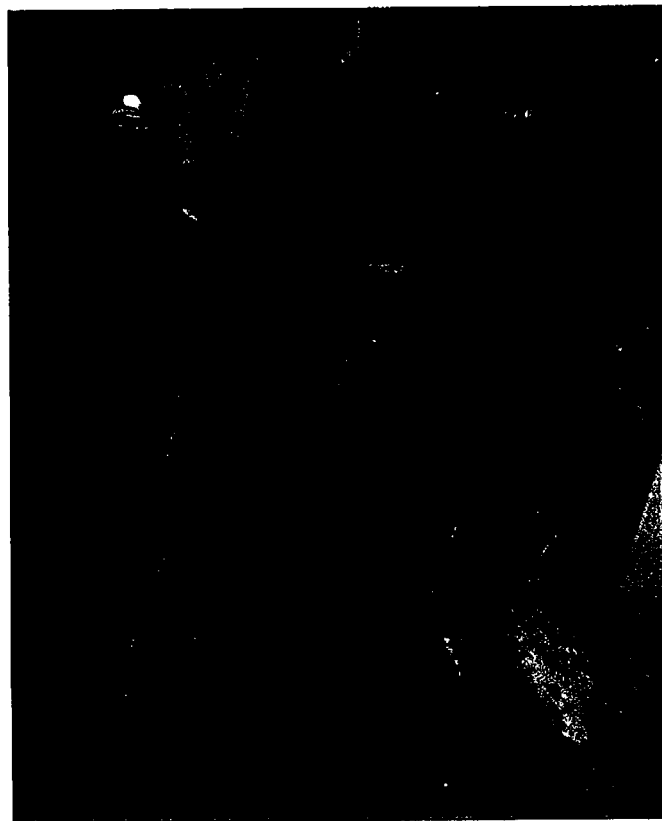
*Trenches prior to cleaning*



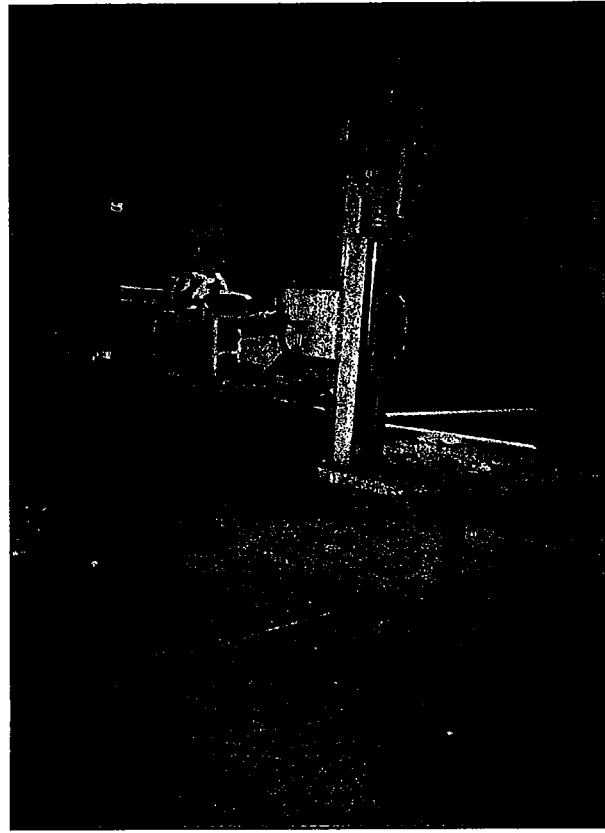
*Trenches prior to cleaning*



*Trenches being scraped, lanced, and washed*



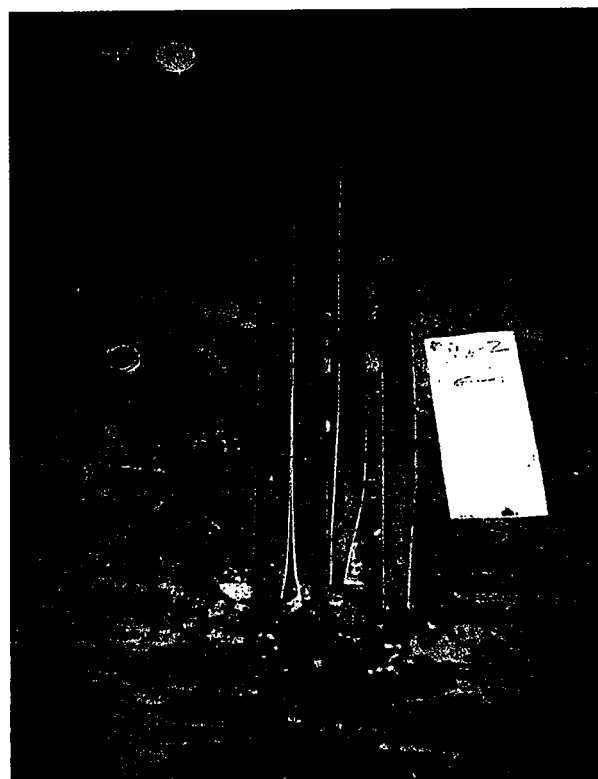
*Trenches free of oil products and debris*



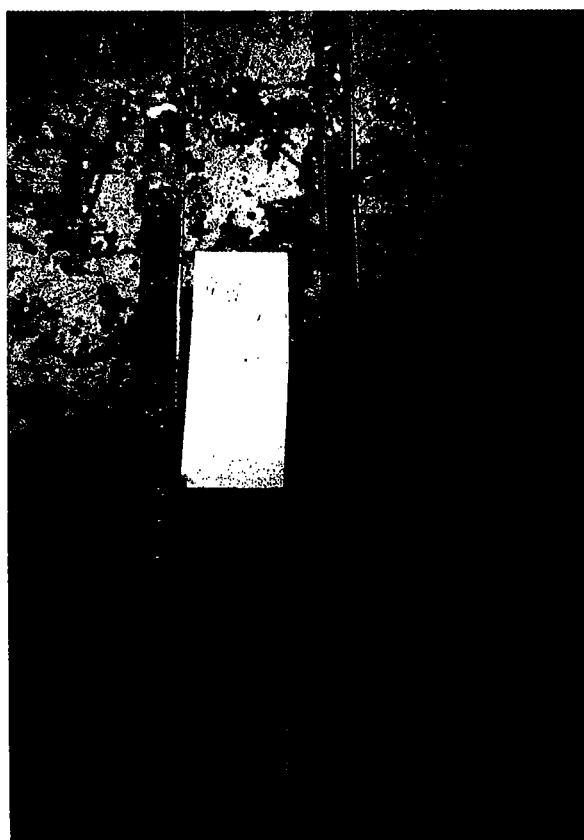
*Fenley & Nicol on site with Geo-probe*



*MW-1*



*MW-2*

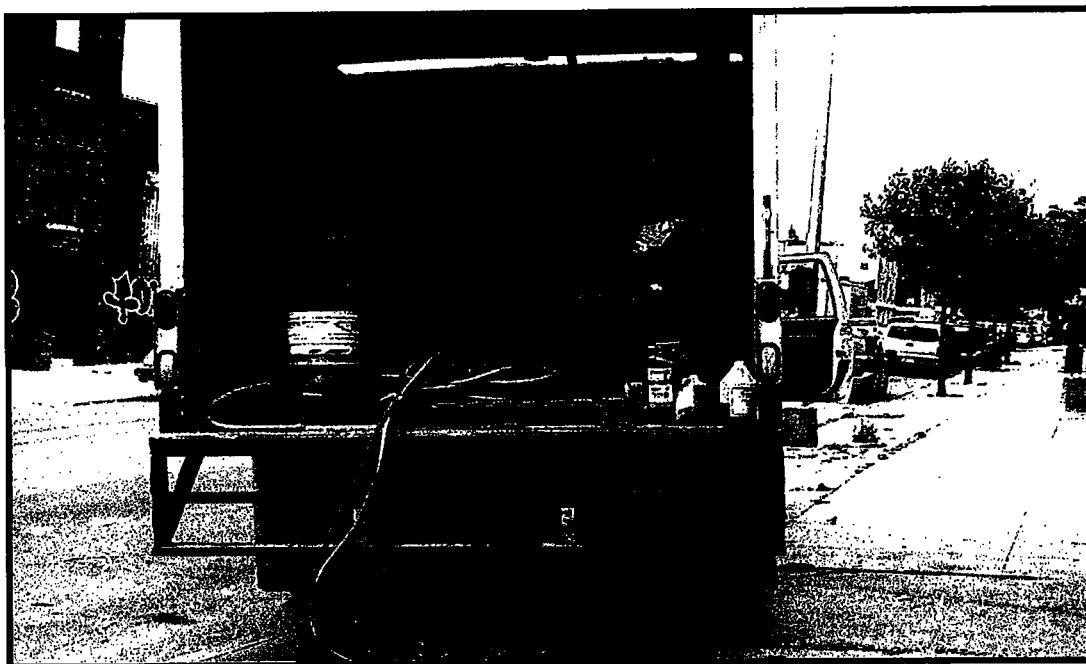


*MW-3*



*MW-4*

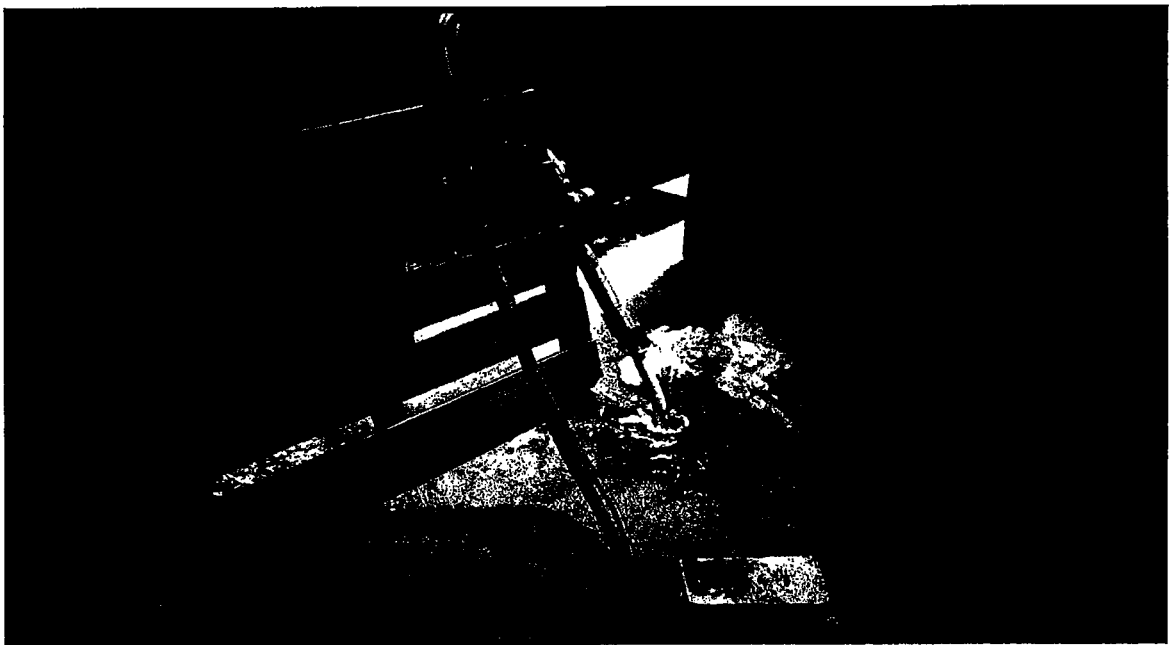




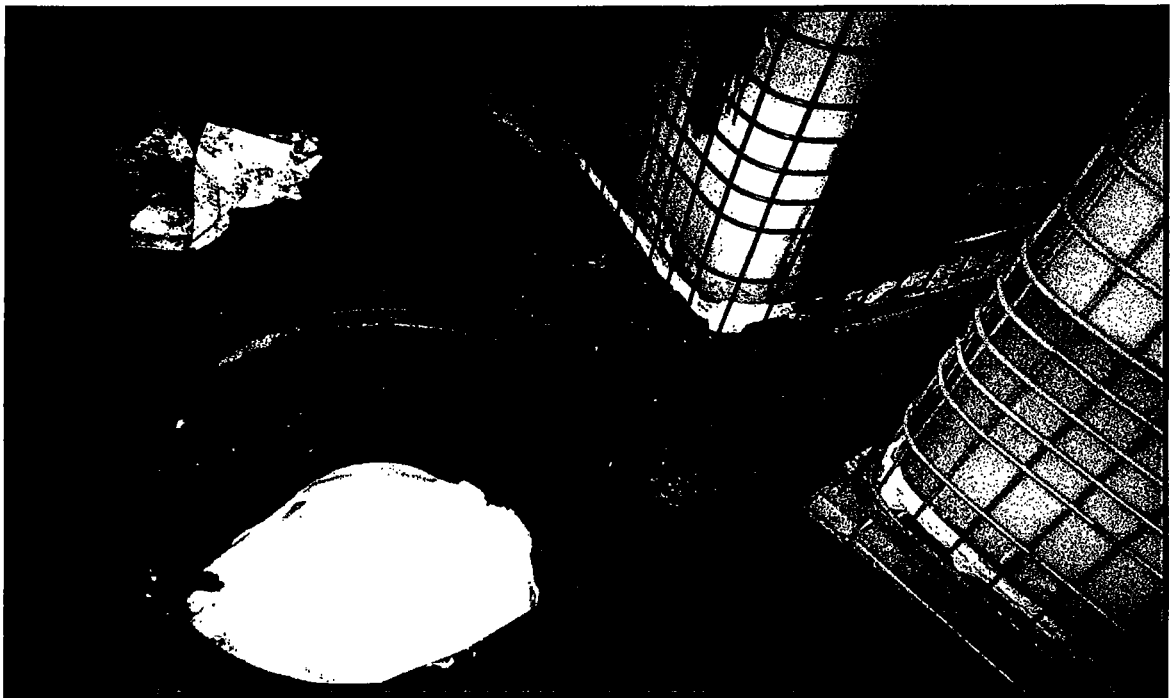
*Tridon Industries Truck used to mix foam products*



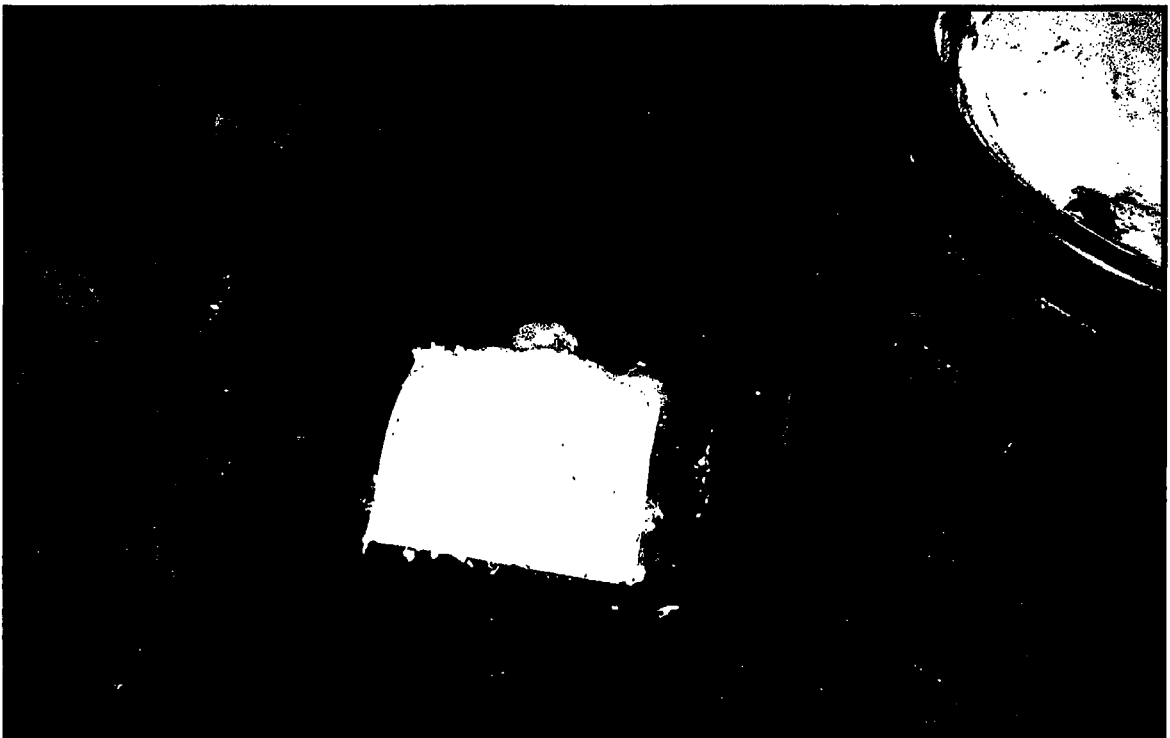
*Tank being filled with the foam product*



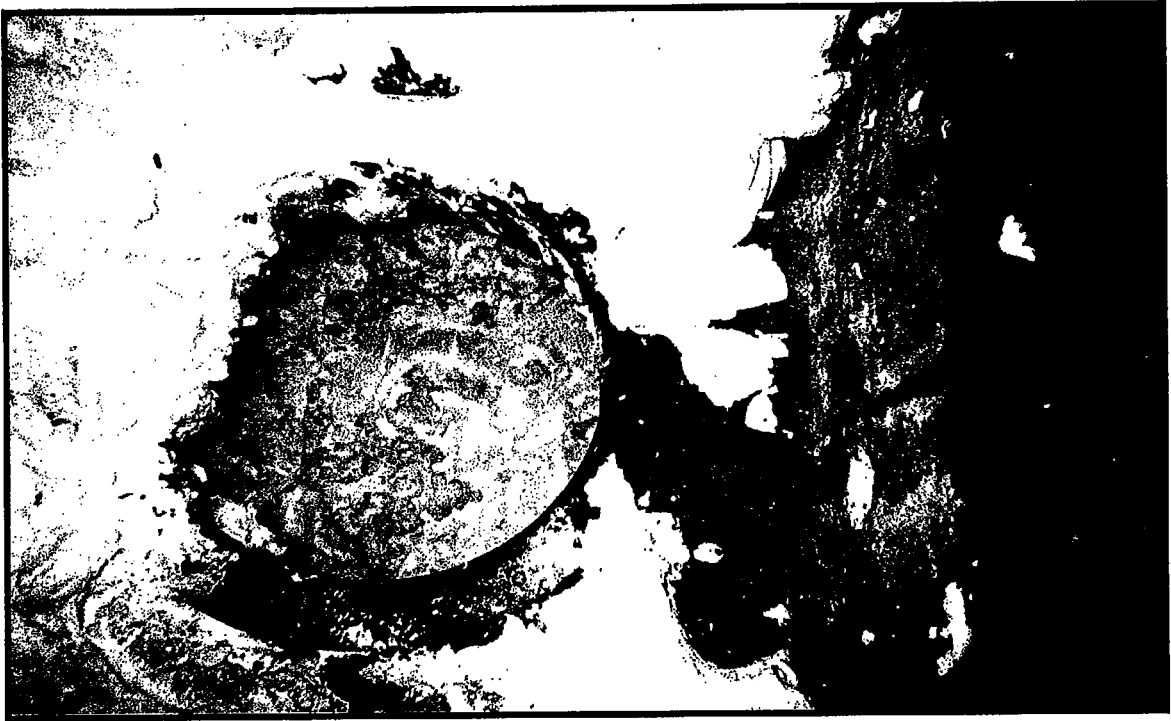
*Tridon Industries Foam Application*



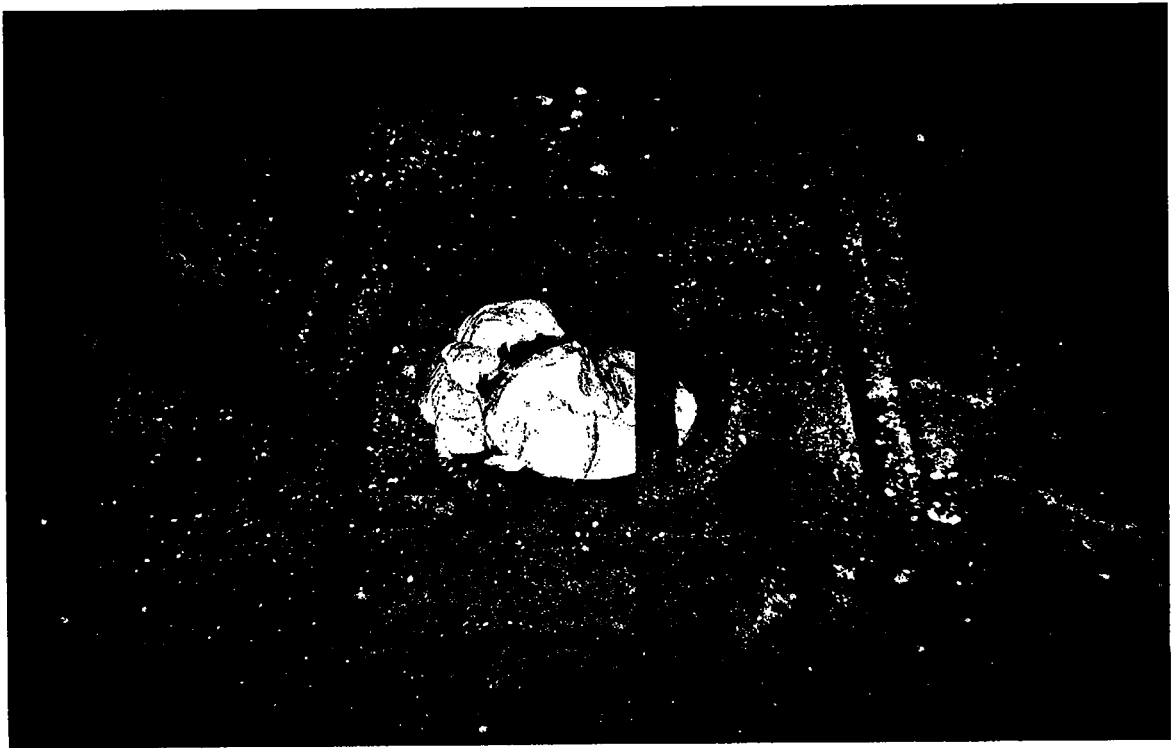
*Tank filled with the foam product*



*Tank filled with the foam product*



*Tank filled with the foam product*



*Tank filled with the foam product*

# Appendix B

## Disposal Manifests

**FENLEY & NICOL ENVIRONMENTAL INC.**  
**NON-HAZARDOUS / NON-REGULATED WASTE MANIFEST**

PLEASE TYPE OR PRINT CLEARLY

JOB # 0609864

DATE 6/21/06

MANIFEST # No. 16970

**1. GENERATOR OF WASTE**

NAME A.S.R.

ADDRESS 45 DUPONT ST

PHONE NUMBER \_\_\_\_\_

SITE LOCATION BROOK NY

**2. IDENTIFICATION OF WASTE**

PROPER U.S. D.O.T. SHIPPING NAME

STATE CODE

CONTAINER TYPE

QTY. GALLONS

FUEL OIL MIXTURE

NO18

TT

2810

3 NA1993 PG-11

Spill # (if applicable)

ERG # 128

**3. GENERATOR'S CLASSIFICATION**

This is to certify that the herein named materials are properly described, classified and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, Environmental Protection Administration and Local State regulations. The wastes are described herein were consigned to the transporter named. The TSD Facility can and will accept the shipment of waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge.

GENERATOR'S CONTACT SUPERVISOR [Signature]  
and/or (Authorized Agent)

please print or type

SUPERVISOR'S SIGNATURE [Signature]

TITLE \_\_\_\_\_

**4. TRANSPORTER NAME AND ADDRESS (#1)**

(#2)

NAME FENLEY & NICOL ENVIRONMENTAL INC.

NAME \_\_\_\_\_

ADDRESS 445 BROOK AVENUE, DEER PARK, NY 11729

ADDRESS \_\_\_\_\_

PHONE NUMBER 24 Hour Emergency# (516) 586-4900

PHONE NUMBER \_\_\_\_\_

DRIVER'S NAME MIKE BELL SIGNATURE [Signature]

DRIVER'S NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_

INDUSTRIAL WASTE HAULER PERMIT # 1A-036 VEHICLE PLATE # 9560-JC

INDUSTRIAL WASTE HAULER PERMIT # \_\_\_\_\_ VEHICLE PLATE # \_\_\_\_\_

**5. DISPOSAL SITE (Must be filled in by disposal site)**

NAME OF FACILITY \_\_\_\_\_

ADDRESS OF FACILITY \_\_\_\_\_

PHONE NUMBER \_\_\_\_\_

This load was received as stated by generator

YES ☐

NO ☐

DISPOSAL SITE IDENTIFICATION NUMBER (if applicable) \_\_\_\_\_

DISPOSAL SITE INSPECTOR NAME \_\_\_\_\_

SIGNATURE \_\_\_\_\_

DATE \_\_\_\_\_

GENERATOR WASTE

TRANSPORTER WASTE

DISPOSAL SITE

DATE

**FENLEY & NICOL ENVIRONMENTAL INC.**  
**NON-HAZARDOUS / NON-REGULATED WASTE MANIFEST**

PLEASE TYPE OR PRINT CLEARLY

JOB # \_\_\_\_\_

DATE 8/28/06

MANIFEST # No. 17093

1. **GENERATOR OF WASTE**

NAME A.S.R.

ADDRESS 45 DYPONT ST

PHONE NUMBER \_\_\_\_\_

SITE LOCATION BKLYN NY.

2. **IDENTIFICATION OF WASTE**

PROPER U.S. D.O.T. SHIPPING NAME

STATE CODE

CONTAINER TYPE

QTY. GALLONS

<u>FUEL OIL MIXTURE</u> <u>3 NA1993 PCLII</u>	<u>NO18</u>	<u>TT</u>	<u>1737</u>
Spill # (if applicable)	ERG # <u>128</u>		

3. **GENERATOR'S CLASSIFICATION**

This is to certify that the herein named materials are properly described, classified and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, Environmental Protection Administration and Local State regulations. The wastes are described herein were consigned to the transporter named. The TSD Facility can and will accept the shipment of waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge.

GENERATOR'S CONTACT SUPERVISOR Anthony Accorso  
and/or (Authorized Agent) \_\_\_\_\_ please print or type

SUPERVISOR'S SIGNATURE Anthony Accorso TITLE \_\_\_\_\_

4. **TRANSPORTER NAME AND ADDRESS (#1)**

(#2)

NAME FENLEY & NICOL ENVIRONMENTAL INC.

NAME \_\_\_\_\_

ADDRESS 445 BROOK AVENUE, DEER PARK, NY 11729

ADDRESS \_\_\_\_\_

PHONE NUMBER 24 Hour Emergency# (516) 586-4900

PHONE NUMBER \_\_\_\_\_

DRIVER'S NAME MIKE HALL SIGNATURE [Signature]

DRIVER'S NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_

INDUSTRIAL WASTE HAULER PERMIT # 1A-036 VEHICLE PLATE # 95160-JC

INDUSTRIAL WASTE HAULER PERMIT # \_\_\_\_\_ VEHICLE PLATE # \_\_\_\_\_

5. **DISPOSAL SITE (Must be filled in by disposal site)**

NAME OF FACILITY \_\_\_\_\_

ADDRESS OF FACILITY \_\_\_\_\_

PHONE NUMBER \_\_\_\_\_

This load was received as stated by generator YES ☐ NO ☐

DISPOSAL SITE IDENTIFICATION NUMBER (if applicable) \_\_\_\_\_

DISPOSAL SITE INSPECTOR NAME \_\_\_\_\_

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

GENERATOR-White

TRANSPORTER-Yellow

DISPOSAL-Pink

ORANGE-File

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. <i>Exempt</i>	Manifest Document No.	2. Page 1 of 1
3. Generator's Name and Mailing Address <i>Harte + Company</i> <i>4950 Dupont ST</i> <i>Brooklyn NY</i>		2 tanks (Bottoms) 1 1/2 plastic Containers		
4. Generator's Phone	5. Transporter 1 Company Name <i>M/I/O Associated</i>		6. US EPA ID Number <i>NYD.084.74.32.63</i>	A. Transporter's Phone <i>516-379-1500</i>
7. Transporter 2 Company Name	8. US EPA ID Number		B. Transporter's Phone	
9. Designated Facility Name and Site Address <i>NYO.I Recy</i> <i>94 Hoesman ST</i> <i>Brooklyn NY</i>		10. US EPA ID Number <i>Exempt</i>		C. Facility's Phone
11. Waste Shipping Name and Description			12. Containers No. Type	13. Total Quantity
a. <i>waste oil + sludges</i>			<i>001</i>	<i>1770.04006</i>
b.				
c.				
d.				
D. Additional Descriptions for Materials Listed Above			E. Handling Codes for Wastes Listed Above	
15. Special Handling Instructions and Additional Information				
16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.				
Printed/Typed Name <i>X E. VAZQUEZ</i>		Signature <i>X E. Vazquez</i>		Month Day Year
17. Transporter 1 Acknowledgement of Receipt of Materials		Printed/Typed Name <i>John M. ...</i>		Signature <i>John M. ...</i>
18. Transporter 2 Acknowledgement of Receipt of Materials		Printed/Typed Name		Signature
19. Discrepancy Indication Space				
20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.				
Printed/Typed Name <i>N.Y. O.I. Recy</i>		Signature <i>[Signature]</i>		Month Day Year <i>16 12 00</i>

ORIGINAL - RETURN TO GENERATOR



NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. <i>Exempt</i>	Manifest Document No.	2. Page 1 of 1
3. Generator's Name and Mailing Address <i>Harter &amp; Co. Duport Inc Brooklyn, NY</i>				
4. Generator's Phone ( )				
5. Transporter 1 Company Name <i>Milro Associates</i>		6. US EPA ID Number <i>NY.D064743263</i>		A. Transporter's Phone <i>516-529-1500</i>
7. Transporter 2 Company Name		8. US EPA ID Number		B. Transporter's Phone
9. Designated Facility Name and Site Address <i>NY Oil Recovery 94 Housman St Brooklyn, NY</i>		10. US EPA ID Number <i>Exempt</i>		C. Facility's Phone
11. Waste Shipping Name and Description			12. Containers No.	13. Total Quantity
a. <i>waste oil</i>			<i>00.1</i>	<i>00300 G</i>
b. <i>waste oil + water emulsions</i>			<i>00.1</i>	<i>00200 G</i>
c.				
d.				
D. Additional Descriptions for Materials Listed Above			E. Handling Codes for Wastes Listed Above	
15. Special Handling Instructions and Additional Information				
16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.				
Printed/Typed Name <i>E. VAZQUEZ</i>		Signature <i>E. Vazquez</i>		Month Day Year <i>7 12 06</i>
17. Transporter 1 Acknowledgement of Receipt of Materials				
Printed/Typed Name <i>Todd Murray</i>		Signature <i>Todd Murray</i>		Month Day Year <i>7 12 06</i>
18. Transporter 2 Acknowledgement of Receipt of Materials				
Printed/Typed Name		Signature		Month Day Year
19. Discrepancy Indication Space				
20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 18.				
Printed/Typed Name <i>NY Oil Recovery</i>		Signature <i>[Signature]</i>		Month Day Year <i>07 12 06</i>

ORIGINAL RETURN TO GENERATOR

# Appendix C

## Laboratory Analyticals



**ADVANCED SITE RESTORATION, LLC**  
ENVIRONMENTAL SERVICES

# **Phase II Site Assessment**

**49-55 Dupont Street, Brooklyn, New York 11222**  
**NYSDEC SPILL # 06-01852**



*Prepared on Behalf of:*  
**49 Dupont Realty Corporation**

*Prepared By:*  
**Advanced Site Restoration, LLC**

March 2007

  
Christopher P. Tomasello, I.H.  
Project Professional

  
Steven Muller, CEC  
Project Manager

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## 1.0 SCOPE OF PROJECT

This Phase II Site Investigation Report documents the results of the subsurface soil and groundwater investigation at the subject site. This investigation was conducted by Advanced Site Restoration, LLC (ASR), on behalf of 49 Dupont Realty Corporation. All work is in accordance with New York State Department of Environmental Conservation (NYSDEC), Spill Prevention Operations Technology Series (SPOTS) Memo #14, Site Assessments at Bulk Storage Facilities (August 1994). The scope of this investigation includes the following:

- The review of the New York State regulatory agency records for the site and the immediate surrounding area.
- An investigation into the possible sources of off site contamination.
- The collection of soil samples from inside the building at the subject site and off site, directly adjacent to the building.
- The documentation of soil characteristics and conditions.
- The advancement of groundwater monitoring wells both inside the building at the subject site and off site, directly adjacent to the building.
- The collection of groundwater samples from inside the building at the subject site and off site, directly adjacent to the building. .
- A survey of the area in and around the subject site.
- The construction of a Groundwater Gradient Map.
- The construction of both groundwater and soil Contaminant Plume Maps.
- A summary of the analytical findings respective to the NYSDEC TAGM 4046, Allowable Soil Concentrations and Groundwater Quality Standards.
- Develop recommendations based on the findings of this investigation.

## 2.0 GENERAL SITE INFORMATION

Site Description: The subject site is legally identified as New York City Tax Block 2487, Tax Lots 1, 10, 12, 17, 18, 20, 21, 57, 72, and 78. The current owner since 1983 is the 49 Dupont Realty Corporation.

The subject site is a former manufacturing facility. The New York City Department of Finance Occupancy Code is "F-9, Factory Industrial." According to the Sanborn Map Report from Environmental Data Resources, Inc. (EDR), industrial activity at the subject site dates as far back as 1887.

Historic use of the site has included manufacturing, office, storage, shipping and receiving. More recently, the site had been used as a plastic manufacturing facility since approximately 1950. According to *FPM Group* who completed a Phase I Site Assessment, dated April 2005 for the subject site, reported that commercial uses prior to 1950 included a boiler shop for Logan Ironworks, two stable buildings, a gas and light fixture factory, a sheet metal works, a soap manufacturer, a water proofing manufacturer, and a scrap metal facility.

The North American Industry Classification System (NAICS) listing for the subject site is "Plastic Fitting and Plastic Manufacturing". The factory at the subject site was most recently used to manufacture vinyl sheeting. It had been used as such a facility for the greater part of the 20<sup>th</sup> Century. As of 2004, the factory ended its manufacturing operations.

According to the United States Geological Survey (USGS) Brooklyn, New York 7.5 Minute Series Topographical Map (1995), the Site is situated at an approximate elevation of 13 feet above mean sea level. The location of the Site is shown on the Site Location Map, Figure 1, Appendix A.

In September of 2004, a visual reconnaissance of the site was performed by *RTP Environmental Associates* (RTP). Materials potentially containing asbestos were reported throughout the site. Four (4) silos used to store raw materials were observed on the west side of the property. RTP also reported a drum storage area with drums containing petroleum products. Plasticizers were also found in several areas of the subject site in drums and in concrete lined piping trenches. The on-site contamination, including that of plasticizers has been fully delineated in preparation for environmental remediation.

The environmental work currently being performed by ASR began in May 2006. To address the underground storage tanks (USTs), ASR collected samples from inside each UST. The seventeen (17) USTs were cleaned, rinsed and filled with foam to close them in place in accordance with all NYSDEC regulations. In July of 2006, the tanks were properly registered with the submittal of an updated Petroleum Bulk Storage and Chemical Bulk Storage application to the NYSDEC. Upon completion of the UST decommissioning, ASR prepared and submitted to the NYSDEC a Tank Closure Report dated July, 2006. ASR continued the subsurface investigation activities with the collection of soil and groundwater samples and the installation of a monitoring well network to fully delineate the identified soil and groundwater contamination (see Section 6.0). During future development of a comprehensive remedial plan, ASR has installed and currently maintains an Interim Remedial Measure (IRM) which consists of recovering free phase product (plasticizer) by pumping from two (2) locations. In addition, daily hand bailing is currently being performed. (see Section 9.0)

Surrounding Land Use: The surrounding use of the site is a mix of commercial, residential, and manufacturing. There are a number of mixed use lots with both residential and manufacturing. To the north of the site is a warehouse and a hardware store beyond which is an automotive lot (Figure 2-Aerial Photograph, Appendix A). To the east down Clay Street and Dupont Street are several multi-family residential units. To the south across Dupont Street there are apartments and more residential units. To the west is a small city park.

Sensitive Receptor Survey: A limited sensitive receptor survey was performed to identify any potential sensitive receptors in the vicinity of the subject site. No potable water wells were identified on or in the immediate vicinity of the subject site. The nearest surface water body is New Town Creek, which outflows into the East River located approximately 600 feet northwest of the subject site. As mentioned in the Surrounding Land Use Section, there are residential units to the east and the south of the subject site. Major utilities including water, sanitary, electric and natural gas have also been identified under the streets of Franklyn, Clay, and Commercial.

### **3.0 REGIONAL GEOLOGY/HYDROGEOLOGY**

The subject site is located in Brooklyn, New York. The elevation of the site, as presented on the United States Geologic Survey (USGS), Brooklyn Quadrangle Map (1995), is approximately 13 feet above sea level (Figure – 1, Appendix A). The subject site lies within an area classified as Urban Land. This soil type consists of urbanized areas where the majority of surface is covered with buildings, roads, driveways, parking lots, and other manmade structures.

Based on our measurements, the groundwater table is located between 10 ft and 12 ft below grade surface (bgs). This is consistent with a USGS Survey of Water Table Elevation map available to ASR. A northwesterly groundwater flow direction was determined by ASR from a survey of monitoring wells installed on and off site. This groundwater flow direction is supported location and proximity to New Town Creek and the East River, (Figure 6 - Groundwater Gradient Map, Appendix A).

### **4.0 PREVIOUS INVESTIGATIONS/HISTORICAL REVIEW**

The subject site is classified as a Small Quantity, RCRA Hazardous Waste Generator.

RTP Environmental Associates, Inc. of Westbury, New York, conducted a Preliminary Phase I Site Assessment in September, 2004. The report identified the following areas of concern (AOC):

- Identify environmental concerns regarding the 10,000 gallon USTs
- Test the integrity of certain tanks
- Clean the inside of the building
- Get the building up to code with NYC Building Dept.
- Perform additional environmental investigations
- Identify the means of demolition and waste disposal

RTP reports that the main areas of “potential environmental concern” within the property are the USTs and the piping/vent lines associated with them.

In addition to the aforementioned report, FPM Group of Ronkonkoma, New York, conducted a Phase I Environmental Site Assessment in April 2005. This report was much more detailed than the RTP report. FPM Group identified several AOCs. They include:

- UST's, both known and suspected
- Oil-Water Separator
- Sub grade pipe chaseways (trenches)
- Loading Dock Drain
- Drum Storage Area
- Printing Press Pits

- Asbestos
- Silos
- Freight Elevator
- Oil Stained Walls
- Groundwater and soil gas (site wide)

## 5.0 PLASTICIZER IDENTIFICATION

During the manufacturing process to produce various plastic and vinyl products the subject site stored a group of chemicals commonly referred to as plasticizers. These plasticizers include:

Bis(2-ethylhexyl)terephthalate	(Eastman DOTP)
Bis(2-ethylhexyl)adipate	(Eastman DOA)
Phthalate mix	(DINP Plasticizer)
Palatinol 711P phthalate	(BASF 711P)

The listed plasticizers were stored in several large (up to 10,000 gallon) USTs and used depending on the final product. Storage of hecla oil (machine lubricant), fuel oil and acetone was also identified in various USTs. During the subsurface investigation activities for UST closure, plasticizer as a free light non aqueous liquid (LNAPL) was identified in several groundwater monitoring wells.

Between May and December 2006, ASR installed a monitoring well network consisting of 17 groundwater monitoring wells (2 inch diameter) and ten (10) product recovery wells (4 inch diameter). This monitoring well network delineated the vertical and horizontal extent of the LNAPL (Figure - 8, Appendix - A).

In an effort to identify the nature and source of the LNAPL, the above list of plasticizers were supplied to a laboratory and used as a reference to fingerprint match the LNAPL in monitoring wells MW-4 through MW-7, RW-2, RW-3, and RW-5. The results were inconclusive since multiple plasticizers were identified in the same monitoring wells and the references themselves consisted of blends of other compounds including phthalates.

After the delineation of the LNAPL, ASR installed a series of ten (10) strategically located product recovery wells as part of an interim remedial measure (IRM). This IRM was developed and implemented to begin the process of removing LNAPL from the groundwater table. This action is currently ongoing and has successfully recovered over 2,300 gallons of LNAPL plasticizer as of March 27, 2007. The IRM currently consists of two (2) product only pumps and daily hand bailing from all wells containing LNAPL.

### 5.1 Fuel Oil

In addition to plasticizer LNAPL, fuel oil has also been identified as a LNAPL in a confined area in close proximity to the underground fuel oil tank. Monitoring wells MW-1 in the building and MW-9 in the sidewalk adjacent to the fuel oil UST contain LNAPL. The thickness of product in the wells can not be accurately determined due to the high



viscosity of the product. Based on observations made on-site, LNAPL thickness in the monitoring wells appears to be less than one (1) inch. A four (4) inch diameter recovery well (RW-7) was installed adjacent to the fuel oil UST as part of the IRM.

## **6.0 SUBSURFACE SOIL DELINIATION**

Given the size of the subject property, an extensive sampling protocol was developed. ASR staff designed a sampling network that was biased to the locations of the UST's (Borehole & Well Location Map, Figure - 2, Appendix A)

Between May 3, 2006 and July 24, 2006 ASR conducted 41 soil borings through the subject site. The sampling was conducted using a geoprobe direct push sampling rig, collecting discrete soil samples from grade to the groundwater table. At least one (1) sample from each borehole was submitted to a state certified laboratory for analysis of VOCs and SVOCs by EPA Method 8260 Stars and EPA Method 8270 Stars respectively. Several borehole locations were also sampled for pesticides by EPA Method 8081, PCBs by EPA Method 8082, and total RCRA Metals.

The results indicated detectable concentrations of VOCs in the soil samples from nine (9) of the 41 borehole locations, and detectable SVOCs (including plasticizers) in the soil samples from 30 of the 41 locations. Of the 30 samples containing detectable levels of SVOCs, 21 contained only plasticizers. The extent of soil contamination above NYSDEC guidance values was used to develop a Soil Impact Map indicating the delineated extent of the soil contamination by phthalates.

Mercury was detected in one (1) sample collected from soil boring SB-4 on May 2, 2006. Subsequently, the NYSDEC requested that the horizontal and vertical extent of the mercury identified in SB-4 be fully delineated. On December 7, 2006, ASR returned to this location and collected soil samples from the same location and depth as SB-4, five (5) feet north and 5 ft south. The samples were delivered to a state certified laboratory and analyzed for mercury only. The results indicated no detection of mercury in any of the samples collected, including the sample collected from the same location as SB-4.

The soil sample analytical results are summarized in the tables following Section 11.0.

## **7.0 GROUNDWATER MONITORING WELL INSTALLATIONS**

To obtain additional information about the nature of the contaminant, assist in delineating the extent and provide a means to collected groundwater samples, ASR installed a monitoring well network. This network consists of 16 groundwater monitoring wells, four (4) of which are located inside the building. The monitoring wells were installed between May and December, 2006. Photographs of the well installations are attached in Appendix B. In general the well construction consists of 10 feet of 2 inch diameter well screen intersecting the groundwater table with soil riser pipe to the surface. Monitoring wells installed in the building were left stubbed up two feet above grade, and the wells installed in the sidewalks were completed below grade and

covered with a small bolt down manhole cover. Boring logs detailing the subsurface soil classifications and well construction are attached as Appendix – C.

## **8.0 GROUNDWATER SAMPLING ACTIVITIES and RESULTS**

Shortly after the installation of each groundwater monitoring well, ASR returned to the site and gauged the well for depth to water and/or the detection of LNAPL using a sonic product interface probe. Of the 16 groundwater monitoring wells installed by ASR, six (6) contained various thickness of LNAPLs. Due to the presence of floating product, groundwater samples were not obtained from MW-1, MW-4 through MW-7, and MW-9. Groundwater samples from the remaining monitoring wells were collected and delivered to a state certified laboratory for analysis of VOCs and SVOCs by EPA Method 8260 Stars and EPA Method 8270 Stars respectively.

The groundwater sampling results indicated detectable concentrations of VOCs in the groundwater at three (3) of the ten (10) monitoring wells sampled, and detectable SVOCs (including plasticizers) in the groundwater samples from seven (7) of the ten (10) locations. The extent of groundwater contamination above NYSDEC guidance values developed a VOC Plume Map indicating the delineated extent of the soil contamination by phthalates.

No detection of VOCs or SVOCs above NSDEC guidance values were detected in the groundwater monitoring wells located across the adjacent streets.

The groundwater sample analytical results are summarized in the tables following Section 11.0.

## **9.0 INTERIM REMEDIAL MEASURE**

During the field and data collection activities to develop the Phase II environmental site assessment, it was determined that the thickness and extent of the LNAPL identified on the subject site was sufficient enough to design and implement an interim remedial measure. Between October and December, 2006 ASR installed a total of ten (10) four (4) inch diameter product recovery wells. In November, 2006 two (2) recovery wells (RW-3 and RW-10) were retrofitted to maintain pumping units supplied by Spillbuster, Inc. The pumps use an auto seeking computer controlled mechanism to identify the product and groundwater interface. The pumps are designed to maintain less than one (1) inch of product in the well creating a cone-of-depression. Groundwater is not pumped by this system. The recovered product is pumped into 400 gallon capacity totes provided by the site. In addition to pumping, hand bailing of product is performed at the additional recovery wells and any monitoring wells which contain LNAPL. To date over 2,300 gallons of product has been recovered from the site. This IRM is anticipated to continue for product recovery.

## **10.0 GENERATED WASTE DISPOSAL**

During the field activities of the Phase II investigation, drill cuttings were generated. Specifically, the soil cuttings from the installation of groundwater monitoring wells and product recovery wells. A total of three (3) drums of soil were generated. Due to the concentration of Phthalate in the soil cuttings the drums were classified as Hazardous Soils for transportation and disposal to a certified disposal facility. In addition to the soil cuttings several drums of soil and liquid were generated during the UST closure activities. These drum were also properly classified, transported and disposed of at a certified disposal facility. Manifests and Bills of Lading are attached as Appendix – E.

## **11.0 SUMMARY**

### **Free Floating Product**

Under the west side of the building extending into the sidewalk of Franklyn and Clay Streets is a plume of free floating phthalate. This product plume has been delineated and does not extend beyond Franklyn, Clay or Commercial Streets. The plume appears to be stable; this is expected with the decommissioning of all USTs. An IRM has been designed, installed and maintained since November, 2006 and has recovered to date over 2,300 gallons of product.

### **Soil Sample Results**

In the west side of the building at the subject site, several phthalates (plasticizers) were detected at levels above and below the NYSDEC, "Allowable Soil Concentrations." These two phthalates, Bis(2-ethylhexyl)phthalate and Di-n-octylphthalate (believed to be DOTP and DINP respectfully), were detected in several soil boring samples taken from the western portion of the building. In addition, phthalates were detected in the soil below the sidewalk adjacent to the west side of the property. The two phthalates were also detected in the soil under the sidewalk adjacent to the north side of the building (Soil Plume Map, Appendix A).

The analysis of a series of samples collected from the west side of the building indicated the presence of several SVOCs both above and below the NYSDEC, "Allowable Soil Concentrations." This plume was found to be down groundwater gradient of hecla oil USTs. Lower levels of several SVOCs were also detected in the northeast portion of the property in the area of the Fuel Oil USTs.

Overall, VOCs were detected in a total of nine (9) soil borings, with the total VOCs ranging from 17 ppb to 40,500 ppb. The higher levels of VOCs were detected near the hecla oil tanks and #2 fuel oil tanks.

### **Groundwater Samples Results Summary**

The phthalates detected inside the building, Bis(2-ethylhexyl)phthalate and Di-n-octylphthalate, were also detected in the groundwater inside the building. During the off site groundwater investigation, the phthalates were detected in wells directly adjacent to the building to the west. Based on the results of the groundwater monitoring wells, a plume of phthalates appears to be beneath the western portion of the building as well as down gradient under the sidewalk. No

detection of VOCs or SVOCs above NYSDEC guidance values were detected in the groundwater monitoring wells located across the adjacent streets.

VOCs in the groundwater were detected around the fuel oil UST in the northeast portion of the subject site.

### **Conclusion**

Based on research, monitoring data and the analysis of the soil and groundwater samples collected in and adjacent to the subject site, several conclusions are suggested. It is suggested that a significant amount of plasticizers are currently adhered to the subsurface soils on the western portion of the subject site. Free floating phthalates (LNAPLs) has been identified in several monitoring wells in the western portion of the subject site as well as in the adjacent sidewalk on Franklyn Avenue and Clay Street.

Several smaller areas of soil and groundwater believed to be contaminated with oil constituents exist within the phthalate plume. A small area of VOC contamination exists in the north east portion of the property.

Based on the estimated volume of the contaminants detected, it is suggested that the phthalate plume is the largest area of concern. The phthalate plume, along with other minor contamination will be addressed as stated in the following section.

### **Recommendations**

Based on the recognized environmental conditions identified during the Phase II Site Assessment, ASR makes the following recommendations for the subject property referenced as 49-55 Dupont Street in Brooklyn, New York:

- Continue the existing IRM, with a consideration of product recovery enhancement.
- Develop a conceptual design and potential work plan for excavation and removal of soil with the greatest concentration of phthalates.
- Coordinate on going remediation with the future use of the property.
- Consider removal of the USTs that are suspected of being the source of the product as a method for potential increased product recovery in the source area.
- Continue monitoring and sampling on and off-site groundwater monitoring wells on a quarterly schedule.

## Soil Sampling Results Tables

**TABLE - 1**  
**Soil Analytical Results (ppb)**

Parameter	TAGM 4046	SB-1		SB-2		SB-3		SB-4		SB-5		SB-6		SB-7	
		1-5ft	5-10ft	1-5ft	10-12ft	1-5ft	5-10ft	1-5ft	13-15ft	1-5ft	10-12ft	1-5ft	14-16ft	1-5ft	11-13ft
VOCs (ug/kg)															
1,2,4-Trimethylbenzene	130	ND	ND	ND	1,700	ND	ND	ND	ND	ND	260	ND	ND	ND	ND
1,3,5-Trimethylbenzene	33	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	ND	ND	ND	ND
p-Isopropyltoluene	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	37	ND	ND	ND	ND
Benzene	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	55	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m,p-Xylenes	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	45	ND	ND	ND	ND
MTBE	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	130	ND	ND	ND	ND	ND	ND	ND	ND	ND	70	ND	ND	ND	ND
n-Butylbenzene	120	ND	ND	ND	ND	ND	ND	ND	ND	ND	56	ND	ND	ND	ND
n-Propylbenzene	37	ND	ND	ND	ND	ND	ND	ND	ND	ND	35	ND	ND	ND	ND
o-Xylene	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	54	ND	ND	ND	ND
SVOCs (ug/kg)															
Acenaphthene	920	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	370	ND
Anthracene	7,000	ND	ND	ND	ND	ND	ND	1,800	ND	1,700	ND	550	ND	620	ND
Benzo [a] anthracene	28	ND	ND	ND	ND	ND	ND	3,900	ND	3,500	ND	2,000	ND	2,800	ND
Benzo [a] pyrene	110	ND	ND	ND	ND	ND	ND	2,700	ND	2,000	ND	1,300	ND	1,900	ND
Benzo [b] fluoranthene	11	ND	ND	ND	ND	ND	ND	2,400	ND	2,300	ND	1,400	ND	1,800	ND
Benzo [g,h,i] perylene	80,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	390	ND	600	ND
Benzo [k] fluoranthene	11	ND	ND	ND	ND	ND	ND	2,900	ND	1,900	ND	1,100	ND	1,400	ND
Chrysene	4	ND	ND	ND	ND	ND	ND	4,000	ND	3,300	ND	1,800	ND	2,600	ND
Dibenze [a,h] anthracene	1,650,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	340	ND
Fluoranthene	19,000	ND	ND	ND	ND	ND	ND	11,000	ND	8,300	ND	4,600	ND	5,500	ND
Fluorene	3,650	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno [1,2,3-cd] pyrene	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	500	ND	680	ND
Naphthalene	130	ND	ND	ND	ND	ND	ND	2,000	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	2,180	ND	ND	ND	ND	ND	ND	13,000	ND	8,400	ND	2,700	ND	4,000	ND
Pyrene	6,650	ND	ND	ND	ND	ND	ND	9,000	ND	7,100	ND	4,000	ND	5,100	ND
Bis(2-ethylhexyl)phthalate	4,350	ND	ND	ND	ND	ND	190	ND	140,000	ND	150,000	ND	12,000,000	4,800	6,800
Di-n-octylphthalate	1,200	ND	ND	ND	ND	ND	ND	ND	200,000	ND	ND	ND	ND	ND	ND

Guidance value is the NYSDEC Soil Cleanup Objective based on NYSDEC's TAGM 4046, dated January 24, 1994, revised August 22, 2001.

NS - Not Sampled

ND - Not detected above laboratory's minimum detection limit.

**TABLE - 1**  
**Soil Analytical Results (ppb)**

Parameter	TAGM 4046	SB-8	SB-9	SB-10	SB-11	SB-12	SB-13	SB-14	SB-15	SB-16	SB-17	SB-18	SB-19
<b>VOCs (ug/kg)</b>													
1,2,4-Trimethylbenzene	130	ND	ND	ND	ND	ND	ND	11,000	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	33	ND	ND	ND	ND	ND	ND	2,300	ND	ND	ND	ND	ND
p-Isopropyltoluene	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	55	ND	ND	ND	ND	ND	ND	860	ND	ND	ND	ND	ND
Isopropylbenzene	23	ND	ND	ND	ND	ND	ND	660	ND	ND	ND	ND	ND
m,p-Xylenes	12	ND	ND	ND	ND	ND	ND	2,300	ND	ND	ND	ND	ND
MTBE	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	130	ND	ND	ND	ND	ND	ND	14,000	ND	ND	ND	ND	ND
n-Butylbenzene	120	ND	ND	ND	ND	ND	ND	2,600	ND	ND	ND	ND	ND
n-Propylbenzene	37	ND	ND	ND	ND	ND	ND	1,400	ND	ND	ND	ND	ND
o-Xylene	12	ND	ND	ND	ND	ND	ND	650	ND	ND	ND	ND	ND
sec-Butylbenzene	110	ND	ND	ND	ND	ND	ND	870	ND	ND	ND	ND	ND
Toluene	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>SVOCs (ug/kg)</b>													
Acenaphthene	920	ND	ND	ND	ND	ND	ND	ND	ND	ND	580	ND	ND
Anthracene	7,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	390	ND	ND
Benzo [a] anthracene	28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [a] pyrene	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [b] fluoranthene	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [g,h,i] perylene	80,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [k] fluoranthene	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenze [a,h] anthracene	1,650,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	19,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	3,650	ND	ND	ND	ND	ND	ND	ND	ND	ND	340	ND	ND
Indeno [1,2,3-cd] pyrene	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	270	ND	ND
Naphthalene	130	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	2,180	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,500	ND	ND
Pyrene	6,650	ND	ND	ND	ND	ND	ND	ND	ND	ND	710	ND	ND
Bis(2-ethylhexyl)phthalate	4,350	280	170	ND	260	ND	370	ND	ND	ND	500	ND	ND
Di-n-octylphthalate	1,200	ND	ND	ND	ND	ND	ND	ND	ND	300	ND	ND	ND

Guidance value is the NYSDEC Soil Cleanup Objective based on NYSDEC's TAGM 4046, dated January 24, 1994, revised August 22, 2001.  
 NS - Not Sampled  
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**TABLE - 1**  
**Soil Analytical Results (ppb)**

Parameter	TAGM 4046	SB-20	SB-21	SB-23	SB-24	SB-32	SB-34	SB-36	SB-37	SB-38a	SB-38b	SB-39
<b>VOCs (ug/kg)</b>												
1,2,4-Trimethylbenzene	130	ND	ND	ND	ND	ND	74	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	33	ND	ND	ND	ND	ND	30	ND	ND	ND	ND	ND
p-Isopropyltoluene	110	ND	ND	ND	ND	ND	11	ND	ND	ND	ND	210
Benzene	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	55	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	190
m,p-Xylenes	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	130	ND	ND	ND	ND	ND	28	ND	ND	ND	ND	ND
n-Butylbenzene	120	ND	ND	ND	ND	ND	25	ND	ND	ND	ND	930
n-Propylbenzene	37	ND	ND	ND	ND	ND	10	ND	ND	ND	ND	740
o-Xylene	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	110	ND	ND	ND	ND	ND	12	ND	ND	ND	ND	400
Toluene	15	ND	ND	ND	ND	ND	27	ND	ND	ND	ND	ND
<b>SVOCs (ug/kg)</b>												
Acenaphthene	920	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	13,000
Anthracene	7,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	25,000
Benzo [a] anthracene	28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	44,000
Benzo [a] pyrene	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	33,000
Benzo [b] fluoranthene	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	26,000
Benzo [g,h,i] perylene	80,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8,600
Benzo [k] fluoranthene	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	32,000
Chrysene	4	ND	ND	220	ND	ND	ND	ND	ND	ND	ND	48,000
Dibenze [a,h] anthracene	1,650,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	19,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	88,000
Fluorene	3,650	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	17,000
Indeno [1,2,3-cd] pyrene	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10,000
Naphthalene	130	ND	ND	1,600	ND	ND	ND	ND	ND	ND	ND	12,000
Phenanthrene	2,180	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	86,000
Pyrene	6,650	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	80,000
Bis(2-ethylhexyl)phthalate	4,350	ND	ND	380	14,000	1,500	610,000	ND	100,000	3,500	ND	ND
Di-n-octylphthalate	1,200	ND	ND	ND	16,000	ND	41,000	1,000	8,300	ND	1,000	ND

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**TABLE - 1**  
**Soil Analytical Results (ppb)**

Parameter	TAGM 4046	SB-44	SB-46	SB-48	SB-49	SB-50	SB-51	SB-52	SB-56	SB-57	SB-58	SB-59
<b>VOCs (ug/kg)</b>												
1,2,4-Trimethylbenzene	130	73	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	55	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m,p-Xylenes	12	62	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	130	170	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	120	130	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	37	58	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>SVOCs (ug/kg)</b>												
Acenaphthene	920	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	7,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [a] anthracene	28	ND	ND	ND	ND	ND	ND	840	ND	ND	ND	ND
Benzo [a] pyrene	110	ND	ND	ND	ND	ND	ND	780	ND	ND	ND	ND
Benzo [b] fluoranthene	11	ND	ND	ND	ND	ND	ND	730	ND	ND	ND	ND
Benzo [g,h,i] perylene	80,000	ND	ND	ND	ND	ND	ND	280	ND	ND	ND	ND
Benzo [k] fluoranthene	11	ND	ND	ND	ND	ND	ND	590	ND	ND	ND	ND
Chrysene	4	ND	220	ND	ND	ND	ND	740	ND	ND	ND	ND
Dibenze [a,h] anthracene	1,650,000	ND	ND	ND	ND	ND	ND	210	ND	ND	ND	ND
Fluoranthene	19,000	ND	ND	ND	ND	ND	ND	1,200	ND	ND	ND	ND
Fluorene	3,650	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno [1,2,3-cd] pyrene	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	130	ND	ND	ND	690	220	ND	ND	ND	ND	ND	ND
Phenanthrene	2,180	ND	ND	ND	ND	ND	ND	570	ND	ND	ND	ND
Pyrene	6,650	ND	ND	ND	ND	ND	ND	1,300	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	4,350	20,000,000	340	4,800	230	3,700	34,000	3,400	ND	ND	ND	ND
Di-n-octylphthalate	1,200	ND	ND	ND	330	1,000	11,000	460	ND	6,800	ND	ND

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**TABLE - 1**  
**Soil Analytical Results (ppb)**

Parameter	TAGM 4046	MW-5		MW-6		MW-7		MW-8		MW-9		MW-10		MW-11
		4-9ft	10-15ft	5-10ft	10-15ft	5-10ft	10-15ft	5-10ft	10-15ft	5-10ft	10-15ft	5-10ft	10-15ft	
<b>VOCs (ug/kg)</b>														
1,2,4-Trimethylbenzene	130	ND	420	ND	ND	ND	35	ND	ND	ND	ND	ND	ND	8-10ft
1,3,5-Trimethylbenzene	33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	55	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m,p-Xylenes	12	ND	ND	ND	ND	ND	36	ND	ND	ND	ND	ND	ND	ND
MTBE	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	130	ND	220	ND	ND	ND	ND	ND	ND	4,000	3,600	ND	ND	ND
n-Butylbenzene	120	ND	ND	ND	ND	ND	ND	ND	ND	1,100	1,100	ND	ND	ND
n-Propylbenzene	37	ND	ND	ND	ND	ND	ND	ND	ND	850	1,100	ND	ND	ND
o-Xylene	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	110	ND	ND	31	ND	ND	ND	ND	ND	720	690	ND	ND	ND
Toluene	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>SVOCs (ug/kg)</b>														
Acenaphthene	920	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	170
Anthracene	7,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	320
Benzo [a] anthracene	28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	350
Benzo [a] pyrene	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	180
Benzo [b] fluoranthene	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [g,h,i] perylene	80,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [k] fluoranthene	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	210
Chrysene	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	320
Dibenze [a,h] anthracene	1,650,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	19,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	740
Fluorene	3,650	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	170
Indeno [1,2,3-cd] pyrene	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	130	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	2,180	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	890
Pyrene	6,650	ND	ND	ND	ND	ND	ND	ND	ND	5,600	17,000	ND	ND	600
Bis(2-ethylhexyl)phthalate	4,350	ND	6,700,000	9,500,000	1,900,000	3,600	1,700,000	ND	12,000	ND	59,000	ND	6,300	ND
Di-n-octylphthalate	1,200	ND	1,300,000	ND	180,000	ND	ND	ND	ND	ND	ND	ND	ND	ND

Guidance value is the NYSDEC Soil Cleanup Objective based on NYSDEC's TAGM 4046, dated January 24, 1994, revised August 22, 2001.

NS - Not Sampled

ND - Not detected above laboratory's minimum detection limit

**TABLE - 1**  
**Soil Analytical Results (ppb)**

Parameter	TAGM 4046	MW-12 8-10ft	MW-13 8-10ft	MW-14 8-10ft	MW-15 8-10ft	MW-16 8-10ft	ASR-11 5-10ft 10-15ft	ASR-12 5-10ft 10-15ft
<b>VOCs (ug/kg)</b>								
1,2,4-Trimethylbenzene	130	73	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	33	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	110	ND	ND	ND	ND	ND	ND	ND
Benzene	0.6	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	55	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	23	ND	ND	ND	ND	ND	ND	ND
m,p-Xylenes	12	ND	ND	ND	ND	ND	ND	ND
MTBE	1.2	ND	ND	ND	ND	ND	ND	ND
Naphthalene	130	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	120	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	37	ND	ND	ND	ND	ND	ND	ND
o-Xylene	12	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	110	ND	ND	ND	ND	ND	ND	ND
Toluene	15	ND	ND	ND	ND	ND	ND	ND
<b>SVOCs (ug/kg)</b>								
Acenaphthene	920	ND	ND	ND	ND	ND	ND	ND
Anthracene	7,000	ND	ND	ND	ND	ND	ND	ND
Benzo [a] anthracene	28	ND	ND	ND	ND	ND	ND	ND
Benzo [a] pyrene	110	ND	ND	ND	ND	ND	ND	ND
Benzo [b] fluoranthene	11	ND	ND	ND	ND	ND	ND	ND
Benzo [g,h,i] perylene	80,000	ND	ND	ND	ND	ND	ND	ND
Benzo [k] fluoranthene	11	ND	ND	ND	ND	ND	ND	ND
Chrysene	4	ND	ND	ND	ND	ND	ND	ND
Dibenze [a,h] anthracene	1,650,000	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	19,000	ND	ND	ND	ND	ND	ND	ND
Fluorene	3,650	ND	ND	ND	ND	ND	ND	ND
Indeno [1,2,3-cd] pyrene	32	ND	ND	ND	ND	ND	ND	ND
Naphthalene	130	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	2,180	ND	ND	ND	ND	ND	ND	ND
Pyrene	6,650	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	4,350	ND	ND	ND	ND	ND	190	ND
Di-n-octylphthalate	1,200	ND	ND	ND	ND	990	ND	ND

Guidance value is the NYSDEC Soil Cleanup Objective based on NYSDEC's TAGM 4046, dated January 24, 1994, revised August 22, 2001.  
NS - Not Sampled  
ND - Not detected above laboratory's minimum detection limit

## Groundwater Sampling Results Tables

**TABLE - 1**  
**Soil Analytical Results (ppb)**

Parameter	TAGM 4046	MW- 12 8-10ft	MW-13 8-10ft	MW-14 8-10ft	MW-15 8-10ft	MW-16 8-10ft	ASR-11 5-10ft 10-15ft	ASR-12 5-10ft 10-15ft
<b>VOCs (ug/kg)</b>								
1,2,4-Trimethylbenzene	130	73	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	33	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	110	ND	ND	ND	ND	ND	ND	ND
Benzene	0.6	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	55	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	23	ND	ND	ND	ND	ND	ND	ND
m,p-Xylenes	12	ND	ND	ND	ND	ND	ND	ND
MTBE	1.2	ND	ND	ND	ND	ND	ND	ND
Naphthalene	130	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	120	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	37	ND	ND	ND	ND	ND	ND	ND
o-Xylene	12	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	110	ND	ND	ND	ND	ND	ND	ND
Toluene	15	ND	ND	ND	ND	ND	ND	ND
<b>SVOCs (ug/kg)</b>								
Acenaphthene	920	ND	ND	ND	ND	ND	ND	ND
Anthracene	7,000	ND	ND	ND	ND	ND	ND	ND
Benzo [a] anthracene	28	ND	ND	ND	ND	ND	ND	ND
Benzo [a] pyrene	110	ND	ND	ND	ND	ND	ND	ND
Benzo [b] fluoranthene	11	ND	ND	ND	ND	ND	ND	ND
Benzo [g,h,i] perylene	80,000	ND	ND	ND	ND	ND	ND	ND
Benzo [k] fluoranthene	11	ND	ND	ND	ND	ND	ND	ND
Chrysene	4	ND	ND	ND	ND	ND	ND	ND
Dibenze [a,h] anthracene	1,650,000	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	19,000	ND	ND	ND	ND	ND	ND	ND
Fluorene	3,650	ND	ND	ND	ND	ND	ND	ND
Indeno [1,2,3-cd] pyrene	32	ND	ND	ND	ND	ND	ND	ND
Naphthalene	130	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	2,180	ND	ND	ND	ND	ND	ND	ND
Pyrene	6,650	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	4,350	ND	ND	ND	ND	ND	190	ND
Di-n-octylphthalate	1,200	ND	ND	ND	ND	990	ND	ND

Guidance value is the NYSDEC Soil Cleanup Objective based on NYSDEC's TAGM 4046, dated January 24, 1994, revised August 22, 2001.  
NS - Not Sampled  
ND - Not detected above laboratory's minimum detection limit

**TABLE - 2**  
**Groundwater Sampling Results Data**

Parameter	TOGS 1.1.1	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10
<b>VOCs (ug/L)</b>											
1,2,4-Trimethylbenzene	5	ND	ND	ND	ND	6	11	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	11	ND
Isopropylbenzene	5	5	ND	ND	ND	ND	ND	ND	ND	8	ND
m,p-Xylenes	10	ND	ND	ND	ND	ND	ND	ND	ND	11	ND
MTBE	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	75	ND	ND	ND	8	ND	ND	ND	71	ND
n-Butylbenzene	5	6	ND	ND	ND	ND	ND	ND	ND	6	ND
n-Propylbenzene	5	7	ND	ND	ND	ND	ND	ND	ND	10	ND
o-Xylene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	5	9	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>SVOCs (ug/L)</b>											
Acenaphthene	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [a] anthracene	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [a] pyrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [b] fluoranthene	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [g,h,i] perylene	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo [k] fluoranthene	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenze [a,h] anthracene	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	50	75	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno [1,2,3-cd] pyrene	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	99	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	50	110	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	5	ND	60	31	120,000	780,000	1,300,000	370,000	89	ND	6
Di-n-octylphthalate	50	ND	ND	ND	160,000	90,000	ND	ND	ND	ND	ND

Guidance value is the NYSDEC Groundwater Quality Standards based on NYSDEC's TOGS 1.1.1, dated October 22, 1993, revised June 1998.  
NS - Not Sampled

ND - Not detected above laboratory's minimum detection limit.

**TABLE - 2**  
**Groundwater Sampling Results Data**

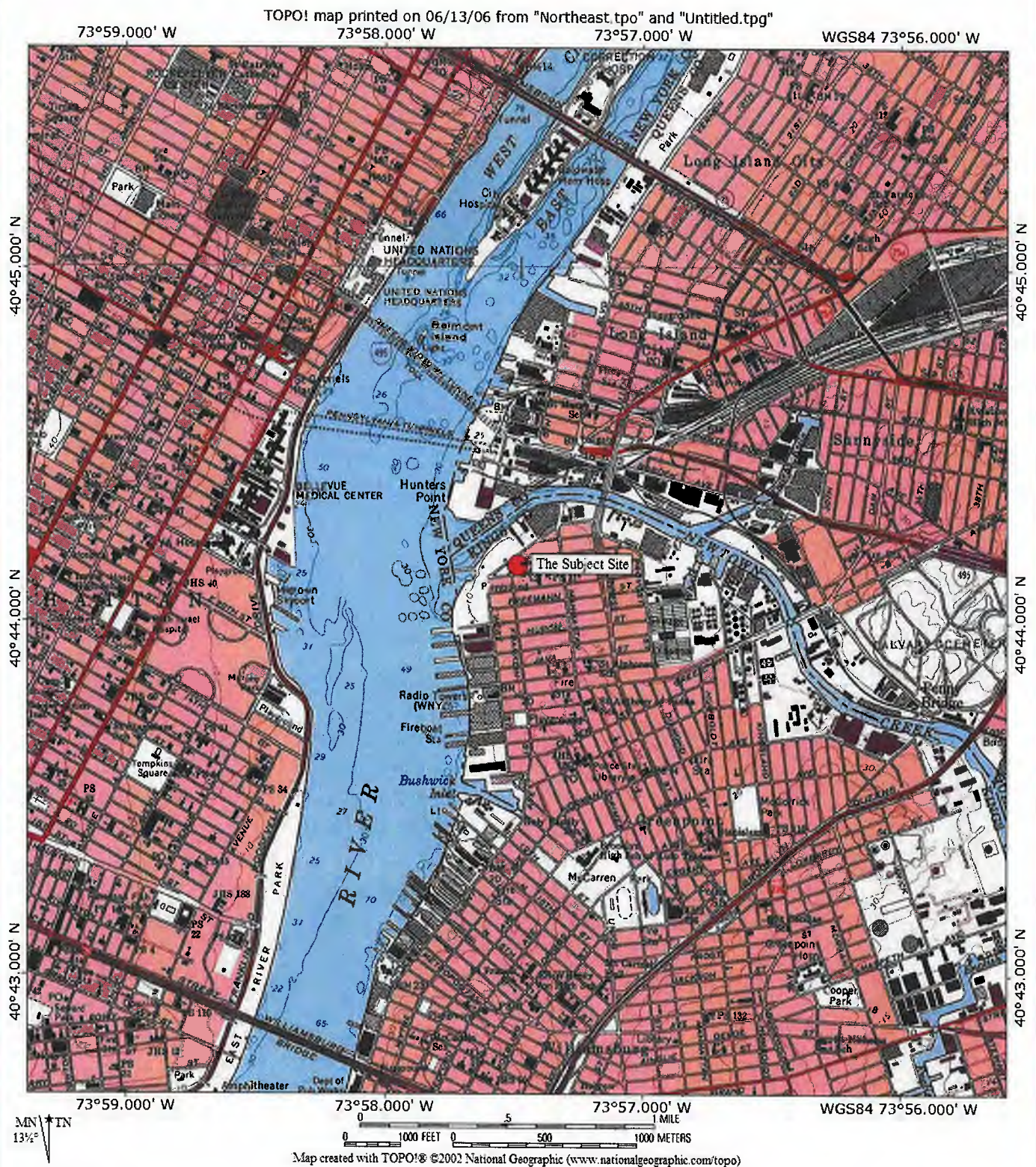
Parameter	TOGS 1.1.1	MW-11	MW-12	MW-13	MW-14	ASR-11	ASR-12
<b>VOCs (ug/L)</b>							
1,2,4-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	5	ND	ND	ND	ND	ND	ND
Benzene	1	ND	ND	ND	ND	2	ND
Ethylbenzene	5	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5	ND	ND	ND	ND	ND	ND
m,p-Xylenes	10	ND	ND	ND	ND	ND	ND
MTBE	10	ND	ND	ND	ND	ND	ND
Naphthalene	10	ND	ND	ND	ND	ND	2,300
n-Butylbenzene	5	ND	ND	ND	ND	ND	ND
n-Propylbenzene	5	ND	ND	ND	ND	ND	ND
o-Xylene	5	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	5	ND	ND	ND	ND	ND	ND
Toluene	5	ND	ND	ND	ND	ND	ND
<b>SVOCs (ug/L)</b>							
Acenaphthene	20	ND	ND	ND	ND	ND	ND
Anthracene	50	ND	ND	ND	ND	ND	ND
Benzo [a] anthracene	0.002	ND	ND	ND	ND	ND	ND
Benzo [a] pyrene	ND	ND	ND	ND	ND	ND	ND
Benzo [b] fluoranthene	0.002	ND	ND	ND	ND	ND	ND
Benzo [g,h,i] perylene	0.002	ND	ND	ND	ND	ND	ND
Benzo [k] fluoranthene	0.002	ND	ND	ND	ND	ND	ND
Chrysene	0.002	ND	ND	ND	ND	ND	ND
Dibenze [a,h] anthracene	0.002	ND	ND	ND	ND	ND	ND
Fluoranthene	50	ND	ND	ND	ND	ND	ND
Fluorene	50	ND	ND	ND	ND	ND	ND
Indeno [1,2,3-cd] pyrene	0.002	ND	ND	ND	ND	ND	ND
Naphthalene	10	ND	ND	ND	ND	ND	210
Phenanthrene	50	ND	ND	ND	ND	ND	ND
Pyrene	50	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	5	ND	17	ND	ND	18	ND
Di-n-octylphthalate	50	ND	ND	ND	ND	ND	ND

Guidance value is the NYSDEC Groundwater Quality Standards based on NYSDEC's TOGS 1.1.1, dated October 22, 1993, revised June 1998.  
NS - Not Sampled  
ND - Not detected above laboratory's minimum detection limit.

## **APPENDIX – A**

### **Figures**



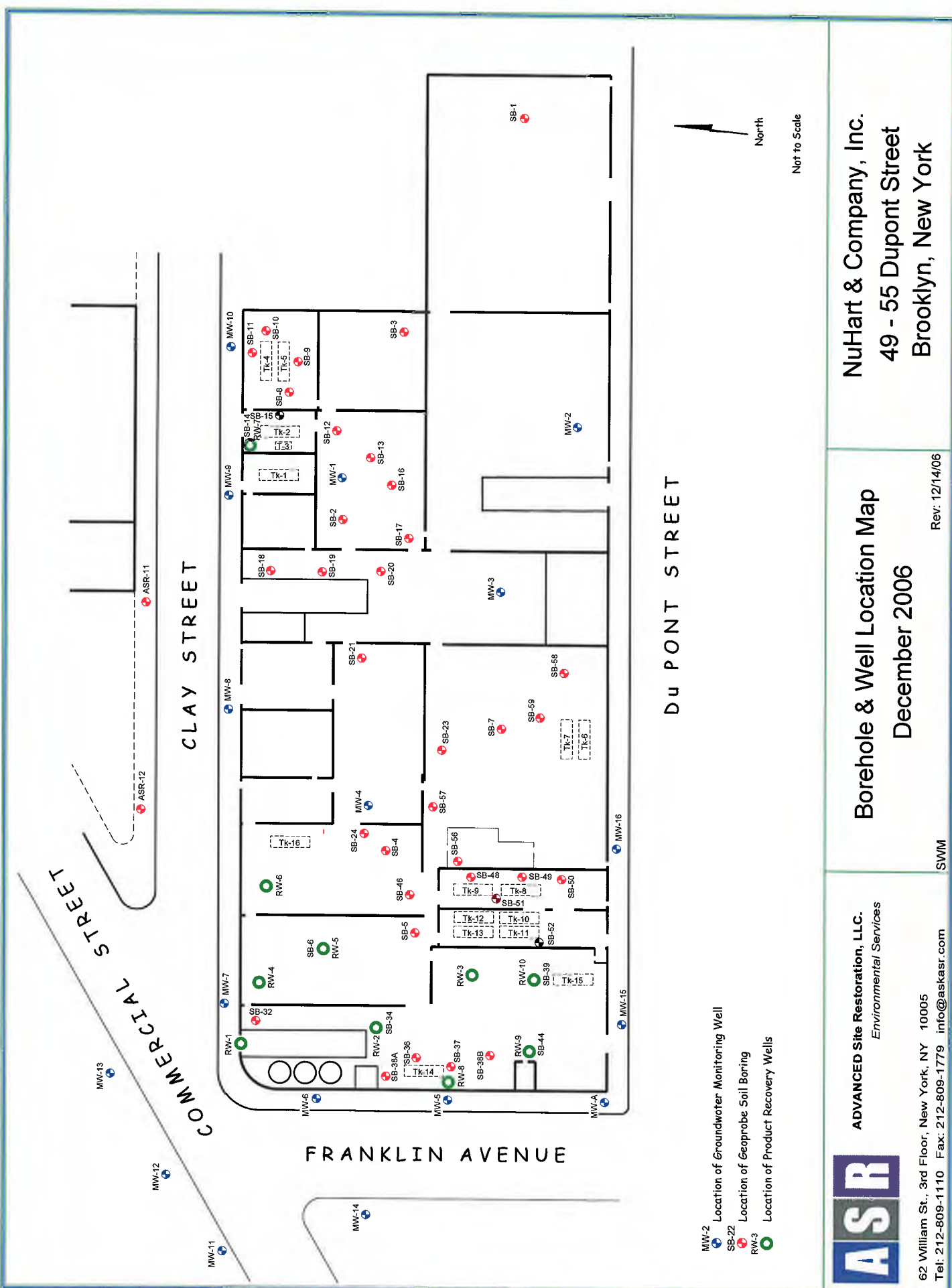


ADVANCED Site Restoration, LLC.  
Environmental Services

62 William St., 3rd Floor, New York, NY 10005  
Tel: 212-809-1110 Fax: 212-809-1779 info@askasr.com

Figure - 1  
Site Location Map  
49-55 Dupont Street  
Brooklyn, New York 11222





NuHart & Company, Inc.  
49 - 55 Dupont Street  
Brooklyn, New York

# Borehole & Well Location Map

December 2006

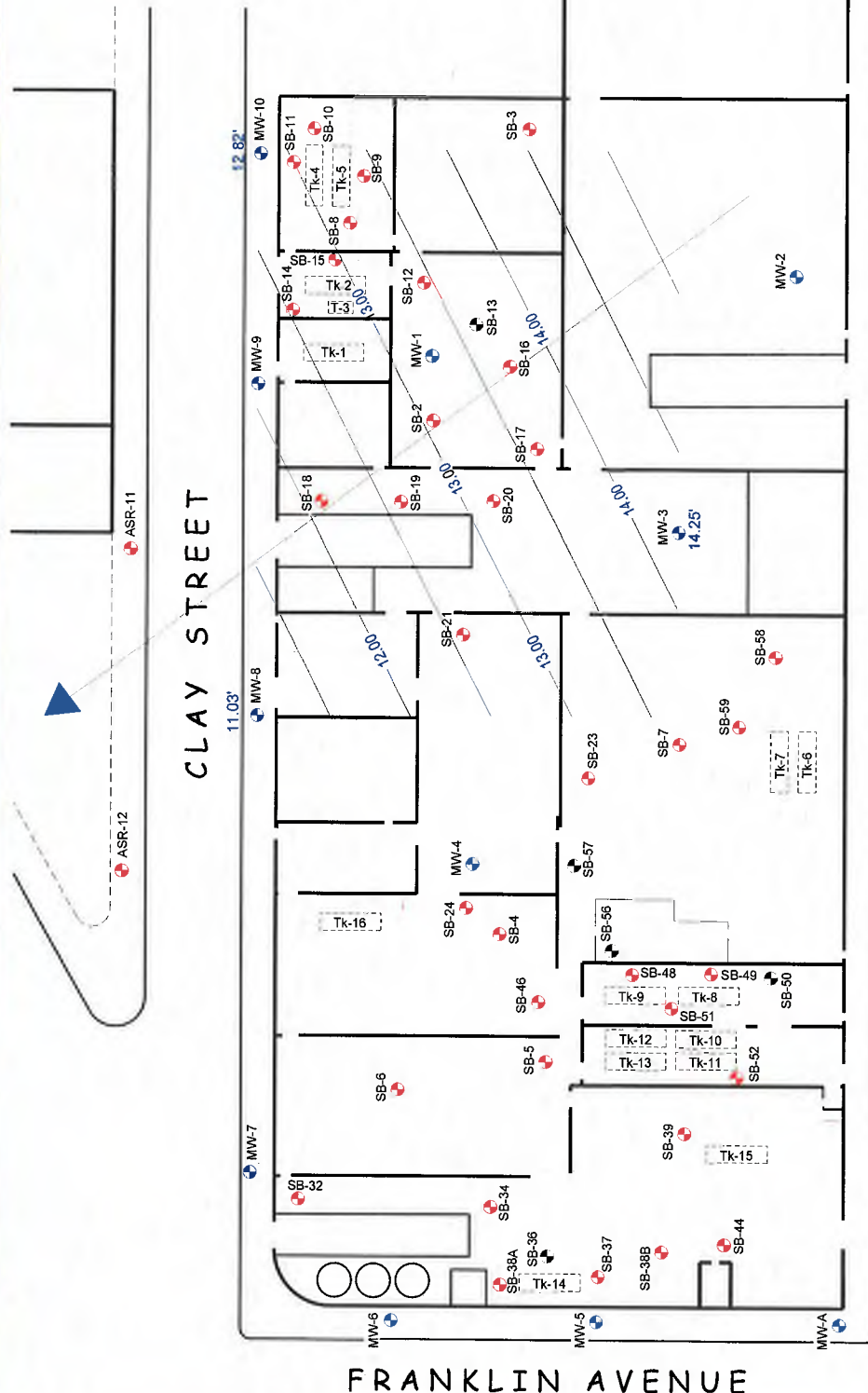
Rev. 12/14/06

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Environmental Services



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SWM



Du PONT STREET

MW-2 Location of Groundwater Monitoring Well  
 SB-22 Location of Geoprobe Soil Boring

North  
 Not to Scale



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*Environmental Services*

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**Groundwater Gradient Map**

August 1, 2006

Rev. 08/23/06

SWM

**NuHart & Company, Inc.**  
 49 - 55 Dupont Street  
 Brooklyn, New York


COMMERCIAL STREET

FRANKLIN AVENUE



- MW-2 Location of Groundwater Monitoring Well
- SB-22 Location of Geoprobe Soil Boring
- RW-3 Location of Product Recovery Wells
- Area where LNAPL was detected

# LNAPL Map 49 - 55 Dupont Street Brooklyn, New York April 2007



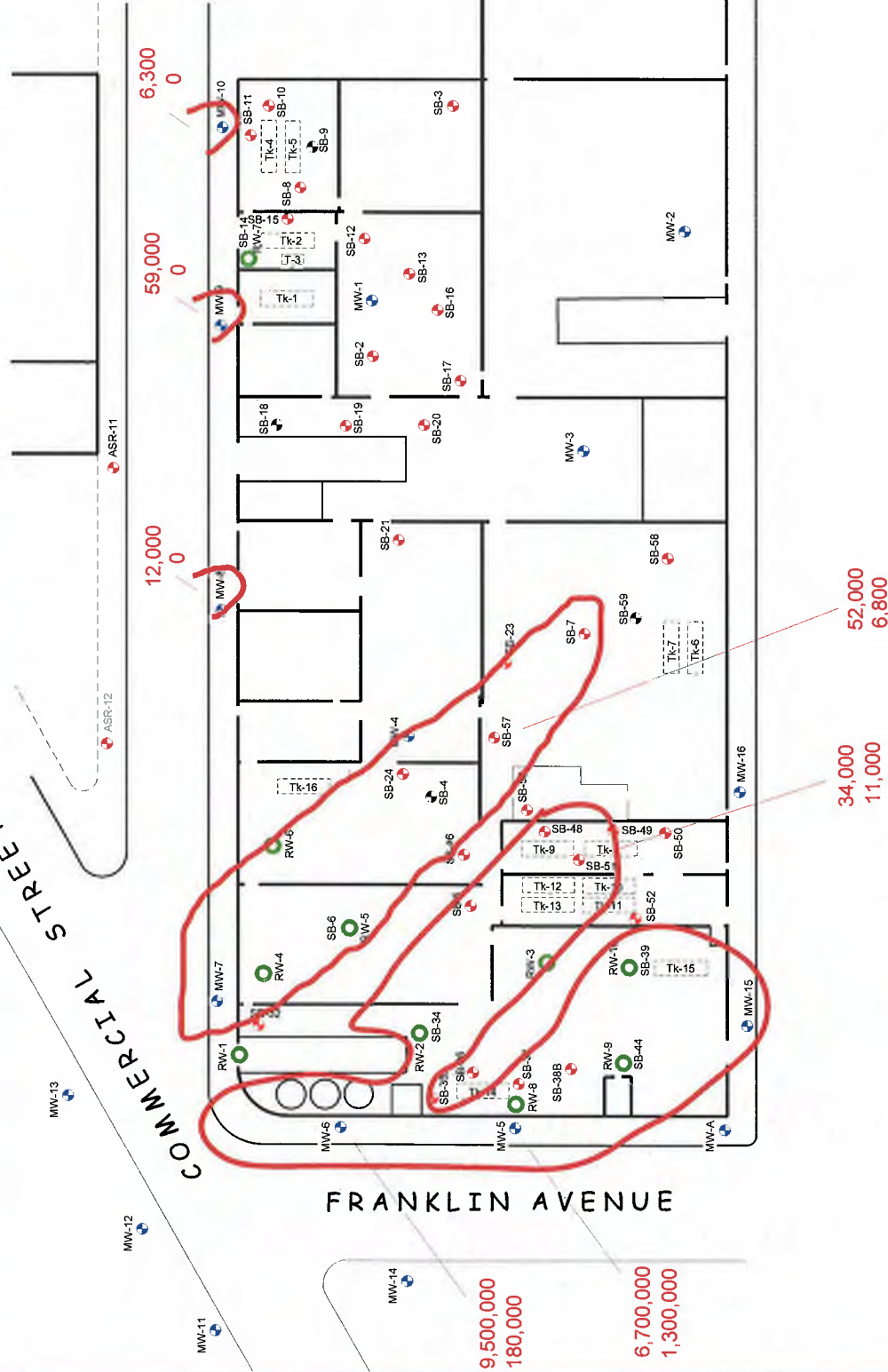
**ADVANCED Site Restoration, LLC.**  
*Environmental Services*

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COMMERCIAL STREET

FRANKLIN AVENUE



Total Bis (2-Ethylhexyl) Phthalate  
Total Di-n-Octylphthalate

MW-2 Location of Groundwater Monitoring Well  
SB-22 Location of Geoprobe Soil Boring  
RW-3 Location of Product Recovery Wells  
Area where Bis (2-ethylhexyl) phthalate and Di-n-octylphthalate were detected above NYCDEC TAGM 4046

Phthalates in Soil Exceeding TAGM 4046  
49 - 55 Dupont Street  
Brooklyn, New York  
April 2007

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Environmental Services



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SWM

North  
Not to Scale

COMMERCIAL STREET

CLAY STREET

FRANKLIN AVENUE

DUPONT STREET

Total VOCs- 36,640 ppb

Total VOCs- 1,700 ppb

Total VOCs- 657 ppb

Total VOCs- 2,470 ppb



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Tel: 212-809-1110 Fax: 212-809-1779 info@askasr.com

VOCs in Soil Exceeding TAGM 4046  
49 - 55 Dupont Street  
Brooklyn, New York  
April 2007

SWM

MW-2 Location of Groundwater Monitoring Well  
SB-22 Location of Geoprobe Soil Boring  
RW-3 Location of Product Recovery Wells

Area where VOCs detected above NYSDEC TAGM 4046

North  
Not to Scale

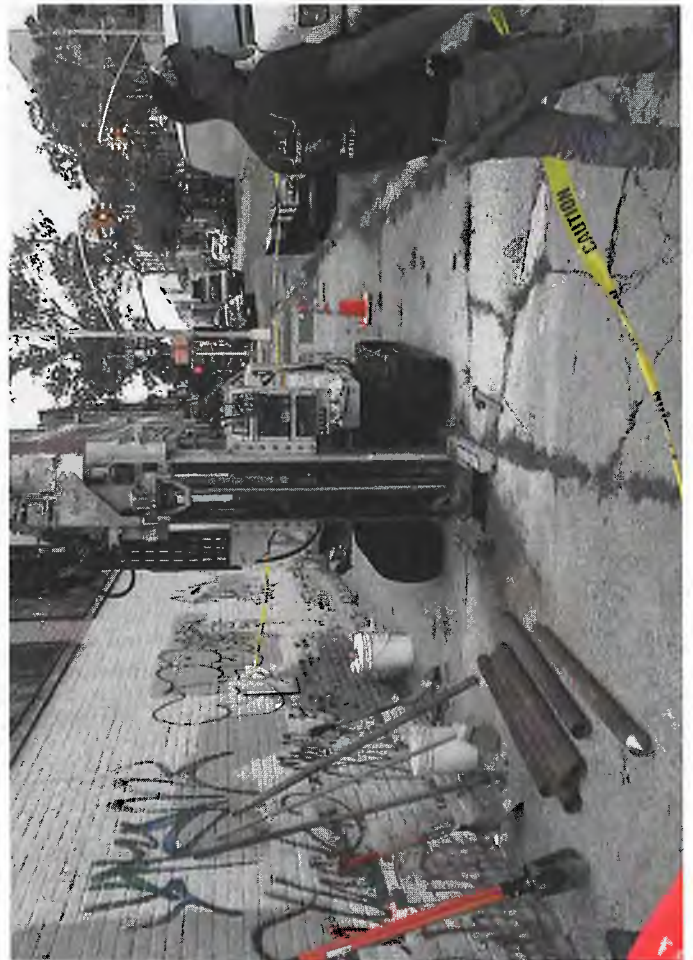
## **APPENDIX – B**

### **Site Photographs**













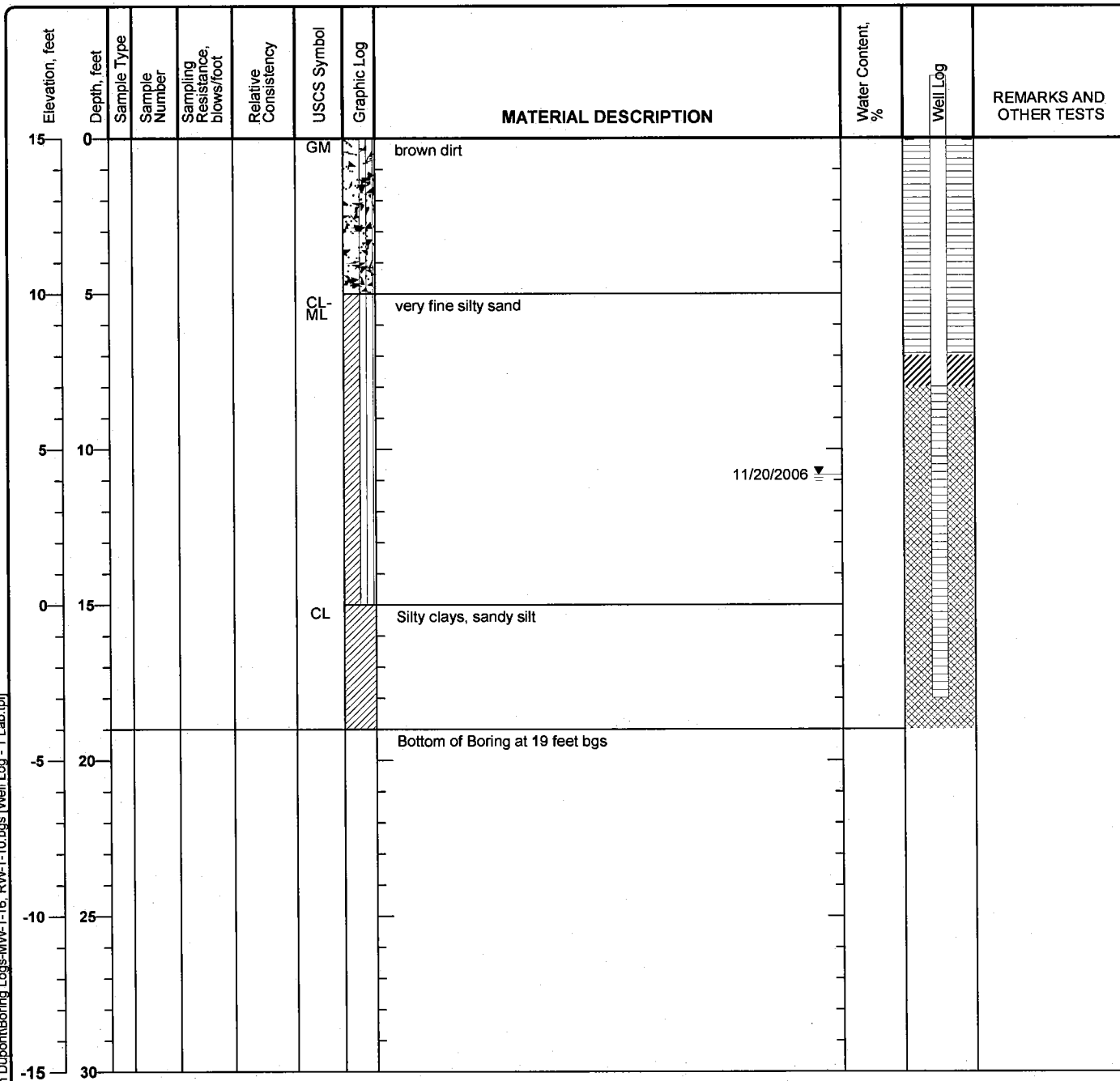
## **APPENDIX - C**

### **Boring Logs**

**Project: Dupont**  
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**  
**Project Number:**

**Log of Boring MW-1**  
 Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level <b>10.83 feet measured on 11/20/2006</b>	Sampling Method(s) <b>None</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Northeast Section of Building, south of Acetone, Fuel Oil tanks</b>	

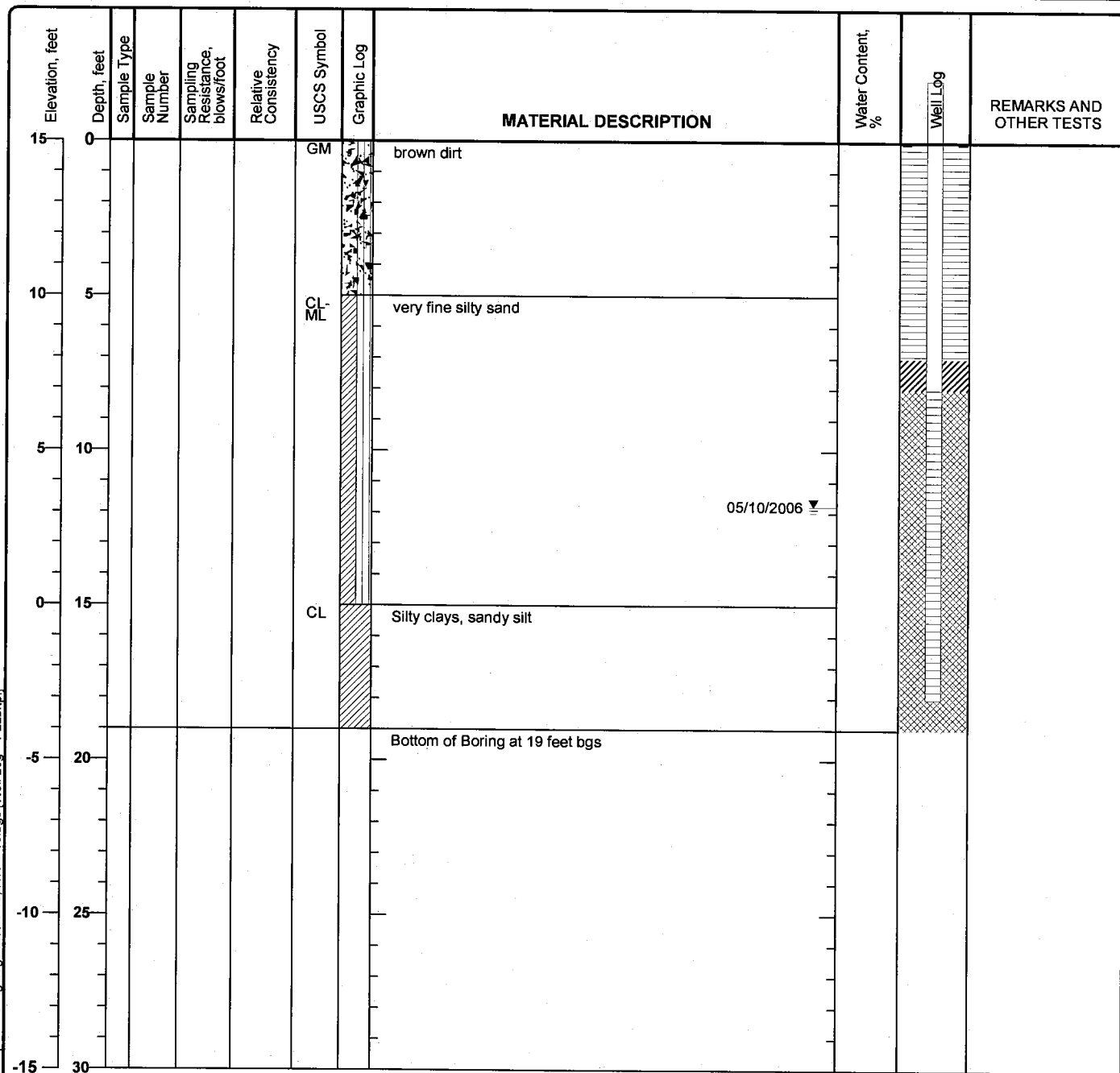


Figure

**Project: Dupont****Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222****Project Number:****Log of Boring MW-2**

Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level <b>11.78 feet measured on and Date Measured 05/10/2006</b>	Sampling Method(s) <b>None</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>South east section of site, away from UST's</b>	



Figure

**Project: Dupont**

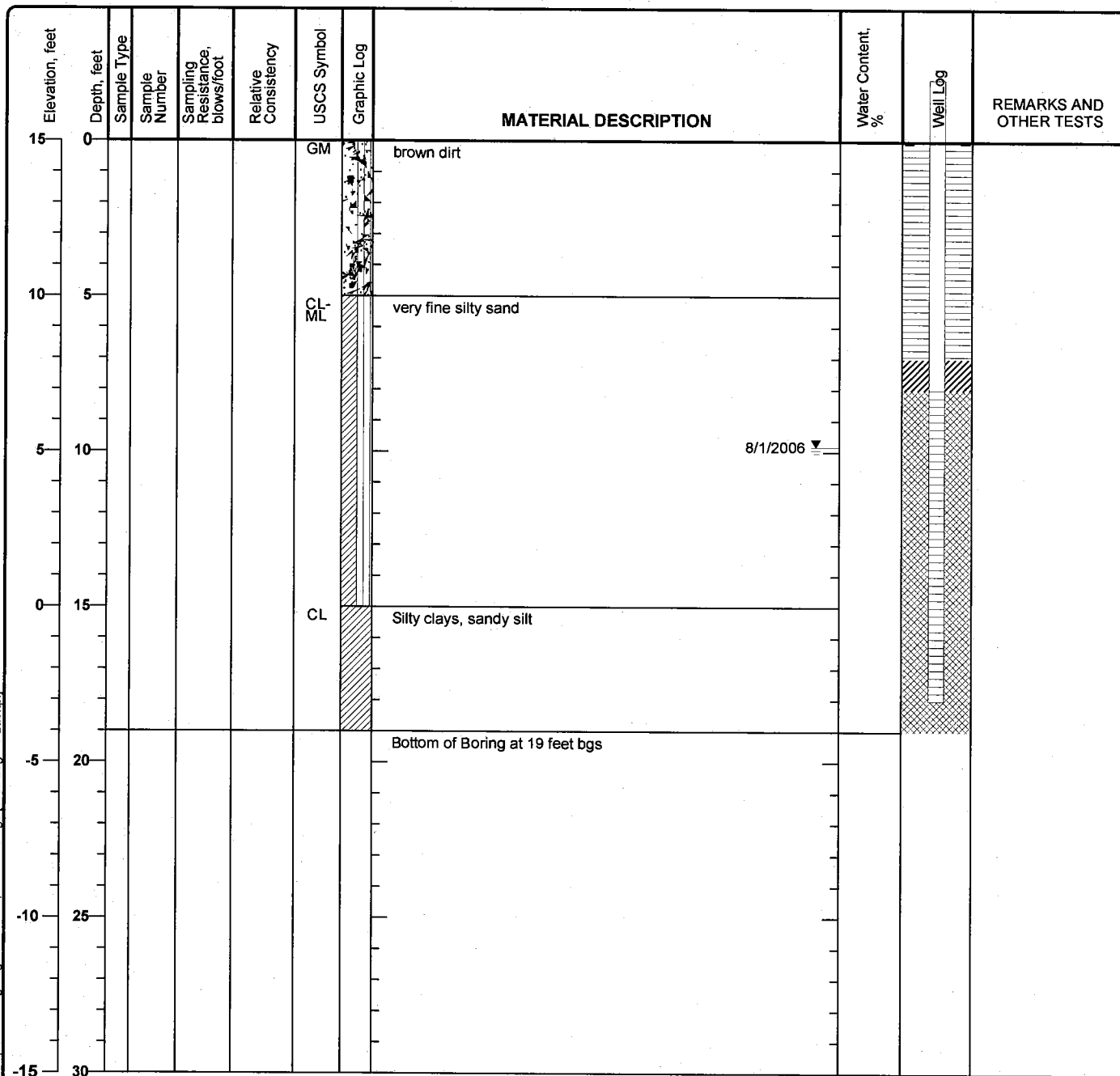
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**

**Project Number:**

## Log of Boring MW-3

Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level <b>9.83 feet measured on and Date Measured 8/1/2006</b>	Sampling Method(s) <b>None</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Center of property, loading dock area, away from UST's</b>	



Figure

**Project: Dupont**

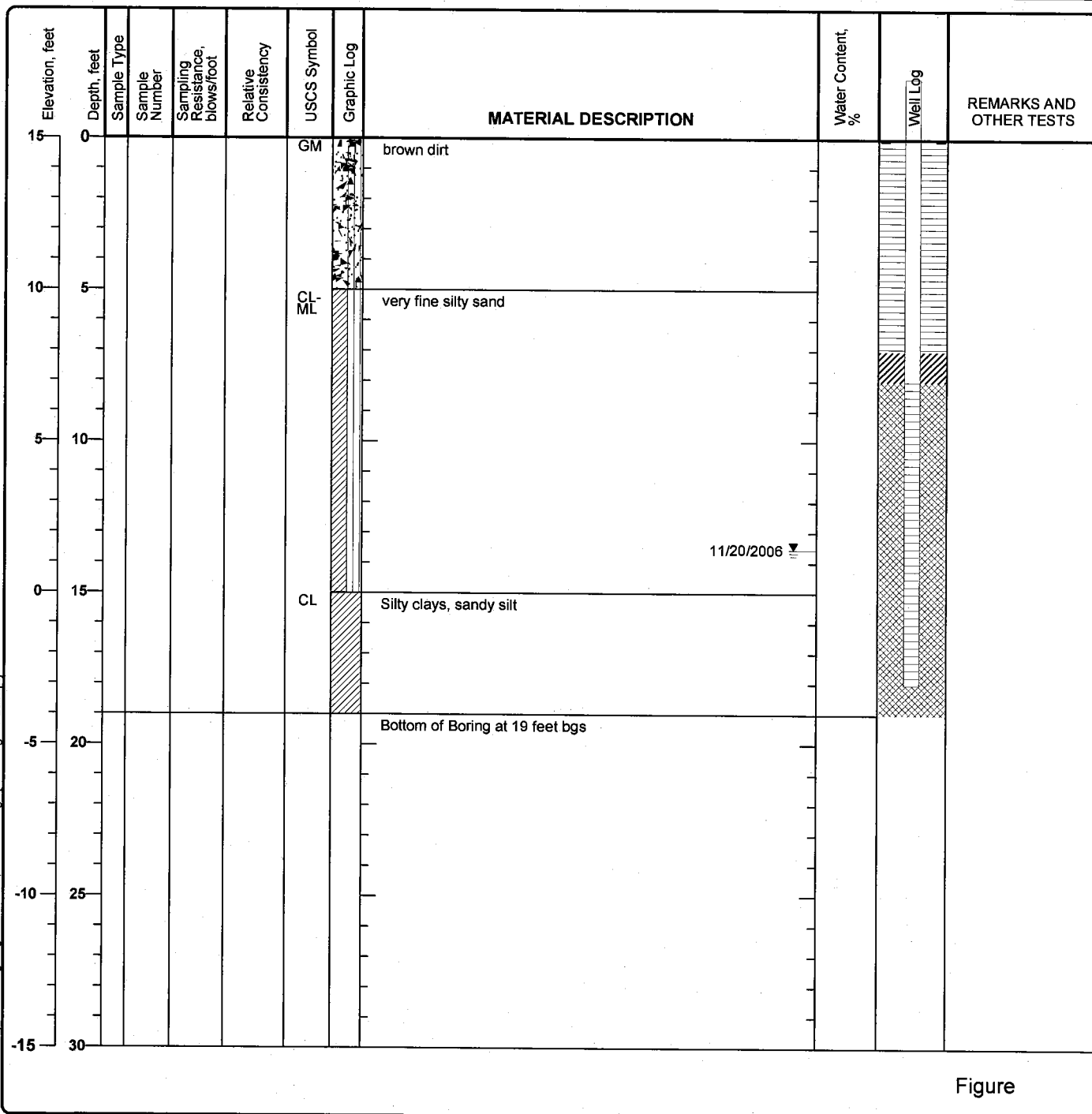
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**

**Project Number:**

# Log of Boring MW-4

Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level and Date Measured <b>13.56 feet measured on 11/20/2006</b>	Sampling Method(s) <b>None</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>North west section of property, in vicinity of Phthalate and Hecla Oil UST's</b>	

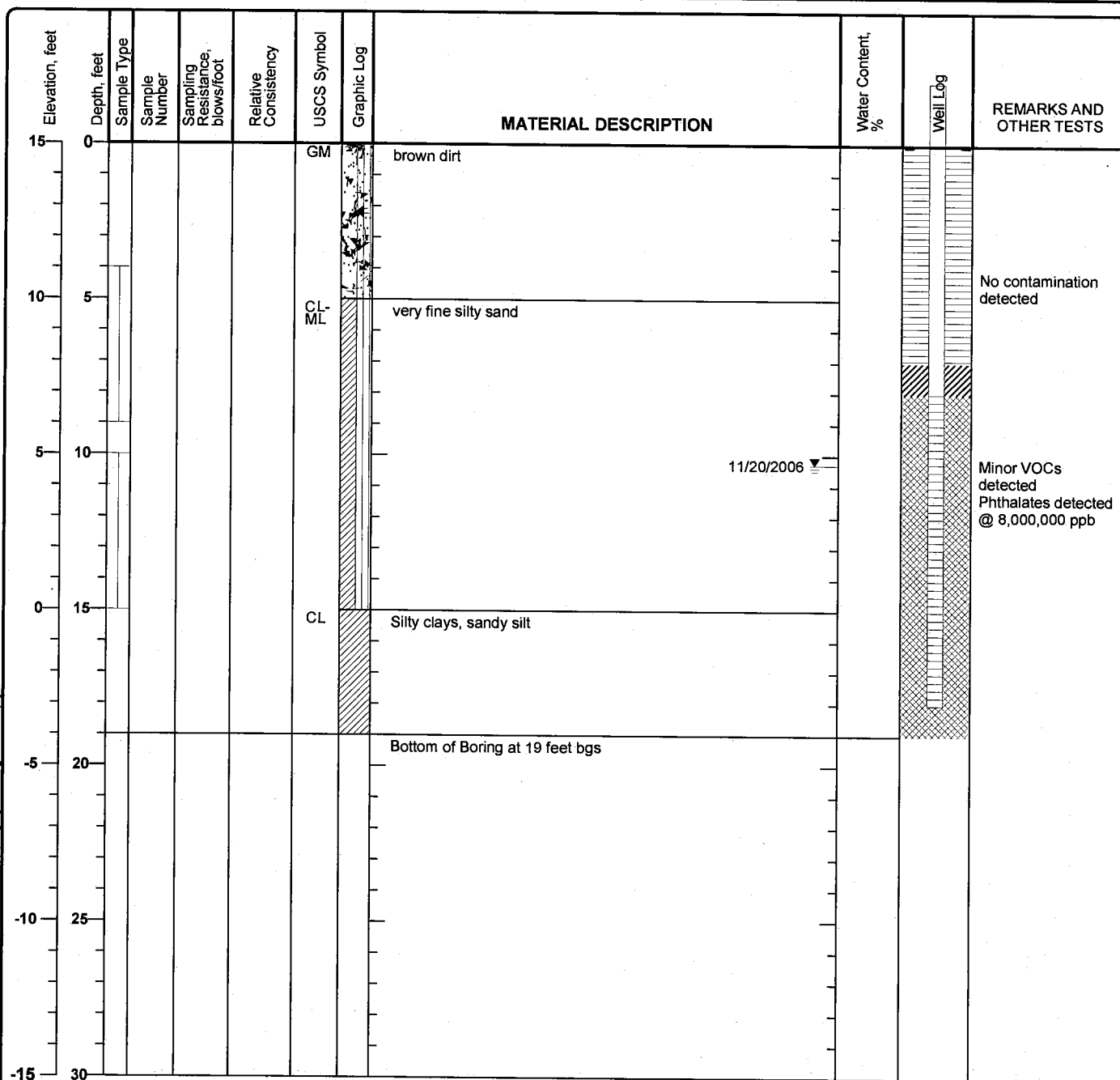


Figure

**Project: Dupont****Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222****Project Number:****Log of Boring MW-5**

Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level and Date Measured <b>10.3 feet measured on 11/20/2006</b>	Sampling Method(s) <b>Grab</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Sidewalk along the west side of the property, along Franklin Ave</b>	



Figure



**Project: Dupont**

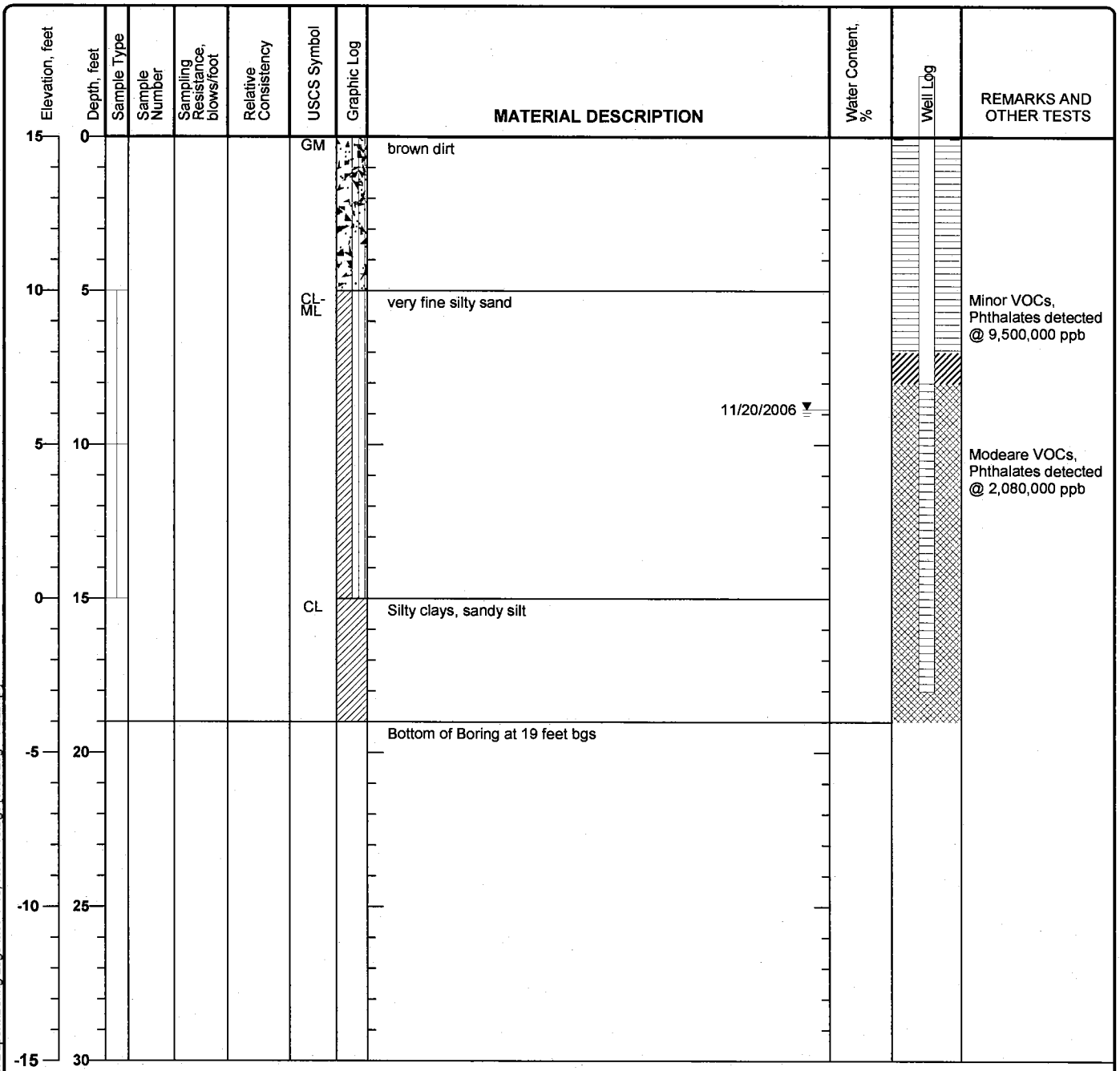
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**

**Project Number:**

## Log of Boring MW-6

Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level <b>8.85 feet measured on and Date Measured 11/20/2006</b>	Sampling Method(s) <b>Grab</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Sidewalk along the north west side of the property, along Franklin Ave</b>	

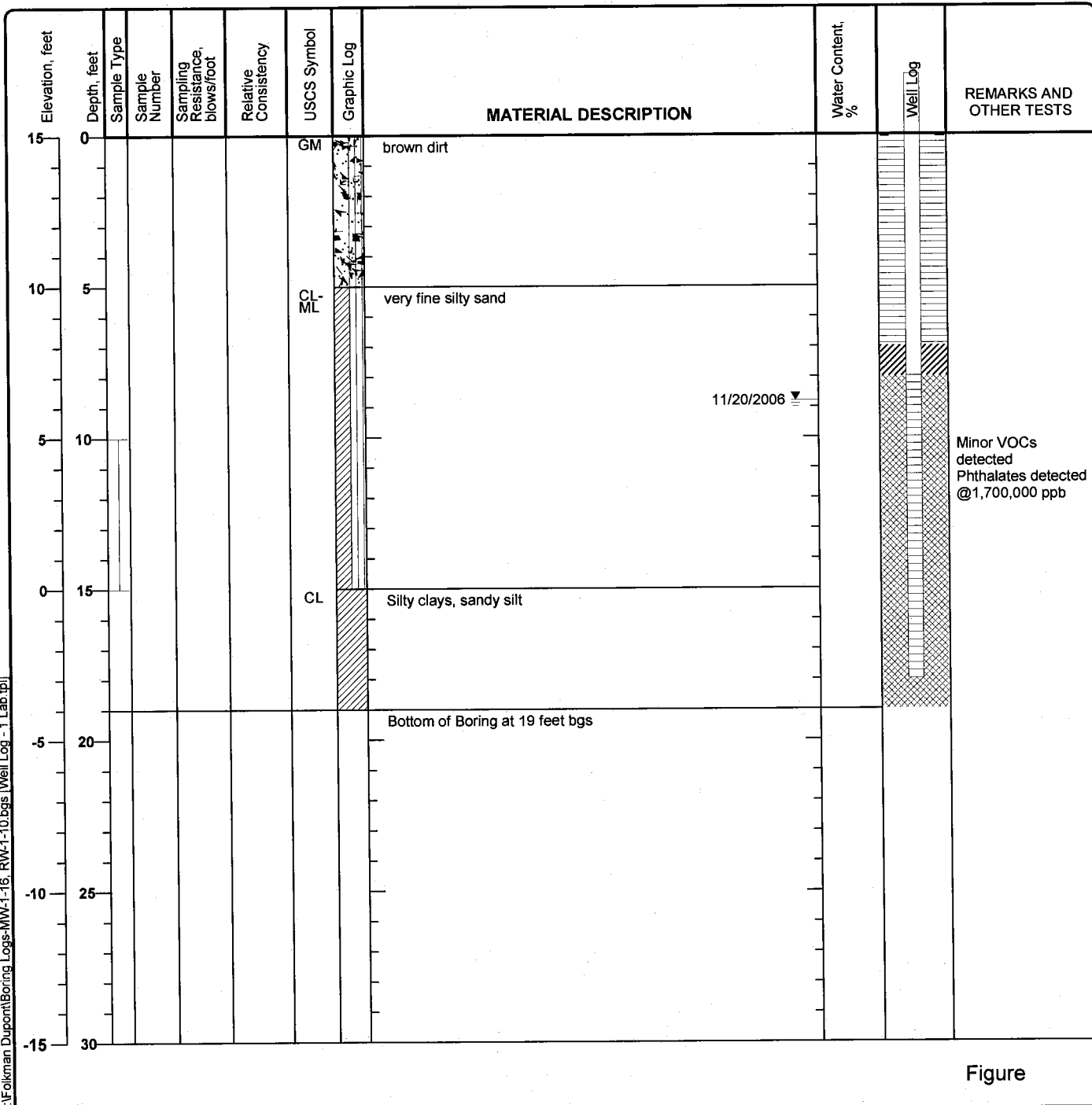


Figure

**Project: Dupont**  
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**  
**Project Number:**

**Log of Boring MW-7**  
 Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level <b>8.8 feet measured on and Date Measured 11/20/2006</b>	Sampling Method(s) <b>Grab</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Sidewalk along the north west side of the property, along Clay Street</b>	



**Project: Dupont**

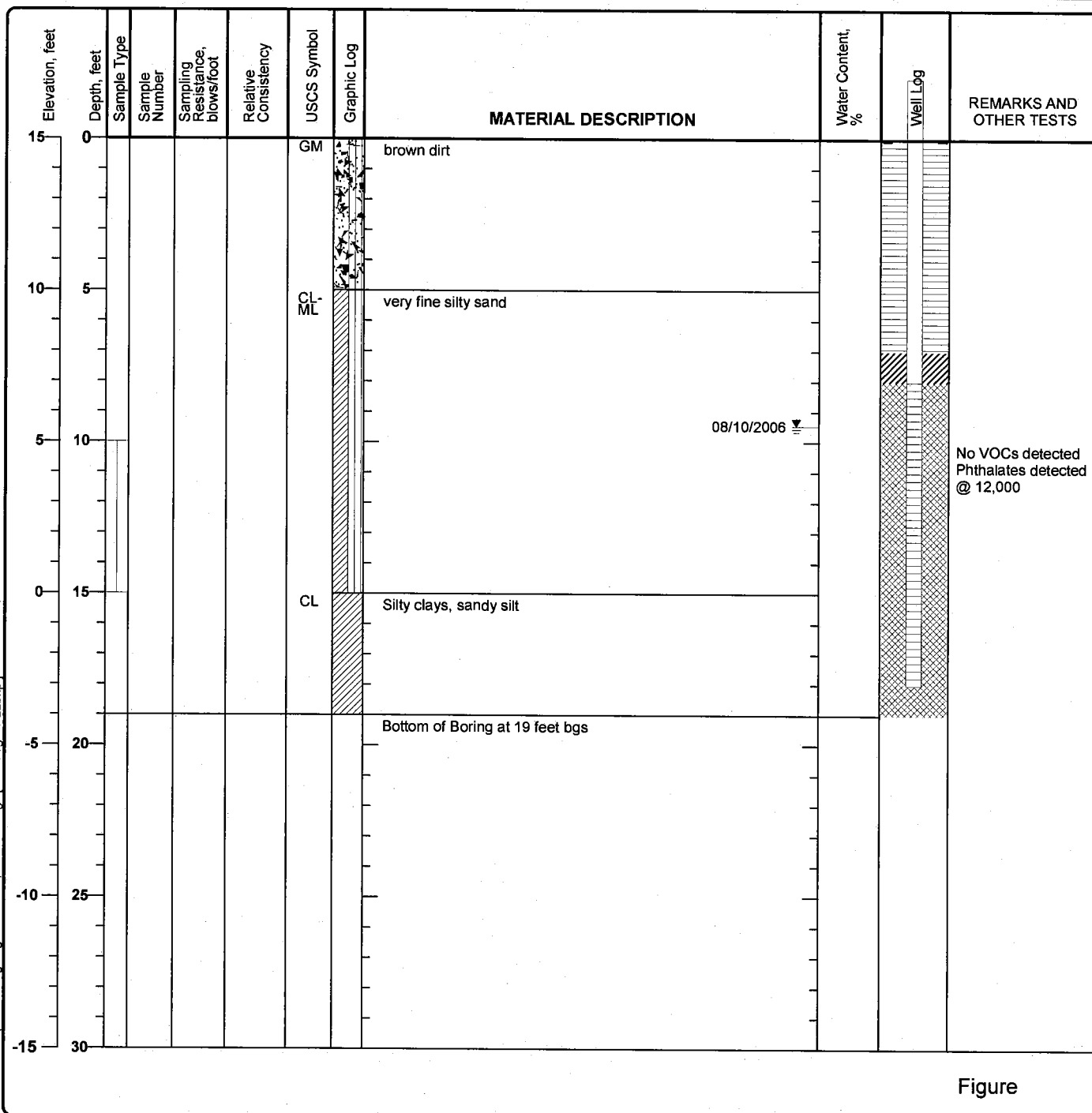
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**

**Project Number:**

# Log of Boring MW-8

Sheet 1 of 1

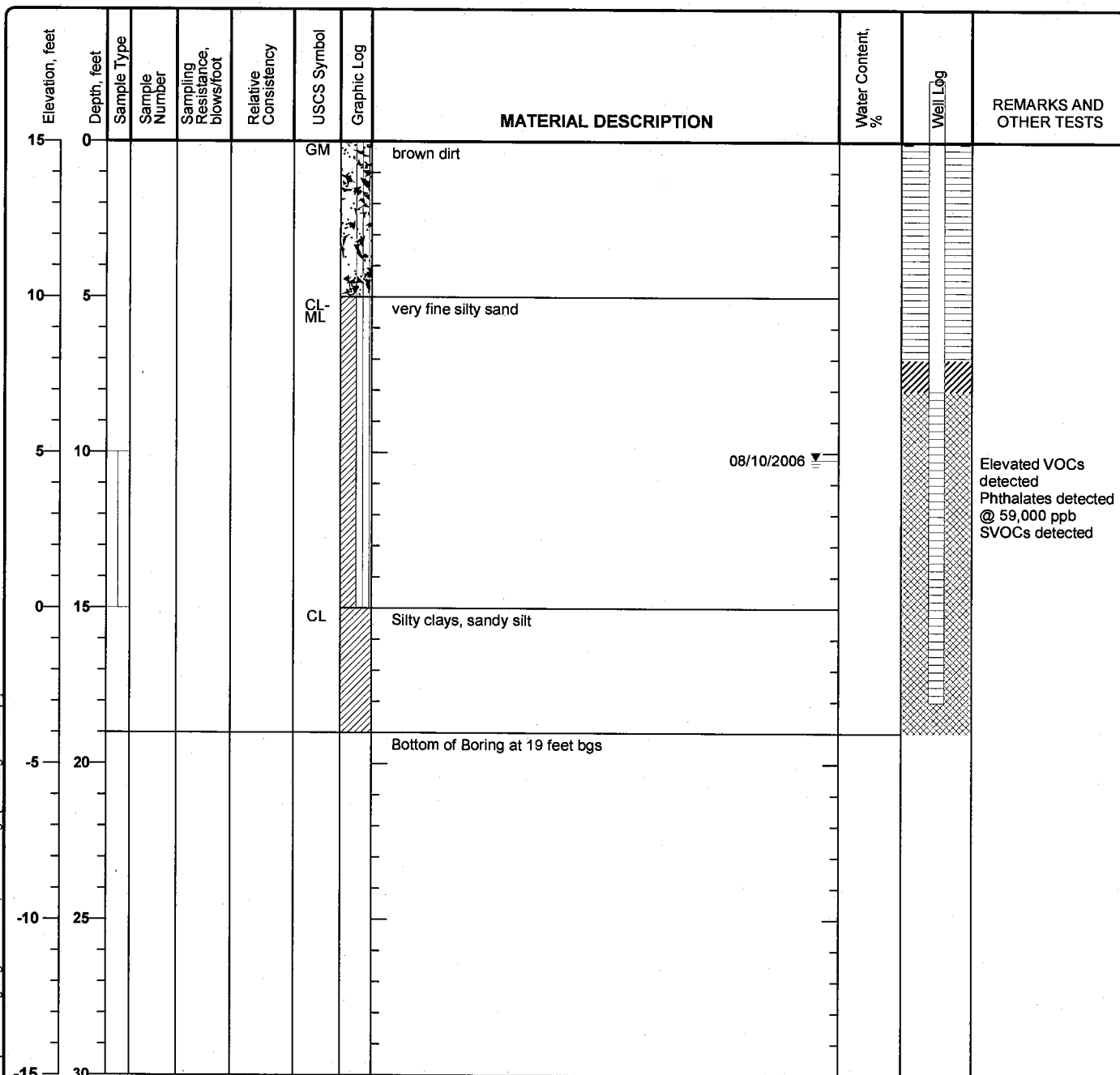
Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level <b>9.46 feet measured on and Date Measured 08/10/2006</b>	Sampling Method(s) <b>Grab</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Sidewalk along the north side of the property, along Clay Street</b>	



**Project: Dupont****Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222****Project Number:****Log of Boring MW-9**

Sheet 1 of 1

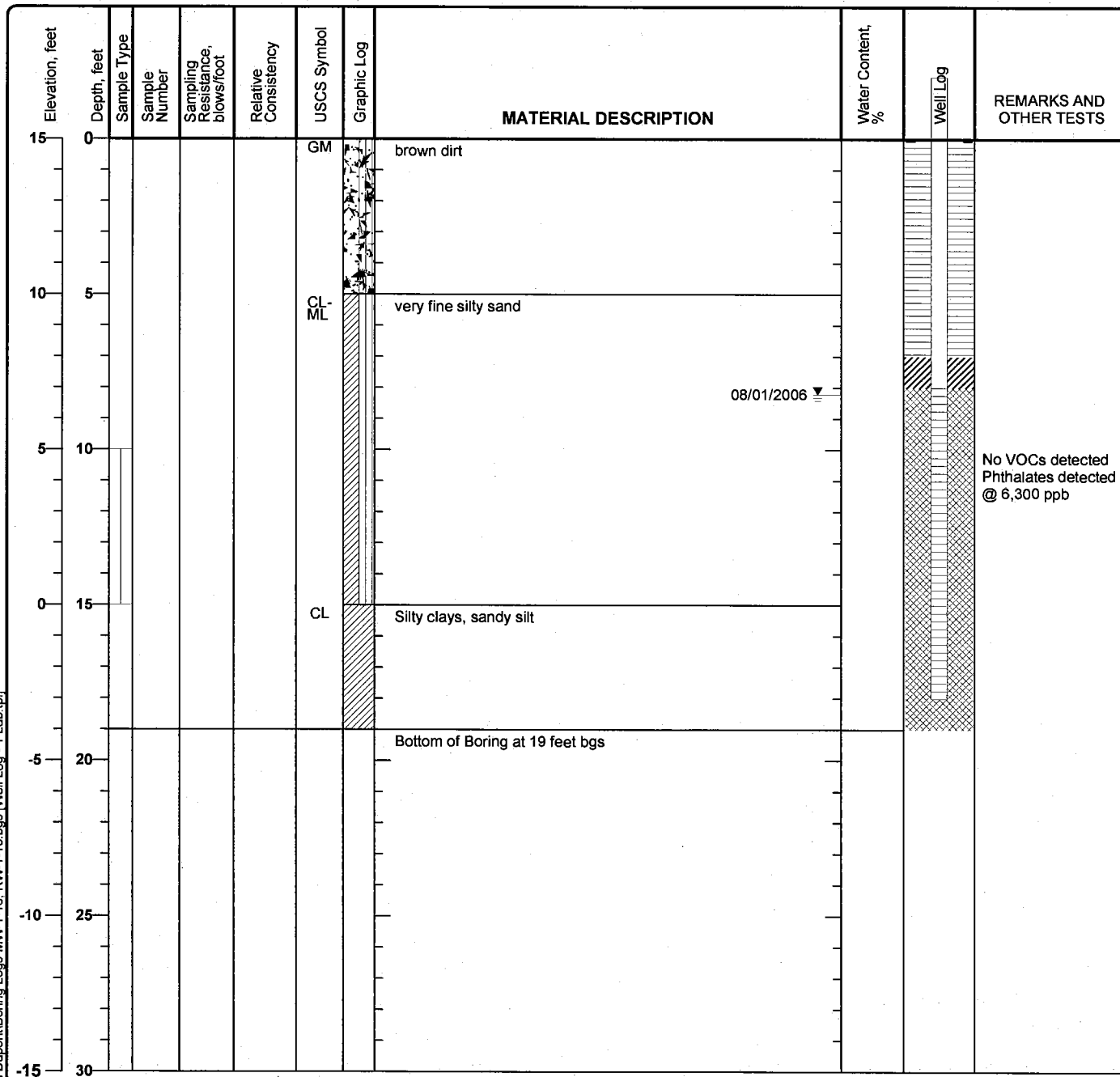
Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level <b>10.22 feet measured on 08/10/2006</b>	Sampling Method(s) <b>Grab</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Sidewalk along the north east side of the property, along Clay Street</b>	



**Project: Dupont****Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222****Project Number:****Log of Boring MW-10**

Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level <b>8.22 feet measured on 08/01/2006</b>	Sampling Method(s) <b>Grab</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Sidewalk along the north east side of the property, along Clay Street</b>	



Figure

**Project: Dupont**

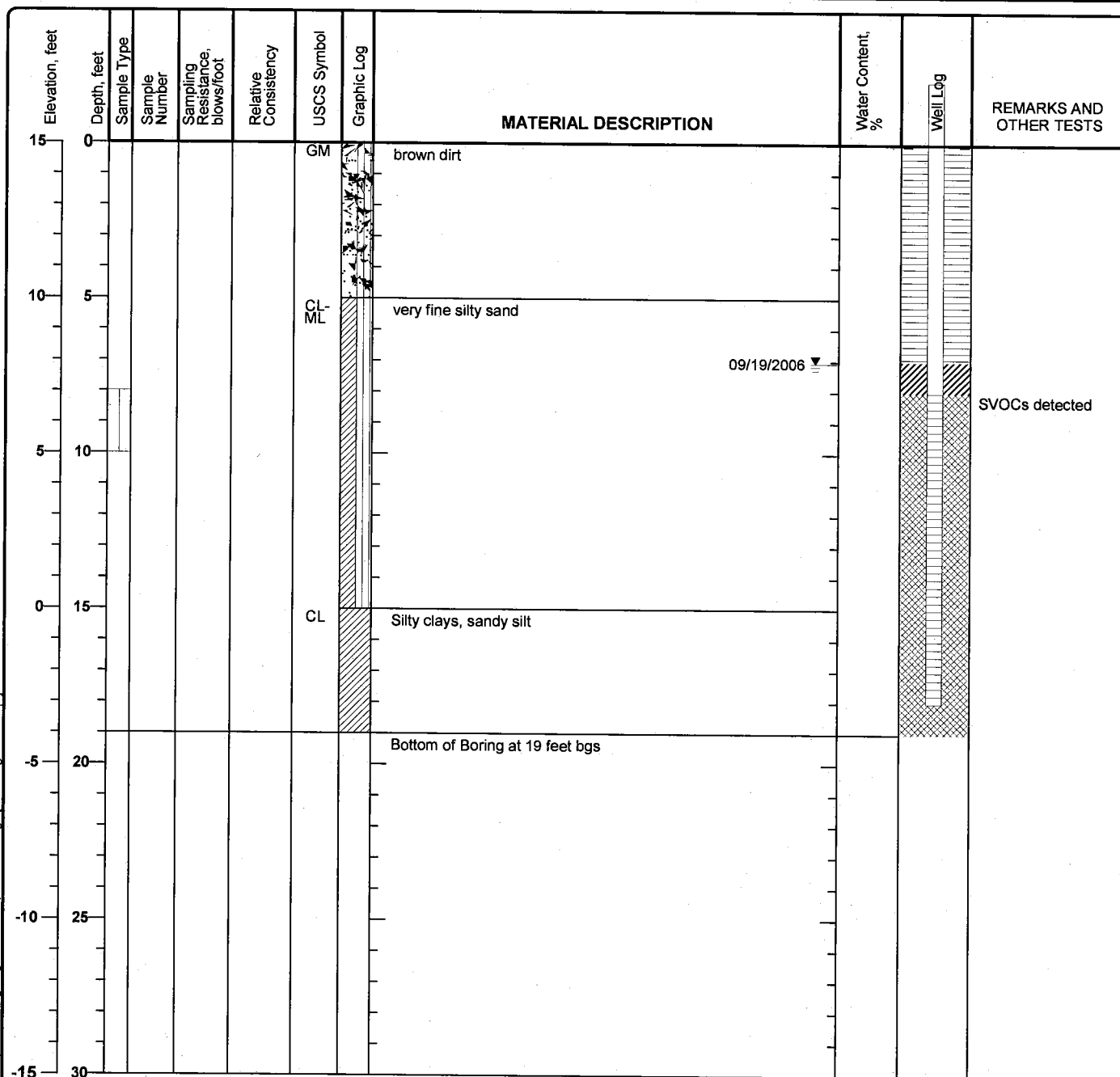
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**

**Project Number:**

## Log of Boring MW-11

Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level <b>7.07 feet measured on and Date Measured 09/19/2006</b>	Sampling Method(s) <b>Grab</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Sidewalk across Commercial Street to the north west of the property</b>	

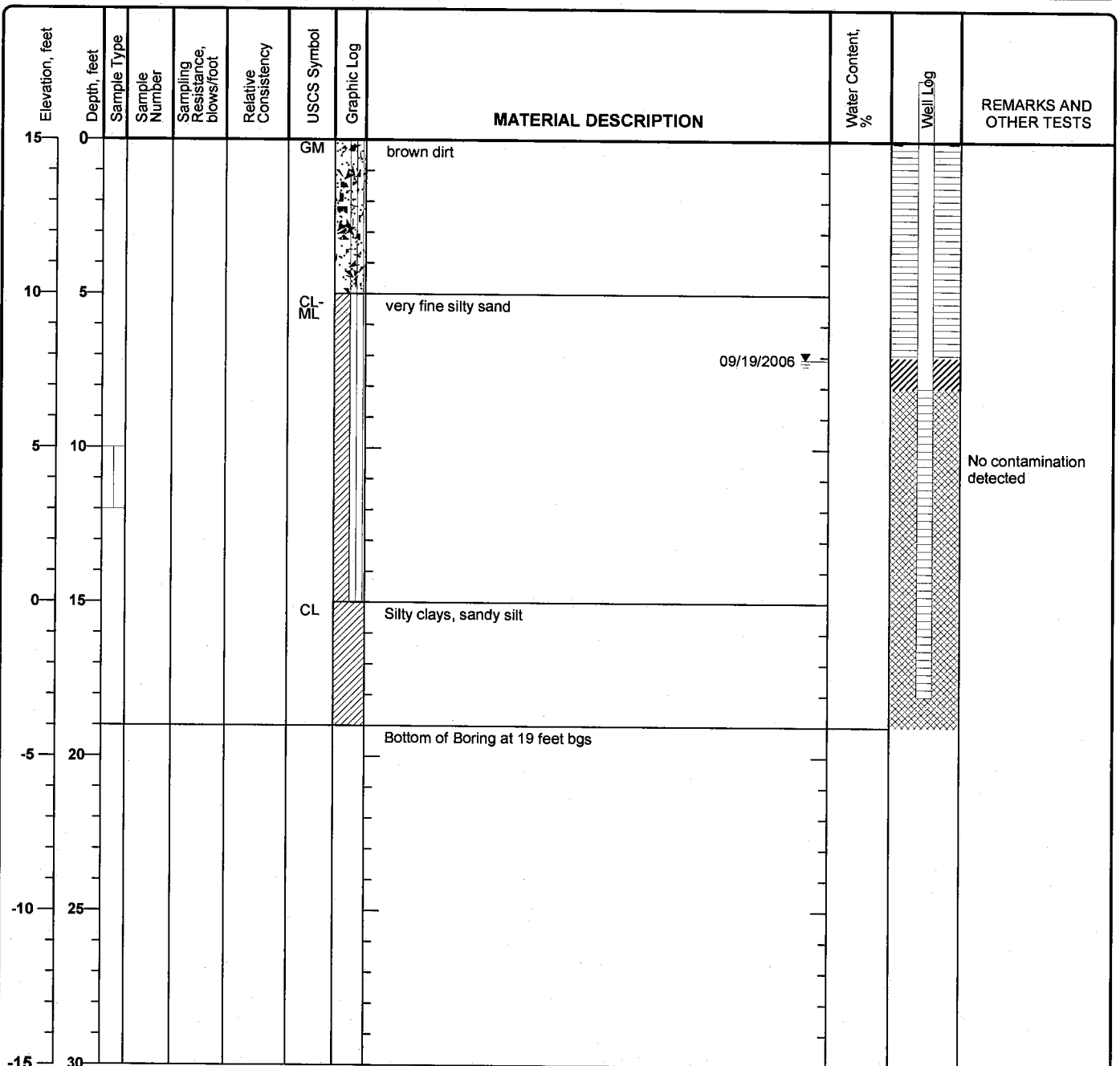


Figure

**Project: Dupont****Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222****Project Number:****Log of Boring MW-12**

Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level <b>7.1 feet measured on and Date Measured 09/19/2006</b>	Sampling Method(s) <b>Grab</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Sidewalk across Commercial Street to the north west of the property</b>	



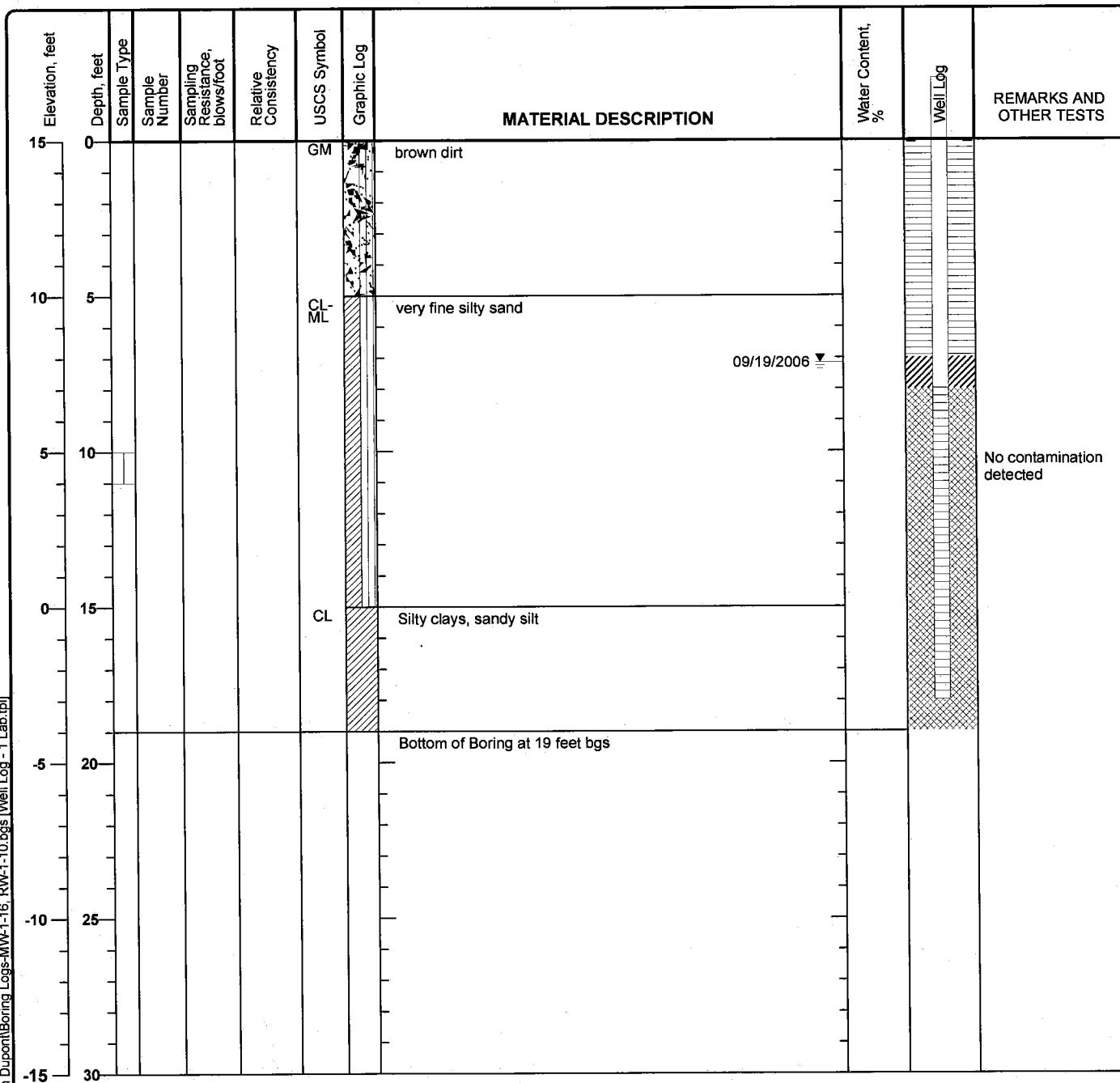
Figure

**Project: Dupont**  
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**  
**Project Number:**

# Log of Boring MW-13

Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level <b>7.16 feet measured on and Date Measured 09/19/2006</b>	Sampling Method(s) <b>Grab</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Sidewalk across Commercial Street to the north west of the property</b>	



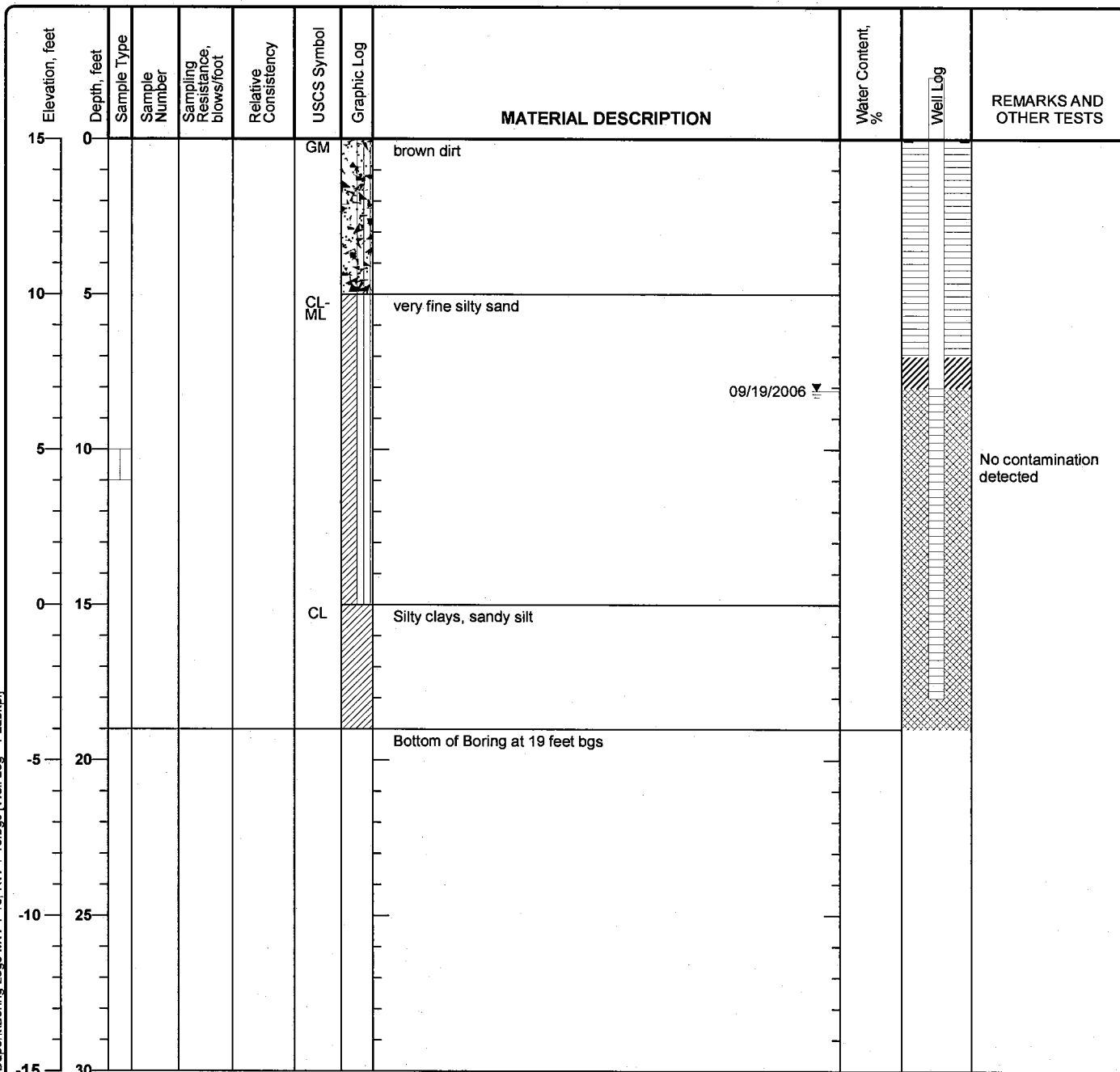
Figure



**Project: Dupont**  
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**  
**Project Number:**

**Log of Boring MW-14**  
 Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level <b>8.11 feet measured on and Date Measured 09/19/2006</b>	Sampling Method(s) <b>Grab</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Sidewalk across Franklin Street to the west of the property</b>	



Figure

**Project: Dupont**

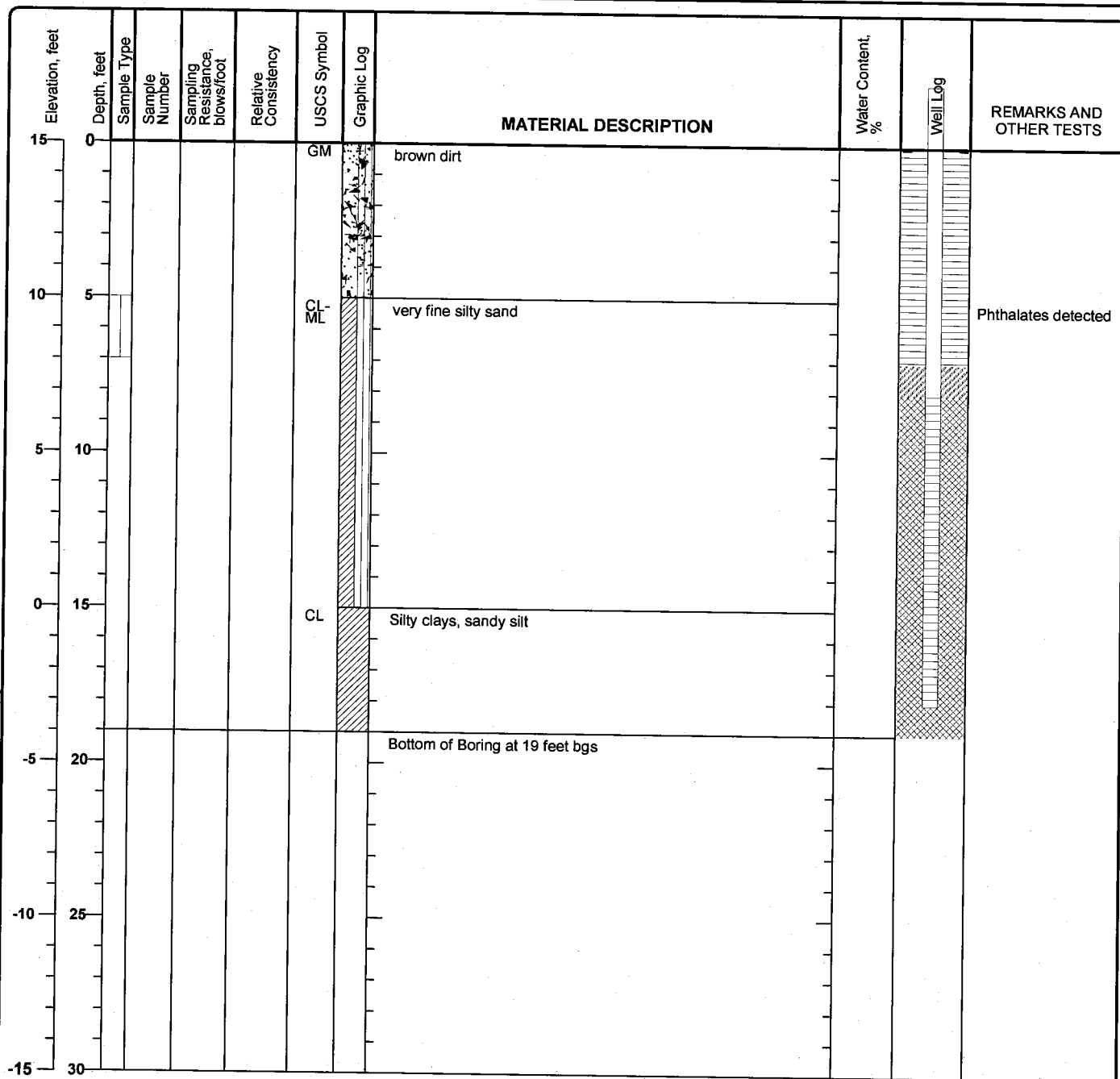
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**

**Project Number:**

## Log of Boring MW-15

Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level and Date Measured <b>Not Measured</b>	Sampling Method(s) <b>Grab</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Sidewalk, along the Dupont Street, along the south west section of the site</b>	

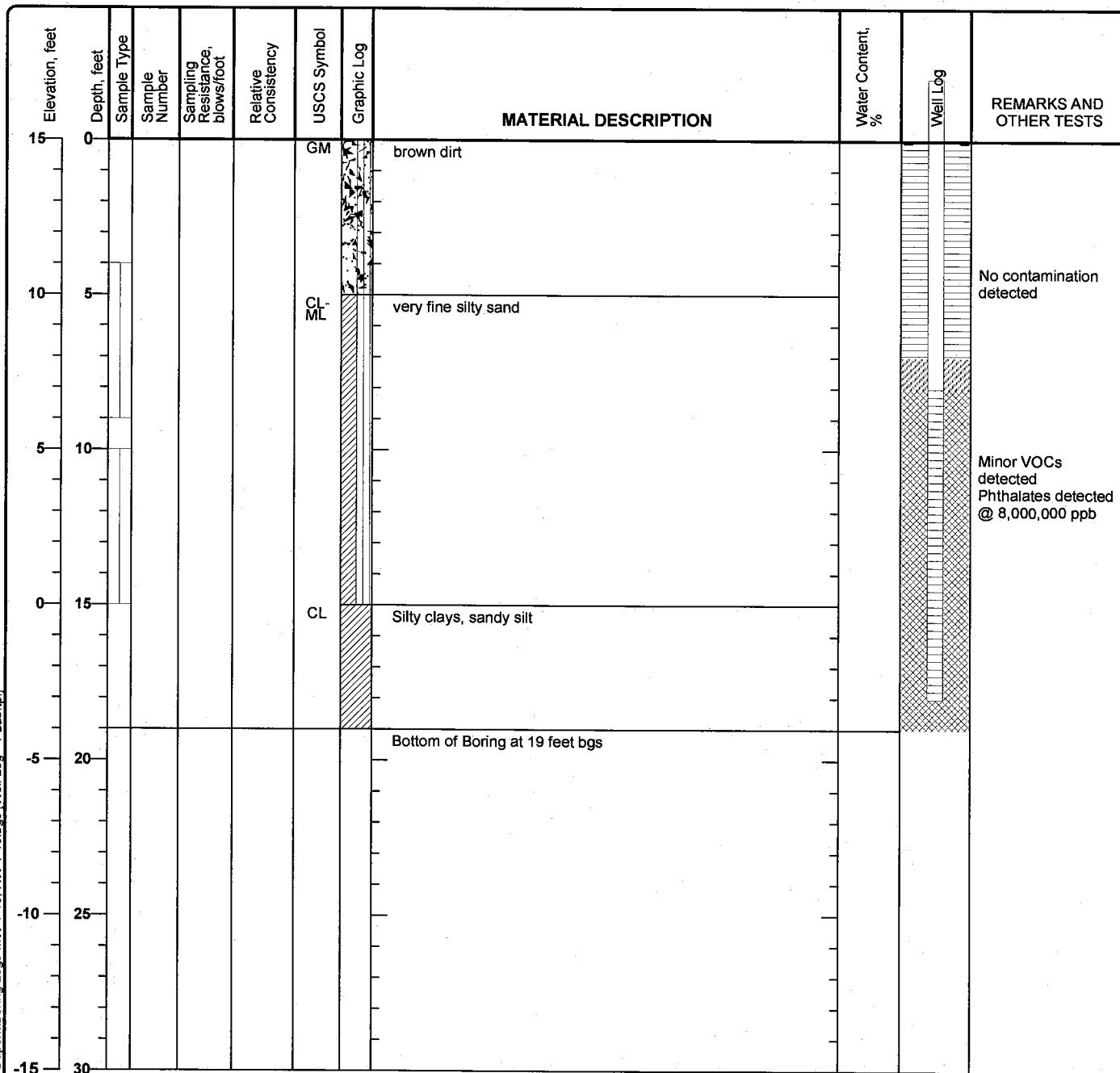


Figure

**Project: Dupont****Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222****Project Number:****Log of Boring MW-16**

Sheet 1 of 1

Date(s) Drilled <b>May 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>3 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Fenley &amp; Nicol</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level and Date Measured <b>Not Measured</b>	Sampling Method(s) <b>Grab</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Sidewalk, along the Dupont Street, along the south west section of the site</b>	



Figure

**Project: Dupont**

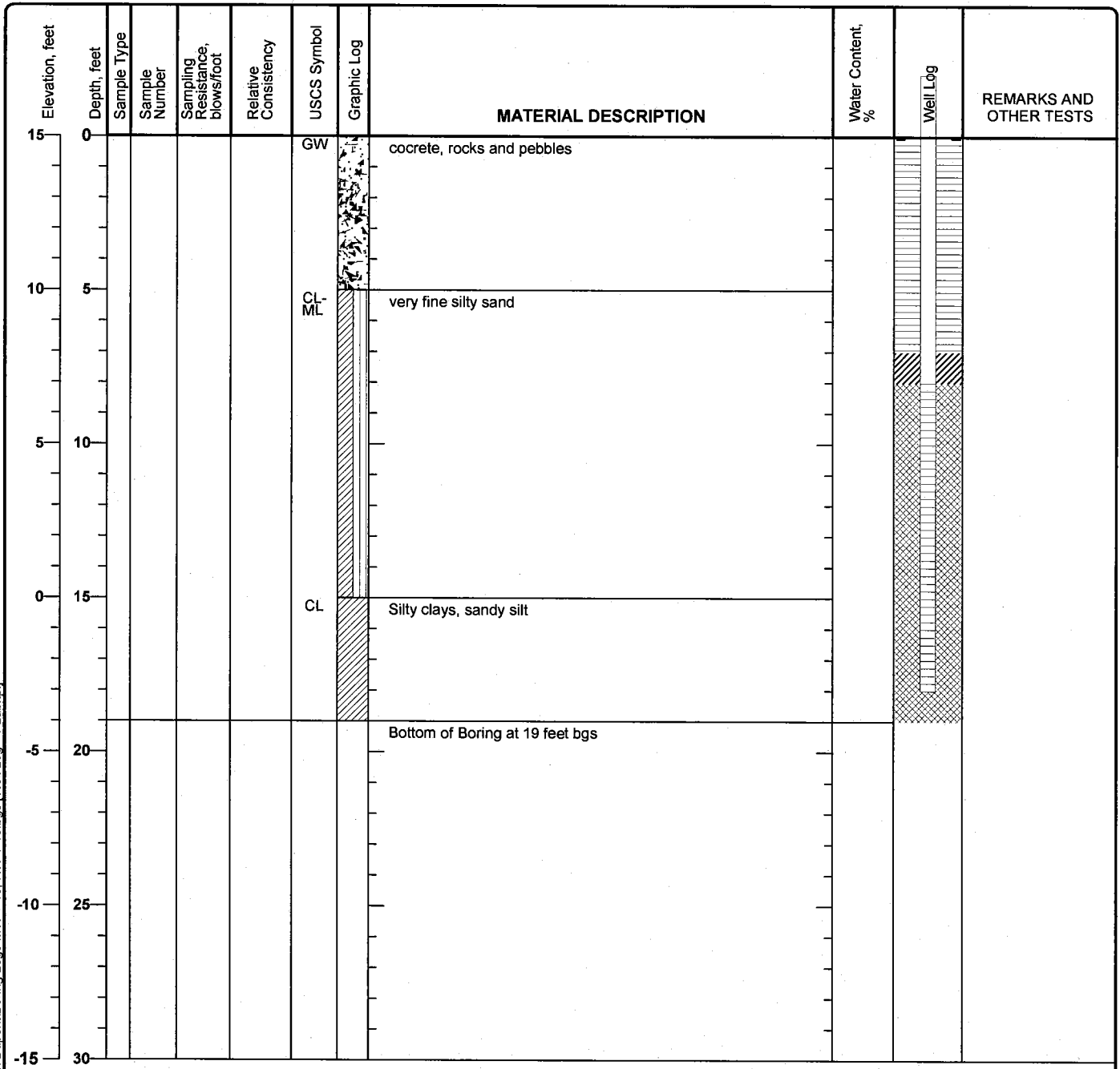
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**

**Project Number:**

## Log of Boring RW-1

Sheet 1 of 1

Date(s) Drilled	October 2006	Logged By	Anthony Adesso	Checked By	Steve Muller
Drilling Method	Truck Mounted	Drill Bit Size/Type	6 5/8 inch	Total Depth of Borehole	19 feet bgs
Drill Rig Type	geo probe	Drilling Contractor	Aggressive Environmental Inc.	Approximate Surface Elevation	15 feet
Groundwater Level and Date Measured	Not Measured	Sampling Method(s)	None	Hammer Data	
Borehole Backfill	Multiple Backfill Materials	Location	Northwest corner of the subject site		



Figure

**Project: Dupont**

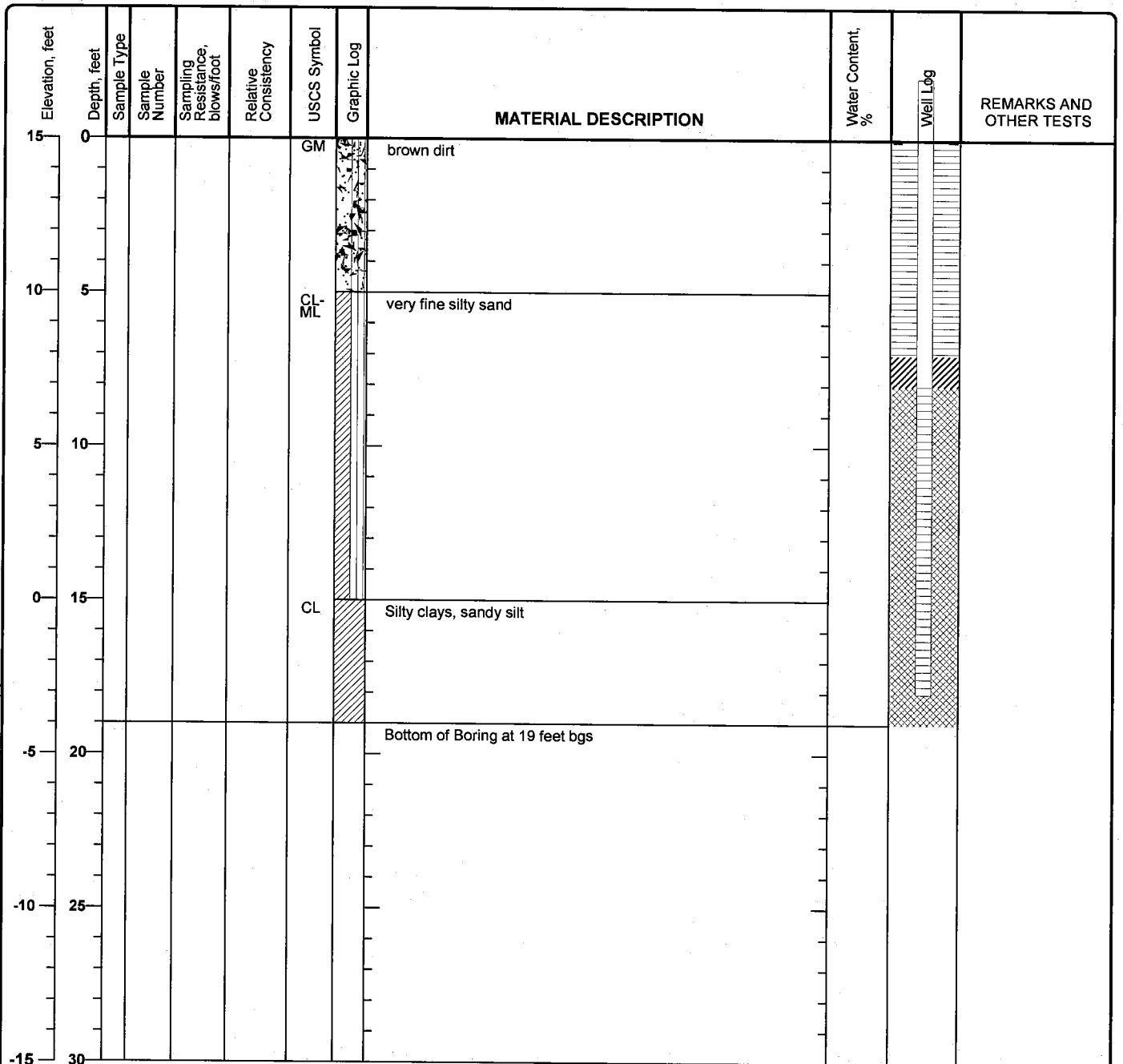
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**

**Project Number:**

## Log of Boring RW-2

Sheet 1 of 1

Date(s) Drilled <b>October 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Truck Mounted</b>	Drill Bit Size/Type <b>6 5/8 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Aggressive Environmental Inc.</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level and Date Measured <b>Not Measured</b>	Sampling Method(s) <b>None</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>Far west side of the site, in the center</b>	



Figure

**Project: Dupont**

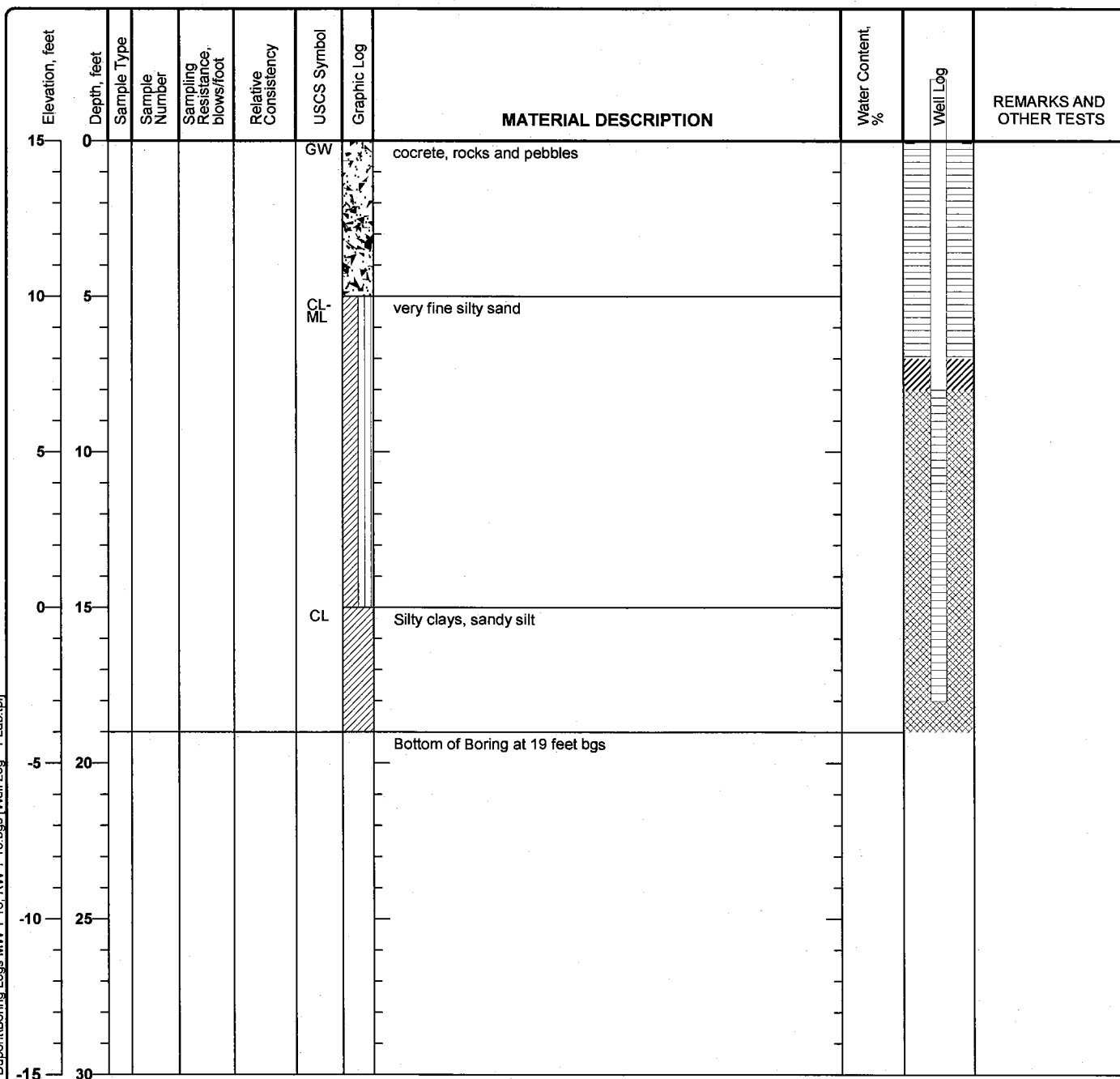
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**

**Project Number:**

## Log of Boring RW-3

Sheet 1 of 1

Date(s) Drilled	October 2006	Logged By	Anthony Adesso	Checked By	Steve Muller
Drilling Method	Truck Mounted	Drill Bit Size/Type	6 5/8 inch	Total Depth of Borehole	19 feet bgs
Drill Rig Type	geo probe	Drilling Contractor	Aggressive Environmental Inc.	Approximate Surface Elevation	15 feet
Groundwater Level and Date Measured	Not Measured	Sampling Method(s)	None	Hammer Data	
Borehole Backfill	Multiple Backfill Materials	Location	South west section of the site		



Figure

**Project: Dupont**

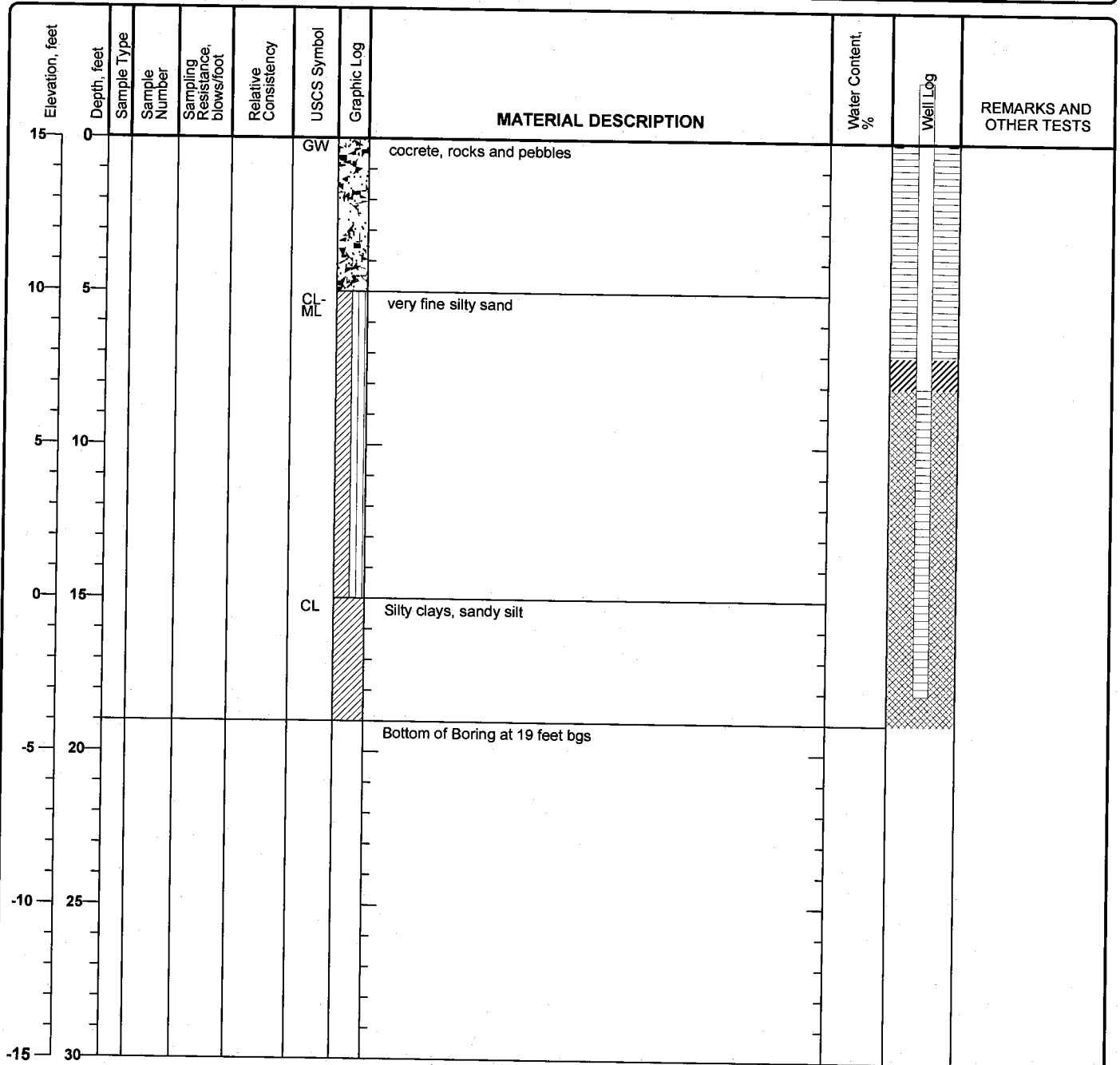
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**

**Project Number:**

## Log of Boring RW-4

Sheet 1 of 1

Date(s) Drilled <b>October 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Truck Mounted</b>	Drill Bit Size/Type <b>6 5/8 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Aggressive Environmental Inc.</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level and Date Measured <b>Not Measured</b>	Sampling Method(s) <b>None</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location	

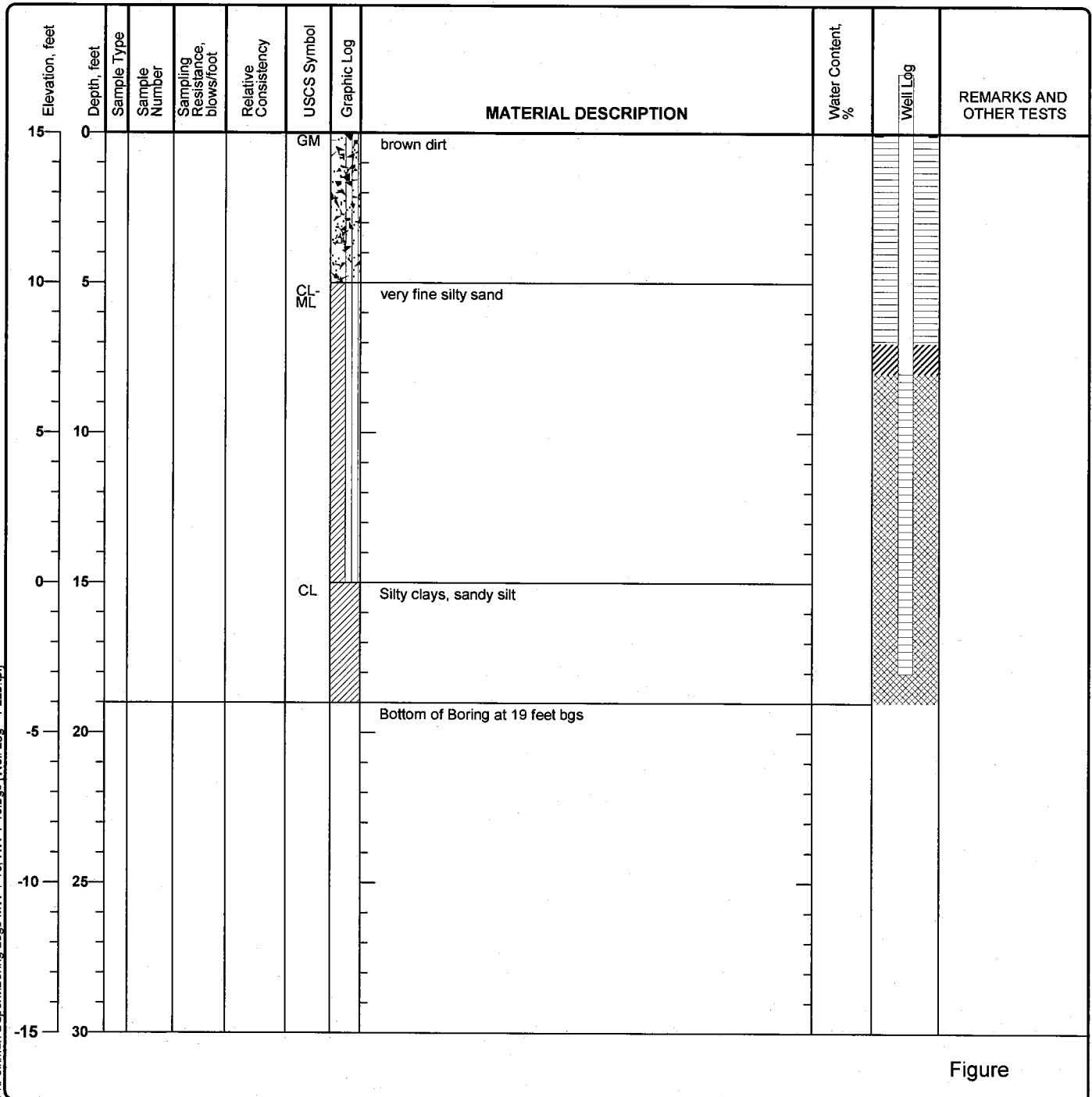


Figure

**Project: Dupont****Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222****Project Number:****Log of Boring RW-5**

Sheet 1 of 1

Date(s) Drilled	December 2006	Logged By	Anthony Adesso	Checked By	Steve Muller
Drilling Method	Direct Push	Drill Bit Size/Type	6 5/8 inch	Total Depth of Borehole	19 feet bgs
Drill Rig Type	geo probe	Drilling Contractor	Longshore Environmental	Approximate Surface Elevation	15 feet
Groundwater Level and Date Measured	Not Measured	Sampling Method(s)	None	Hammer Data	
Borehole Backfill	Multiple Backfill Materials	Location	North west section of the subject site		

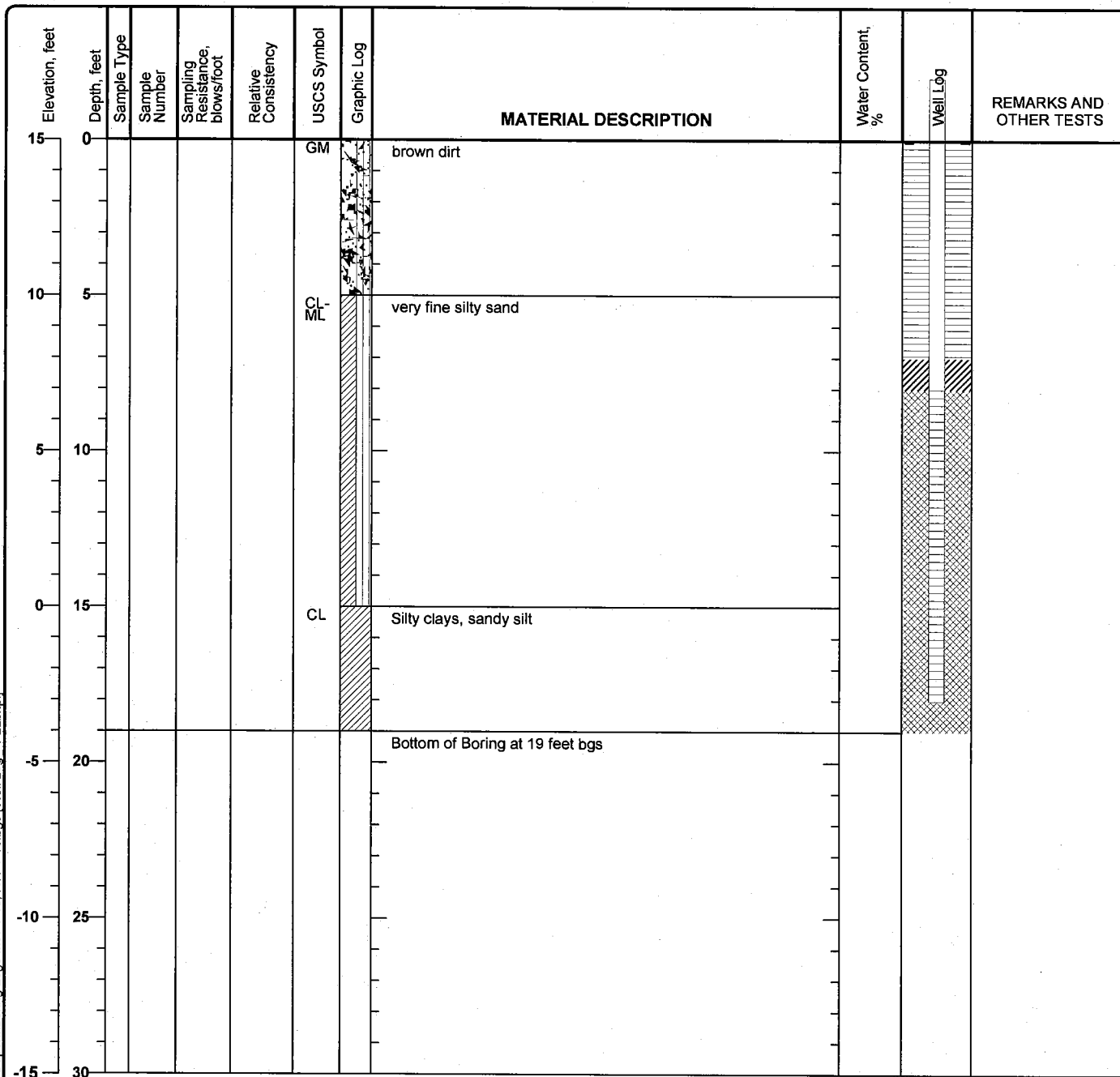




**Project: Dupont****Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222****Project Number:****Log of Boring RW-6**

Sheet 1 of 1

Date(s) Drilled	December 2006	Logged By	Anthony Adesso	Checked By	Steve Muller
Drilling Method	Direct Push	Drill Bit Size/Type	6 5/8 inch	Total Depth of Borehole	19 feet bgs
Drill Rig Type	geo probe	Drilling Contractor	Longshore Environmental	Approximate Surface Elevation	15 feet
Groundwater Level and Date Measured	Not Measured	Sampling Method(s)	None	Hammer Data	
Borehole Backfill	Multiple Backfill Materials	Location	North west section of the subject site		

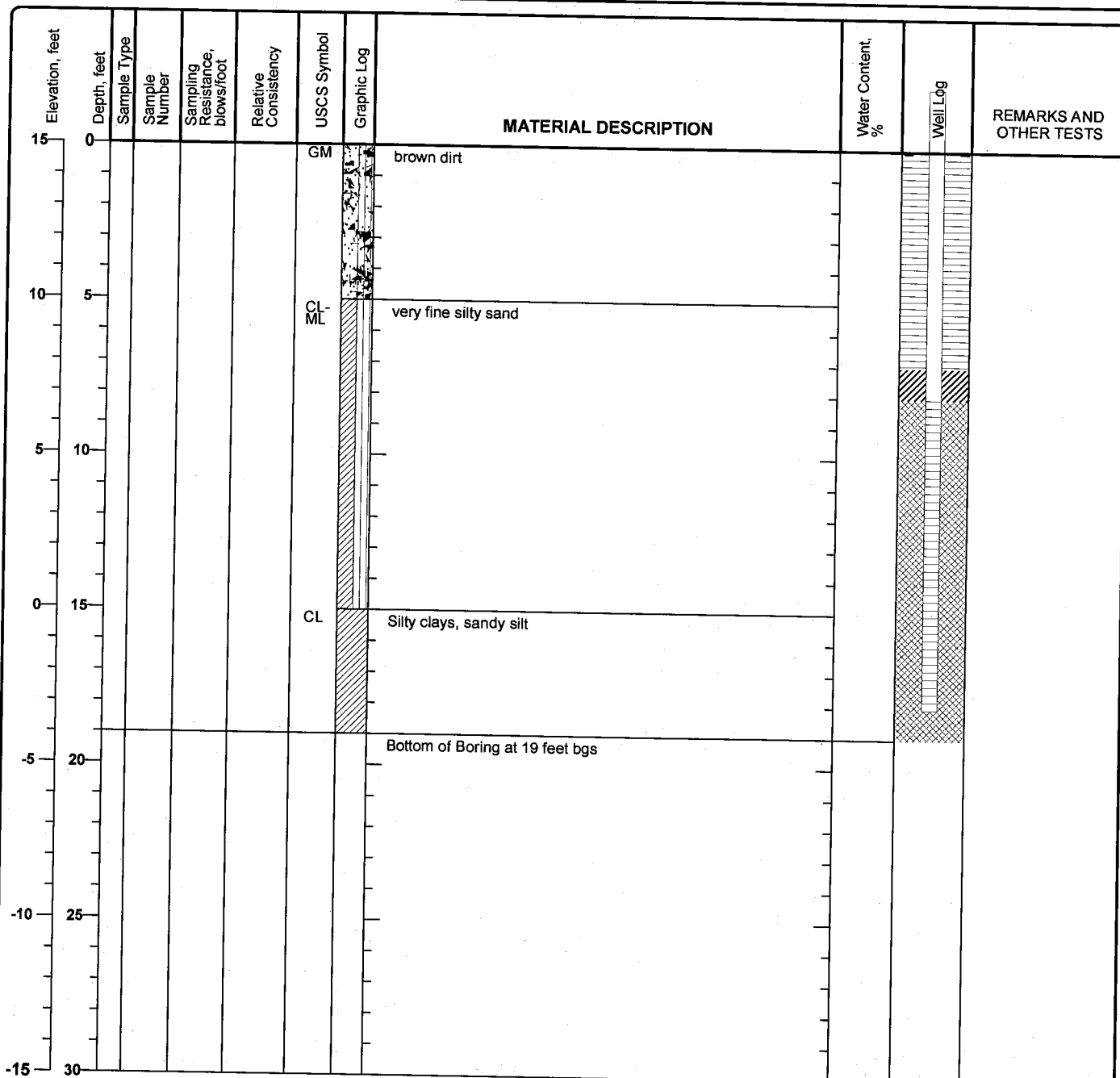


Figure

**Project: Dupont****Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222****Project Number:****Log of Boring RW-7**

Sheet 1 of 1

Date(s) Drilled <b>December 2006</b>	Logged By <b>Anthony Adesso</b>	Checked By <b>Steve Muller</b>
Drilling Method <b>Direct Push</b>	Drill Bit Size/Type <b>6 5/8 inch</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>geo probe</b>	Drilling Contractor <b>Longshore Environmental</b>	Approximate Surface Elevation <b>15 feet</b>
Groundwater Level and Date Measured <b>Not Measured</b>	Sampling Method(s) <b>None</b>	Hammer Data
Borehole Backfill <b>Multiple Backfill Materials</b>	Location <b>North east section of the subject site, around Acetone, Fuel Oil Tanks</b>	



Figure

**Project: Dupont**

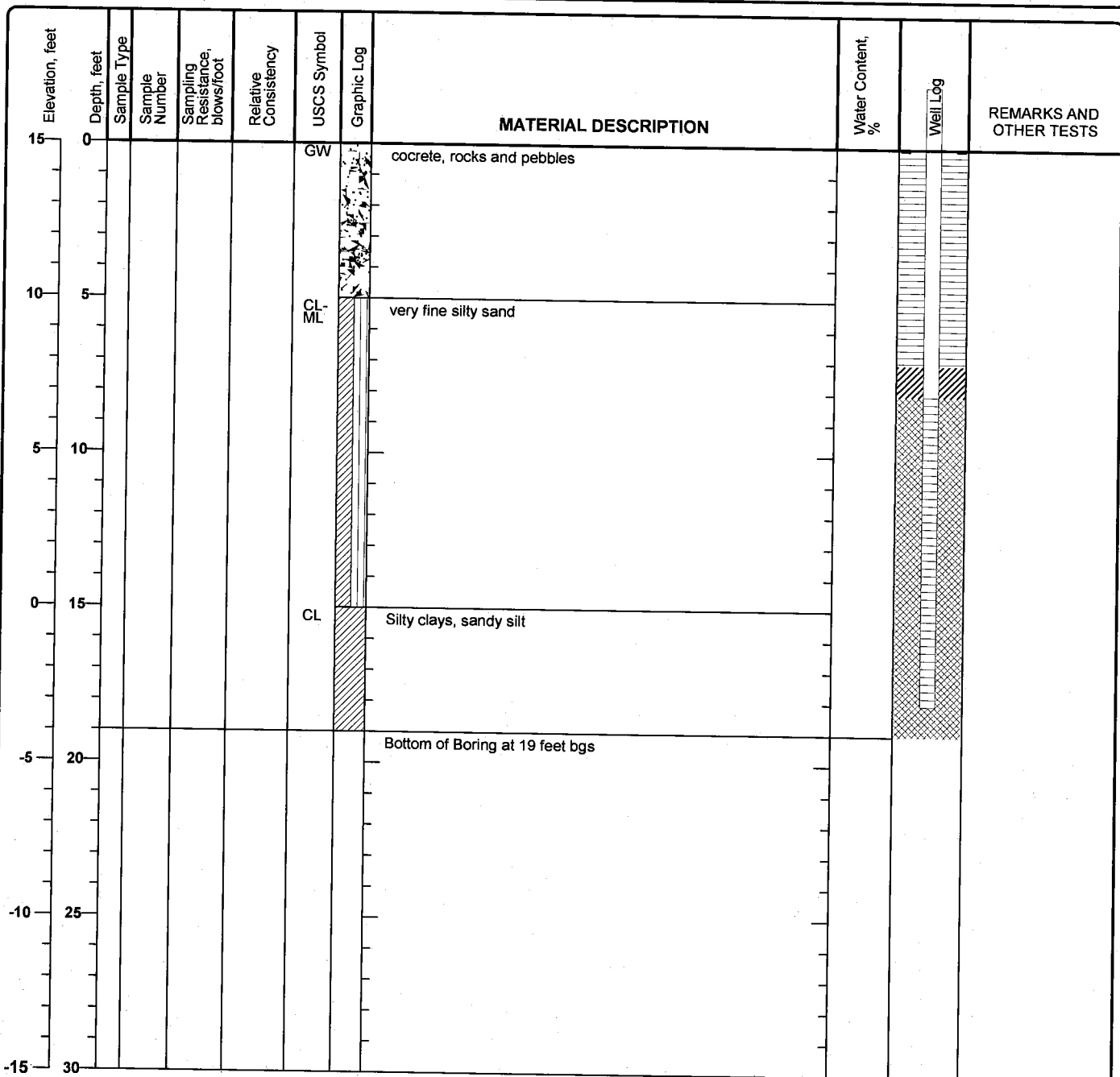
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**

**Project Number:**

# Log of Boring RW-8

Sheet 1 of 1

Date(s) Drilled	December 2006	Logged By	Anthony Adesso	Checked By	Steve Muller
Drilling Method	Direct Push	Drill Bit Size/Type	6 5/8 inch	Total Depth of Borehole	19 feet bgs
Drill Rig Type	geo probe	Drilling Contractor	Longshore Environmental	Approximate Surface Elevation	15 feet
Groundwater Level and Date Measured	Not Measured	Sampling Method(s)	None	Hammer Data	
Borehole Backfill	Multiple Backfill Materials	Location	South west section of the site, to the west of Phthalate & Hecla Oil Tanks		



Figure

**Project: Dupont**

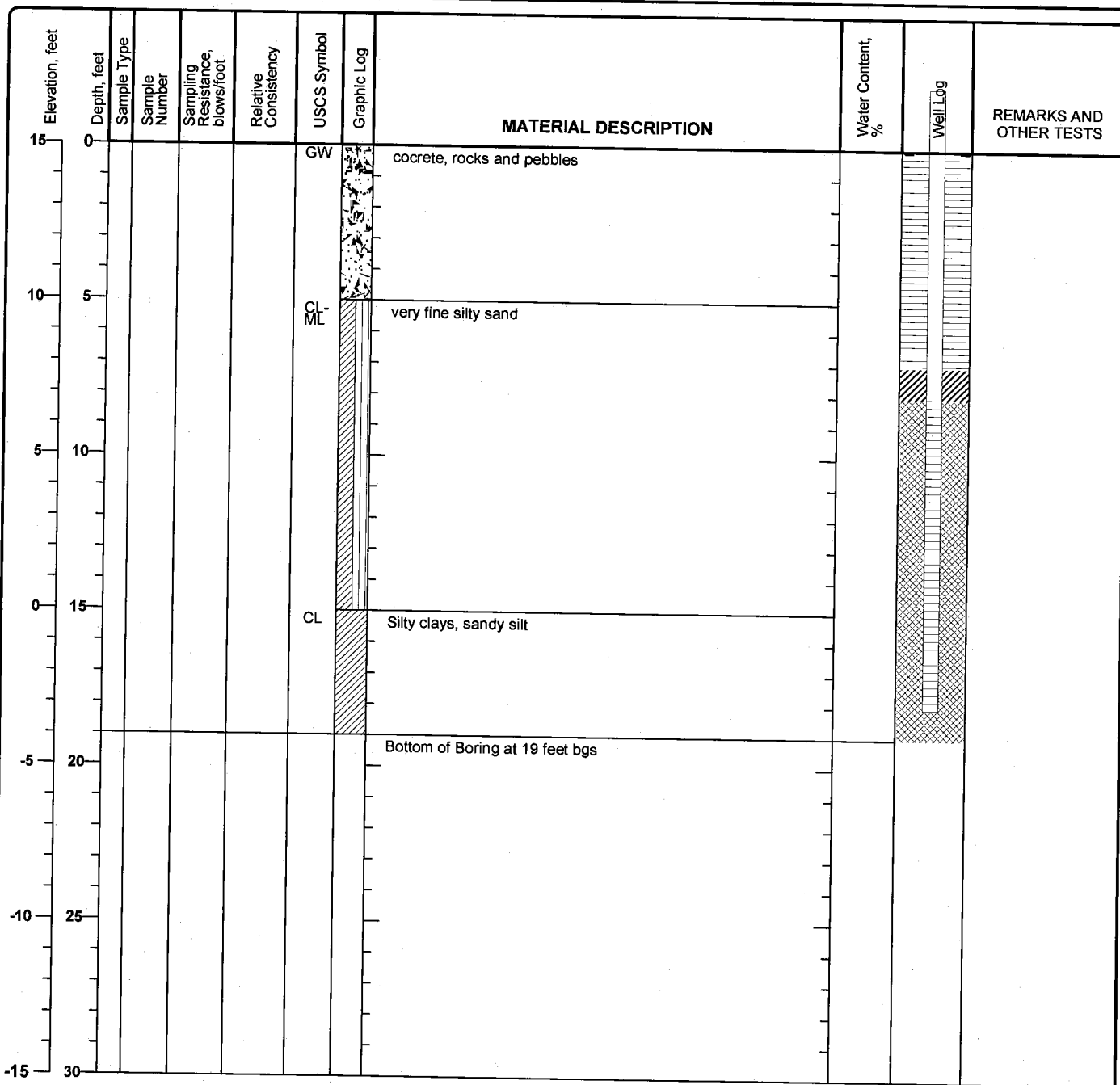
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**

**Project Number:**

## Log of Boring RW-9

Sheet 1 of 1

Date(s) Drilled	December 2006	Logged By	Anthony Adesso	Checked By	Steve Muller
Drilling Method	Direct Push	Drill Bit Size/Type	6 5/8 inch	Total Depth of Borehole	19 feet bgs
Drill Rig Type	geo probe	Drilling Contractor	Longshore Environmental	Approximate Surface Elevation	15 feet
Groundwater Level and Date Measured	Not Measured	Sampling Method(s)	None	Hammer Data	
Borehole Backfill	Multiple Backfill Materials	Location	South west section of the site, to the west of Phthalate & Hecla Oil Tanks		



Figure

**Project: Dupont**

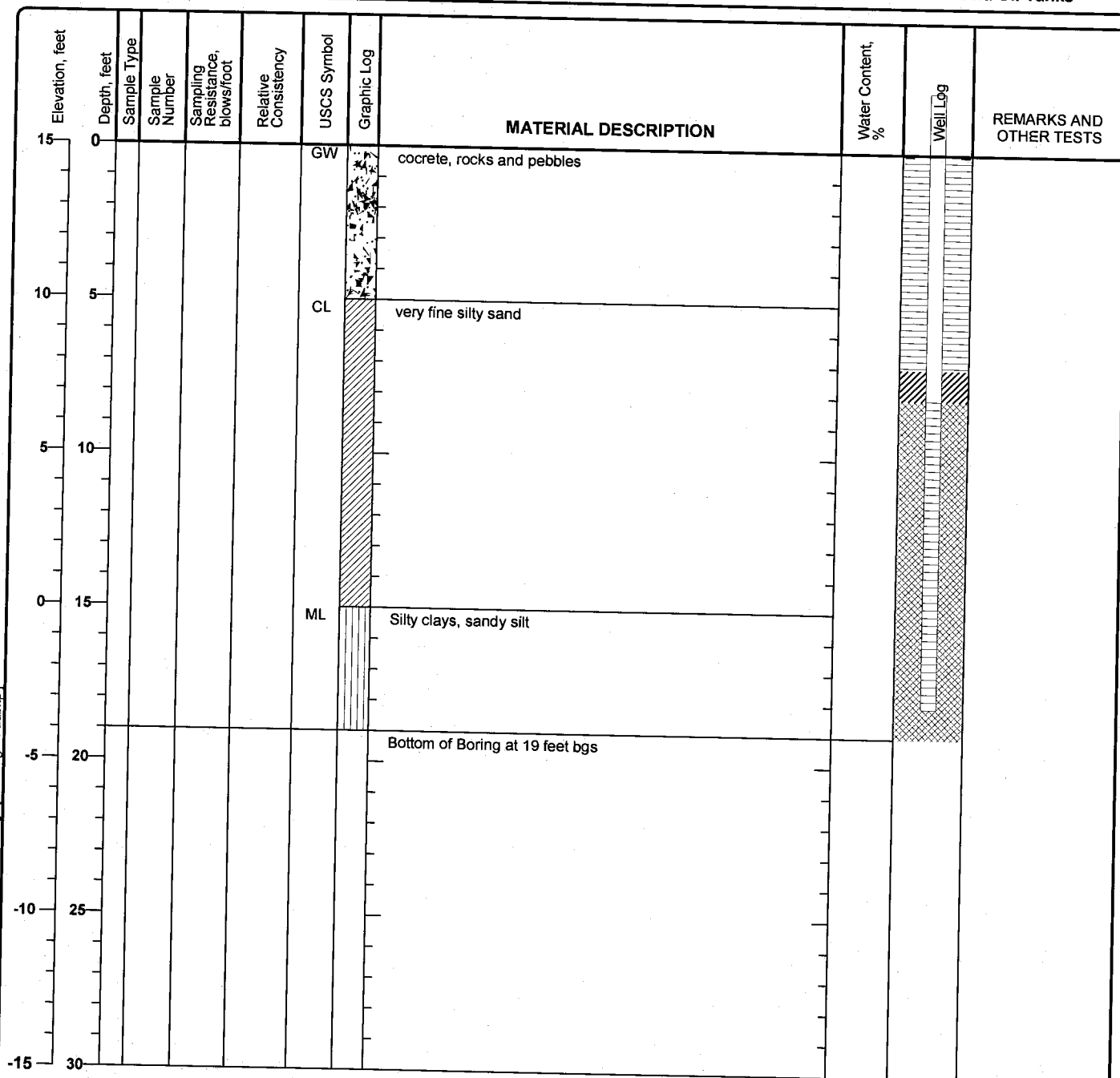
**Project Location: 49-55 Dupont Street, Brooklyn N.Y. 11222**

**Project Number:**

## Log of Boring RW-10

Sheet 1 of 1

Date(s) Drilled	December 2006	Logged By	Anthony Adesso	Checked By	Steve Muller
Drilling Method	Direct Push	Drill Bit Size/Type	6 5/8 inch	Total Depth of Borehole	19 feet bgs
Drill Rig Type	geo probe	Drilling Contractor	Longshore Environmental	Approximate Surface Elevation	15 feet
Groundwater Level and Date Measured	Not Measured	Sampling Method(s)	None	Hammer Data	
Borehole Backfill	Multiple Backfill Materials	Location	South west section of the site, to the west of Phthalate & Hecla Oil Tanks		



Figure

## **APPENDIX - D**

### **Laboratory Analytical Reports**

**YORK**  
**ANALYTICAL LABORATORIES, INC.**

# Technical Report

prepared for

**Advanced Site Restoration**  
**62 William St.**  
**New York, NY 10005**  
**Attention: Steve Muller**

Report Date: 5/10/2006  
***Re: Client Project ID: 49 Dupont***  
York Project No.: 06050130

CT License No. PH-0723

New York License No. 10854



Report Date: 5/10/2006  
 Client Project ID: 49 Dupont  
 York Project No.: 06050130

**Advanced Site Restoration**  
 62 William St.  
 New York, NY 10005  
 Attention: Steve Muller

## 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 05/03/06. The project was identified as your project "49 Dupont".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			SB-1/5-10'		SB-2/10-12'	
York Sample ID			06050130-01		06050130-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles-8260 list	SW846-8260	ug/Kg	---	---	---	---
1,1,1,2-Tetrachloroethane			Not detected	10	Not detected	500
1,1,1-Trichloroethane			Not detected	10	Not detected	500
1,1,2,2-Tetrachloroethane			Not detected	10	Not detected	500
1,1,2-Trichloroethane			Not detected	10	Not detected	500
1,1-Dichloroethane			Not detected	10	Not detected	500
1,1-Dichloroethylene			Not detected	10	Not detected	500
1,1-Dichloropropylene			Not detected	10	Not detected	500
1,2,3-Trichlorobenzene			Not detected	10	Not detected	500
1,2,3-Trichloropropane			Not detected	10	Not detected	500
1,2,3-Trimethylbenzene			Not detected	10	Not detected	500
1,2,4-Trichlorobenzene			Not detected	10	Not detected	500
1,2,4-Trimethylbenzene			Not detected	10	1700	500
1,2-Dibromo-3-chloropropane			Not detected	10	Not detected	500
1,2-Dibromoethane			Not detected	10	Not detected	500
1,2-Dichlorobenzene			Not detected	10	Not detected	500
1,2-Dichloroethane			Not detected	10	Not detected	500

**YORK**



Client Sample ID			SB-1/5-10'		SB-2/10-12'	
York Sample ID			06050130-01		06050130-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
1,2-Dichloroethylene (Total)			Not detected	10	Not detected	500
1,2-Dichloropropane			Not detected	10	Not detected	500
1,3,5-Trimethylbenzene			Not detected	10	Not detected	500
1,3-Dichlorobenzene			Not detected	10	Not detected	500
1,3-Dichloropropane			Not detected	10	Not detected	500
1,4-Dichlorobenzene			Not detected	10	Not detected	500
1-Chlorohexane			Not detected	10	Not detected	500
2,2-Dichloropropane			Not detected	10	Not detected	500
2-Chlorotoluene			Not detected	10	Not detected	500
4-Chlorotoluene			Not detected	10	Not detected	500
Benzene			Not detected	10	Not detected	500
Bromobenzene			Not detected	10	Not detected	500
Bromochloromethane			Not detected	10	Not detected	500
Bromodichloromethane			Not detected	10	Not detected	500
Bromoform			Not detected	10	Not detected	500
Bromomethane			Not detected	10	Not detected	500
Carbon tetrachloride			Not detected	10	Not detected	500
Chlorobenzene			Not detected	10	Not detected	500
Chloroethane			Not detected	10	Not detected	500
Chloroform			Not detected	10	Not detected	500
Chloromethane			Not detected	10	Not detected	500
cis-1,3-Dichloropropylene			Not detected	10	Not detected	500
Dibromochloromethane			Not detected	10	Not detected	500
Dibromomethane			Not detected	10	Not detected	500
Dichlorodifluoromethane			Not detected	10	Not detected	500
Ethylbenzene			Not detected	10	Not detected	500
Hexachlorobutadiene			Not detected	10	Not detected	500
Isopropylbenzene			Not detected	10	Not detected	500
Methylene chloride			Not detected	10	Not detected	500
MTBE			Not detected	10	Not detected	500
Naphthalene			Not detected	10	Not detected	500
n-Butylbenzene			Not detected	10	Not detected	500
n-Propylbenzene			Not detected	10	Not detected	500
o-Xylene			Not detected	10	Not detected	500
p- & m-Xylenes			Not detected	10	Not detected	500
p-Isopropyltoluene			Not detected	10	Not detected	500
sec-Butylbenzene			Not detected	10	Not detected	500
Styrene			Not detected	10	Not detected	500
tert-Butylbenzene			Not detected	10	Not detected	500
Tetrachloroethylene			Not detected	10	Not detected	500
Toluene			Not detected	10	Not detected	500
trans-1,3-Dichloropropylene			Not detected	10	Not detected	500
Trichloroethylene			Not detected	10	Not detected	500
Trichlorofluoromethane			Not detected	10	Not detected	500
Vinyl chloride			Not detected	10	Not detected	500
BNA-8270 List	SW846-8270C	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	330
1,2-Dichlorobenzene			Not detected	165	Not detected	330
1,3-Dichlorobenzene			Not detected	165	Not detected	330
1,4-Dichlorobenzene			Not detected	165	Not detected	330
2,4,5-Trichlorophenol			Not detected	165	Not detected	330

**YORK**

Client Sample ID			SB-1/5-10'		SB-2/10-12'	
York Sample ID			06050130-01		06050130-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
2,4,6-Trichlorophenol			Not detected	165	Not detected	330
2,4-Dichlorophenol			Not detected	165	Not detected	330
2,4-Dimethylphenol			Not detected	165	Not detected	330
2,4-Dinitrophenol			Not detected	165	Not detected	330
2,4-Dinitrotoluene			Not detected	165	Not detected	330
2,6-Dinitrotoluene			Not detected	165	Not detected	330
2-Chloronaphthalene			Not detected	165	Not detected	330
2-Chlorophenol			Not detected	165	Not detected	330
2-Methylnaphthalene			Not detected	165	Not detected	330
2-Methylphenol			Not detected	165	Not detected	330
2-Nitroaniline			Not detected	165	Not detected	330
2-Nitrophenol			Not detected	165	Not detected	330
3,3'-Dichlorobenzidine			Not detected	165	Not detected	330
3-Methylphenol			Not detected	165	Not detected	330
3-Nitroaniline			Not detected	165	Not detected	330
4,6-Dinitro-2-methylphenol			Not detected	165	Not detected	330
4-Bromophenyl phenyl ether			Not detected	165	Not detected	330
4-Chloro-3-methyl phenol			Not detected	165	Not detected	330
4-Chloroaniline			Not detected	165	Not detected	330
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	330
4-Methylphenol			Not detected	165	Not detected	330
4-Nitroaniline			Not detected	165	Not detected	330
4-Nitrophenol			Not detected	165	Not detected	330
Acenaphthene			Not detected	165	Not detected	330
Acenaphthylene			Not detected	165	Not detected	330
Aniline			Not detected	165	Not detected	330
Anthracene			Not detected	165	Not detected	330
Benzidine			Not detected	165	Not detected	330
Benzo(a)anthracene			Not detected	165	Not detected	330
Benzo(a)pyrene			Not detected	165	Not detected	330
Benzo(b)fluoranthene			Not detected	165	Not detected	330
Benzo(g,h,i)perylene			Not detected	165	Not detected	330
Benzo(k)fluoranthene			Not detected	165	Not detected	330
Benzyl alcohol			Not detected	165	Not detected	330
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	330
Bis(2-chloroethyl)ether			Not detected	165	Not detected	330
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	330
Bis(2-ethylhexyl)phthalate			Not detected	165	Not detected	330
Butyl benzyl phthalate			Not detected	165	Not detected	330
Chrysene			Not detected	165	Not detected	330
Dibenz(a,h)anthracene			Not detected	165	Not detected	330
Dibenzofuran			Not detected	165	Not detected	330
Diethylphthalate			Not detected	165	Not detected	330
Dimethylphthalate			Not detected	165	Not detected	330
Di-n-butylphthalate			Not detected	165	Not detected	330
Di-n-octylphthalate			Not detected	165	Not detected	330
Fluoranthene			Not detected	165	Not detected	330
Fluorene			Not detected	165	Not detected	330
Hexachlorobenzene			Not detected	165	Not detected	330
Hexachlorobutadiene			Not detected	165	Not detected	330
Hexachlorocyclopentadiene			Not detected	165	Not detected	330

**YORK**

Client Sample ID			SB-1/5-10'		SB-2/10-12'	
York Sample ID			06050130-01		06050130-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Hexachloroethane			Not detected	165	Not detected	330
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	330
Isophorone			Not detected	165	Not detected	330
Naphthalene			Not detected	165	Not detected	330
Nitrobenzene			Not detected	165	Not detected	330
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	330
N-Nitrosodiphenylamine			Not detected	165	Not detected	330
Pentachlorophenol			Not detected	165	Not detected	330
Phenanthrene			Not detected	165	Not detected	330
Phenol			Not detected	165	Not detected	330
Pyrene			Not detected	165	Not detected	330
Pyridine			Not detected	165	Not detected	330

Client Sample ID			SB-3/5-10'		SB-4/13-15'	
York Sample ID			06050130-03		06050130-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles-8260 list	SW846-8260	ug/Kg	---	---	---	---
1,1,1,2-Tetrachloroethane			Not detected	10	Not detected	130
1,1,1-Trichloroethane			Not detected	10	Not detected	130
1,1,2,2-Tetrachloroethane			Not detected	10	Not detected	130
1,1,2-Trichloroethane			Not detected	10	Not detected	130
1,1-Dichloroethane			Not detected	10	Not detected	130
1,1-Dichloroethylene			Not detected	10	Not detected	130
1,1-Dichloropropylene			Not detected	10	Not detected	130
1,2,3-Trichlorobenzene			Not detected	10	Not detected	130
1,2,3-Trichloropropane			Not detected	10	Not detected	130
1,2,3-Trimethylbenzene			Not detected	10	Not detected	130
1,2,4-Trichlorobenzene			Not detected	10	Not detected	130
1,2,4-Trimethylbenzene			Not detected	10	Not detected	130
1,2-Dibromo-3-chloropropane			Not detected	10	Not detected	130
1,2-Dibromoethane			Not detected	10	Not detected	130
1,2-Dichlorobenzene			Not detected	10	Not detected	130
1,2-Dichloroethane			Not detected	10	Not detected	130
1,2-Dichloroethylene (Total)			Not detected	10	Not detected	130
1,2-Dichloropropane			Not detected	10	Not detected	130
1,3,5-Trimethylbenzene			Not detected	10	Not detected	130
1,3-Dichlorobenzene			Not detected	10	Not detected	130
1,3-Dichloropropane			Not detected	10	Not detected	130
1,4-Dichlorobenzene			Not detected	10	Not detected	130
1-Chlorohexane			Not detected	10	Not detected	130
2,2-Dichloropropane			Not detected	10	Not detected	130
2-Chlorotoluene			Not detected	10	Not detected	130
4-Chlorotoluene			Not detected	10	Not detected	130
Benzene			Not detected	10	Not detected	130
Bromobenzene			Not detected	10	Not detected	130
Bromochloromethane			Not detected	10	Not detected	130
Bromodichloromethane			Not detected	10	Not detected	130
Bromoform			Not detected	10	Not detected	130

**YORK**

Client Sample ID			SB-3/5-10'		SB-4/13-15'	
York Sample ID			06050130-03		06050130-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Bromomethane			Not detected	10	Not detected	130
Carbon tetrachloride			Not detected	10	Not detected	130
Chlorobenzene			Not detected	10	Not detected	130
Chloroethane			Not detected	10	Not detected	130
Chloroform			Not detected	10	Not detected	130
Chloromethane			Not detected	10	Not detected	130
cis-1,3-Dichloropropylene			Not detected	10	Not detected	130
Dibromochloromethane			Not detected	10	Not detected	130
Dibromomethane			Not detected	10	Not detected	130
Dichlorodifluoromethane			Not detected	10	Not detected	130
Ethylbenzene			Not detected	10	Not detected	130
Hexachlorobutadiene			Not detected	10	Not detected	130
Isopropylbenzene			Not detected	10	Not detected	130
Methylene chloride			Not detected	10	Not detected	130
MTBE			Not detected	10	Not detected	130
Naphthalene			Not detected	10	Not detected	130
n-Butylbenzene			Not detected	10	Not detected	130
n-Propylbenzene			Not detected	10	Not detected	130
o-Xylene			Not detected	10	Not detected	130
p- & m-Xylenes			Not detected	10	Not detected	130
p-Isopropyltoluene			Not detected	10	Not detected	130
sec-Butylbenzene			Not detected	10	Not detected	130
Styrene			Not detected	10	Not detected	130
tert-Butylbenzene			Not detected	10	Not detected	130
Tetrachloroethylene			Not detected	10	Not detected	130
Toluene			Not detected	10	Not detected	130
trans-1,3-Dichloropropylene			Not detected	10	Not detected	130
Trichloroethylene			Not detected	10	Not detected	130
Trichlorofluoromethane			Not detected	10	Not detected	130
Vinyl chloride			Not detected	10	Not detected	130
BNA-8270 List	SW846-8270C	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	17000
1,2-Dichlorobenzene			Not detected	165	Not detected	17000
1,3-Dichlorobenzene			Not detected	165	Not detected	17000
1,4-Dichlorobenzene			Not detected	165	Not detected	17000
2,4,5-Trichlorophenol			Not detected	165	Not detected	17000
2,4,6-Trichlorophenol			Not detected	165	Not detected	17000
2,4-Dichlorophenol			Not detected	165	Not detected	17000
2,4-Dimethylphenol			Not detected	165	Not detected	17000
2,4-Dinitrophenol			Not detected	165	Not detected	17000
2,4-Dinitrotoluene			Not detected	165	Not detected	17000
2,6-Dinitrotoluene			Not detected	165	Not detected	17000
2-Chloronaphthalene			Not detected	165	Not detected	17000
2-Chlorophenol			Not detected	165	Not detected	17000
2-Methylnaphthalene			Not detected	165	Not detected	17000
2-Methylphenol			Not detected	165	Not detected	17000
2-Nitroaniline			Not detected	165	Not detected	17000
2-Nitrophenol			Not detected	165	Not detected	17000
3,3'-Dichlorobenzidine			Not detected	165	Not detected	17000
3-Methylphenol			Not detected	165	Not detected	17000
3-Nitroaniline			Not detected	165	Not detected	17000

**YORK**

Client Sample ID			SB-3/5-10'		SB-4/13-15'	
York Sample ID			06050130-03		06050130-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
4,6-Dinitro-2-methylphenol			Not detected	165	Not detected	17000
4-Bromophenyl phenyl ether			Not detected	165	Not detected	17000
4-Chloro-3-methyl phenol			Not detected	165	Not detected	17000
4-Chloroaniline			Not detected	165	Not detected	17000
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	17000
4-Methylphenol			Not detected	165	Not detected	17000
4-Nitroaniline			Not detected	165	Not detected	17000
4-Nitrophenol			Not detected	165	Not detected	17000
Acenaphthene			Not detected	165	Not detected	17000
Acenaphthylene			Not detected	165	Not detected	17000
Aniline			Not detected	165	Not detected	17000
Anthracene			Not detected	165	Not detected	17000
Benzidine			Not detected	165	Not detected	17000
Benzo(a)anthracene			Not detected	165	Not detected	17000
Benzo(a)pyrene			Not detected	165	Not detected	17000
Benzo(b)fluoranthene			Not detected	165	Not detected	17000
Benzo(g,h,i)perylene			Not detected	165	Not detected	17000
Benzo(k)fluoranthene			Not detected	165	Not detected	17000
Benzyl alcohol			Not detected	165	Not detected	17000
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	17000
Bis(2-chloroethyl)ether			Not detected	165	Not detected	17000
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	17000
Bis(2-ethylhexyl)phthalate			190	165	140000	17000
Butyl benzyl phthalate			Not detected	165	Not detected	17000
Chrysene			Not detected	165	Not detected	17000
Dibenz(a,h)anthracene			Not detected	165	Not detected	17000
Dibenzofuran			Not detected	165	Not detected	17000
Diethylphthalate			Not detected	165	Not detected	17000
Dimethylphthalate			Not detected	165	Not detected	17000
Di-n-butylphthalate			Not detected	165	Not detected	17000
Di-n-octylphthalate			Not detected	165	200000	17000
Fluoranthene			Not detected	165	Not detected	17000
Fluorene			Not detected	165	Not detected	17000
Hexachlorobenzene			Not detected	165	Not detected	17000
Hexachlorobutadiene			Not detected	165	Not detected	17000
Hexachlorocyclopentadiene			Not detected	165	Not detected	17000
Hexachloroethane			Not detected	165	Not detected	17000
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	17000
Isophorone			Not detected	165	Not detected	17000
Naphthalene			Not detected	165	Not detected	17000
Nitrobenzene			Not detected	165	Not detected	17000
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	17000
N-Nitrosodiphenylamine			Not detected	165	Not detected	17000
Pentachlorophenol			Not detected	165	Not detected	17000
Phenanthrene			Not detected	165	Not detected	17000
Phenol			Not detected	165	Not detected	17000
Pyrene			Not detected	165	Not detected	17000
Pyridine			Not detected	165	Not detected	17000

**YORK**

Client Sample ID			SB-5/10-12'		SB-6/14-16'	
York Sample ID			06050130-05		06050130-06	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles-8260 list	SW846-8260	ug/Kg	---	---	---	---
1,1,1,2-Tetrachloroethane			Not detected	25	Not detected	130
1,1,1-Trichloroethane			Not detected	25	Not detected	130
1,1,2,2-Tetrachloroethane			Not detected	25	Not detected	130
1,1,2-Trichloroethane			Not detected	25	Not detected	130
1,1-Dichloroethane			Not detected	25	Not detected	130
1,1-Dichloroethylene			Not detected	25	Not detected	130
1,1-Dichloropropylene			Not detected	25	Not detected	130
1,2,3-Trichlorobenzene			Not detected	25	Not detected	130
1,2,3-Trichloropropane			Not detected	25	Not detected	130
1,2,3-Trimethylbenzene			Not detected	25	Not detected	130
1,2,4-Trichlorobenzene			Not detected	25	Not detected	130
1,2,4-Trimethylbenzene			260	25	Not detected	130
1,2-Dibromo-3-chloropropane			Not detected	25	Not detected	130
1,2-Dibromoethane			Not detected	25	Not detected	130
1,2-Dichlorobenzene			Not detected	25	Not detected	130
1,2-Dichloroethane			Not detected	25	Not detected	130
1,2-Dichloroethylene (Total)			Not detected	25	Not detected	130
1,2-Dichloropropane			Not detected	25	Not detected	130
1,3,5-Trimethylbenzene			100	25	Not detected	130
1,3-Dichlorobenzene			Not detected	25	Not detected	130
1,3-Dichloropropane			Not detected	25	Not detected	130
1,4-Dichlorobenzene			Not detected	25	Not detected	130
1-Chlorohexane			Not detected	25	Not detected	130
2,2-Dichloropropane			Not detected	25	Not detected	130
2-Chlorotoluene			Not detected	25	Not detected	130
4-Chlorotoluene			Not detected	25	Not detected	130
Benzene			Not detected	25	Not detected	130
Bromobenzene			Not detected	25	Not detected	130
Bromochloromethane			Not detected	25	Not detected	130
Bromodichloromethane			Not detected	25	Not detected	130
Bromoform			Not detected	25	Not detected	130
Bromomethane			Not detected	25	Not detected	130
Carbon tetrachloride			Not detected	25	Not detected	130
Chlorobenzene			Not detected	25	Not detected	130
Chloroethane			Not detected	25	Not detected	130
Chloroform			Not detected	25	Not detected	130
Chloromethane			Not detected	25	Not detected	130
cis-1,3-Dichloropropylene			Not detected	25	Not detected	130
Dibromochloromethane			Not detected	25	Not detected	130
Dibromomethane			Not detected	25	Not detected	130
Dichlorodifluoromethane			Not detected	25	Not detected	130
Ethylbenzene			Not detected	25	Not detected	130
Hexachlorobutadiene			Not detected	25	Not detected	130
Isopropylbenzene			Not detected	25	Not detected	130
Methylene chloride			Not detected	25	Not detected	130
MTBE			Not detected	25	Not detected	130
Naphthalene			70	25	Not detected	130
n-Butylbenzene			56	25	Not detected	130
n-Propylbenzene			35	25	Not detected	130
o-Xylene			Not detected	25	Not detected	130

**YORK**

Client Sample ID			SB-5/10-12'		SB-6/14-16'	
York Sample ID			06050130-05		06050130-06	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
p- & m-Xylenes			45	25	Not detected	130
p-Isopropyltoluene			37	25	Not detected	130
sec-Butylbenzene			Not detected	25	Not detected	130
Styrene			Not detected	25	Not detected	130
tert-Butylbenzene			Not detected	25	Not detected	130
Tetrachloroethylene			Not detected	25	Not detected	130
Toluene			54	25	Not detected	130
trans-1,3-Dichloropropylene			Not detected	25	Not detected	130
Trichloroethylene			Not detected	25	Not detected	130
Trichlorofluoromethane			Not detected	25	Not detected	130
Vinyl chloride			Not detected	25	Not detected	130
BNA-8270 List	SW846-8270C	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	83000	Not detected	830000
1,2-Dichlorobenzene			Not detected	83000	Not detected	830000
1,3-Dichlorobenzene			Not detected	83000	Not detected	830000
1,4-Dichlorobenzene			Not detected	83000	Not detected	830000
2,4,5-Trichlorophenol			Not detected	83000	Not detected	830000
2,4,6-Trichlorophenol			Not detected	83000	Not detected	830000
2,4-Dichlorophenol			Not detected	83000	Not detected	830000
2,4-Dimethylphenol			Not detected	83000	Not detected	830000
2,4-Dinitrophenol			Not detected	83000	Not detected	830000
2,4-Dinitrotoluene			Not detected	83000	Not detected	830000
2,6-Dinitrotoluene			Not detected	83000	Not detected	830000
2-Chloronaphthalene			Not detected	83000	Not detected	830000
2-Chlorophenol			Not detected	83000	Not detected	830000
2-Methylnaphthalene			Not detected	83000	Not detected	830000
2-Methylphenol			Not detected	83000	Not detected	830000
2-Nitroaniline			Not detected	83000	Not detected	830000
2-Nitrophenol			Not detected	83000	Not detected	830000
3,3'-Dichlorobenzidine			Not detected	83000	Not detected	830000
3-Methylphenol			Not detected	83000	Not detected	830000
3-Nitroaniline			Not detected	83000	Not detected	830000
4,6-Dinitro-2-methylphenol			Not detected	83000	Not detected	830000
4-Bromophenyl phenyl ether			Not detected	83000	Not detected	830000
4-Chloro-3-methyl phenol			Not detected	83000	Not detected	830000
4-Chloroaniline			Not detected	83000	Not detected	830000
4-Chlorophenyl phenyl ether			Not detected	83000	Not detected	830000
4-Methylphenol			Not detected	83000	Not detected	830000
4-Nitroaniline			Not detected	83000	Not detected	830000
4-Nitrophenol			Not detected	83000	Not detected	830000
Acenaphthene			Not detected	83000	Not detected	830000
Acenaphthylene			Not detected	83000	Not detected	830000
Aniline			Not detected	83000	Not detected	830000
Anthracene			Not detected	83000	Not detected	830000
Benzidine			Not detected	83000	Not detected	830000
Benzo(a)anthracene			Not detected	83000	Not detected	830000
Benzo(a)pyrene			Not detected	83000	Not detected	830000
Benzo(b)fluoranthene			Not detected	83000	Not detected	830000
Benzo(g,h,i)perylene			Not detected	83000	Not detected	830000
Benzo(k)fluoranthene			Not detected	83000	Not detected	830000
Benzyl alcohol			Not detected	83000	Not detected	830000

**YORK**

Client Sample ID			SB-5/10-12'		SB-6/14-16'	
York Sample ID			06050130-05		06050130-06	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Bis(2-chloroethoxy)methane			Not detected	83000	Not detected	830000
Bis(2-chloroethyl)ether			Not detected	83000	Not detected	830000
Bis(2-chloroisopropyl)ether			Not detected	83000	Not detected	830000
Bis(2-ethylhexyl)phthalate			510000	83000	12000000	830000
Butyl benzyl phthalate			Not detected	83000	Not detected	830000
Chrysene			Not detected	83000	Not detected	830000
Dibenz(a,h)anthracene			Not detected	83000	Not detected	830000
Dibenzofuran			Not detected	83000	Not detected	830000
Diethylphthalate			Not detected	83000	Not detected	830000
Dimethylphthalate			Not detected	83000	Not detected	830000
Di-n-butylphthalate			Not detected	83000	Not detected	830000
Di-n-octylphthalate			Not detected	83000	Not detected	830000
Fluoranthene			Not detected	83000	Not detected	830000
Fluorene			Not detected	83000	Not detected	830000
Hexachlorobenzene			Not detected	83000	Not detected	830000
Hexachlorobutadiene			Not detected	83000	Not detected	830000
Hexachlorocyclopentadiene			Not detected	83000	Not detected	830000
Hexachloroethane			Not detected	83000	Not detected	830000
Indeno(1,2,3-cd)pyrene			Not detected	83000	Not detected	830000
Isophorone			Not detected	83000	Not detected	830000
Naphthalene			Not detected	83000	Not detected	830000
Nitrobenzene			Not detected	83000	Not detected	830000
N-Nitrosodi-n-propylamine			Not detected	83000	Not detected	830000
N-Nitrosodiphenylamine			Not detected	83000	Not detected	830000
Pentachlorophenol			Not detected	83000	Not detected	830000
Phenanthrene			Not detected	83000	Not detected	830000
Phenol			Not detected	83000	Not detected	830000
Pyrene			Not detected	83000	Not detected	830000
Pyridine			Not detected	83000	Not detected	830000

Client Sample ID			SB-7/11-13'	
York Sample ID			06050130-07	
Matrix			SOIL	
Parameter	Method	Units	Results	MDL
Volatiles-8260 list	SW846-8260	ug/Kg	---	---
1,1,1,2-Tetrachloroethane			Not detected	10
1,1,1-Trichloroethane			Not detected	10
1,1,2,2-Tetrachloroethane			Not detected	10
1,1,2-Trichloroethane			Not detected	10
1,1-Dichloroethane			Not detected	10
1,1-Dichloroethylene			Not detected	10
1,1-Dichloropropylene			Not detected	10
1,2,3-Trichlorobenzene			Not detected	10
1,2,3-Trichloropropane			Not detected	10
1,2,3-Trimethylbenzene			Not detected	10
1,2,4-Trichlorobenzene			Not detected	10
1,2,4-Trimethylbenzene			Not detected	10
1,2-Dibromo-3-chloropropane			Not detected	10
1,2-Dibromoethane			Not detected	10

**YORK**



Client Sample ID			SB-7/11-13'	
York Sample ID			06050130-07	
Matrix			SOIL	
Parameter	Method	Units	Results	MDL
1,2-Dichlorobenzene			Not detected	10
1,2-Dichloroethane			Not detected	10
1,2-Dichloroethylene (Total)			Not detected	10
1,2-Dichloropropane			Not detected	10
1,3,5-Trimethylbenzene			Not detected	10
1,3-Dichlorobenzene			Not detected	10
1,3-Dichloropropane			Not detected	10
1,4-Dichlorobenzene			Not detected	10
1-Chlorohexane			Not detected	10
2,2-Dichloropropane			Not detected	10
2-Chlorotoluene			Not detected	10
4-Chlorotoluene			Not detected	10
Benzene			Not detected	10
Bromobenzene			Not detected	10
Bromochloromethane			Not detected	10
Bromodichloromethane			Not detected	10
Bromoform			Not detected	10
Bromomethane			Not detected	10
Carbon tetrachloride			Not detected	10
Chlorobenzene			Not detected	10
Chloroethane			Not detected	10
Chloroform			Not detected	10
Chloromethane			Not detected	10
cis-1,3-Dichloropropylene			Not detected	10
Dibromochloromethane			Not detected	10
Dibromomethane			Not detected	10
Dichlorodifluoromethane			Not detected	10
Ethylbenzene			Not detected	10
Hexachlorobutadiene			Not detected	10
Isopropylbenzene			Not detected	10
Methylene chloride			Not detected	10
MTBE			Not detected	10
Naphthalene			Not detected	10
n-Butylbenzene			Not detected	10
n-Propylbenzene			Not detected	10
o-Xylene			Not detected	10
p- & m-Xylenes			Not detected	10
p-Isopropyltoluene			Not detected	10
sec-Butylbenzene			Not detected	10
Styrene			Not detected	10
tert-Butylbenzene			Not detected	10
Tetrachloroethylene			Not detected	10
Toluene			Not detected	10
trans-1,3-Dichloropropylene			Not detected	10
Trichloroethylene			Not detected	10
Trichlorofluoromethane			Not detected	10
Vinyl chloride			Not detected	10
BNA-8270 List	SW846-8270C	ug/Kg	---	---
1,2,4-Trichlorobenzene			Not detected	330
1,2-Dichlorobenzene			Not detected	330
1,3-Dichlorobenzene			Not detected	330

**YORK**

Client Sample ID			SB-7/11-13'	
York Sample ID			06050130-07	
Matrix			SOIL	
Parameter	Method	Units	Results	MDL
1,4-Dichlorobenzene			Not detected	330
2,4,5-Trichlorophenol			Not detected	330
2,4,6-Trichlorophenol			Not detected	330
2,4-Dichlorophenol			Not detected	330
2,4-Dimethylphenol			Not detected	330
2,4-Dinitrophenol			Not detected	330
2,4-Dinitrotoluene			Not detected	330
2,6-Dinitrotoluene			Not detected	330
2-Chloronaphthalene			Not detected	330
2-Chlorophenol			Not detected	330
2-Methylnaphthalene			Not detected	330
2-Methylphenol			Not detected	330
2-Nitroaniline			Not detected	330
2-Nitrophenol			Not detected	330
3,3'-Dichlorobenzidine			Not detected	330
3-Methylphenol			Not detected	330
3-Nitroaniline			Not detected	330
4,6-Dinitro-2-methylphenol			Not detected	330
4-Bromophenyl phenyl ether			Not detected	330
4-Chloro-3-methyl phenol			Not detected	330
4-Chloroaniline			Not detected	330
4-Chlorophenyl phenyl ether			Not detected	330
4-Methylphenol			Not detected	330
4-Nitroaniline			Not detected	330
4-Nitrophenol			Not detected	330
Acenaphthene			Not detected	330
Acenaphthylene			Not detected	330
Aniline			Not detected	330
Anthracene			Not detected	330
Benzidine			Not detected	330
Benzo(a)anthracene			Not detected	330
Benzo(a)pyrene			Not detected	330
Benzo(b)fluoranthene			Not detected	330
Benzo(g,h,i)perylene			Not detected	330
Benzo(k)fluoranthene			Not detected	330
Benzyl alcohol			Not detected	330
Bis(2-chloroethoxy)methane			Not detected	330
Bis(2-chloroethyl)ether			Not detected	330
Bis(2-chloroisopropyl)ether			Not detected	330
Bis(2-ethylhexyl)phthalate			6800	330
Butyl benzyl phthalate			Not detected	330
Chrysene			Not detected	330
Dibenz(a,h)anthracene			Not detected	330
Dibenzofuran			Not detected	330
Diethylphthalate			Not detected	330
Dimethylphthalate			Not detected	330
Di-n-butylphthalate			Not detected	330
Di-n-octylphthalate			Not detected	330
Fluoranthene			Not detected	330
Fluorene			Not detected	330
Hexachlorobenzene			Not detected	330

**YORK**

Client Sample ID			SB-7/11-13'	
York Sample ID			06050130-07	
Matrix			SOIL	
Parameter	Method	Units	Results	MDL
Hexachlorobutadiene			Not detected	330
Hexachlorocyclopentadiene			Not detected	330
Hexachloroethane			Not detected	330
Indeno(1,2,3-cd)pyrene			Not detected	330
Isophorone			Not detected	330
Naphthalene			Not detected	330
Nitrobenzene			Not detected	330
N-Nitrosodi-n-propylamine			Not detected	330
N-Nitrosodiphenylamine			Not detected	330
Pentachlorophenol			Not detected	330
Phenanthrene			Not detected	330
Phenol			Not detected	330
Pyrene			Not detected	330
Pyridine			Not detected	330

**Units Key:**

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

**Notes for York Project No. 06050130**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By: \_\_\_\_\_

Robert Q. Bradley  
Managing Director

Date: 5/10/2006

**YORK**

# YORK

ANALYTICAL LABORATORIES, INC.

120 RESEARCH DRIVE STRATFORD, CT 06615  
(203) 325-1371 FAX (203) 357-0166

## Field Chain-of-Custody Record

Page 2 of 2

Company Name

Advanced Site Restoration  
62 William St  
NY NY 10005

Report To:

Steve M.

Invoice To:

ASR

Project ID/No.

49 Dupont

Samples Collected By (Signature)

Anthony Accurso  
Name (Printed)

Sample No.

Location/ID

Date Sampled

Water

Sample Matrix

Soil

Air

OTHER

ANALYSES REQUESTED

Container Description(s)

SB-1

5-10'

5/2/05

X

X

X

8260/8270 full

1802 / 402

SB-2

10-12'

X

X

X

X

X

SB-3

5-10'

X

X

X

X

X

SB-4

13-15'

X

X

X

X

X

SB-5

10-12'

X

X

X

X

X

SB-6

14-16'

X

X

X

X

X

SB-7

11-13'

X

X

X

X

X

### Chain-of-Custody Record

Bottles Relinquished from Lab by

Date/Time

Bottles Received in Field by

Date/Time

Sample Relinquished by

Date/Time

Sample Relinquished by

Date/Time

Sample Received by

Date/Time

Sample Received in LAB by

Date/Time

Comments/Special Instructions

Turn-Around Time

Standard RUSH(define)

# Technical Report

prepared for

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

Report Date: 6/19/2006  
***Re: Client Project ID: 49 Dupont St., Bklyn***  
York Project No.: 06060385

CT License No. PH-0723

New York License No. 10854



Report Date: 6/19/2006  
Client Project ID: 49 Dupont St., Bklyn  
York Project No.: 06060385

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

## 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 06/12/06. The project was identified as your project "49 Dupont St., Bklyn."

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			SB-8		SB-9	
York Sample ID			06060385-01		06060385-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	Not detected	10
1,3,5-Trimethylbenzene			Not detected	10	Not detected	10
Benzene			Not detected	10	Not detected	10
Ethylbenzene			Not detected	10	Not detected	10
Isopropylbenzene			Not detected	10	Not detected	10
Methyl-tert-butyl ether (MTBE)			Not detected	10	Not detected	10
Naphthalene			Not detected	10	Not detected	10
n-Butylbenzene			Not detected	10	Not detected	10
n-Propylbenzene			Not detected	10	Not detected	10
o-Xylene			Not detected	10	Not detected	10
p- & m-Xylenes			Not detected	10	Not detected	10
p-Isopropyltoluene			Not detected	10	Not detected	10
sec-Butylbenzene			Not detected	10	Not detected	10
tert-Butylbenzene			Not detected	10	Not detected	10
Toluene			Not detected	10	Not detected	10
Total Xylenes			Not detected	10	Not detected	10

**YORK**

Client Sample ID			SB-8		SB-9	
York Sample ID			06060385-01		06060385-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			280	165	170	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	Not detected	165

**YORK**

Client Sample ID			SB-10		SB-11	
York Sample ID			06060385-03		06060385-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Volatiles- STARS List</b>	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	Not detected	10
1,3,5-Trimethylbenzene			Not detected	10	Not detected	10
Benzene			Not detected	10	Not detected	10
Ethylbenzene			Not detected	10	Not detected	10
Isopropylbenzene			Not detected	10	Not detected	10
Methyl-tert-butyl ether (MTBE)			Not detected	10	Not detected	10
Naphthalene			Not detected	10	Not detected	10
n-Butylbenzene			Not detected	10	Not detected	10
n-Propylbenzene			Not detected	10	Not detected	10
o-Xylene			Not detected	10	Not detected	10
p- & m-Xylenes			Not detected	10	Not detected	10
p-Isopropyltoluene			Not detected	10	Not detected	10
sec-Butylbenzene			Not detected	10	Not detected	10
tert-Butylbenzene			Not detected	10	Not detected	10
Toluene			Not detected	10	Not detected	10
Total Xylenes			Not detected	10	Not detected	10
<b>Base/Neutral Extractables soil</b>	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			Not detected	165	260	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165

**YORK**



Client Sample ID			SB-10		SB-11	
York Sample ID			06060385-03		06060385-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	Not detected	165

Client Sample ID			SB-12		SB-13	
York Sample ID			06060385-05		06060385-06	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Volatiles- STARS List</b>	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	Not detected	10
1,3,5-Trimethylbenzene			Not detected	10	Not detected	10
Benzene			Not detected	10	Not detected	10
Ethylbenzene			Not detected	10	Not detected	10
Isopropylbenzene			Not detected	10	Not detected	10
Methyl-tert-butyl ether (MTBE)			Not detected	10	Not detected	10
Naphthalene			Not detected	10	Not detected	10
n-Butylbenzene			Not detected	10	Not detected	10
n-Propylbenzene			Not detected	10	Not detected	10
o-Xylene			Not detected	10	Not detected	10
p- & m-Xylenes			Not detected	10	Not detected	10
p-Isopropyltoluene			Not detected	10	Not detected	10
sec-Butylbenzene			Not detected	10	Not detected	10
tert-Butylbenzene			Not detected	10	Not detected	10
Toluene			Not detected	10	Not detected	10
Total Xylenes			Not detected	10	Not detected	10
<b>Base/Neutral Extractables soil</b>	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165

**YORK**

Client Sample ID			SB-12		SB-13	
York Sample ID			06060385-05		06060385-06	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			Not detected	165	370	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	Not detected	165

**Units Key:**

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

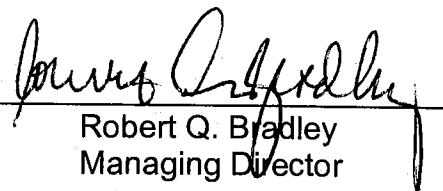
For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

**YORK**

**Notes for York Project No. 06060385**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By:

  
Robert Q. Bradley  
Managing Director

Date: 6/19/2006

**YORK**

# YORK

ANALYTICAL LABORATORIES, INC.

120 RESEARCH DRIVE STRATFORD, CT 06615  
(203) 325-1371 FAX (203) 357-0166

## Field Chain-of-Custody Record

Page 1 of 1

Company Name

ASR  
62 William St  
NY NY 10005

Report To:

Steve

Invoice To:

ASR

Project ID/No.

49 Dupont St  
Bklyn

Samples Collected By (Signature)

Anthony Arneso  
Name (Printed)

Sample No.

Location/ID

Date Sampled

Sample Matrix  
Water Soil Air OTHER

ANALYSES REQUESTED

Container  
Description(s)

SB-8

8-9'

6-9-06

X

8260 stars 8270 BN

1802 / 402

SB-9

8-9'

Y

SB-10

8'

Y

SB-11

8'

Y

SB-12

9-10'

X

SB-13

9-10'

Y

### Chain-of-Custody Record

Bottles Relinquished from Lab by

Date/Time

Bottles Received in Field by

Date/Time

Comments/Special Instructions

Sample Relinquished by

Date/Time

Sample Relinquished by

Date/Time

Sample Received by

Date/Time

Sample Received in LAB by

Date/Time

Turn-Around Time

Standard RUSH(define)

45°C

Anthony Arneso  
6/20/06 1730NAnthony Arneso  
6/22/06 4:45

**YORK**  
ANALYTICAL LABORATORIES, INC.

# Technical Report

prepared for

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

Report Date: 6/29/2006  
*Re: Client Project ID: 49 Dupont St., Bklyn*  
York Project No.: 06060758

CT License No. PH-0723

New York License No. 10854



Report Date: 6/29/2006  
 Client Project ID: 49 Dupont St., Bklyn  
 York Project No.: 06060758

**Advanced Site Restoration**  
 62 William St.  
 New York, NY 10005  
 Attention: Steve Muller

## 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 06/22/06. The project was identified as your project "49 Dupont St., Bklyn."

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

### Analysis Results

Client Sample ID			11-12' SB-14		12' SB-44	
York Sample ID			06060758-01		06060758-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Volatiles- STARS List</b>	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			11000	500	73	50
1,3,5-Trimethylbenzene			2300	500	Not detected	50
Benzene			Not detected	500	Not detected	50
Ethylbenzene			860	500	Not detected	50
Isopropylbenzene			660	500	Not detected	50
Methyl-tert-butyl ether (MTBE)			Not detected	500	Not detected	50
Naphthalene			14000	500	170	50
n-Butylbenzene			2600	500	130	50
n-Propylbenzene			1400	500	58	50
o-Xylene			650	500	Not detected	50
p- & m-Xylenes			2300	500	62	50
p-Isopropyltoluene			990	500	Not detected	50
sec-Butylbenzene			870	500	Not detected	50
tert-Butylbenzene			Not detected	500	Not detected	50
Toluene			Not detected	500	Not detected	50
Total Xylenes			2950	500	62	50
<b>Base/Neutral Extractables soil</b>	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	4100	Not detected	830000

**YORK**

Client Sample ID			11-12' SB-14		12' SB-44	
York Sample ID			06060758-01		06060758-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
1,2-Dichlorobenzene			Not detected	4100	Not detected	830000
1,3-Dichlorobenzene			Not detected	4100	Not detected	830000
1,4-Dichlorobenzene			Not detected	4100	Not detected	830000
2,4-Dinitrotoluene			Not detected	4100	Not detected	830000
2,6-Dinitrotoluene			Not detected	4100	Not detected	830000
2-Chloronaphthalene			Not detected	4100	Not detected	830000
2-Methylnaphthalene			21000	4100	Not detected	830000
2-Nitroaniline			Not detected	4100	Not detected	830000
3,3'-Dichlorobenzidine			Not detected	4100	Not detected	830000
3-Nitroaniline			Not detected	4100	Not detected	830000
4-Bromophenyl phenyl ether			Not detected	4100	Not detected	830000
4-Chloroaniline			Not detected	4100	Not detected	830000
4-Chlorophenyl phenyl ether			Not detected	4100	Not detected	830000
4-Nitroaniline			Not detected	4100	Not detected	830000
Acenaphthene			Not detected	4100	Not detected	830000
Acenaphthylene			Not detected	4100	Not detected	830000
Anthracene			Not detected	4100	Not detected	830000
Benzo(a)anthracene			Not detected	4100	Not detected	830000
Benzo(a)pyrene			Not detected	4100	Not detected	830000
Benzo(b)fluoranthene			Not detected	4100	Not detected	830000
Benzo(g,h,i)perylene			Not detected	4100	Not detected	830000
Benzo(k)fluoranthene			Not detected	4100	Not detected	830000
Bis(2-chloroethoxy)methane			Not detected	4100	Not detected	830000
Bis(2-chloroethyl)ether			Not detected	4100	Not detected	830000
Bis(2-chloroisopropyl)ether			Not detected	4100	Not detected	830000
Bis(2-ethylhexyl)phthalate			Not detected	4100	20000000	830000
Butyl benzyl phthalate			Not detected	4100	Not detected	830000
Carbazole			Not detected	4100	Not detected	830000
Chrysene			Not detected	4100	Not detected	830000
Dibenzo(a,h)anthracene			Not detected	4100	Not detected	830000
Dibenzofuran			Not detected	4100	Not detected	830000
Diethylphthalate			Not detected	4100	Not detected	830000
Dimethylphthalate			Not detected	4100	Not detected	830000
Di-n-butylphthalate			Not detected	4100	Not detected	830000
Di-n-octylphthalate			Not detected	4100	Not detected	830000
Fluoranthene			Not detected	4100	Not detected	830000
Fluorene			Not detected	4100	Not detected	830000
Hexachlorobenzene			Not detected	4100	Not detected	830000
Hexachlorobutadiene			Not detected	4100	Not detected	830000
Hexachlorocyclopentadiene			Not detected	4100	Not detected	830000
Hexachloroethane			Not detected	4100	Not detected	830000
Indeno(1,2,3-cd)pyrene			Not detected	4100	Not detected	830000
Isophorone			Not detected	4100	Not detected	830000
Naphthalene			4400	4100	Not detected	830000
Nitrobenzene			Not detected	4100	Not detected	830000
N-Nitrosodi-n-propylamine			Not detected	4100	Not detected	830000
N-Nitrosodiphenylamine			Not detected	4100	Not detected	830000
Phenanthrene			7500	4100	Not detected	830000
Pyrene			Not detected	4100	Not detected	830000

Units Key:

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

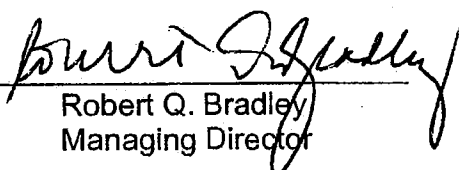
**YORK**

Report Date: 6/29/2006  
Client Project ID: 49 Dupont St., Bklyn  
York Project No.: 06060758

**Notes for York Project No. 06060758**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
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5. All samples were received in proper condition for analysis with proper documentation.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By: \_\_\_\_\_

  
Robert Q. Bradley  
Managing Director

Date: 6/29/2006

**YORK**



[illegible]

# YORK

ANALYTICAL LABORATORIES, INC.

## Technical Report

prepared for

**Advanced Site Restoration  
62 William St.  
New York, NY 10005  
Attention: Steve Muller**

Report Date: 6/21/2006  
***Re: Client Project ID: 49 Dupont St.***  
York Project No.: 06060481 Revised

CT License No. PH-0723

New York License No. 10854



**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

## 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 06/14/06. The project was identified as your project "49 Dupont St. ".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			SB-15		SB-16	
York Sample ID			06060481-01		06060481-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165

**YORK**

Client Sample ID			SB-15		SB-16	
York Sample ID			06060481-01		06060481-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			Not detected	165	300	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	Not detected	165

Client Sample ID			SB-17		SB-18	
York Sample ID			06060481-03		06060481-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			290	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165

**YORK**

Client Sample ID			SB-17		SB-18	
York Sample ID			06060481-03		06060481-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			580	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			390	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			Not detected	165	Not detected	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			340	165	Not detected	165
Fluorene			270	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			1500	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			710	165	Not detected	165
Pyrene			500	165	Not detected	165

Client Sample ID			SB-19		SB-20	
York Sample ID			06060481-05		06060481-06	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165

**YORK**

Client Sample ID			SB-19		SB-20	
York Sample ID			06060481-05		06060481-06	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			Not detected	165	Not detected	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	Not detected	165

**YORK**

Client Sample ID			SB-21		SB-24	
York Sample ID			06060481-07		06060481-08	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	1700
1,2-Dichlorobenzene			Not detected	165	Not detected	1700
1,3-Dichlorobenzene			Not detected	165	Not detected	1700
1,4-Dichlorobenzene			Not detected	165	Not detected	1700
2,4-Dinitrotoluene			Not detected	165	Not detected	1700
2,6-Dinitrotoluene			Not detected	165	Not detected	1700
2-Chloronaphthalene			Not detected	165	Not detected	1700
2-Methylnaphthalene			Not detected	165	Not detected	1700
2-Nitroaniline			Not detected	165	Not detected	1700
3,3'-Dichlorobenzidine			Not detected	165	Not detected	1700
3-Nitroaniline			Not detected	165	Not detected	1700
4-Bromophenyl phenyl ether			Not detected	165	Not detected	1700
4-Chloroaniline			Not detected	165	Not detected	1700
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	1700
4-Nitroaniline			Not detected	165	Not detected	1700
Acenaphthene			Not detected	165	Not detected	1700
Acenaphthylene			Not detected	165	Not detected	1700
Anthracene			Not detected	165	Not detected	1700
Benzo(a)anthracene			Not detected	165	Not detected	1700
Benzo(a)pyrene			Not detected	165	Not detected	1700
Benzo(b)fluoranthene			Not detected	165	Not detected	1700
Benzo(g,h,i)perylene			Not detected	165	Not detected	1700
Benzo(k)fluoranthene			Not detected	165	Not detected	1700
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	1700
Bis(2-chloroethyl)ether			Not detected	165	Not detected	1700
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	1700
Bis(2-ethylhexyl)phthalate			Not detected	165	14000	1700
Butyl benzyl phthalate			Not detected	165	Not detected	1700
Carbazole			Not detected	165	Not detected	1700
Chrysene			Not detected	165	Not detected	1700
Dibenzo(a,h)anthracene			Not detected	165	Not detected	1700
Dibenzofuran			Not detected	165	Not detected	1700
Diethylphthalate			Not detected	165	Not detected	1700
Dimethylphthalate			Not detected	165	Not detected	1700
Di-n-butylphthalate			Not detected	165	Not detected	1700
Di-n-octylphthalate			Not detected	165	16000	1700
Fluoranthene			Not detected	165	Not detected	1700
Fluorene			Not detected	165	Not detected	1700
Hexachlorobenzene			Not detected	165	Not detected	1700
Hexachlorobutadiene			Not detected	165	Not detected	1700
Hexachlorocyclopentadiene			Not detected	165	Not detected	1700
Hexachloroethane			Not detected	165	Not detected	1700
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	1700
Isophorone			Not detected	165	Not detected	1700
Naphthalene			Not detected	165	Not detected	1700
Nitrobenzene			Not detected	165	Not detected	1700
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	1700
N-Nitrosodiphenylamine			Not detected	165	Not detected	1700
Phenanthrene			Not detected	165	Not detected	1700
Pyrene			Not detected	165	Not detected	1700

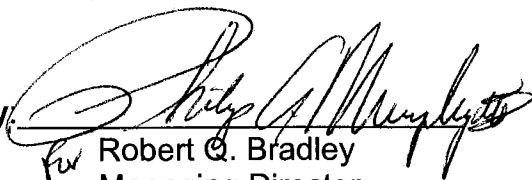
**YORK**

**Units Key:** For Waters/Liquids: mg/L = ppm ; ug/L = ppb For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

**Notes for York Project No. 06060481 R**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By:

  
for Robert Q. Bradley  
Managing Director

Date: 6/21/2006

**YORK**



# YORK

ANALYTICAL LABORATORIES, INC.

120 RESEARCH DRIVE STRATFORD, CT 06615  
(203) 325-1371 FAX (203) 357-0166

## Field Chain-of-Custody Record

Page 1 of 1

0000004181

Company Name ADVANCED SITE RESTORATION 62 WILLIAM ST N.Y. N.Y. 10005	Report To: STEVE MULLER	Invoice To: ASR	Project ID/No. 49 DULONT ST BROOKLYN NY	Samples Collected By (Signature) <i>Ethan Vazquez</i>
Name (Printed)				

Sample No.	Location/ID	Date Sampled	Sample Matrix			ANALYSES REQUESTED	Container Description(s)
			Water	Soil	Air		
	SB-15	6/13/06	X			EPA 8260 & 8270 STARS	1 (807) 1 (402)
	SB-16						
	SB-17						
	SB-18						
	SB-19						
	SB-20						
	SB-21						
	SB-24						

### Chain-of-Custody Record

Bottles Relinquished from Lab by	Date/Time	Sample Relinquished by	Date/Time	Sample Received by	Date/Time
		<i>[Signature]</i>	6/15/06	<i>[Signature]</i>	6/15/06
Bottles Received in Field by	Date/Time	Sample Relinquished by	Date/Time	Sample Received in LAB by	Date/Time
				<i>[Signature]</i>	6/15/06

Comments/Special Instructions

Turn-Around Time

Standard X RUSH(define) \_\_\_\_\_

# Technical Report

prepared for

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

Report Date: 6/23/2006  
*Re: Client Project ID: 49 Dupont St., Bklyn, NY*  
York Project No.: 06060587

CT License No. PH-0723

New York License No. 10854



**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

## 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 06/16/06. The project was identified as your project "49 Dupont St., Bklyn, NY."

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			SB-23		SB-46	
York Sample ID			06060587-01		06060587-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	Not detected	10
1,3,5-Trimethylbenzene			Not detected	10	Not detected	10
Benzene			Not detected	10	Not detected	10
Ethylbenzene			Not detected	10	Not detected	10
Isopropylbenzene			Not detected	10	Not detected	10
Methyl-tert-butyl ether (MTBE)			Not detected	10	Not detected	10
Naphthalene			Not detected	10	Not detected	10
n-Butylbenzene			Not detected	10	Not detected	10
n-Propylbenzene			Not detected	10	Not detected	10
o-Xylene			Not detected	10	Not detected	10
p- & m-Xylenes			Not detected	10	Not detected	10
p-Isopropyltoluene			Not detected	10	Not detected	10
sec-Butylbenzene			Not detected	10	Not detected	10
tert-Butylbenzene			Not detected	10	Not detected	10
Toluene			Not detected	10	Not detected	10
Total Xylenes			Not detected	10	Not detected	10

**YORK**

Client Sample ID			SB-23		SB-46	
York Sample ID			06060587-01		06060587-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			380	165	340	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			220	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			1600	165	330	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	Not detected	165

**YORK**

Client Sample ID			SB-56		SB-57	
York Sample ID			06060587-03		06060587-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Volatiles- STARS List</b>	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	Not detected	130
1,3,5-Trimethylbenzene			Not detected	10	Not detected	130
Benzene			Not detected	10	Not detected	130
Ethylbenzene			Not detected	10	Not detected	130
Isopropylbenzene			Not detected	10	Not detected	130
Methyl-tert-butyl ether (MTBE)			Not detected	10	Not detected	130
Naphthalene			Not detected	10	Not detected	130
n-Butylbenzene			Not detected	10	Not detected	130
n-Propylbenzene			Not detected	10	Not detected	130
o-Xylene			Not detected	10	Not detected	130
p- & m-Xylenes			Not detected	10	Not detected	130
p-Isopropyltoluene			Not detected	10	Not detected	130
sec-Butylbenzene			Not detected	10	Not detected	130
tert-Butylbenzene			Not detected	10	Not detected	130
Toluene			Not detected	10	Not detected	130
Total Xylenes			Not detected	10	Not detected	130
<b>Base/Neutral Extractables soil</b>	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	4100
1,2-Dichlorobenzene			Not detected	165	Not detected	4100
1,3-Dichlorobenzene			Not detected	165	Not detected	4100
1,4-Dichlorobenzene			Not detected	165	Not detected	4100
2,4-Dinitrotoluene			Not detected	165	Not detected	4100
2,6-Dinitrotoluene			Not detected	165	Not detected	4100
2-Chloronaphthalene			Not detected	165	Not detected	4100
2-Methylnaphthalene			Not detected	165	Not detected	4100
2-Nitroaniline			Not detected	165	Not detected	4100
3,3'-Dichlorobenzidine			Not detected	165	Not detected	4100
3-Nitroaniline			Not detected	165	Not detected	4100
4-Bromophenyl phenyl ether			Not detected	165	Not detected	4100
4-Chloroaniline			Not detected	165	Not detected	4100
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	4100
4-Nitroaniline			Not detected	165	Not detected	4100
Acenaphthene			Not detected	165	Not detected	4100
Acenaphthylene			Not detected	165	Not detected	4100
Anthracene			Not detected	165	Not detected	4100
Benzo(a)anthracene			Not detected	165	Not detected	4100
Benzo(a)pyrene			Not detected	165	Not detected	4100
Benzo(b)fluoranthene			Not detected	165	Not detected	4100
Benzo(g,h,i)perylene			Not detected	165	Not detected	4100
Benzo(k)fluoranthene			Not detected	165	Not detected	4100
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	4100
Bis(2-chloroethyl)ether			Not detected	165	Not detected	4100
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	4100
Bis(2-ethylhexyl)phthalate			Not detected	165	52000	4100
Butyl benzyl phthalate			Not detected	165	Not detected	4100
Carbazole			Not detected	165	Not detected	4100
Chrysene			Not detected	165	Not detected	4100
Dibenzo(a,h)anthracene			Not detected	165	Not detected	4100
Dibenzofuran			Not detected	165	Not detected	4100

**YORK**

Client Sample ID			SB-56		SB-57	
York Sample ID			06060587-03		06060587-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Diethylphthalate			Not detected	165	Not detected	4100
Dimethylphthalate			Not detected	165	Not detected	4100
Di-n-butylphthalate			Not detected	165	Not detected	4100
Di-n-octylphthalate			Not detected	165	6800	4100
Fluoranthene			Not detected	165	Not detected	4100
Fluorene			Not detected	165	Not detected	4100
Hexachlorobenzene			Not detected	165	Not detected	4100
Hexachlorobutadiene			Not detected	165	Not detected	4100
Hexachlorocyclopentadiene			Not detected	165	Not detected	4100
Hexachloroethane			Not detected	165	Not detected	4100
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	4100
Isophorone			Not detected	165	Not detected	4100
Naphthalene			Not detected	165	Not detected	4100
Nitrobenzene			Not detected	165	Not detected	4100
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	4100
N-Nitrosodiphenylamine			Not detected	165	Not detected	4100
Phenanthrene			Not detected	165	Not detected	4100
Pyrene			Not detected	165	Not detected	4100

Client Sample ID			SB-58		SB-59	
York Sample ID			06060587-05		06060587-06	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Volatiles- STARS List</b>	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	Not detected	10
1,3,5-Trimethylbenzene			Not detected	10	Not detected	10
Benzene			Not detected	10	Not detected	10
Ethylbenzene			Not detected	10	Not detected	10
Isopropylbenzene			Not detected	10	Not detected	10
Methyl-tert-butyl ether (MTBE)			Not detected	10	Not detected	10
Naphthalene			Not detected	10	Not detected	10
n-Butylbenzene			Not detected	10	Not detected	10
n-Propylbenzene			Not detected	10	Not detected	10
o-Xylene			Not detected	10	Not detected	10
p- & m-Xylenes			Not detected	10	Not detected	10
p-Isopropyltoluene			Not detected	10	Not detected	10
sec-Butylbenzene			Not detected	10	Not detected	10
tert-Butylbenzene			Not detected	10	Not detected	10
Toluene			Not detected	10	Not detected	10
Total Xylenes			Not detected	10	Not detected	10
<b>Base/Neutral Extractables soil</b>	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			Not detected	165	Not detected	165

**YORK**

Client Sample ID			SB-58		SB-59	
York Sample ID			06060587-05		06060587-06	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			320	165	Not detected	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	Not detected	165

**Units Key:**

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

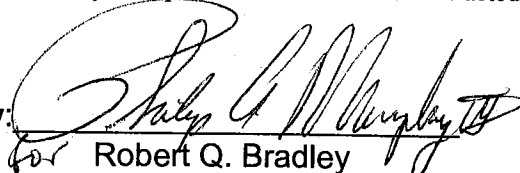
For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

**YORK**

**Notes for York Project No. 06060587**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By:

  
Robert Q. Bradley  
Managing Director

Date: 6/23/2006

**YORK**



# YORK

ANALYTICAL LABORATORIES, INC.

120 RESEARCH DRIVE STRATFORD, CT 06615  
(203) 325-1371 FAX (203) 357-0166

## Field Chain-of-Custody Record

Page 1 of 1

Company Name

A S R

Report To:

STEVE MULLER

Invoice To:

A S R

Project ID/No.

49 DUPONT ST  
BKLYN N.Y.

E. Vazquez

Samples Collected By (Signature)

E. VAZQUEZ

Name (Printed)

Sample No.

Location/ID

Date Sampled

Sample Matrix  
Water Soil Air OTHER

ANALYSES REQUESTED

Container  
Description(s)

SB-23

6/14/06

X

826C  
EPA standard & 8270 STARS

(1402) 1 (902)

SB-46

SB-56

SB-57

SB-58

SB-59

### Chain-of-Custody Record

Bottles Relinquished from Lab by

Date/Time

Bottles Received in Field by

Date/Time

Comments/Special Instructions

E. Vazquez  
Sample Relinquished by6/16/06  
Date/Time

Sample Relinquished by

Date/Time

Sample Received by

Date/Time

Sample Received in LAB by

Date/Time

Turn-Around Time

X Standard

RUSH(define)

**YORK**  
**ANALYTICAL LABORATORIES, INC.**

# Technical Report

prepared for

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

Report Date: 6/26/2006  
**Re: Client Project ID: 49 Dupont St.**  
York Project No.: 06060636

CT License No. PH-0723

New York License No. 10854



Report Date: 6/26/2006  
 Client Project ID: 49 Dupont St.  
 York Project No.: 06060636

**Advanced Site Restoration**  
 62 William St.  
 New York, NY 10005  
 Attention: Steve Muller

## 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 06/19/06. The project was identified as your project "49 Dupont St. ".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			SB-32		SB-34	
York Sample ID			06060636-01		06060636-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Volatiles- STARS List</b>	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	74	10
1,3,5-Trimethylbenzene			Not detected	10	30	10
Benzene			Not detected	10	Not detected	10
Ethylbenzene			Not detected	10	Not detected	10
Isopropylbenzene			Not detected	10	Not detected	10
Methyl-tert-butyl ether (MTBE)			Not detected	10	Not detected	10
Naphthalene			Not detected	10	28	10
n-Butylbenzene			Not detected	10	25	10
n-Propylbenzene			Not detected	10	10	10
o-Xylene			Not detected	10	Not detected	10
p- & m-Xylenes			Not detected	10	Not detected	10
p-Isopropyltoluene			Not detected	10	11	10
sec-Butylbenzene			Not detected	10	12	10
tert-Butylbenzene			Not detected	10	Not detected	10
Toluene			Not detected	10	27	10
Total Xylenes			Not detected	10	Not detected	10

**YORK**

Client Sample ID			SB-32		SB-34	
York Sample ID			06060636-01		06060636-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	17000
1,2-Dichlorobenzene			Not detected	165	Not detected	17000
1,3-Dichlorobenzene			Not detected	165	Not detected	17000
1,4-Dichlorobenzene			Not detected	165	Not detected	17000
2,4-Dinitrotoluene			Not detected	165	Not detected	17000
2,6-Dinitrotoluene			Not detected	165	Not detected	17000
2-Chloronaphthalene			Not detected	165	Not detected	17000
2-Methylnaphthalene			Not detected	165	Not detected	17000
2-Nitroaniline			Not detected	165	Not detected	17000
3,3'-Dichlorobenzidine			Not detected	165	Not detected	17000
3-Nitroaniline			Not detected	165	Not detected	17000
4-Bromophenyl phenyl ether			Not detected	165	Not detected	17000
4-Chloroaniline			Not detected	165	Not detected	17000
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	17000
4-Nitroaniline			Not detected	165	Not detected	17000
Acenaphthene			Not detected	165	Not detected	17000
Acenaphthylene			Not detected	165	Not detected	17000
Anthracene			Not detected	165	Not detected	17000
Benzo(a)anthracene			Not detected	165	Not detected	17000
Benzo(a)pyrene			Not detected	165	Not detected	17000
Benzo(b)fluoranthene			Not detected	165	Not detected	17000
Benzo(g,h,i)perylene			Not detected	165	Not detected	17000
Benzo(k)fluoranthene			Not detected	165	Not detected	17000
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	17000
Bis(2-chloroethyl)ether			Not detected	165	Not detected	17000
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	17000
Bis(2-ethylhexyl)phthalate			1500	165	610000	17000
Butyl benzyl phthalate			Not detected	165	Not detected	17000
Carbazole			Not detected	165	Not detected	17000
Chrysene			Not detected	165	Not detected	17000
Dibenzo(a,h)anthracene			Not detected	165	Not detected	17000
Dibenzofuran			Not detected	165	Not detected	17000
Diethylphthalate			Not detected	165	Not detected	17000
Dimethylphthalate			Not detected	165	Not detected	17000
Di-n-butylphthalate			Not detected	165	Not detected	17000
Di-n-octylphthalate			Not detected	165	41000	17000
Fluoranthene			Not detected	165	Not detected	17000
Fluorene			Not detected	165	Not detected	17000
Hexachlorobenzene			Not detected	165	Not detected	17000
Hexachlorobutadiene			Not detected	165	Not detected	17000
Hexachlorocyclopentadiene			Not detected	165	Not detected	17000
Hexachloroethane			Not detected	165	Not detected	17000
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	17000
Isophorone			Not detected	165	Not detected	17000
Naphthalene			Not detected	165	Not detected	17000
Nitrobenzene			Not detected	165	Not detected	17000
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	17000
N-Nitrosodiphenylamine			Not detected	165	Not detected	17000
Phenanthrene			Not detected	165	Not detected	17000
Pyrene			Not detected	165	Not detected	17000

**YORK**

Client Sample ID			SB-36		SB-37	
York Sample ID			06060636-03		06060636-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	Not detected	130
1,3,5-Trimethylbenzene			Not detected	10	Not detected	130
Benzene			Not detected	10	Not detected	130
Ethylbenzene			Not detected	10	Not detected	130
Isopropylbenzene			Not detected	10	Not detected	130
Methyl-tert-butyl ether (MTBE)			Not detected	10	Not detected	130
Naphthalene			Not detected	10	Not detected	130
n-Butylbenzene			Not detected	10	Not detected	130
n-Propylbenzene			Not detected	10	Not detected	130
o-Xylene			Not detected	10	Not detected	130
p- & m-Xylenes			Not detected	10	Not detected	130
p-Isopropyltoluene			Not detected	10	Not detected	130
sec-Butylbenzene			Not detected	10	Not detected	130
tert-Butylbenzene			Not detected	10	Not detected	130
Toluene			Not detected	10	Not detected	130
Total Xylenes			Not detected	10	Not detected	130
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	4100
1,2-Dichlorobenzene			Not detected	165	Not detected	4100
1,3-Dichlorobenzene			Not detected	165	Not detected	4100
1,4-Dichlorobenzene			Not detected	165	Not detected	4100
2,4-Dinitrotoluene			Not detected	165	Not detected	4100
2,6-Dinitrotoluene			Not detected	165	Not detected	4100
2-Chloronaphthalene			Not detected	165	Not detected	4100
2-Methylnaphthalene			Not detected	165	Not detected	4100
2-Nitroaniline			Not detected	165	Not detected	4100
3,3'-Dichlorobenzidine			Not detected	165	Not detected	4100
3-Nitroaniline			Not detected	165	Not detected	4100
4-Bromophenyl phenyl ether			Not detected	165	Not detected	4100
4-Chloroaniline			Not detected	165	Not detected	4100
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	4100
4-Nitroaniline			Not detected	165	Not detected	4100
Acenaphthene			Not detected	165	Not detected	4100
Acenaphthylene			Not detected	165	Not detected	4100
Anthracene			Not detected	165	Not detected	4100
Benzo(a)anthracene			Not detected	165	Not detected	4100
Benzo(a)pyrene			Not detected	165	Not detected	4100
Benzo(b)fluoranthene			Not detected	165	Not detected	4100
Benzo(g,h,i)perylene			Not detected	165	Not detected	4100
Benzo(k)fluoranthene			Not detected	165	Not detected	4100
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	4100
Bis(2-chloroethyl)ether			Not detected	165	Not detected	4100
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	4100
Bis(2-ethylhexyl)phthalate			Not detected	165	100000	4100
Butyl benzyl phthalate			Not detected	165	Not detected	4100
Carbazole			Not detected	165	Not detected	4100
Chrysene			Not detected	165	Not detected	4100
Dibenzo(a,h)anthracene			Not detected	165	Not detected	4100

**YORK**

Client Sample ID			SB-36		SB-37	
York Sample ID			06060636-03		06060636-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Dibenzofuran			Not detected	165	Not detected	4100
Diethylphthalate			Not detected	165	Not detected	4100
Dimethylphthalate			Not detected	165	Not detected	4100
Di-n-butylphthalate			Not detected	165	Not detected	4100
Di-n-octylphthalate			1200	165	8300	4100
Fluoranthene			Not detected	165	Not detected	4100
Fluorene			Not detected	165	Not detected	4100
Hexachlorobenzene			Not detected	165	Not detected	4100
Hexachlorobutadiene			Not detected	165	Not detected	4100
Hexachlorocyclopentadiene			Not detected	165	Not detected	4100
Hexachloroethane			Not detected	165	Not detected	4100
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	4100
Isophorone			Not detected	165	Not detected	4100
Naphthalene			Not detected	165	Not detected	4100
Nitrobenzene			Not detected	165	Not detected	4100
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	4100
N-Nitrosodiphenylamine			Not detected	165	Not detected	4100
Phenanthrene			Not detected	165	Not detected	4100
Pyrene			Not detected	165	Not detected	4100

Client Sample ID			SB-38A		SB-38B	
York Sample ID			06060636-05		06060636-06	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Volatiles- STARS List</b>	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	130	Not detected	25
1,3,5-Trimethylbenzene			Not detected	130	Not detected	25
Benzene			Not detected	130	Not detected	25
Ethylbenzene			Not detected	130	Not detected	25
Isopropylbenzene			Not detected	130	Not detected	25
Methyl-tert-butyl ether (MTBE)			Not detected	130	Not detected	25
Naphthalene			Not detected	130	Not detected	25
n-Butylbenzene			Not detected	130	Not detected	25
n-Propylbenzene			Not detected	130	Not detected	25
o-Xylene			Not detected	130	Not detected	25
p- & m-Xylenes			Not detected	130	Not detected	25
p-Isopropyltoluene			Not detected	130	Not detected	25
sec-Butylbenzene			Not detected	130	Not detected	25
tert-Butylbenzene			Not detected	130	Not detected	25
Toluene			Not detected	130	Not detected	25
Total Xylenes			Not detected	130	Not detected	25
<b>Base/Neutral Extractables soil</b>	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165

**YORK**

Client Sample ID			SB-38A		SB-38B	
York Sample ID			06060636-05		06060636-06	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			3500	165	Not detected	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	1000	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	Not detected	165

**YORK**

Client Sample ID			SB-39	
York Sample ID			06060636-07	
Matrix			SOIL	
Parameter	Method	Units	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---
1,2,4-Trimethylbenzene			Not detected	130
1,3,5-Trimethylbenzene			Not detected	130
Benzene			Not detected	130
Ethylbenzene			Not detected	130
Isopropylbenzene			190	130
Methyl-tert-butyl ether (MTBE)			Not detected	130
Naphthalene			Not detected	130
n-Butylbenzene			930	130
n-Propylbenzene			740	130
o-Xylene			Not detected	130
p- & m-Xylenes			Not detected	130
p-Isopropyltoluene			210	130
sec-Butylbenzene			400	130
tert-Butylbenzene			Not detected	130
Toluene			Not detected	130
Total Xylenes			Not detected	130
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---
1,2,4-Trichlorobenzene			Not detected	8300
1,2-Dichlorobenzene			Not detected	8300
1,3-Dichlorobenzene			Not detected	8300
1,4-Dichlorobenzene			Not detected	8300
2,4-Dinitrotoluene			Not detected	8300
2,6-Dinitrotoluene			Not detected	8300
2-Chloronaphthalene			Not detected	8300
2-Methylnaphthalene			8600	8300
2-Nitroaniline			Not detected	8300
3,3'-Dichlorobenzidine			Not detected	8300
3-Nitroaniline			Not detected	8300
4-Bromophenyl phenyl ether			Not detected	8300
4-Chloroaniline			Not detected	8300
4-Chlorophenyl phenyl ether			Not detected	8300
4-Nitroaniline			Not detected	8300
Acenaphthene			13000	8300
Acenaphthylene			Not detected	8300
Anthracene			25000	8300
Benzo(a)anthracene			44000	8300
Benzo(a)pyrene			33000	8300
Benzo(b)fluoranthene			26000	8300
Benzo(g,h,i)perylene			8600	8300
Benzo(k)fluoranthene			32000	8300
Bis(2-chloroethoxy)methane			Not detected	8300
Bis(2-chloroethyl)ether			Not detected	8300
Bis(2-chloroisopropyl)ether			Not detected	8300
Bis(2-ethylhexyl)phthalate			Not detected	8300
Butyl benzyl phthalate			Not detected	8300
Carbazole			Not detected	8300
Chrysene			48000	8300
Dibenzo(a,h)anthracene			Not detected	8300

**YORK**



Client Sample ID			SB-39	
York Sample ID			06060636-07	
Matrix			SOIL	
Parameter	Method	Units	Results	MDL
Dibenzofuran			10000	8300
Diethylphthalate			Not detected	8300
Dimethylphthalate			Not detected	8300
Di-n-butylphthalate			Not detected	8300
Di-n-octylphthalate			Not detected	8300
Fluoranthene			88000	8300
Fluorene			17000	8300
Hexachlorobenzene			Not detected	8300
Hexachlorobutadiene			Not detected	8300
Hexachlorocyclopentadiene			Not detected	8300
Hexachloroethane			Not detected	8300
Indeno(1,2,3-cd)pyrene			10000	8300
Isophorone			Not detected	8300
Naphthalene			12000	8300
Nitrobenzene			Not detected	8300
N-Nitrosodi-n-propylamine			Not detected	8300
N-Nitrosodiphenylamine			Not detected	8300
Phenanthrene			86000	8300
Pyrene			80000	8300

**Units Key:**

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

**Notes for York Project No. 06060636**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By: \_\_\_\_\_

Robert Q. Bradley  
Managing Director

Date: 6/26/2006

**YORK**

# YORK

ANALYTICAL LABORATORIES, INC.

120 RESEARCH DRIVE  
(203) 325-1371 FAX (203) 357-0166  
STRATFORD, CT 06615

## Field Chain-of-Custody Record

Page 1 of 1

0000036

Company Name  
A SR  
62 WILLIAMS ST  
N.Y N.Y 10005

Report To:  
STEVE MULLER

Invoice To:  
ASR

Project ID/No.  
49 DUPONT ST  
BKLYN N.Y

E. V. R. S. S.  
Samples Collected By (Signature)

E. V. R. S. S.  
Name (Printed)

Container

Description(s)

### ANALYSES REQUESTED

#### Sample Matrix

Water Soil Air OTHER

Date Sampled

Location/ID

Sample No.

E1A 8260 + 8270 STARS  
1(402) 1(812)

6-16-06

82-32

82-34

82-36

82-37

82-38A

82-38B

82-39

### Chain-of-Custody Record

Bottles Relinquished from Lab by

Date/Time

Bottles Received in Field by

Date/Time

Sample Relinquished by

Date/Time

Sample Received in LAB by

Date/Time

Sample Received by

Date/Time

Turn-Around Time

Standard

RUSH(define)

Comments/Special Instructions



# Technical Report

prepared for

**Advanced Site Restoration  
62 William St.  
New York, NY 10005  
Attention: Steve Muller**

Report Date: 8/1/2006  
**Re: Client Project ID: 49 Dupont St., Brooklyn, NY**  
York Project No.: 06070643

CT License No. PH-0723

New York License No. 10854



Report Date: 8/1/2006  
Client Project ID: 49 Dupont St., Brooklyn, NY  
York Project No.: 06070643

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

## 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 07/24/06. The project was identified as your project "49 Dupont St., Brooklyn, NY".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			MW-5 4-9'		MW-6 5-10'	
York Sample ID			06070643-01		06070643-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	Not detected	25
1,3,5-Trimethylbenzene			Not detected	10	Not detected	25
Benzene			Not detected	2.0	Not detected	5.0
Ethylbenzene			Not detected	10	Not detected	25
Isopropylbenzene			Not detected	10	Not detected	25
Methyl-tert-butyl ether			Not detected	10	Not detected	25
Naphthalene			Not detected	10	Not detected	25
n-Butylbenzene			Not detected	10	Not detected	25
n-Propylbenzene			Not detected	10	Not detected	25
o-Xylene			Not detected	10	Not detected	25
p- & m- Xylenes			Not detected	10	Not detected	25
p-Isopropyltoluene			Not detected	10	Not detected	25
sec-Butylbenzene			Not detected	10	31	25
tert-Butylbenzene			Not detected	10	Not detected	25
Toluene			Not detected	10	Not detected	25

**YORK**

Client Sample ID			MW-5 4-9'		MW-6 5-10'	
York Sample ID			06070643-01		06070643-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	830000
1,2-Dichlorobenzene			Not detected	165	Not detected	830000
1,3-Dichlorobenzene			Not detected	165	Not detected	830000
1,4-Dichlorobenzene			Not detected	165	Not detected	830000
2,4-Dinitrotoluene			Not detected	165	Not detected	830000
2,6-Dinitrotoluene			Not detected	165	Not detected	830000
2-Chloronaphthalene			Not detected	165	Not detected	830000
2-Methylnaphthalene			Not detected	165	Not detected	830000
2-Nitroaniline			Not detected	165	Not detected	830000
3,3'-Dichlorobenzidine			Not detected	165	Not detected	830000
3-Nitroaniline			Not detected	165	Not detected	830000
4-Bromophenyl phenyl ether			Not detected	165	Not detected	830000
4-Chloroaniline			Not detected	165	Not detected	830000
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	830000
4-Nitroaniline			Not detected	165	Not detected	830000
Acenaphthene			Not detected	165	Not detected	830000
Acenaphthylene			Not detected	165	Not detected	830000
Anthracene			Not detected	165	Not detected	830000
Benzo(a)anthracene			Not detected	165	Not detected	830000
Benzo(a)pyrene			Not detected	165	Not detected	830000
Benzo(b)fluoranthene			Not detected	165	Not detected	830000
Benzo(g,h,i)perylene			Not detected	165	Not detected	830000
Benzo(k)fluoranthene			Not detected	165	Not detected	830000
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	830000
Bis(2-chloroethyl)ether			Not detected	165	Not detected	830000
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	830000
Bis(2-ethylhexyl)phthalate			Not detected	165	9500000	830000
Butyl benzyl phthalate			Not detected	165	Not detected	830000
Carbazole			Not detected	165	Not detected	830000
Chrysene			Not detected	165	Not detected	830000
Dibenzo(a,h)anthracene			Not detected	165	Not detected	830000
Dibenzofuran			Not detected	165	Not detected	830000
Diethylphthalate			Not detected	165	Not detected	830000
Dimethylphthalate			Not detected	165	Not detected	830000
Di-n-butylphthalate			Not detected	165	Not detected	830000
Di-n-octylphthalate			Not detected	165	Not detected	830000
Fluoranthene			Not detected	165	Not detected	830000
Fluorene			Not detected	165	Not detected	830000
Hexachlorobenzene			Not detected	165	Not detected	830000
Hexachlorobutadiene			Not detected	165	Not detected	830000
Hexachlorocyclopentadiene			Not detected	165	Not detected	830000
Hexachloroethane			Not detected	165	Not detected	830000
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	830000

**YORK**

Client Sample ID			MW-5 4-9'		MW-6 5-10'	
York Sample ID			06070643-01		06070643-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Isophorone			Not detected	165	Not detected	830000
Naphthalene			Not detected	165	Not detected	830000
Nitrobenzene			Not detected	165	Not detected	830000
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	830000
N-Nitrosodiphenylamine			Not detected	165	Not detected	830000
Phenanthrene			Not detected	165	Not detected	830000
Pyrene			Not detected	165	Not detected	830000

**Units Key:**

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

**Notes for York Project No. 06070643**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By:

Robert Q. Bradley  
Managing Director

Date: 8/1/2006

**YORK**





# Technical Report

prepared for

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

Report Date: 8/1/2006  
***Re: Client Project ID: 49 Dupont St., Brooklyn, NY***  
York Project No.: 06070644

CT License No. PH-0723

New York License No. 10854





Report Date: 8/1/2006  
Client Project ID: 49 Dupont St., Brooklyn, NY  
York Project No.: 06070644

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

## 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 07/24/06. The project was identified as your project "49 Dupont St., Brooklyn, NY".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			MW-5 10-15'		MW-6 10-15'	
York Sample ID			06070644-01		06070644-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Volatiles- STARS List</b>	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			420	130	540	130
1,3,5-Trimethylbenzene			Not detected	130	220	130
Benzene			Not detected	25	Not detected	25
Ethylbenzene			Not detected	130	Not detected	130
Isopropylbenzene			Not detected	130	Not detected	130
Methyl-tert-butyl ether			Not detected	130	Not detected	130
Naphthalene			220	130	Not detected	130
n-Butylbenzene			Not detected	130	Not detected	130
n-Propylbenzene			Not detected	130	Not detected	130
o-Xylene			Not detected	130	Not detected	130
p- & m- Xylenes			Not detected	130	Not detected	130
p-Isopropyltoluene			Not detected	130	Not detected	130
sec-Butylbenzene			Not detected	130	Not detected	130
tert-Butylbenzene			Not detected	130	Not detected	130
Toluene			Not detected	130	Not detected	130

**YORK**

Client Sample ID			MW-5 10-15'		MW-6 10-15'	
York Sample ID			06070644-01		06070644-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	410000	Not detected	83000
1,2-Dichlorobenzene			Not detected	410000	Not detected	83000
1,3-Dichlorobenzene			Not detected	410000	Not detected	83000
1,4-Dichlorobenzene			Not detected	410000	Not detected	83000
2,4-Dinitrotoluene			Not detected	410000	Not detected	83000
2,6-Dinitrotoluene			Not detected	410000	Not detected	83000
2-Chloronaphthalene			Not detected	410000	Not detected	83000
2-Methylnaphthalene			Not detected	410000	Not detected	83000
2-Nitroaniline			Not detected	410000	Not detected	83000
3,3'-Dichlorobenzidine			Not detected	410000	Not detected	83000
3-Nitroaniline			Not detected	410000	Not detected	83000
4-Bromophenyl phenyl ether			Not detected	410000	Not detected	83000
4-Chloroaniline			Not detected	410000	Not detected	83000
4-Chlorophenyl phenyl ether			Not detected	410000	Not detected	83000
4-Nitroaniline			Not detected	410000	Not detected	83000
Acenaphthene			Not detected	410000	Not detected	83000
Acenaphthylene			Not detected	410000	Not detected	83000
Anthracene			Not detected	410000	Not detected	83000
Benzo(a)anthracene			Not detected	410000	Not detected	83000
Benzo(a)pyrene			Not detected	410000	Not detected	83000
Benzo(b)fluoranthene			Not detected	410000	Not detected	83000
Benzo(g,h,i)perylene			Not detected	410000	Not detected	83000
Benzo(k)fluoranthene			Not detected	410000	Not detected	83000
Bis(2-chloroethoxy)methane			Not detected	410000	Not detected	83000
Bis(2-chloroethyl)ether			Not detected	410000	Not detected	83000
Bis(2-chloroisopropyl)ether			Not detected	410000	Not detected	83000
Bis(2-ethylhexyl)phthalate			6700000	410000	1900000	83000
Butyl benzyl phthalate			Not detected	410000	Not detected	83000
Carbazole			Not detected	410000	Not detected	83000
Chrysene			Not detected	410000	Not detected	83000
Dibenzo(a,h)anthracene			Not detected	410000	Not detected	83000
Dibenzofuran			Not detected	410000	Not detected	83000
Diethylphthalate			Not detected	410000	Not detected	83000
Dimethylphthalate			Not detected	410000	Not detected	83000
Di-n-butylphthalate			Not detected	410000	Not detected	83000
Di-n-octylphthalate			1300000	410000	180000	83000
Fluoranthene			Not detected	410000	Not detected	83000
Fluorene			Not detected	410000	Not detected	83000
Hexachlorobenzene			Not detected	410000	Not detected	83000
Hexachlorobutadiene			Not detected	410000	Not detected	83000
Hexachlorocyclopentadiene			Not detected	410000	Not detected	83000

**YORK**

<b>Client Sample ID</b>			<b>MW-5 10-15'</b>		<b>MW-6 10-15'</b>	
<b>York Sample ID</b>			<b>06070644-01</b>		<b>06070644-02</b>	
<b>Matrix</b>			<b>SOIL</b>		<b>SOIL</b>	
<b>Parameter</b>	<b>Method</b>	<b>Units</b>	<b>Results</b>	<b>MDL</b>	<b>Results</b>	<b>MDL</b>
Hexachloroethane			Not detected	410000	Not detected	83000
Indeno(1,2,3-cd)pyrene			Not detected	410000	Not detected	83000
Isophorone			Not detected	410000	Not detected	83000
Naphthalene			Not detected	410000	Not detected	83000
Nitrobenzene			Not detected	410000	Not detected	83000
N-Nitrosodi-n-propylamine			Not detected	410000	Not detected	83000
N-Nitrosodiphenylamine			Not detected	410000	Not detected	83000
Phenanthrene			Not detected	410000	Not detected	83000
Pyrene			Not detected	410000	Not detected	83000

**Units Key:** For Waters/Liquids: mg/L = ppm ; ug/L = ppb For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

### Notes for York Project No. 06070644

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
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5. All samples were received in proper condition for analysis with proper documentation.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By: 

Robert Q. Bradley  
Managing Director

Date: 8/1/2006

**YORK**



**YORK**  
ANALYTICAL LABORATORIES, INC.

# Technical Report

prepared for

**Advanced Site Restoration  
62 William St.  
New York, NY 10005  
Attention: Steve Muller**

Report Date: 7/31/2006  
***Re: Client Project ID: 49 Dupont St., Brooklyn, NY***  
York Project No.: 06070642

CT License No. PH-0723

New York License No. 10854



Report Date: 7/31/2006  
Client Project ID: 49 Dupont St., Brooklyn, NY  
York Project No.: 06070642

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

## 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 07/24/06. The project was identified as your project "49 Dupont St., Brooklyn, NY".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			MW-7@5-10'		MW-8@5-10'	
York Sample ID			06070642-01		06070642-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	Not detected	10
1,3,5-Trimethylbenzene			Not detected	10	Not detected	10
Benzene			Not detected	2.0	Not detected	2.0
Ethylbenzene			Not detected	10	Not detected	10
Isopropylbenzene			Not detected	10	Not detected	10
Methyl-tert-butyl ether			Not detected	10	Not detected	10
Naphthalene			Not detected	10	Not detected	10
n-Butylbenzene			Not detected	10	Not detected	10
n-Propylbenzene			Not detected	10	Not detected	10
o-Xylene			Not detected	10	Not detected	10
p- & m- Xylenes			Not detected	10	Not detected	10
p-Isopropyltoluene			Not detected	10	Not detected	10
sec-Butylbenzene			Not detected	10	Not detected	10
tert-Butylbenzene			Not detected	10	Not detected	10
Toluene			Not detected	10	Not detected	10

**YORK**

Client Sample ID			MW-7@5-10'		MW-8@5-10'	
York Sample ID			06070642-01		06070642-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			3600	165	Not detected	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	Not detected	165

**YORK**

Client Sample ID			MW-9@5-10'		MW-10@5-10'	
York Sample ID			06070642-03		06070642-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	500	Not detected	10
1,3,5-Trimethylbenzene			Not detected	500	Not detected	10
Benzene			Not detected	100	Not detected	2.0
Ethylbenzene			Not detected	500	Not detected	10
Isopropylbenzene			Not detected	500	Not detected	10
Methyl-tert-butyl ether			Not detected	500	Not detected	10
Naphthalene			4400	500	Not detected	10
n-Butylbenzene			1100	500	Not detected	10
n-Propylbenzene			850	500	Not detected	10
o-Xylene			Not detected	500	Not detected	10
p- & m- Xylenes			Not detected	500	Not detected	10
p-Isopropyltoluene			Not detected	500	Not detected	10
sec-Butylbenzene			720	500	Not detected	10
tert-Butylbenzene			Not detected	500	Not detected	10
Toluene			Not detected	500	Not detected	10
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	4100	Not detected	165
1,2-Dichlorobenzene			Not detected	4100	Not detected	165
1,3-Dichlorobenzene			Not detected	4100	Not detected	165
1,4-Dichlorobenzene			Not detected	4100	Not detected	165
2,4-Dinitrotoluene			Not detected	4100	Not detected	165
2,6-Dinitrotoluene			Not detected	4100	Not detected	165
2-Chloronaphthalene			Not detected	4100	Not detected	165
2-Methylnaphthalene			Not detected	4100	Not detected	165
2-Nitroaniline			Not detected	4100	Not detected	165
3,3'-Dichlorobenzidine			Not detected	4100	Not detected	165
3-Nitroaniline			Not detected	4100	Not detected	165
4-Bromophenyl phenyl ether			Not detected	4100	Not detected	165
4-Chloroaniline			Not detected	4100	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	4100	Not detected	165
4-Nitroaniline			Not detected	4100	Not detected	165
Acenaphthene			Not detected	4100	Not detected	165
Acenaphthylene			Not detected	4100	Not detected	165
Anthracene			Not detected	4100	Not detected	165
Benzo(a)anthracene			Not detected	4100	Not detected	165
Benzo(a)pyrene			Not detected	4100	Not detected	165
Benzo(b)fluoranthene			Not detected	4100	Not detected	165
Benzo(g,h,i)perylene			Not detected	4100	Not detected	165
Benzo(k)fluoranthene			Not detected	4100	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	4100	Not detected	165
Bis(2-chloroethyl)ether			Not detected	4100	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	4100	Not detected	165
Bis(2-ethylhexyl)phthalate			Not detected	4100	Not detected	165
Butyl benzyl phthalate			Not detected	4100	Not detected	165
Carbazole			Not detected	4100	Not detected	165
Chrysene			Not detected	4100	Not detected	165
Dibenzo(a,h)anthracene			Not detected	4100	Not detected	165
Dibenzofuran			Not detected	4100	Not detected	165

**YORK**



Client Sample ID			MW-9@5-10'		MW-10@5-10'	
York Sample ID			06070642-03		06070642-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Diethylphthalate			Not detected	4100	Not detected	165
Dimethylphthalate			Not detected	4100	Not detected	165
Di-n-butylphthalate			Not detected	4100	Not detected	165
Di-n-octylphthalate			Not detected	4100	Not detected	165
Fluoranthene			Not detected	4100	Not detected	165
Fluorene			Not detected	4100	Not detected	165
Hexachlorobenzene			Not detected	4100	Not detected	165
Hexachlorobutadiene			Not detected	4100	Not detected	165
Hexachlorocyclopentadiene			Not detected	4100	Not detected	165
Hexachloroethane			Not detected	4100	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	4100	Not detected	165
Isophorone			Not detected	4100	Not detected	165
Naphthalene			Not detected	4100	Not detected	165
Nitrobenzene			Not detected	4100	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	4100	Not detected	165
N-Nitrosodiphenylamine			Not detected	4100	Not detected	165
Phenanthrene			5600	4100	Not detected	165
Pyrene			Not detected	4100	Not detected	165

**Units Key:**

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

**Notes for York Project No. 06070642**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By: \_\_\_\_\_

Robert Q. Bradley  
Managing Director

Date: 7/31/2006

**YORK**





# Technical Report

prepared for

**Advanced Site Restoration  
62 William St.  
New York, NY 10005  
Attention: Steve Muller**

Report Date: 7/31/2006  
***Re: Client Project ID: 49 Dupont St., Brooklyn, NY***  
York Project No.: 06070645

CT License No. PH-0723

New York License No. 10854



Report Date: 7/31/2006  
 Client Project ID: 49 Dupont St., Brooklyn, NY  
 York Project No.: 06070645

**Advanced Site Restoration**  
 62 William St.  
 New York, NY 10005  
 Attention: Steve Muller

## 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 07/24/06. The project was identified as your project "49 Dupont St., Brooklyn, NY".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			MW-7@10-15'		MW-8@10-15'	
York Sample ID			06070645-01		06070645-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			35	25	Not detected	10
1,3,5-Trimethylbenzene			Not detected	25	Not detected	10
Benzene			Not detected	5.0	Not detected	2.0
Ethylbenzene			Not detected	25	Not detected	10
Isopropylbenzene			Not detected	25	Not detected	10
Methyl-tert-butyl ether			Not detected	25	Not detected	10
Naphthalene			Not detected	25	Not detected	10
n-Butylbenzene			Not detected	25	Not detected	10
n-Propylbenzene			Not detected	25	Not detected	10
o-Xylene			Not detected	25	Not detected	10
p- & m- Xylenes			36	25	Not detected	10
p-Isopropyltoluene			Not detected	25	Not detected	10
sec-Butylbenzene			Not detected	25	Not detected	10
tert-Butylbenzene			Not detected	25	Not detected	10

**YORK**

Client Sample ID			MW-7@10-15'		MW-8@10-15'	
York Sample ID			06070645-01		06070645-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Toluene			33	.25	Not detected	10
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	170000	Not detected	830
1,2-Dichlorobenzene			Not detected	170000	Not detected	830
1,3-Dichlorobenzene			Not detected	170000	Not detected	830
1,4-Dichlorobenzene			Not detected	170000	Not detected	830
2,4-Dinitrotoluene			Not detected	170000	Not detected	830
2,6-Dinitrotoluene			Not detected	170000	Not detected	830
2-Chloronaphthalene			Not detected	170000	Not detected	830
2-Methylnaphthalene			Not detected	170000	Not detected	830
2-Nitroaniline			Not detected	170000	Not detected	830
3,3'-Dichlorobenzidine			Not detected	170000	Not detected	830
3-Nitroaniline			Not detected	170000	Not detected	830
4-Bromophenyl phenyl ether			Not detected	170000	Not detected	830
4-Chloroaniline			Not detected	170000	Not detected	830
4-Chlorophenyl phenyl ether			Not detected	170000	Not detected	830
4-Nitroaniline			Not detected	170000	Not detected	830
Acenaphthene			Not detected	170000	Not detected	830
Acenaphthylene			Not detected	170000	Not detected	830
Anthracene			Not detected	170000	Not detected	830
Benzo(a)anthracene			Not detected	170000	Not detected	830
Benzo(a)pyrene			Not detected	170000	Not detected	830
Benzo(b)fluoranthene			Not detected	170000	Not detected	830
Benzo(g,h,i)perylene			Not detected	170000	Not detected	830
Benzo(k)fluoranthene			Not detected	170000	Not detected	830
Bis(2-chloroethoxy)methane			Not detected	170000	Not detected	830
Bis(2-chloroethyl)ether			Not detected	170000	Not detected	830
Bis(2-chloroisopropyl)ether			Not detected	170000	Not detected	830
Bis(2-ethylhexyl)phthalate			1700000	170000	12000	830
Butyl benzyl phthalate			Not detected	170000	Not detected	830
Carbazole			Not detected	170000	Not detected	830
Chrysene			Not detected	170000	Not detected	830
Dibenzo(a,h)anthracene			Not detected	170000	Not detected	830
Dibenzofuran			Not detected	170000	Not detected	830
Diethylphthalate			Not detected	170000	Not detected	830
Dimethylphthalate			Not detected	170000	Not detected	830
Di-n-butylphthalate			Not detected	170000	Not detected	830
Di-n-octylphthalate			Not detected	170000	Not detected	830
Fluoranthene			Not detected	170000	Not detected	830
Fluorene			Not detected	170000	Not detected	830
Hexachlorobenzene			Not detected	170000	Not detected	830
Hexachlorobutadiene			Not detected	170000	Not detected	830
Hexachlorocyclopentadiene			Not detected	170000	Not detected	830
Hexachloroethane			Not detected	170000	Not detected	830

**YORK**

<b>Client Sample ID</b>			<b>MW-7@10-15'</b>		<b>MW-8@10-15'</b>	
<b>York Sample ID</b>			<b>06070645-01</b>		<b>06070645-02</b>	
<b>Matrix</b>			<b>SOIL</b>		<b>SOIL</b>	
<b>Parameter</b>	<b>Method</b>	<b>Units</b>	<b>Results</b>	<b>MDL</b>	<b>Results</b>	<b>MDL</b>
Indeno(1,2,3-cd)pyrene			Not detected	170000	Not detected	830
Isophorone			Not detected	170000	Not detected	830
Naphthalene			Not detected	170000	Not detected	830
Nitrobenzene			Not detected	170000	Not detected	830
N-Nitrosodi-n-propylamine			Not detected	170000	Not detected	830
N-Nitrosodiphenylamine			Not detected	170000	Not detected	830
Phenanthrene			Not detected	170000	Not detected	830
Pyrene			Not detected	170000	Not detected	830

<b>Client Sample ID</b>			<b>MW-9@10-15'</b>		<b>MW-10@10-15'</b>	
<b>York Sample ID</b>			<b>06070645-03</b>		<b>06070645-04</b>	
<b>Matrix</b>			<b>SOIL</b>		<b>SOIL</b>	
<b>Parameter</b>	<b>Method</b>	<b>Units</b>	<b>Results</b>	<b>MDL</b>	<b>Results</b>	<b>MDL</b>
<b>Volatiles- STARS List</b>	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	130	Not detected	10
1,3,5-Trimethylbenzene			Not detected	130	Not detected	10
Benzene			Not detected	25	Not detected	2.0
Ethylbenzene			480	130	Not detected	10
Isopropylbenzene			620	130	Not detected	10
Methyl-tert-butyl ether			Not detected	130	Not detected	10
Naphthalene			3600	130	Not detected	10
n-Butylbenzene			1100	130	Not detected	10
n-Propylbenzene			1100	130	Not detected	10
o-Xylene			Not detected	130	Not detected	10
p- & m- Xylenes			Not detected	130	Not detected	10
p-Isopropyltoluene			Not detected	130	Not detected	10
sec-Butylbenzene			690	130	Not detected	10
tert-Butylbenzene			Not detected	130	Not detected	10
Toluene			Not detected	130	Not detected	10
<b>Base/Neutral Extractables soil</b>	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	8300	Not detected	830
1,2-Dichlorobenzene			Not detected	8300	Not detected	830
1,3-Dichlorobenzene			Not detected	8300	Not detected	830
1,4-Dichlorobenzene			Not detected	8300	Not detected	830
2,4-Dinitrotoluene			Not detected	8300	Not detected	830
2,6-Dinitrotoluene			Not detected	8300	Not detected	830
2-Chloronaphthalene			Not detected	8300	Not detected	830
2-Methylnaphthalene			21000	8300	Not detected	830
2-Nitroaniline			Not detected	8300	Not detected	830
3,3'-Dichlorobenzidine			Not detected	8300	Not detected	830
3-Nitroaniline			Not detected	8300	Not detected	830
4-Bromophenyl phenyl ether			Not detected	8300	Not detected	830
4-Chloroaniline			Not detected	8300	Not detected	830
4-Chlorophenyl phenyl ether			Not detected	8300	Not detected	830
4-Nitroaniline			Not detected	8300	Not detected	830
Acenaphthene			Not detected	8300	Not detected	830
Acenaphthylene			Not detected	8300	Not detected	830
Anthracene			Not detected	8300	Not detected	830
Benzo(a)anthracene			Not detected	8300	Not detected	830

**YORK**

Client Sample ID			MW-9@10-15'		MW-10@10-15'	
York Sample ID			06070645-03		06070645-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Benzo(a)pyrene			Not detected	8300	Not detected	830
Benzo(b)fluoranthene			Not detected	8300	Not detected	830
Benzo(g,h,i)perylene			Not detected	8300	Not detected	830
Benzo(k)fluoranthene			Not detected	8300	Not detected	830
Bis(2-chloroethoxy)methane			Not detected	8300	Not detected	830
Bis(2-chloroethyl)ether			Not detected	8300	Not detected	830
Bis(2-chloroisopropyl)ether			Not detected	8300	Not detected	830
Bis(2-ethylhexyl)phthalate			59000	8300	6300	830
Butyl benzyl phthalate			Not detected	8300	Not detected	830
Carbazole			Not detected	8300	Not detected	830
Chrysene			Not detected	8300	Not detected	830
Dibenzo(a,h)anthracene			Not detected	8300	Not detected	830
Dibenzofuran			Not detected	8300	Not detected	830
Diethylphthalate			Not detected	8300	Not detected	830
Dimethylphthalate			Not detected	8300	Not detected	830
Di-n-butylphthalate			Not detected	8300	Not detected	830
Di-n-octylphthalate			Not detected	8300	Not detected	830
Fluoranthene			Not detected	8300	Not detected	830
Fluorene			Not detected	8300	Not detected	830
Hexachlorobenzene			Not detected	8300	Not detected	830
Hexachlorobutadiene			Not detected	8300	Not detected	830
Hexachlorocyclopentadiene			Not detected	8300	Not detected	830
Hexachloroethane			Not detected	8300	Not detected	830
Indeno(1,2,3-cd)pyrene			Not detected	8300	Not detected	830
Isophorone			Not detected	8300	Not detected	830
Naphthalene			Not detected	8300	Not detected	830
Nitrobenzene			Not detected	8300	Not detected	830
N-Nitrosodi-n-propylamine			Not detected	8300	Not detected	830
N-Nitrosodiphenylamine			Not detected	8300	Not detected	830
Phenanthrene			17000	8300	Not detected	830
Pyrene			Not detected	8300	Not detected	830

Units Key:

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

### Notes for York Project No. 06070645

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By:

Robert Q. Bradley  
Managing Director

Date: 7/31/2006

**YORK**

# YORK

ANALYTICAL LABORATORIES, INC.

120 RESEARCH DRIVE  
STRATFORD, CT 06615  
(203) 325-1371 FAX (203) 357-0166

## Field Chain-of-Custody Record

Page 1 of 1

Company Name

A S R

Report To:

STEVE MULLER

Invoice To:

A S R

Project ID/No.

49 DUPONT ST  
BKLYN N.Y.E. Vazquez  
Samples Collected By (Signature)E. VAZQUEZ  
Name (Printed)

Sample No.	Location/ID	Date Sampled	Sample Matrix			ANALYSES REQUESTED	Container Description(s)
			Water	Soil	Air OTHER		
	MW-7@10'-15'	7/21/06		X		EPA 8260 STARS	402
	MW-7@10'-15'					EPA 8270 BN	802
	MW-8@10'-15'					EPA 8260 STARS	402
	MW-8@10'-15'					EPA 8270 <del>BN</del>	802
	MW-9@10'-15'					EPA 8260 STARS	402
	MW-9@10'-15'					EPA 8270 BN	802
	MW-10@10'-15'					EPA 8260 STARS	402
	MW-10@10'-15'					EPA 8270 BN	802

### Chain-of-Custody Record

Bottles Relinquished from Lab by

Date/Time

Bottles Received in Field by

Date/Time

Sample Relinquished by

Sample Relinquished by

Date/Time

Sample Received in LAB by

Date/Time

Comments/Special Instructions

Turn-Around Time

42°C

X Standard

RUSH(define)



**YORK**  
ANALYTICAL LABORATORIES, INC.

# Technical Report

prepared for

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

Report Date: 9/21/2006  
*Re: Client Project ID: Dupont, Brooklyn*  
York Project No.: 06090528

CT License No. PH-0723

New York License No. 10854



Report Date: 9/21/2006  
Client Project ID: Dupont, Brooklyn  
York Project No.: 06090528

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

## 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 09/14/06. The project was identified as your project "Dupont, Brooklyn".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			MW-11@8-10'		MW-12@8-10'	
York Sample ID			06090528-01		06090528-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10.0	Not detected	10.0
1,3,5-Trimethylbenzene			Not detected	10.0	Not detected	10.0
Benzene			Not detected	2.00	Not detected	2.00
Ethylbenzene			Not detected	10.0	Not detected	10.0
Isopropylbenzene			Not detected	10.0	Not detected	10.0
Methyl-tert-butyl ether			Not detected	10.0	Not detected	10.0
Naphthalene			Not detected	10.0	Not detected	10.0
n-Butylbenzene			Not detected	10.0	Not detected	10.0
n-Propylbenzene			Not detected	10.0	Not detected	10.0
o-Xylene			Not detected	10.0	Not detected	10.0
p- & m- Xylenes			Not detected	10.0	Not detected	10.0
p-Isopropyltoluene			Not detected	10.0	Not detected	10.0
sec-Butylbenzene			Not detected	10.0	Not detected	10.0
tert-Butylbenzene			Not detected	10.0	Not detected	10.0
Toluene			Not detected	10.0	Not detected	10.0

**YORK**

Client Sample ID			MW-11@8-10'		MW-12@8-10'	
York Sample ID			06090528-01		06090528-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			170	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			320	165	Not detected	165
Benzo(a)anthracene			350	165	Not detected	165
Benzo(a)pyrene			180	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			210	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			Not detected	165	Not detected	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			320	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			740	165	Not detected	165
Fluorene			170	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			890	165	Not detected	165
Pyrene			600	165	Not detected	165

**YORK**

Client Sample ID			MW-13@8-10'		MW-14@8-10'	
York Sample ID			06090528-03		06090528-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Volatiles- STARS List</b>	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10.0	Not detected	10.0
1,3,5-Trimethylbenzene			Not detected	10.0	Not detected	10.0
Benzene			Not detected	2.00	Not detected	2.00
Ethylbenzene			Not detected	10.0	Not detected	10.0
Isopropylbenzene			Not detected	10.0	Not detected	10.0
Methyl-tert-butyl ether			Not detected	10.0	Not detected	10.0
Naphthalene			Not detected	10.0	Not detected	10.0
n-Butylbenzene			Not detected	10.0	Not detected	10.0
n-Propylbenzene			Not detected	10.0	Not detected	10.0
o-Xylene			Not detected	10.0	Not detected	10.0
p- & m- Xylenes			Not detected	10.0	Not detected	10.0
p-Isopropyltoluene			Not detected	10.0	Not detected	10.0
sec-Butylbenzene			Not detected	10.0	Not detected	10.0
tert-Butylbenzene			Not detected	10.0	Not detected	10.0
Toluene			Not detected	10.0	Not detected	10.0
<b>Base/Neutral Extractables soil</b>	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			Not detected	165	Not detected	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165

**YORK**

<b>Client Sample ID</b>			<b>MW-13@8-10'</b>		<b>MW-14@8-10'</b>	
<b>York Sample ID</b>			<b>06090528-03</b>		<b>06090528-04</b>	
<b>Matrix</b>			<b>SOIL</b>		<b>SOIL</b>	
<b>Parameter</b>	<b>Method</b>	<b>Units</b>	<b>Results</b>	<b>MDL</b>	<b>Results</b>	<b>MDL</b>
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	Not detected	165

**Units Key:**

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

**Notes for York Project No. 06090528**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By: \_\_\_\_\_

Robert Q. Bradley  
Managing Director

Date: 9/21/2006

**YORK**



**YORK**  
ANALYTICAL LABORATORIES, INC.

# Technical Report

prepared for

**Advanced Site Restoration  
62 William St.  
New York, NY 10005  
Attention: Steve Muller**

Report Date: 12/20/2006  
**Re: Client Project ID: 49 Dupont St., Brooklyn**  
York Project No.: 06120412

CT License No. PH-0723

New York License No. 10854



Report Date: 12/20/2006  
Client Project ID: 49 Dupont St., Brooklyn  
York Project No.: 06120412

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

## 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 12/13/06. The project was identified as your project "49 Dupont St., Brooklyn".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			MW-15 8-10'		MW-16 8-10'	
York Sample ID			06120412-01		06120412-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles, STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10.0	Not detected	10.0
1,3,5-Trimethylbenzene			Not detected	10.0	Not detected	10.0
Benzene			Not detected	2.00	Not detected	2.00
Ethylbenzene			Not detected	10.0	Not detected	10.0
Isopropylbenzene			Not detected	10.0	Not detected	10.0
Methyl-tert-butyl ether			Not detected	10.0	Not detected	10.0
Naphthalene			Not detected	10.0	Not detected	10.0
n-Butylbenzene			Not detected	10.0	Not detected	10.0
n-Propylbenzene			Not detected	10.0	Not detected	10.0
o-Xylene			Not detected	10.0	Not detected	10.0
p- & m- Xylenes			Not detected	10.0	Not detected	10.0
p-Isopropyltoluene			Not detected	10.0	Not detected	10.0
sec-Butylbenzene			Not detected	10.0	Not detected	10.0
tert-Butylbenzene			Not detected	10.0	Not detected	10.0
Toluene			Not detected	10.0	Not detected	10.0

**YORK**



Client Sample ID			MW-15 8-10'		MW-16 8-10'	
York Sample ID			06120412-01		06120412-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	1700	Not detected	165
1,2-Dichlorobenzene			Not detected	1700	Not detected	165
1,3-Dichlorobenzene			Not detected	1700	Not detected	165
1,4-Dichlorobenzene			Not detected	1700	Not detected	165
2,4-Dinitrotoluene			Not detected	1700	Not detected	165
2,6-Dinitrotoluene			Not detected	1700	Not detected	165
2-Chloronaphthalene			Not detected	1700	Not detected	165
2-Methylnaphthalene			Not detected	1700	Not detected	165
2-Nitroaniline			Not detected	1700	Not detected	165
3,3'-Dichlorobenzidine			Not detected	1700	Not detected	165
3-Nitroaniline			Not detected	1700	Not detected	165
4-Bromophenyl phenyl ether			Not detected	1700	Not detected	165
4-Chloroaniline			Not detected	1700	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	1700	Not detected	165
4-Nitroaniline			Not detected	1700	Not detected	165
Acenaphthene			Not detected	1700	Not detected	165
Acenaphthylene			Not detected	1700	Not detected	165
Anthracene			Not detected	1700	Not detected	165
Benzo(a)anthracene			Not detected	1700	Not detected	165
Benzo(a)pyrene			Not detected	1700	Not detected	165
Benzo(b)fluoranthene			Not detected	1700	Not detected	165
Benzo(g,h,i)perylene			Not detected	1700	Not detected	165
Benzo(k)fluoranthene			Not detected	1700	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	1700	Not detected	165
Bis(2-chloroethyl)ether			Not detected	1700	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	1700	Not detected	165
Bis(2-ethylhexyl)phthalate			6400	1700	Not detected	165
Butyl benzyl phthalate			Not detected	1700	Not detected	165
Carbazole			Not detected	1700	Not detected	165
Chrysene			Not detected	1700	Not detected	165
Dibenzo(a,h)anthracene			Not detected	1700	Not detected	165
Dibenzofuran			Not detected	1700	Not detected	165
Diethylphthalate			Not detected	1700	Not detected	165
Dimethylphthalate			Not detected	1700	Not detected	165
Di-n-butylphthalate			Not detected	1700	Not detected	165
Di-n-octylphthalate			Not detected	1700	990	165
Fluoranthene			Not detected	1700	Not detected	165
Fluorene			Not detected	1700	Not detected	165
Hexachlorobenzene			Not detected	1700	Not detected	165
Hexachlorobutadiene			Not detected	1700	Not detected	165
Hexachlorocyclopentadiene			Not detected	1700	Not detected	165
Hexachloroethane			Not detected	1700	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	1700	Not detected	165
Isophorone			Not detected	1700	Not detected	165
Naphthalene			Not detected	1700	Not detected	165
Nitrobenzene			Not detected	1700	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	1700	Not detected	165
N-Nitrosodiphenylamine			Not detected	1700	Not detected	165
Phenanthrene			Not detected	1700	Not detected	165
Pyrene			Not detected	1700	Not detected	165

**YORK**

<b>Client Sample ID</b>			<b>SB-4A@10'</b>		<b>SB-4B@10'</b>	
<b>York Sample ID</b>			<b>06120412-03</b>		<b>06120412-04</b>	
<b>Matrix</b>			<b>SOIL</b>		<b>SOIL</b>	
<b>Parameter</b>	<b>Method</b>	<b>Units</b>	<b>Results</b>	<b>MDL</b>	<b>Results</b>	<b>MDL</b>
Mercury	SW846-7471	mg/kg	Not detected	0.10	Not detected	0.10

**Units Key:**

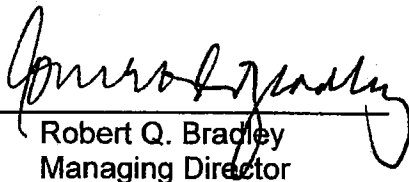
For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

**Notes for York Project No. 06120412**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

**Approved By:**

  
Robert Q. Bradley  
Managing Director

**Date:** 12/20/2006

**YORK**

# Field Chain-of-Custody Record

Page \_\_\_ of \_\_\_

ANALYTICAL LABORATORIES, INC.

120 RESEARCH DRIVE  
STRATFORD, CT 06615  
(203) 325-1371  
FAX (203) 357-0166

**Company Name**

Advanced  
Site Restoration

**Report To:**

Steve W

**Invoice To:**

AS12

**Project ID/No.**

US Dept ST

31672

Samples Collected By (Signature)

0522547550  
Name (Printed)

## Container

Description(s)

[illegible]

## Chain-of-Custody Record

Bottles Relinquished from Lab by

Date/Time

**Bottles Received in Field by**

Date/Time

Sample Relinquished by \_\_\_\_\_

Date/Time

**Sample Relinquished by**

Date/Time

Sample Received by

Rate/Time

~~Sample Received in LAB by~~

ate/Time

## Turn-Around Time

Comments/Special Instructions

Standard \_\_\_\_\_ RUSH(define)\_\_\_\_\_



# Technical Report

prepared for

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

Report Date: 8/1/2006  
*Re: Client Project ID: 49 Dupont St., Brooklyn, NY*  
York Project No.: 06070673

CT License No. PH-0723

New York License No. 10854



Report Date: 8/1/2006  
Client Project ID: 49 Dupont St., Brooklyn, NY  
York Project No.: 06070673

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

## 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 07/25/06. The project was identified as your project "49 Dupont St., Brooklyn, NY".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			5-10' ASR-11		10-15' ASR-11	
York Sample ID			06070673-01		06070673-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	Not detected	10
1,3,5-Trimethylbenzene			Not detected	10	Not detected	10
Benzene			Not detected	2.0	Not detected	2.0
Ethylbenzene			Not detected	10	Not detected	10
Isopropylbenzene			Not detected	10	Not detected	10
Methyl-tert-butyl ether			Not detected	10	Not detected	10
Naphthalene			Not detected	10	Not detected	10
n-Butylbenzene			Not detected	10	Not detected	10
n-Propylbenzene			Not detected	10	Not detected	10
o-Xylene			Not detected	10	Not detected	10
p- & m- Xylenes			Not detected	10	Not detected	10
p-Isopropyltoluene			Not detected	10	Not detected	10
sec-Butylbenzene			Not detected	10	Not detected	10
tert-Butylbenzene			Not detected	10	Not detected	10
Toluene			Not detected	10	Not detected	10

**YORK**

Client Sample ID			5-10' ASR-11		10-15' ASR-11	
York Sample ID			06070673-01		06070673-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			Not detected	165	Not detected	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	190	165

**YORK**

Client Sample ID			ASR-11	
York Sample ID			06070673-03	
Matrix			WATER	
Parameter	Method	Units	Results	MDL
Volatiles-STARs List	SW846-8260	ug/L	---	---
1,2,4-Trimethylbenzene			Not detected	5
1,3,5-Trimethylbenzene			Not detected	5
Benzene			2	1
Ethylbenzene			Not detected	5
Isopropylbenzene			Not detected	5
Methyl-tert-butyl ether			Not detected	5
Naphthalene			Not detected	5
n-Butylbenzene			Not detected	5
n-Propylbenzene			Not detected	5
o-Xylene			Not detected	5
p- & m- Xylenes			Not detected	5
p-Isopropyltoluene			Not detected	5
sec-Butylbenzene			Not detected	5
tert-Butylbenzene			Not detected	5
Toluene			Not detected	5
Base/Neutral Extractables water	SW846-8270	ug/L	---	---
1,2,4-Trichlorobenzene			Not detected	5.0
1,2-Dichlorobenzene			Not detected	5.0
1,3-Dichlorobenzene			Not detected	5.0
1,4-Dichlorobenzene			Not detected	5.0
2,4-Dinitrotoluene			Not detected	5.0
2,6-Dinitrotoluene			Not detected	5.0
2-Chloronaphthalene			Not detected	5.0
2-Methylnaphthalene			Not detected	5.0
2-Nitroaniline			Not detected	5.0
3,3'-Dichlorobenzidine			Not detected	5.0
3-Nitroaniline			Not detected	5.0
4-Bromophenyl phenyl ether			Not detected	5.0
4-Chloroaniline			Not detected	5.0
4-Chlorophenyl phenyl ether			Not detected	5.0
4-Nitroaniline			Not detected	5.0
Acenaphthene			Not detected	5.0
Acenaphthylene			Not detected	5.0
Anthracene			Not detected	5.0
Benzo(a)anthracene			Not detected	5.0
Benzo(a)pyrene			Not detected	5.0
Benzo(b)fluoranthene			Not detected	5.0
Benzo(g,h,i)perylene			Not detected	5.0
Benzo(k)fluoranthene			Not detected	5.0
Bis(2-chloroethoxy)methane			Not detected	5.0
Bis(2-chloroethyl)ether			Not detected	5.0
Bis(2-chloroisopropyl)ether			Not detected	5.0
Bis(2-ethylhexyl)phthalate			18	5.0
Butyl benzyl phthalate			Not detected	5.0
Carbazole			Not detected	5.0
Chrysene			Not detected	5.0
Dibenzo(a,h)anthracene			Not detected	5.0
Dibenzofuran			Not detected	5.0

**YORK**

Client Sample ID			ASR-11	
York Sample ID			06070673-03	
Matrix			WATER	
Parameter	Method	Units	Results	MDL
Diethylphthalate			Not detected	5.0
Dimethylphthalate			Not detected	5.0
Di-n-butylphthalate			Not detected	5.0
Di-n-octylphthalate			Not detected	5.0
Fluoranthene			Not detected	5.0
Fluorene			Not detected	5.0
Hexachlorobenzene			Not detected	5.0
Hexachlorobutadiene			Not detected	5.0
Hexachlorocyclopentadiene			Not detected	5.0
Hexachloroethane			Not detected	5.0
Indeno(1,2,3-cd)pyrene			Not detected	5.0
Isophorone			Not detected	5.0
Naphthalene			Not detected	5.0
Nitrobenzene			Not detected	5.0
N-Nitrosodi-n-propylamine			Not detected	5.0
N-Nitrosodiphenylamine			Not detected	5.0
Phenanthrene			Not detected	5.0
Pyrene			Not detected	5.0

Units Key:

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

### Notes for York Project No. 06070673

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By:

Robert Q. Bradley  
Managing Director

Date: 8/1/2006

**YORK**



# YORK

ANALYTICAL LABORATORIES, INC.

120 RESEARCH DRIVE STRATFORD, CT 06615  
(203) 325-1371 FAX (203) 357-0166

## Field Chain-of-Custody Record

Page 1 of 1

Company Name

4316  
62will (can si  
ny ny 1000x

Report To:

Steve M

Invoice To:

ASR

Project ID/No.

49 Dupont St  
Bucklyn

Samples Collected By (Signature)

Anthony Arcebo

Name (Printed)

Container

Description(s)

ANALYSES REQUESTED

Sample Matrix

Water

Soil

Air

OTHER

Date Sampled

Location/ID

Sample No.

5-10'

ASR-11

7/24/06

X

8270 BN / 8260 STAS

1802 (402

10-15'

ASR-11

7/24/06

y

8270 BN / 8260 STAS

1802 (402

ASR-11

7/24

X

8270 BN

1

ASR-11

7/24

X

8260 STAS

2 va

### Chain-of-Custody Record

Bottles Relinquished from Lab by

Date/Time

Sample Relinquished by

Date/Time

Sample Relinquished by

Date/Time

Date/Time

Date/Time

Bottles Received in Field by

Date/Time

Sample Relinquished by

Date/Time

Turn-Around Time

Comments/Special Instructions

Standard

RUSH(define)

4.2°C

99521 7/25/06

Sample Received by

Date/Time

Sample Received in LAB by

Date/Time

**YORK**  
**ANALYTICAL LABORATORIES, INC.**

# Technical Report

prepared for

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

Report Date: 8/2/2006  
**Re: Client Project ID: 49 Dupont St., Brooklyn**  
York Project No.: 06070672

CT License No. PH-0723

New York License No. 10854



Report Date: 8/2/2006  
Client Project ID: 49 Dupont St., Brooklyn  
York Project No.: 06070672

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

## 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 07/25/06. The project was identified as your project "49 Dupont St., Brooklyn".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			5-10' ASR-12		10-15' ASR-12	
York Sample ID			06070672-01		06070672-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	Not detected	130
1,3,5-Trimethylbenzene			Not detected	10	Not detected	130
Benzene			Not detected	2.0	Not detected	25
Ethylbenzene			Not detected	10	Not detected	130
Isopropylbenzene			Not detected	10	Not detected	130
Methyl-tert-butyl ether			Not detected	10	Not detected	130
Naphthalene			Not detected	10	Not detected	130
n-Butylbenzene			Not detected	10	Not detected	130
n-Propylbenzene			Not detected	10	Not detected	130
o-Xylene			Not detected	10	Not detected	130
p- & m- Xylenes			Not detected	10	Not detected	130
p-Isopropyltoluene			Not detected	10	Not detected	130
sec-Butylbenzene			Not detected	10	Not detected	130
tert-Butylbenzene			Not detected	10	Not detected	130
Toluene			Not detected	10	Not detected	130

**YORK**

Client Sample ID			5-10' ASR-12		10-15' ASR-12	
York Sample ID			06070672-01		06070672-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			Not detected	165	Not detected	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	Not detected	165

**YORK**

Client Sample ID			ASR-12	
York Sample ID			06070672-03	
Matrix			WATER	
Parameter	Method	Units	Results	MDL
Volatiles-STARs List	SW846-8260	ug/L	---	---
1,2,4-Trimethylbenzene			Not detected	500
1,3,5-Trimethylbenzene			Not detected	500
Benzene			Not detected	100
Ethylbenzene			Not detected	500
Isopropylbenzene			Not detected	500
Methyl-tert-butyl ether			Not detected	500
Naphthalene			2300	500
n-Butylbenzene			Not detected	500
n-Propylbenzene			Not detected	500
o-Xylene			Not detected	500
p- & m- Xylenes			Not detected	500
p-Isopropyltoluene			Not detected	500
sec-Butylbenzene			Not detected	500
tert-Butylbenzene			Not detected	500
Toluene			Not detected	500
Base/Neutral Extractables water	SW846-8270	ug/L	---	---
1,2,4-Trichlorobenzene			Not detected	25.0
1,2-Dichlorobenzene			Not detected	25.0
1,3-Dichlorobenzene			Not detected	25.0
1,4-Dichlorobenzene			Not detected	25.0
2,4-Dinitrotoluene			Not detected	25.0
2,6-Dinitrotoluene			Not detected	25.0
2-Chloronaphthalene			Not detected	25.0
2-Methylnaphthalene			210	25.0
2-Nitroaniline			Not detected	25.0
3,3'-Dichlorobenzidine			Not detected	25.0
3-Nitroaniline			Not detected	25.0
4-Bromophenyl phenyl ether			Not detected	25.0
4-Chloroaniline			Not detected	25.0
4-Chlorophenyl phenyl ether			Not detected	25.0
4-Nitroaniline			Not detected	25.0
Acenaphthene			Not detected	25.0
Acenaphthylene			Not detected	25.0
Anthracene			Not detected	25.0
Benzo(a)anthracene			Not detected	25.0
Benzo(a)pyrene			Not detected	25.0
Benzo(b)fluoranthene			Not detected	25.0
Benzo(g,h,i)perylene			Not detected	25.0
Benzo(k)fluoranthene			Not detected	25.0
Bis(2-chloroethoxy)methane			Not detected	25.0
Bis(2-chloroethyl)ether			Not detected	25.0
Bis(2-chloroisopropyl)ether			Not detected	25.0
Bis(2-ethylhexyl)phthalate			Not detected	25.0
Butyl benzyl phthalate			Not detected	25.0
Carbazole			Not detected	25.0
Chrysene			Not detected	25.0
Dibenzo(a,h)anthracene			Not detected	25.0
Dibenzofuran			Not detected	25.0

**YORK**

<b>Client Sample ID</b>			<b>ASR-12</b>	
<b>York Sample ID</b>			<b>06070672-03</b>	
<b>Matrix</b>			<b>WATER</b>	
<b>Parameter</b>	<b>Method</b>	<b>Units</b>	<b>Results</b>	<b>MDL</b>
Diethylphthalate			Not detected	25.0
Dimethylphthalate			Not detected	25.0
Di-n-butylphthalate			Not detected	25.0
Di-n-octylphthalate			Not detected	25.0
Fluoranthene			Not detected	25.0
Fluorene			Not detected	25.0
Hexachlorobenzene			Not detected	25.0
Hexachlorobutadiene			Not detected	25.0
Hexachlorocyclopentadiene			Not detected	25.0
Hexachloroethane			Not detected	25.0
Indeno(1,2,3-cd)pyrene			Not detected	25.0
Isophorone			Not detected	25.0
Naphthalene			210	25.0
Nitrobenzene			Not detected	25.0
N-Nitrosodi-n-propylamine			Not detected	25.0
N-Nitrosodiphenylamine			Not detected	25.0
Phenanthrene			Not detected	25.0
Pyrene			Not detected	25.0

**Units Key:**

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

**Notes for York Project No. 06070672**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By: \_\_\_\_\_

Robert Q. Bradley  
Managing Director

Date: 8/2/2006

**YORK**

# Field Chain-of-Custody Record

[illegible]

**YORK**  
**ANALYTICAL LABORATORIES, INC.**

# Technical Report

prepared for

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

Report Date: 8/3/2006  
**Re: Client Project ID: 49 Dupont St.**  
York Project No.: 06070674

CT License No. PH-0723

New York License No. 10854





Report Date: 8/3/2006  
 Client Project ID: 49 Dupont St.  
 York Project No.: 06070674

**Advanced Site Restoration**  
 62 William St.  
 New York, NY 10005  
 Attention: Steve Muller

## 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 07/25/06. The project was identified as your project "49 Dupont St. ".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			MW-1		MW-2	
York Sample ID			06070674-01		06070674-02	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles-STARS List	SW846-8260	ug/L	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	5	Not detected	5
1,3,5-Trimethylbenzene			Not detected	5	Not detected	5
Benzene			Not detected	1	Not detected	1
Ethylbenzene			Not detected	5	Not detected	5
Isopropylbenzene			5	5	Not detected	5
Methyl-tert-butyl ether			Not detected	5	Not detected	5
Naphthalene			75	5	Not detected	5
n-Butylbenzene			6	5	Not detected	5
n-Propylbenzene			7	5	Not detected	5
o-Xylene			Not detected	5	Not detected	5
p- & m- Xylenes			Not detected	5	Not detected	5
p-Isopropyltoluene			Not detected	5	Not detected	5
sec-Butylbenzene			9	5	Not detected	5
tert-Butylbenzene			Not detected	5	Not detected	5
Toluene			Not detected	5	Not detected	5

**YORK**

Client Sample ID			MW-1		MW-2	
York Sample ID			06070674-01		06070674-02	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables water	SW846-8270	ug/L	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	50.0	Not detected	5.0
1,2-Dichlorobenzene			Not detected	50.0	Not detected	5.0
1,3-Dichlorobenzene			Not detected	50.0	Not detected	5.0
1,4-Dichlorobenzene			Not detected	50.0	Not detected	5.0
2,4-Dinitrotoluene			Not detected	50.0	Not detected	5.0
2,6-Dinitrotoluene			Not detected	50.0	Not detected	5.0
2-Chloronaphthalene			Not detected	50.0	Not detected	5.0
2-Methylnaphthalene			Not detected	50.0	Not detected	5.0
2-Nitroaniline			Not detected	50.0	Not detected	5.0
3,3'-Dichlorobenzidine			Not detected	50.0	Not detected	5.0
3-Nitroaniline			Not detected	50.0	Not detected	5.0
4-Bromophenyl phenyl ether			Not detected	50.0	Not detected	5.0
4-Chloroaniline			Not detected	50.0	Not detected	5.0
4-Chlorophenyl phenyl ether			Not detected	50.0	Not detected	5.0
4-Nitroaniline			Not detected	50.0	Not detected	5.0
Acenaphthene			Not detected	50.0	Not detected	5.0
Acenaphthylene			Not detected	50.0	Not detected	5.0
Anthracene			Not detected	50.0	Not detected	5.0
Benzo(a)anthracene			Not detected	50.0	Not detected	5.0
Benzo(a)pyrene			Not detected	50.0	Not detected	5.0
Benzo(b)fluoranthene			Not detected	50.0	Not detected	5.0
Benzo(g,h,i)perylene			Not detected	50.0	Not detected	5.0
Benzo(k)fluoranthene			Not detected	50.0	Not detected	5.0
Bis(2-chloroethoxy)methane			Not detected	50.0	Not detected	5.0
Bis(2-chloroethyl)ether			Not detected	50.0	Not detected	5.0
Bis(2-chloroisopropyl)ether			Not detected	50.0	Not detected	5.0
Bis(2-ethylhexyl)phthalate			Not detected	50.0	Not detected	5.0
Butyl benzyl phthalate			Not detected	50.0	60	5.0
Carbazole			Not detected	50.0	Not detected	5.0
Chrysene			Not detected	50.0	Not detected	5.0
Dibenzo(a,h)anthracene			Not detected	50.0	Not detected	5.0
Dibenzofuran			Not detected	50.0	Not detected	5.0
Diethylphthalate			Not detected	50.0	Not detected	5.0
Dimethylphthalate			Not detected	50.0	Not detected	5.0
Di-n-butylphthalate			Not detected	50.0	Not detected	5.0
Di-n-octylphthalate			Not detected	50.0	Not detected	5.0
Fluoranthene			Not detected	50.0	Not detected	5.0
Fluorene			75	50.0	Not detected	5.0
Hexachlorobenzene			Not detected	50.0	Not detected	5.0
Hexachlorobutadiene			Not detected	50.0	Not detected	5.0
Hexachlorocyclopentadiene			Not detected	50.0	Not detected	5.0
Hexachloroethane			Not detected	50.0	Not detected	5.0
Indeno(1,2,3-cd)pyrene			Not detected	50.0	Not detected	5.0
Isophorone			Not detected	50.0	Not detected	5.0
Naphthalene			99	50.0	Not detected	5.0
Nitrobenzene			Not detected	50.0	Not detected	5.0
N-Nitrosodi-n-propylamine			Not detected	50.0	Not detected	5.0
N-Nitrosodiphenylamine			Not detected	50.0	Not detected	5.0
Phenanthrene			110	50.0	Not detected	5.0
Pyrene			Not detected	50.0	Not detected	5.0

**YORK**

Client Sample ID			MW-3		MW-4	
York Sample ID			06070674-03		06070674-04	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles-STARs List	SW846-8260	ug/L	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	5	PENDING	5
1,3,5-Trimethylbenzene			Not detected	5	PENDING	5
Benzene			Not detected	1	PENDING	1
Ethylbenzene			Not detected	5	PENDING	5
Isopropylbenzene			Not detected	5	PENDING	5
Methyl-tert-butyl ether			Not detected	5	PENDING	5
Naphthalene			Not detected	5	PENDING	5
n-Butylbenzene			Not detected	5	PENDING	5
n-Propylbenzene			Not detected	5	PENDING	5
o-Xylene			Not detected	5	PENDING	5
p- & m- Xylenes			Not detected	5	PENDING	5
p-Isopropyltoluene			Not detected	5	PENDING	5
sec-Butylbenzene			Not detected	5	PENDING	5
tert-Butylbenzene			Not detected	5	PENDING	5
Toluene			Not detected	5	PENDING	5
Base/Neutral Extractables water	SW846-8270	ug/L	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	5.0	Not detected	12500
1,2-Dichlorobenzene			Not detected	5.0	Not detected	12500
1,3-Dichlorobenzene			Not detected	5.0	Not detected	12500
1,4-Dichlorobenzene			Not detected	5.0	Not detected	12500
2,4-Dinitrotoluene			Not detected	5.0	Not detected	12500
2,6-Dinitrotoluene			Not detected	5.0	Not detected	12500
2-Chloronaphthalene			Not detected	5.0	Not detected	12500
2-Methylnaphthalene			Not detected	5.0	Not detected	12500
2-Nitroaniline			Not detected	5.0	Not detected	12500
3,3'-Dichlorobenzidine			Not detected	5.0	Not detected	12500
3-Nitroaniline			Not detected	5.0	Not detected	12500
4-Bromophenyl phenyl ether			Not detected	5.0	Not detected	12500
4-Chloroaniline			Not detected	5.0	Not detected	12500
4-Chlorophenyl phenyl ether			Not detected	5.0	Not detected	12500
4-Nitroaniline			Not detected	5.0	Not detected	12500
Acenaphthene			Not detected	5.0	Not detected	12500
Acenaphthylene			Not detected	5.0	Not detected	12500
Anthracene			Not detected	5.0	Not detected	12500
Benzo(a)anthracene			Not detected	5.0	Not detected	12500
Benzo(a)pyrene			Not detected	5.0	Not detected	12500
Benzo(b)fluoranthene			Not detected	5.0	Not detected	12500
Benzo(g,h,i)perylene			Not detected	5.0	Not detected	12500
Benzo(k)fluoranthene			Not detected	5.0	Not detected	12500
Bis(2-chloroethoxy)methane			Not detected	5.0	Not detected	12500
Bis(2-chloroethyl)ether			Not detected	5.0	Not detected	12500
Bis(2-chloroisopropyl)ether			Not detected	5.0	Not detected	12500
Bis(2-ethylhexyl)phthalate			31	5.0	120000	12500
Butyl benzyl phthalate			Not detected	5.0	Not detected	12500
Carbazole			Not detected	5.0	Not detected	12500
Chrysene			Not detected	5.0	Not detected	12500
Dibenzo(a,h)anthracene			Not detected	5.0	Not detected	12500
Dibenzofuran			Not detected	5.0	Not detected	12500
Diethylphthalate			Not detected	5.0	Not detected	12500

**YORK**

Client Sample ID			MW-3		MW-4	
York Sample ID			06070674-03		06070674-04	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Dimethylphthalate			Not detected	5.0	Not detected	12500
Di-n-butylphthalate			Not detected	5.0	Not detected	12500
Di-n-octylphthalate			Not detected	5.0	160000	12500
Fluoranthene			Not detected	5.0	Not detected	12500
Fluorene			Not detected	5.0	Not detected	12500
Hexachlorobenzene			Not detected	5.0	Not detected	12500
Hexachlorobutadiene			Not detected	5.0	Not detected	12500
Hexachlorocyclopentadiene			Not detected	5.0	Not detected	12500
Hexachloroethane			Not detected	5.0	Not detected	12500
Indeno(1,2,3-cd)pyrene			Not detected	5.0	Not detected	12500
Isophorone			Not detected	5.0	Not detected	12500
Naphthalene			Not detected	5.0	Not detected	12500
Nitrobenzene			Not detected	5.0	Not detected	12500
N-Nitrosodi-n-propylamine			Not detected	5.0	Not detected	12500
N-Nitrosodiphenylamine			Not detected	5.0	Not detected	12500
Phenanthrene			Not detected	5.0	Not detected	12500
Pyrene			Not detected	5.0	Not detected	12500

Client Sample ID			MW-5		MW-6	
York Sample ID			06070674-05		06070674-06	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles-STARs List	SW846-8260	ug/L	---	---	---	---
1,2,4-Trimethylbenzene			6	5	11	5
1,3,5-Trimethylbenzene			Not detected	5	Not detected	5
Benzene			Not detected	1	Not detected	1
Ethylbenzene			Not detected	5	Not detected	5
Isopropylbenzene			Not detected	5	Not detected	5
Methyl-tert-butyl ether			Not detected	5	Not detected	5
Naphthalene			8	5	Not detected	5
n-Butylbenzene			Not detected	5	Not detected	5
n-Propylbenzene			Not detected	5	Not detected	5
o-Xylene			Not detected	5	Not detected	5
p- & m- Xylenes			Not detected	5	Not detected	5
p-Isopropyltoluene			Not detected	5	Not detected	5
sec-Butylbenzene			Not detected	5	Not detected	5
tert-Butylbenzene			Not detected	5	Not detected	5
Toluene			Not detected	5	Not detected	5
Base/Neutral Extractables water	SW846-8270	ug/L	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	50000	Not detected	250000
1,2-Dichlorobenzene			Not detected	50000	Not detected	250000
1,3-Dichlorobenzene			Not detected	50000	Not detected	250000
1,4-Dichlorobenzene			Not detected	50000	Not detected	250000
2,4-Dinitrotoluene			Not detected	50000	Not detected	250000
2,6-Dinitrotoluene			Not detected	50000	Not detected	250000
2-Chloronaphthalene			Not detected	50000	Not detected	250000
2-Methylnaphthalene			Not detected	50000	Not detected	250000
2-Nitroaniline			Not detected	50000	Not detected	250000
3,3'-Dichlorobenzidine			Not detected	50000	Not detected	250000

**YORK**

Client Sample ID			MW-5		MW-6	
York Sample ID			06070674-05		06070674-06	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
3-Nitroaniline			Not detected	50000	Not detected	250000
4-Bromophenyl phenyl ether			Not detected	50000	Not detected	250000
4-Chloroaniline			Not detected	50000	Not detected	250000
4-Chlorophenyl phenyl ether			Not detected	50000	Not detected	250000
4-Nitroaniline			Not detected	50000	Not detected	250000
Acenaphthene			Not detected	50000	Not detected	250000
Acenaphthylene			Not detected	50000	Not detected	250000
Anthracene			Not detected	50000	Not detected	250000
Benzo(a)anthracene			Not detected	50000	Not detected	250000
Benzo(a)pyrene			Not detected	50000	Not detected	250000
Benzo(b)fluoranthene			Not detected	50000	Not detected	250000
Benzo(g,h,i)perylene			Not detected	50000	Not detected	250000
Benzo(k)fluoranthene			Not detected	50000	Not detected	250000
Bis(2-chloroethoxy)methane			Not detected	50000	Not detected	250000
Bis(2-chloroethyl)ether			Not detected	50000	Not detected	250000
Bis(2-chloroisopropyl)ether			Not detected	50000	Not detected	250000
Bis(2-ethylhexyl)phthalate			780000	50000	1300000	250000
Butyl benzyl phthalate			Not detected	50000	Not detected	250000
Carbazole			Not detected	50000	Not detected	250000
Chrysene			Not detected	50000	Not detected	250000
Dibenzo(a,h)anthracene			Not detected	50000	Not detected	250000
Dibenzofuran			Not detected	50000	Not detected	250000
Diethylphthalate			Not detected	50000	Not detected	250000
Dimethylphthalate			Not detected	50000	Not detected	250000
Di-n-butylphthalate			Not detected	50000	Not detected	250000
Di-n-octylphthalate			90000	50000	Not detected	250000
Fluoranthene			Not detected	50000	Not detected	250000
Fluorene			Not detected	50000	Not detected	250000
Hexachlorobenzene			Not detected	50000	Not detected	250000
Hexachlorobutadiene			Not detected	50000	Not detected	250000
Hexachlorocyclopentadiene			Not detected	50000	Not detected	250000
Hexachloroethane			Not detected	50000	Not detected	250000
Indeno(1,2,3-cd)pyrene			Not detected	50000	Not detected	250000
Isophorone			Not detected	50000	Not detected	250000
Naphthalene			Not detected	50000	Not detected	250000
Nitrobenzene			Not detected	50000	Not detected	250000
N-Nitrosodi-n-propylamine			Not detected	50000	Not detected	250000
N-Nitrosodiphenylamine			Not detected	50000	Not detected	250000
Phenanthrene			Not detected	50000	Not detected	250000
Pyrene			Not detected	50000	Not detected	250000

Client Sample ID			MW-7		MW-8	
York Sample ID			06070674-07		06070674-08	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles-STARS List	SW846-8260	ug/L	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	5	Not detected	5
1,3,5-Trimethylbenzene			Not detected	5	Not detected	5
Benzene			Not detected	1	Not detected	1

**YORK**

Client Sample ID			MW-7		MW-8	
York Sample ID			06070674-07		06070674-08	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Ethylbenzene			Not detected	5	Not detected	5
Isopropylbenzene			Not detected	5	Not detected	5
Methyl-tert-butyl ether			Not detected	5	Not detected	5
Naphthalene			Not detected	5	Not detected	5
n-Butylbenzene			Not detected	5	Not detected	5
n-Propylbenzene			Not detected	5	Not detected	5
o-Xylene			Not detected	5	Not detected	5
p- & m- Xylenes			Not detected	5	Not detected	5
p-Isopropyltoluene			Not detected	5	Not detected	5
sec-Butylbenzene			Not detected	5	Not detected	5
tert-Butylbenzene			Not detected	5	Not detected	5
Toluene			Not detected	5	Not detected	5
Base/Neutral Extractables water	SW846-8270	ug/L	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	31300	Not detected	5.0
1,2-Dichlorobenzene			Not detected	31300	Not detected	5.0
1,3-Dichlorobenzene			Not detected	31300	Not detected	5.0
1,4-Dichlorobenzene			Not detected	31300	Not detected	5.0
2,4-Dinitrotoluene			Not detected	31300	Not detected	5.0
2,6-Dinitrotoluene			Not detected	31300	Not detected	5.0
2-Chloronaphthalene			Not detected	31300	Not detected	5.0
2-Methylnaphthalene			Not detected	31300	Not detected	5.0
2-Nitroaniline			Not detected	31300	Not detected	5.0
3,3'-Dichlorobenzidine			Not detected	31300	Not detected	5.0
3-Nitroaniline			Not detected	31300	Not detected	5.0
4-Bromophenyl phenyl ether			Not detected	31300	Not detected	5.0
4-Chloroaniline			Not detected	31300	Not detected	5.0
4-Chlorophenyl phenyl ether			Not detected	31300	Not detected	5.0
4-Nitroaniline			Not detected	31300	Not detected	5.0
Acenaphthene			Not detected	31300	Not detected	5.0
Acenaphthylene			Not detected	31300	Not detected	5.0
Anthracene			Not detected	31300	Not detected	5.0
Benzo(a)anthracene			Not detected	31300	Not detected	5.0
Benzo(a)pyrene			Not detected	31300	Not detected	5.0
Benzo(b)fluoranthene			Not detected	31300	Not detected	5.0
Benzo(g,h,i)perylene			Not detected	31300	Not detected	5.0
Benzo(k)fluoranthene			Not detected	31300	Not detected	5.0
Bis(2-chloroethoxy)methane			Not detected	31300	Not detected	5.0
Bis(2-chloroethyl)ether			Not detected	31300	Not detected	5.0
Bis(2-chloroisopropyl)ether			Not detected	31300	Not detected	5.0
Bis(2-ethylhexyl)phthalate			Not detected	31300	Not detected	5.0
Butyl benzyl phthalate			370000	31300	89	5.0
Carbazole			Not detected	31300	Not detected	5.0
Chrysene			Not detected	31300	Not detected	5.0
Dibenzo(a,h)anthracene			Not detected	31300	Not detected	5.0
Dibenzofuran			Not detected	31300	Not detected	5.0
Diethylphthalate			Not detected	31300	Not detected	5.0
Dimethylphthalate			Not detected	31300	Not detected	5.0
Di-n-butylphthalate			Not detected	31300	Not detected	5.0
Di-n-octylphthalate			Not detected	31300	Not detected	5.0
Fluoranthene			Not detected	31300	Not detected	5.0
Fluorene			Not detected	31300	Not detected	5.0

**YORK**

Client Sample ID			MW-7		MW-8	
York Sample ID			06070674-07		06070674-08	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Hexachlorobenzene			Not detected	31300	Not detected	5.0
Hexachlorobutadiene			Not detected	31300	Not detected	5.0
Hexachlorocyclopentadiene			Not detected	31300	Not detected	5.0
Hexachloroethane			Not detected	31300	Not detected	5.0
Indeno(1,2,3-cd)pyrene			Not detected	31300	Not detected	5.0
Isophorone			Not detected	31300	Not detected	5.0
Naphthalene			Not detected	31300	Not detected	5.0
Nitrobenzene			Not detected	31300	Not detected	5.0
N-Nitrosodi-n-propylamine			Not detected	31300	Not detected	5.0
N-Nitrosodiphenylamine			Not detected	31300	Not detected	5.0
Phenanthrene			Not detected	31300	Not detected	5.0
Pyrene			Not detected	31300	Not detected	5.0

Client Sample ID			MW-9		MW-10	
York Sample ID			06070674-09		06070674-10	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Volatiles-STARS List</b>	SW846-8260	ug/L	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	5	Not detected	5
1,3,5-Trimethylbenzene			Not detected	5	Not detected	5
Benzene			Not detected	1	Not detected	1
Ethylbenzene			11	5	Not detected	5
Isopropylbenzene			8	5	Not detected	5
Methyl-tert-butyl ether			Not detected	5	Not detected	5
Naphthalene			71	5	Not detected	5
n-Butylbenzene			6	5	Not detected	5
n-Propylbenzene			10	5	Not detected	5
o-Xylene			Not detected	5	Not detected	5
p- & m- Xylenes			11	5	Not detected	5
p-Isopropyltoluene			Not detected	5	Not detected	5
sec-Butylbenzene			Not detected	5	Not detected	5
tert-Butylbenzene			Not detected	5	Not detected	5
Toluene			Not detected	5	Not detected	5
<b>Base/Neutral Extractables water</b>	SW846-8270	ug/L	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	50.0	Not detected	5.0
1,2-Dichlorobenzene			Not detected	50.0	Not detected	5.0
1,3-Dichlorobenzene			Not detected	50.0	Not detected	5.0
1,4-Dichlorobenzene			Not detected	50.0	Not detected	5.0
2,4-Dinitrotoluene			Not detected	50.0	Not detected	5.0
2,6-Dinitrotoluene			Not detected	50.0	Not detected	5.0
2-Chloronaphthalene			Not detected	50.0	Not detected	5.0
2-Methylnaphthalene			Not detected	50.0	Not detected	5.0
2-Nitroaniline			Not detected	50.0	Not detected	5.0
3,3'-Dichlorobenzidine			Not detected	50.0	Not detected	5.0
3-Nitroaniline			Not detected	50.0	Not detected	5.0
4-Bromophenyl phenyl ether			Not detected	50.0	Not detected	5.0
4-Chloroaniline			Not detected	50.0	Not detected	5.0
4-Chlorophenyl phenyl ether			Not detected	50.0	Not detected	5.0
4-Nitroaniline			Not detected	50.0	Not detected	5.0

**YORK**

Client Sample ID			MW-9		MW-10	
York Sample ID			06070674-09		06070674-10	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Acenaphthene			Not detected	50.0	Not detected	5.0
Acenaphthylene			Not detected	50.0	Not detected	5.0
Anthracene			Not detected	50.0	Not detected	5.0
Benzo(a)anthracene			Not detected	50.0	Not detected	5.0
Benzo(a)pyrene			Not detected	50.0	Not detected	5.0
Benzo(b)fluoranthene			Not detected	50.0	Not detected	5.0
Benzo(g,h,i)perylene			Not detected	50.0	Not detected	5.0
Benzo(k)fluoranthene			Not detected	50.0	Not detected	5.0
Bis(2-chloroethoxy)methane			Not detected	50.0	Not detected	5.0
Bis(2-chloroethyl)ether			Not detected	50.0	Not detected	5.0
Bis(2-chloroisopropyl)ether			Not detected	50.0	Not detected	5.0
Bis(2-ethylhexyl)phthalate			Not detected	50.0	6	5.0
Butyl benzyl phthalate			Not detected	50.0	Not detected	5.0
Carbazole			Not detected	50.0	Not detected	5.0
Chrysene			Not detected	50.0	Not detected	5.0
Dibenzo(a,h)anthracene			Not detected	50.0	Not detected	5.0
Dibenzofuran			Not detected	50.0	Not detected	5.0
Diethylphthalate			Not detected	50.0	Not detected	5.0
Dimethylphthalate			Not detected	50.0	Not detected	5.0
Di-n-butylphthalate			Not detected	50.0	Not detected	5.0
Di-n-octylphthalate			Not detected	50.0	Not detected	5.0
Fluoranthene			Not detected	50.0	Not detected	5.0
Fluorene			Not detected	50.0	Not detected	5.0
Hexachlorobenzene			Not detected	50.0	Not detected	5.0
Hexachlorobutadiene			Not detected	50.0	Not detected	5.0
Hexachlorocyclopentadiene			Not detected	50.0	Not detected	5.0
Hexachloroethane			Not detected	50.0	Not detected	5.0
Indeno(1,2,3-cd)pyrene			Not detected	50.0	Not detected	5.0
Isophorone			Not detected	50.0	Not detected	5.0
Naphthalene			Not detected	50.0	Not detected	5.0
Nitrobenzene			Not detected	50.0	Not detected	5.0
N-Nitrosodi-n-propylamine			Not detected	50.0	Not detected	5.0
N-Nitrosodiphenylamine			Not detected	50.0	Not detected	5.0
Phenanthrene			Not detected	50.0	Not detected	5.0
Pyrene			Not detected	50.0	Not detected	5.0

**Units Key:**

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

**YORK**



Report Date: 8/3/2006  
Client Project ID: 49 Dupont St.  
York Project No.: 06070674

**Notes for York Project No. 06070674**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By: \_\_\_\_\_

Robert Q. Bradley  
Managing Director

Date: 8/3/2006

**YORK**

## Field Chain-of-Custody Record

[illegible]

[illegible]



# Technical Report

prepared for

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

Report Date: 9/27/2006  
*Re: Client Project ID: 49 Dupont St, Bklyn*  
York Project No.: 06090661

CT License No. PH-0723

New York License No. 10854



Report Date: 9/27/2006  
 Client Project ID: 49 Dupont St., Bklyn  
 York Project No.: 06090661

**Advanced Site Restoration**  
 62 William St.  
 New York, NY 10005  
 Attention: Steve Muller

## 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 09/19/06. The project was identified as your project "49 Dupont St., Bklyn".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			MW-11		MW-12	
York Sample ID			06090661-01		06090661-02	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles-STARS List	SW846-8260	ug/L	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	5	Not detected	5
1,3,5-Trimethylbenzene			Not detected	5	Not detected	5
Benzene			Not detected	1	Not detected	1
Ethylbenzene			Not detected	5	Not detected	5
Isopropylbenzene			Not detected	5	Not detected	5
Methyl-tert-butyl ether			Not detected	5	Not detected	5
Naphthalene			Not detected	5	8	5
n-Butylbenzene			Not detected	5	Not detected	5
n-Propylbenzene			Not detected	5	Not detected	5
o-Xylene			Not detected	5	Not detected	5
p- & m- Xylenes			Not detected	5	Not detected	5
p-Isopropyltoluene			Not detected	5	Not detected	5
sec-Butylbenzene			Not detected	5	Not detected	5
tert-Butylbenzene			Not detected	5	Not detected	5
Toluene			Not detected	5	Not detected	5

**YORK**

Client Sample ID			MW-11		MW-12	
York Sample ID			06090661-01		06090661-02	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables water	SW846-8270	ug/L	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	5.0	Not detected	5.0
1,2-Dichlorobenzene			Not detected	5.0	Not detected	5.0
1,3-Dichlorobenzene			Not detected	5.0	Not detected	5.0
1,4-Dichlorobenzene			Not detected	5.0	Not detected	5.0
2,4-Dinitrotoluene			Not detected	5.0	Not detected	5.0
2,6-Dinitrotoluene			Not detected	5.0	Not detected	5.0
2-Chloronaphthalene			Not detected	5.0	Not detected	5.0
2-Methylnaphthalene			Not detected	5.0	Not detected	5.0
2-Nitroaniline			Not detected	5.0	Not detected	5.0
3,3'-Dichlorobenzidine			Not detected	5.0	Not detected	5.0
3-Nitroaniline			Not detected	5.0	Not detected	5.0
4-Bromophenyl phenyl ether			Not detected	5.0	Not detected	5.0
4-Chloroaniline			Not detected	5.0	Not detected	5.0
4-Chlorophenyl phenyl ether			Not detected	5.0	Not detected	5.0
4-Nitroaniline			Not detected	5.0	Not detected	5.0
Acenaphthene			Not detected	5.0	Not detected	5.0
Acenaphthylene			Not detected	5.0	Not detected	5.0
Anthracene			Not detected	5.0	Not detected	5.0
Benzo(a)anthracene			Not detected	5.0	Not detected	5.0
Benzo(a)pyrene			Not detected	5.0	Not detected	5.0
Benzo(b)fluoranthene			Not detected	5.0	Not detected	5.0
Benzo(g,h,i)perylene			Not detected	5.0	Not detected	5.0
Benzo(k)fluoranthene			Not detected	5.0	Not detected	5.0
Bis(2-chloroethoxy)methane			Not detected	5.0	Not detected	5.0
Bis(2-chloroethyl)ether			Not detected	5.0	Not detected	5.0
Bis(2-chloroisopropyl)ether			Not detected	5.0	Not detected	5.0
Bis(2-ethylhexyl)phthalate			Not detected	5.0	17	5.0
Butyl benzyl phthalate			Not detected	5.0	Not detected	5.0
Carbazole			Not detected	5.0	Not detected	5.0
Chrysene			Not detected	5.0	Not detected	5.0
Dibenzo(a,h)anthracene			Not detected	5.0	Not detected	5.0
Dibenzofuran			Not detected	5.0	Not detected	5.0
Diethylphthalate			Not detected	5.0	Not detected	5.0
Dimethylphthalate			Not detected	5.0	Not detected	5.0
Di-n-butylphthalate			Not detected	5.0	Not detected	5.0
Di-n-octylphthalate			Not detected	5.0	Not detected	5.0
Fluoranthene			Not detected	5.0	Not detected	5.0
Fluorene			Not detected	5.0	Not detected	5.0
Hexachlorobenzene			Not detected	5.0	Not detected	5.0
Hexachlorobutadiene			Not detected	5.0	Not detected	5.0
Hexachlorocyclopentadiene			Not detected	5.0	Not detected	5.0
Hexachloroethane			Not detected	5.0	Not detected	5.0
Indeno(1,2,3-cd)pyrene			Not detected	5.0	Not detected	5.0
Isophorone			Not detected	5.0	Not detected	5.0
Naphthalene			Not detected	5.0	Not detected	5.0
Nitrobenzene			Not detected	5.0	Not detected	5.0
N-Nitrosodi-n-propylamine			Not detected	5.0	Not detected	5.0
N-Nitrosodiphenylamine			Not detected	5.0	Not detected	5.0
Phenanthrene			Not detected	5.0	Not detected	5.0
Pyrene			Not detected	5.0	Not detected	5.0

**YORK**

Client Sample ID			MW-13		MW-14	
York Sample ID			06090661-03		06090661-04	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles-STARs List	SW846-8260	ug/L	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	5	Not detected	5
1,3,5-Trimethylbenzene			Not detected	5	Not detected	5
Benzene			Not detected	1	Not detected	1
Ethylbenzene			Not detected	5	Not detected	5
Isopropylbenzene			Not detected	5	Not detected	5
Methyl-tert-butyl ether			Not detected	5	Not detected	5
Naphthalene			Not detected	5	Not detected	5
n-Butylbenzene			Not detected	5	Not detected	5
n-Propylbenzene			Not detected	5	Not detected	5
o-Xylene			Not detected	5	Not detected	5
p- & m- Xylenes			Not detected	5	Not detected	5
p-Isopropyltoluene			Not detected	5	Not detected	5
sec-Butylbenzene			Not detected	5	Not detected	5
tert-Butylbenzene			Not detected	5	Not detected	5
Toluene			Not detected	5	Not detected	5
Base/Neutral Extractables water	SW846-8270	ug/L	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	5.0	Not detected	5.25
1,2-Dichlorobenzene			Not detected	5.0	Not detected	5.25
1,3-Dichlorobenzene			Not detected	5.0	Not detected	5.25
1,4-Dichlorobenzene			Not detected	5.0	Not detected	5.25
2,4-Dinitrotoluene			Not detected	5.0	Not detected	5.25
2,6-Dinitrotoluene			Not detected	5.0	Not detected	5.25
2-Chloronaphthalene			Not detected	5.0	Not detected	5.25
2-Methylnaphthalene			Not detected	5.0	Not detected	5.25
2-Nitroaniline			Not detected	5.0	Not detected	5.25
3,3'-Dichlorobenzidine			Not detected	5.0	Not detected	5.25
3-Nitroaniline			Not detected	5.0	Not detected	5.25
4-Bromophenyl phenyl ether			Not detected	5.0	Not detected	5.25
4-Chloroaniline			Not detected	5.0	Not detected	5.25
4-Chlorophenyl phenyl ether			Not detected	5.0	Not detected	5.25
4-Nitroaniline			Not detected	5.0	Not detected	5.25
Acenaphthene			Not detected	5.0	Not detected	5.25
Acenaphthylene			Not detected	5.0	Not detected	5.25
Anthracene			Not detected	5.0	Not detected	5.25
Benzo(a)anthracene			Not detected	5.0	Not detected	5.25
Benzo(a)pyrene			Not detected	5.0	Not detected	5.25
Benzo(b)fluoranthene			Not detected	5.0	Not detected	5.25
Benzo(g,h,i)perylene			Not detected	5.0	Not detected	5.25
Benzo(k)fluoranthene			Not detected	5.0	Not detected	5.25
Bis(2-chloroethoxy)methane			Not detected	5.0	Not detected	5.25
Bis(2-chloroethyl)ether			Not detected	5.0	Not detected	5.25
Bis(2-chloroisopropyl)ether			Not detected	5.0	Not detected	5.25
Bis(2-ethylhexyl)phthalate			Not detected	5.0	Not detected	5.25
Butyl benzyl phthalate			Not detected	5.0	Not detected	5.25
Carbazole			Not detected	5.0	Not detected	5.25
Chrysene			Not detected	5.0	Not detected	5.25
Dibenzo(a,h)anthracene			Not detected	5.0	Not detected	5.25
Dibenzofuran			Not detected	5.0	Not detected	5.25

**YORK**

Client Sample ID			MW-13		MW-14	
York Sample ID			06090661-03		06090661-04	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Diethylphthalate			Not detected	5.0	Not detected	5.25
Dimethylphthalate			Not detected	5.0	Not detected	5.25
Di-n-butylphthalate			Not detected	5.0	Not detected	5.25
Di-n-octylphthalate			Not detected	5.0	Not detected	5.25
Fluoranthene			Not detected	5.0	Not detected	5.25
Fluorene			Not detected	5.0	Not detected	5.25
Hexachlorobenzene			Not detected	5.0	Not detected	5.25
Hexachlorobutadiene			Not detected	5.0	Not detected	5.25
Hexachlorocyclopentadiene			Not detected	5.0	Not detected	5.25
Hexachloroethane			Not detected	5.0	Not detected	5.25
Indeno(1,2,3-cd)pyrene			Not detected	5.0	Not detected	5.25
Isophorone			Not detected	5.0	Not detected	5.25
Naphthalene			Not detected	5.0	Not detected	5.25
Nitrobenzene			Not detected	5.0	Not detected	5.25
N-Nitrosodi-n-propylamine			Not detected	5.0	Not detected	5.25
N-Nitrosodiphenylamine			Not detected	5.0	Not detected	5.25
Phenanthrene			Not detected	5.0	Not detected	5.25
Pyrene			Not detected	5.0	Not detected	5.25

**Units Key:**

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

**Notes for York Project No. 06090661**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By: \_\_\_\_\_

Robert Q. Bradley  
Managing Director

Date: 9/27/2006

**YORK**



# YORK

ANALYTICAL LABORATORIES, INC.

120 RESEARCH DRIVE STRATFORD, CT 06615  
(203) 325-1371 FAX (203) 357-0166

## Field Chain-of-Custody Record

Page 1 of 1

Company Name <u>Advanced Scientific Research</u>	Report To: <u>Steven</u>	Invoice To: <u>ASR</u>	Project ID/No. <u>49 Dupont St Bklyn</u>	Samples Collected By (Signature) <u>[Signature]</u>	Name (Printed) <u>Anthony Accardo</u>
-----------------------------------------------------	-----------------------------	---------------------------	---------------------------------------------	--------------------------------------------------------	------------------------------------------

Sample No.	Location/ID	Date Sampled	Sample Matrix			ANALYSES REQUESTED	Container Description(s)
			Water	Soil	Air		
	<u>mw-11</u>	<u>9/18</u>	<u>X</u>			<u>8270 BN</u>	<u>1 amber</u>
	<u>mw-11</u>	<u>/</u>	<u>X</u>			<u>8260 STGS</u>	<u>2 vials</u>
	<u>mw-12</u>	<u>/</u>	<u>X</u>			<u>8270 BN</u>	<u>1 amber</u>
	<u>mw-12</u>	<u>/</u>	<u>X</u>			<u>8260 STGS</u>	<u>2 vials</u>
	<u>mw-13</u>	<u>/</u>	<u>X</u>			<u>8270 BN</u>	<u>1 amber</u>
	<u>mw-13</u>	<u>/</u>	<u>X</u>			<u>8260 STGS</u>	<u>2 vials</u>
	<u>mw-14</u>	<u>/</u>	<u>X</u>			<u>8270 BN</u>	<u>1 amber</u>
	<u>mw-14</u>	<u>/</u>	<u>X</u>			<u>8260 STGS</u>	<u>2 vials</u>

Chain-of-Custody Record		<u>[Signature]</u> Sample Relinquished by	<u>9/18/06</u> Date/Time	<u>[Signature]</u> Sample Received by	<u>9/19</u> Date/Time
Bottles Relinquished from Lab by					
Bottles Received in Field by					
Comments/Special Instructions <u>4.2.c</u> Turn-Around Time Standard RUSH(define)					

**YORK**  
ANALYTICAL LABORATORIES, INC.

# Technical Report

prepared for

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

Report Date: 8/1/2006  
*Re: Client Project ID: 49 Dupont St., Brooklyn, NY*  
York Project No.: 06070673

CT License No. PH-0723

New York License No. 10854



Report Date: 8/1/2006  
Client Project ID: 49 Dupont St., Brooklyn, NY  
York Project No.: 06070673

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

## 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 07/25/06. The project was identified as your project "49 Dupont St., Brooklyn, NY".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			5-10' ASR-11		10-15' ASR-11	
York Sample ID			06070673-01		06070673-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	Not detected	10
1,3,5-Trimethylbenzene			Not detected	10	Not detected	10
Benzene			Not detected	2.0	Not detected	2.0
Ethylbenzene			Not detected	10	Not detected	10
Isopropylbenzene			Not detected	10	Not detected	10
Methyl-tert-butyl ether			Not detected	10	Not detected	10
Naphthalene			Not detected	10	Not detected	10
n-Butylbenzene			Not detected	10	Not detected	10
n-Propylbenzene			Not detected	10	Not detected	10
o-Xylene			Not detected	10	Not detected	10
p- & m- Xylenes			Not detected	10	Not detected	10
p-Isopropyltoluene			Not detected	10	Not detected	10
sec-Butylbenzene			Not detected	10	Not detected	10
tert-Butylbenzene			Not detected	10	Not detected	10
Toluene			Not detected	10	Not detected	10

**YORK**

Client Sample ID			5-10' ASR-11		10-15' ASR-11	
York Sample ID			06070673-01		06070673-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			Not detected	165	Not detected	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	190	165

**YORK**

Client Sample ID			ASR-11	
York Sample ID			06070673-03	
Matrix			WATER	
Parameter	Method	Units	Results	MDL
Volatiles-STARs List	SW846-8260	ug/L	---	---
1,2,4-Trimethylbenzene			Not detected	5
1,3,5-Trimethylbenzene			Not detected	5
Benzene			2	1
Ethylbenzene			Not detected	5
Isopropylbenzene			Not detected	5
Methyl-tert-butyl ether			Not detected	5
Naphthalene			Not detected	5
n-Butylbenzene			Not detected	5
n-Propylbenzene			Not detected	5
o-Xylene			Not detected	5
p- & m- Xylenes			Not detected	5
p-Isopropyltoluene			Not detected	5
sec-Butylbenzene			Not detected	5
tert-Butylbenzene			Not detected	5
Toluene			Not detected	5
Base/Neutral Extractables water	SW846-8270	ug/L	---	---
1,2,4-Trichlorobenzene			Not detected	5.0
1,2-Dichlorobenzene			Not detected	5.0
1,3-Dichlorobenzene			Not detected	5.0
1,4-Dichlorobenzene			Not detected	5.0
2,4-Dinitrotoluene			Not detected	5.0
2,6-Dinitrotoluene			Not detected	5.0
2-Chloronaphthalene			Not detected	5.0
2-Methylnaphthalene			Not detected	5.0
2-Nitroaniline			Not detected	5.0
3,3'-Dichlorobenzidine			Not detected	5.0
3-Nitroaniline			Not detected	5.0
4-Bromophenyl phenyl ether			Not detected	5.0
4-Chloroaniline			Not detected	5.0
4-Chlorophenyl phenyl ether			Not detected	5.0
4-Nitroaniline			Not detected	5.0
Acenaphthene			Not detected	5.0
Acenaphthylene			Not detected	5.0
Anthracene			Not detected	5.0
Benzo(a)anthracene			Not detected	5.0
Benzo(a)pyrene			Not detected	5.0
Benzo(b)fluoranthene			Not detected	5.0
Benzo(g,h,i)perylene			Not detected	5.0
Benzo(k)fluoranthene			Not detected	5.0
Bis(2-chloroethoxy)methane			Not detected	5.0
Bis(2-chloroethyl)ether			Not detected	5.0
Bis(2-chloroisopropyl)ether			Not detected	5.0
Bis(2-ethylhexyl)phthalate			18	5.0
Butyl benzyl phthalate			Not detected	5.0
Carbazole			Not detected	5.0
Chrysene			Not detected	5.0
Dibenzo(a,h)anthracene			Not detected	5.0
Dibenzofuran			Not detected	5.0

**YORK**

Client Sample ID			ASR-11	
York Sample ID			06070673-03	
Matrix			WATER	
Parameter	Method	Units	Results	MDL
Diethylphthalate			Not detected	5.0
Dimethylphthalate			Not detected	5.0
Di-n-butylphthalate			Not detected	5.0
Di-n-octylphthalate			Not detected	5.0
Fluoranthene			Not detected	5.0
Fluorene			Not detected	5.0
Hexachlorobenzene			Not detected	5.0
Hexachlorobutadiene			Not detected	5.0
Hexachlorocyclopentadiene			Not detected	5.0
Hexachloroethane			Not detected	5.0
Indeno(1,2,3-cd)pyrene			Not detected	5.0
Isophorone			Not detected	5.0
Naphthalene			Not detected	5.0
Nitrobenzene			Not detected	5.0
N-Nitrosodi-n-propylamine			Not detected	5.0
N-Nitrosodiphenylamine			Not detected	5.0
Phenanthrene			Not detected	5.0
Pyrene			Not detected	5.0

Units Key:

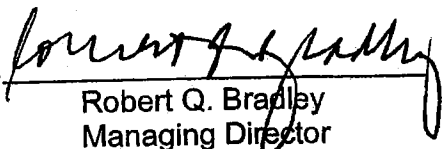
For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

#### Notes for York Project No. 06070673

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By:

  
Robert Q. Bradley  
Managing Director

Date: 8/1/2006


**YORK**

# YORK

ANALYTICAL LABORATORIES, INC.

120 RESEARCH DRIVE  
STRATFORD, CT 06615  
(203) 325-1371 FAX (203) 357-0166

# Field Chain-of-Custody Record

(203) 325-1371 FAX (203) 357-0166	<u>Company Name</u> ASK Grwille.com si	<u>Report To:</u> Steve M	<u>Invoice To:</u> ASK	<u>Project ID/No.</u> 49 Dupont St Bklyn	<u>Samples Collected By (Signature)</u>  <u>Name (Printed)</u> Anthony Alessi
-----------------------------------	----------------------------------------------	------------------------------	---------------------------	------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------

[illegible]

Chain-of-Custody Record		Turn-Around Time	
Bottles Relinquished from Lab by	Date/Time	Sample Relinquished by	Date/Time
Bottles Received in Field by	Date/Time	Sample Received in LAB by	Date/Time
Comments/Special Instructions		Standard _____ RUSH(define) _____	

**YORK**  
**ANALYTICAL LABORATORIES, INC.**

# Technical Report

prepared for

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

Report Date: 8/2/2006  
*Re: Client Project ID: 49 Dupont St., Brooklyn*  
York Project No.: 06070672

CT License No. PH-0723

New York License No. 10854





Report Date: 8/2/2006  
 Client Project ID: 49 Dupont St., Brooklyn  
 York Project No.: 06070672

**Advanced Site Restoration**  
 62 William St.  
 New York, NY 10005  
 Attention: Steve Muller

## 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 07/25/06. The project was identified as your project "49 Dupont St., Brooklyn".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			5-10' ASR-12		10-15' ASR-12	
York Sample ID			06070672-01		06070672-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	10	Not detected	130
1,3,5-Trimethylbenzene			Not detected	10	Not detected	130
Benzene			Not detected	2.0	Not detected	25
Ethylbenzene			Not detected	10	Not detected	130
Isopropylbenzene			Not detected	10	Not detected	130
Methyl-tert-butyl ether			Not detected	10	Not detected	130
Naphthalene			Not detected	10	Not detected	130
n-Butylbenzene			Not detected	10	Not detected	130
n-Propylbenzene			Not detected	10	Not detected	130
o-Xylene			Not detected	10	Not detected	130
p- & m- Xylenes			Not detected	10	Not detected	130
p-Isopropyltoluene			Not detected	10	Not detected	130
sec-Butylbenzene			Not detected	10	Not detected	130
tert-Butylbenzene			Not detected	10	Not detected	130
Toluene			Not detected	10	Not detected	130

**YORK**

Client Sample ID			5-10' ASR-12		10-15' ASR-12	
York Sample ID			06070672-01		06070672-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables soil	SW846-8270	ug/Kg	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	165	Not detected	165
1,2-Dichlorobenzene			Not detected	165	Not detected	165
1,3-Dichlorobenzene			Not detected	165	Not detected	165
1,4-Dichlorobenzene			Not detected	165	Not detected	165
2,4-Dinitrotoluene			Not detected	165	Not detected	165
2,6-Dinitrotoluene			Not detected	165	Not detected	165
2-Chloronaphthalene			Not detected	165	Not detected	165
2-Methylnaphthalene			Not detected	165	Not detected	165
2-Nitroaniline			Not detected	165	Not detected	165
3,3'-Dichlorobenzidine			Not detected	165	Not detected	165
3-Nitroaniline			Not detected	165	Not detected	165
4-Bromophenyl phenyl ether			Not detected	165	Not detected	165
4-Chloroaniline			Not detected	165	Not detected	165
4-Chlorophenyl phenyl ether			Not detected	165	Not detected	165
4-Nitroaniline			Not detected	165	Not detected	165
Acenaphthene			Not detected	165	Not detected	165
Acenaphthylene			Not detected	165	Not detected	165
Anthracene			Not detected	165	Not detected	165
Benzo(a)anthracene			Not detected	165	Not detected	165
Benzo(a)pyrene			Not detected	165	Not detected	165
Benzo(b)fluoranthene			Not detected	165	Not detected	165
Benzo(g,h,i)perylene			Not detected	165	Not detected	165
Benzo(k)fluoranthene			Not detected	165	Not detected	165
Bis(2-chloroethoxy)methane			Not detected	165	Not detected	165
Bis(2-chloroethyl)ether			Not detected	165	Not detected	165
Bis(2-chloroisopropyl)ether			Not detected	165	Not detected	165
Bis(2-ethylhexyl)phthalate			Not detected	165	Not detected	165
Butyl benzyl phthalate			Not detected	165	Not detected	165
Carbazole			Not detected	165	Not detected	165
Chrysene			Not detected	165	Not detected	165
Dibenzo(a,h)anthracene			Not detected	165	Not detected	165
Dibenzofuran			Not detected	165	Not detected	165
Diethylphthalate			Not detected	165	Not detected	165
Dimethylphthalate			Not detected	165	Not detected	165
Di-n-butylphthalate			Not detected	165	Not detected	165
Di-n-octylphthalate			Not detected	165	Not detected	165
Fluoranthene			Not detected	165	Not detected	165
Fluorene			Not detected	165	Not detected	165
Hexachlorobenzene			Not detected	165	Not detected	165
Hexachlorobutadiene			Not detected	165	Not detected	165
Hexachlorocyclopentadiene			Not detected	165	Not detected	165
Hexachloroethane			Not detected	165	Not detected	165
Indeno(1,2,3-cd)pyrene			Not detected	165	Not detected	165
Isophorone			Not detected	165	Not detected	165
Naphthalene			Not detected	165	Not detected	165
Nitrobenzene			Not detected	165	Not detected	165
N-Nitrosodi-n-propylamine			Not detected	165	Not detected	165
N-Nitrosodiphenylamine			Not detected	165	Not detected	165
Phenanthrene			Not detected	165	Not detected	165
Pyrene			Not detected	165	Not detected	165

**YORK**

Client Sample ID			ASR-12	
York Sample ID			06070672-03	
Matrix			WATER	
Parameter	Method	Units	Results	MDL
Volatiles-STARs List	SW846-8260	ug/L	---	---
1,2,4-Trimethylbenzene			Not detected	500
1,3,5-Trimethylbenzene			Not detected	500
Benzene			Not detected	100
Ethylbenzene			Not detected	500
Isopropylbenzene			Not detected	500
Methyl-tert-butyl ether			Not detected	500
Naphthalene			2300	500
n-Butylbenzene			Not detected	500
n-Propylbenzene			Not detected	500
o-Xylene			Not detected	500
p- & m- Xylenes			Not detected	500
p-Isopropyltoluene			Not detected	500
sec-Butylbenzene			Not detected	500
tert-Butylbenzene			Not detected	500
Toluene			Not detected	500
Base/Neutral Extractables water	SW846-8270	ug/L	---	---
1,2,4-Trichlorobenzene			Not detected	25.0
1,2-Dichlorobenzene			Not detected	25.0
1,3-Dichlorobenzene			Not detected	25.0
1,4-Dichlorobenzene			Not detected	25.0
2,4-Dinitrotoluene			Not detected	25.0
2,6-Dinitrotoluene			Not detected	25.0
2-Chloronaphthalene			Not detected	25.0
2-Methylnaphthalene			210	25.0
2-Nitroaniline			Not detected	25.0
3,3'-Dichlorobenzidine			Not detected	25.0
3-Nitroaniline			Not detected	25.0
4-Bromophenyl phenyl ether			Not detected	25.0
4-Chloroaniline			Not detected	25.0
4-Chlorophenyl phenyl ether			Not detected	25.0
4-Nitroaniline			Not detected	25.0
Acenaphthene			Not detected	25.0
Acenaphthylene			Not detected	25.0
Anthracene			Not detected	25.0
Benzo(a)anthracene			Not detected	25.0
Benzo(a)pyrene			Not detected	25.0
Benzo(b)fluoranthene			Not detected	25.0
Benzo(g,h,i)perylene			Not detected	25.0
Benzo(k)fluoranthene			Not detected	25.0
Bis(2-chloroethoxy)methane			Not detected	25.0
Bis(2-chloroethyl)ether			Not detected	25.0
Bis(2-chloroisopropyl)ether			Not detected	25.0
Bis(2-ethylhexyl)phthalate			Not detected	25.0
Butyl benzyl phthalate			Not detected	25.0
Carbazole			Not detected	25.0
Chrysene			Not detected	25.0
Dibenzo(a,h)anthracene			Not detected	25.0
Dibenzofuran			Not detected	25.0

**YORK**

Client Sample ID			ASR-12	
York Sample ID			06070672-03	
Matrix			WATER	
Parameter	Method	Units	Results	MDL
Diethylphthalate			Not detected	25.0
Dimethylphthalate			Not detected	25.0
Di-n-butylphthalate			Not detected	25.0
Di-n-octylphthalate			Not detected	25.0
Fluoranthene			Not detected	25.0
Fluorene			Not detected	25.0
Hexachlorobenzene			Not detected	25.0
Hexachlorobutadiene			Not detected	25.0
Hexachlorocyclopentadiene			Not detected	25.0
Hexachloroethane			Not detected	25.0
Indeno(1,2,3-cd)pyrene			Not detected	25.0
Isophorone			Not detected	25.0
Naphthalene			210	25.0
Nitrobenzene			Not detected	25.0
N-Nitrosodi-n-propylamine			Not detected	25.0
N-Nitrosodiphenylamine			Not detected	25.0
Phenanthrene			Not detected	25.0
Pyrene			Not detected	25.0

Units Key: For Waters/Liquids: mg/L = ppm ; ug/L = ppb For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

#### Notes for York Project No. 06070672

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.


Approved By: \_\_\_\_\_

Robert Q. Bradley  
Managing Director






Date: 8/2/2006

**YORK**

# Field Chain-of-Custody Record

<u>Company Name</u> Asu Crawshaw's my myloos	<u>Report To:</u> steve	<u>Invoice To:</u> ASA	<u>Project ID/No.</u> t9 Dupont ST Bklyn	<u>Samples Collected By (Signature)</u>  <u>Name (Printed)</u> Anthony Russo
-------------------------------------------------------	----------------------------	---------------------------	------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------

[illegible]

Chain-of-Custody Record	
Bottles Relinquished from Lab by	Date/Time
Bottles Received in Field by	Date/Time
	
Sample Relinquished by	Sample Received by
	
Date/Time	Date/Time
	
Date/Time	Date/Time

Turn-Around Time \_\_\_\_\_  
Standard \_\_\_\_\_ RUSH(define) \_\_\_\_\_

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## **APPENDIX - E**

### **Manifests**



## Land Disposal Restriction & Certification Form

*Please check the appropriate facility:*

<input type="checkbox"/> Michigan Disposal Waste Treatment Plant	49350 N. I-94 Service Drive, Belleville, MI 48111	EPA ID # MID 000 724 831
<input type="checkbox"/> Wayne Disposal, Inc. Site #2 Landfill	49350 N. I-94 Service Drive, Belleville, MI 48111	EPA ID # MID 048 090 633
<input checked="" type="checkbox"/> EQ Detroit, Inc.	1923 Frederick Street, Detroit, MI 48211	EPA ID # MID 980 991 566
<input type="checkbox"/> EQ Resource Recovery, Inc.	36345 Van Born Road, Romulus, MI 48174	EPA ID # MID 060 975 844
<input type="checkbox"/> EQ North Carolina	1005 Investment Blvd, Apex, NC 27502	EPA ID # NCD 982 170 292
<input type="checkbox"/> EQ Florida, Inc.	7202 East 8 <sup>th</sup> Ave, Tampa, FL 33619	EPA ID # FLD 981 932 494

Generator Name: Nu Hart & Company U.S. EPA ID No.: NYD 001468354  
Generator Address: 49-55 DuPont Avenue, Brooklyn, NY 11222  
State Manifest No.: 001293248 Manifest Doc. No.: 001293248

### Instructions

Column 1: Identify all U.S. EPA hazardous waste codes that apply to this waste shipment.  
Column 2: Choose the appropriate treatability group: Non-Wastewater (NWW) or Wastewater (WW).  
Column 3: Enter the appropriate Subcategory, if applicable, and also enter "Contaminated Soil" or "Debris" if the waste will be treated using one of the alternative treatment technologies provided by 268.49 (c) - soil, or 268.45 - debris.  
Column 4: Enter the letter of the appropriate paragraph from pages 1-2 of this form.  
Column 5: For F001 - F005, F039, D001 - D043, Debris and Contaminated Soil: please enter the Reference Number(s) for any constituents in your waste stream subject to treatment. The Reference Number(s) can be found in the EQ Resource Guide, LDR/UHC Constituent Table.

Manifest Line Item	U.S. EPA Hazardous Waste Code (s)	NWW or WW	Subcategory	How Must the Waste be Managed?	Reference Number(s) of Hazardous Constituents contained in the waste. Complete for F001-F005, F039, D001-D043, Soil and Debris wastes.
11A	U028	NWW	N/A	A	None
11B	U028	NWW	N/A	<del>A</del> S	None
11C					
11D					

I hereby certify that all information submitted on this and all associated documents is complete and accurate to the best of my knowledge and information.

Generator Signature: REP. FOR OWNER Title: REP. FOR OWNER  
Printed Name: E. VALANZ Date: 2/14/07

### How Must the Waste Be Managed?

S. THIS CONTAMINATED SOIL DOES / DOES NOT CONTAIN LISTED HAZARDOUS WASTE AND DOES / DOES NOT EXHIBIT A CHARACTERISTIC OF HAZARDOUS WASTE AND IS SUBJECT TO / COMPLIES WITH THE SOIL TREATMENT STANDARDS

AS PROVIDED BY 268.49(c) OR THE UNIVERSAL TREATMENT STANDARDS. I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and believe that it has been maintained and operated properly so as to comply with treatment standards specified in 40 CFR 268.49 without impermissible dilution of the prohibited wastes. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.



## Land Disposal Restriction & Certification Form

Please check the appropriate facility:

<input type="checkbox"/> Michigan Disposal Waste Treatment Plant	49350 N. I-94 Service Drive, Belleville, MI 48111	EPA ID # MID 000 724 831
<input type="checkbox"/> Wayne Disposal, Inc. Site #2 Landfill	49350 N. I-94 Service Drive, Belleville, MI 48111	EPA ID # MID 048 090 633
<input checked="" type="checkbox"/> EQ Detroit, Inc.	1923 Frederick Street, Detroit, MI 48211	EPA ID # MID 980 991 566
<input type="checkbox"/> EQ Resource Recovery, Inc.	36345 Van Born Road, Romulus, MI 48174	EPA ID # MID 060 975 844
<input type="checkbox"/> EQ North Carolina	1005 Investment Blvd, Apex, NC 27502	EPA ID # NCD 982 170 292
<input type="checkbox"/> EQ Florida, Inc.	7202 East 8 <sup>th</sup> Ave, Tampa, FL 33619	EPA ID # FLD 981 932 494

Generator Name: Nu Hart & Company U.S. EPA ID No.: NYD 001468354  
Generator Address: 49-55 DuPont Avenue, Brooklyn, NY 11222  
State Manifest No.: 001293248 Manifest Doc. No.: 001293248

### Instructions

Column 1: Identify all U.S. EPA hazardous waste codes that apply to this waste shipment.

Column 2: Choose the appropriate treatability group: Non-Wastewater (NWW) or Wastewater (WW).

Column 3: Enter the appropriate Subcategory, if applicable, and also enter "Contaminated Soil" or "Debris" if the waste will be treated using one of the alternative treatment technologies provided by 268.49 (c) -- soil, or 268.45 -- debris.

Column 4: Enter the letter of the appropriate paragraph from pages 1-2 of this form.

Column 5: For F001 - F005, F039, D001 - D043, Debris and Contaminated Soil: please enter the Reference Number(s) for any constituents in your waste stream subject to treatment. The Reference Number(s) can be found in the EQ Resource Guide, LDR/UHC Constituent Table.

Manifest Line Item	U.S. EPA Hazardous Waste Code (s)	NWW or WW	Subcategory	How Must the Waste be Managed?	Reference Number(s) of Hazardous Constituents contained in the waste. Complete for F001-F005, F039, D001-D043, Soil and Debris wastes.
11A	U028	NWW	N/A	A	None
11B	U028	NWW	N/A	<del>A</del> S	None
11C					
11D					

I hereby certify that all information submitted on this and all associated documents is complete and accurate to the best of my knowledge and information.

Generator Signature: REP. FOR OWNER Title: REP. FOR OWNER  
Printed Name: E. Vazquez Date: 2/14/07

### How Must the Waste Be Managed?

S. THIS CONTAMINATED SOIL (DOES) DOES NOT CONTAIN LISTED HAZARDOUS WASTE AND DOES (DOES NOT) EXHIBIT A  
(CIRCLE ONE) CHARACTERISTIC OF HAZARDOUS WASTE AND (IS SUBJECT TO) COMPLIES WITH THE SOIL TREATMENT STANDARDS  
(CIRCLE ONE)

AS PROVIDED BY 268.49(c) OR THE UNIVERSAL TREATMENT STANDARDS. I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and believe that it has been maintained and operated properly so as to comply with treatment standards specified in 40 CFR 268.49 without impermissible dilution of the prohibited wastes. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.



10803-1

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number NYD001468354	2. Page 1 of 1	3. Emergency Response Phone 609 519 5800	4. Manifest Tracking Number <b>001293018 JJK</b>	
5. Generator's Name and Mailing Address NU-HART & COMPANY 345 BAYSHORE RD DEER PARK, NY 11729 Generator's Phone: 631 586 9441			Generator's Site Address (if different than mailing address) 49-55 DUPONT AVE BROOKLYN, NY 11222			
6. Transporter 1 Company Name UR ENVIRONMENTAL, INC			U.S. EPA ID Number PRA 000524041			
7. Transporter 2 Company Name			U.S. EPA ID Number			
8. Designated Facility Name and Site Address E.I. DUPONT DE NEMOURS CHARLOTTES LANE - ROUTE 130 DEER PARK, NJ 08023 Facility's Phone: 856 540-2773			U.S. EPA ID Number NJ0001385730			
GENERATOR	9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) 1. HAZARDOUS WASTE, LIQUID, U.S. (ACETOIC), 9, UN3082, PA III, (1102), 226 171	10. Containers No. Type		11. Total Quantity	12. Unit Wt/Vol
			1 11		1310	6
13. Waste Codes U002						
14. Special Handling Instructions and Additional Information 1) L: APPROVAL# 0110883 REL 1 B/L 37505						
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.						
Generator's/Offor's Printed/Typed Name Signature Month Day Year						
INTL	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:					
	17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name Signature Month Day Year Transporter 2 Printed/Typed Name Signature Month Day Year					
DESIGNATED FACILITY	18. Discrepancy					
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
	18b. Alternate Facility (or Generator) Manifest Reference Number: U.S. EPA ID Number					
	Facility's Phone: 18c. Signature of Alternate Facility (or Generator) Month Day Year					
	19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) 1. H109 2. 3. 4.					
20. Designated Facility Owner or Operator. Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a Printed/Typed Name Signature Month Day Year						

365 Bayshore Road, P.O. Box 786  
Deer Park, NY 11729

12700 ALPHEUS AVENUE  
Brooklyn, NY 11222

Generator's Phone: 631 586-9444

6. Transporter 1 Company Name

U.S. EPA ID Number

Freehold Cartage, Inc.

NYD054126164

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

U.S. EPA ID Number

HQ, Detroit, Inc.  
1923 Frederick Street  
Detroit, MI 48211

Facility's Phone: 313-923-0080

MD980491566

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
		No.	Type					
X	1. HQ, Hazardous waste, liquid, n.o.s., (Phthalate), 9, HA3082, PGIII, (U028); HRC#:171	12	DM	750	G	U028		
X	2. Hazardous waste, solid, n.o.s., (Phthalate), 9, HA3077, PGIII, (U028); HRC#:171	3	DM	150	G	U028		
	3. Non-DOT/Non-RCRA Regulated Waste Sludge, (HRCIA Oil Sludge)	53	DM		P	RCMI		
	4.							

14. Special Handling Instructions and Additional Information

1) Approval #: A076204DM/Phthalate Tank Bottom 2) Approval #: A076232DM/Phthalate Soil Cuttings 3) Approval #: A071007DM/HRCIA Oil Sludge

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Officer's Printed/Typed Name

Signature

Month Day Year

REP FOR OWNER E. YAZQUEZ

12/14/07

16. International Shipments

☐ Import to U.S.

☐ Export from U.S.

Port of entry/exit:

Transporter signature (for exports only):

Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

Signature

Month Day Year

DON Houston

DON Houston

Feb 14 2007

Transporter 2 Printed/Typed Name

Signature

Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space

☐ Quantity

☐ Type

☐ Residue

☐ Partial Rejection

☐ Full Rejection

Manifest Reference Number:

U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)

Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
----	----	----	----

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name

Signature

Month Day Year

P.O. BOX 5010 • FREEHOLD, NJ 07728-5010  
(732) 462-1001 • FAX (732) 504-0834

PC ID: EPA ID NO. NID5412616

R 46558

116 Schenckland Rd  
Branford, CT 06405  
Phone: (203) 483-5995  
Fax: (203) 483-5995

200 Pigeon Forge Road  
New Castle, DE 19720  
Phone: (301) 654-2005  
Fax: (301) 654-3054

175 Earlow Man. Airport  
Earlow, FL 33630  
Phone: (813) 533-4594  
Fax: (813) 533-1613

5535 Dunham Road  
Maple Heights, OH 44137  
Phone: (216) 635-1475  
Fax: (216) 635-1800

100 Monahan Avenue  
Dunmore, PA 16812  
Phone: (717) 342-7222  
Fax: (717) 342-7247

41 Boulevard St.  
Savannah, GA 39150  
Phone: (904) 773-2411  
Fax: (904) 773-2411

SHIPPER NAME/ADDRESS NU-HART + COMPANY 49-55 DUPONT AVE. BROOKLYN, NY 11222		PHONE 631-586-1444		NYDO001468354	
(AREA CODE)		TRACTOR		TRAILER	
775		410		APPOINTMENT TIME : OPEN	
FCI REF. LOADING (PRINT)		PROCEDURE		EQUIP SPOTTED	
Don Houston		Liveland		EQUIP REMOVED	
TIME AT SHIPPER		MILITARY TIME ONLY		ARRIVAL TIME	
13:30		15:45		DEPARTURE TIME	
COMMENTS OR DELAYS AT SHIPPER				EQUIPMENT USED VAN	

BROKER		MANIFEST / DOCUMENT NO.
PORT	DATE	

[illegible]

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION NUMBER

68 total

**SHIPPER'S CERTIFICATION:** This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the State. The materials described above were consigned to the Transporter named. The consignee has and will accept the shipment and has a valid permit to do so if required. I certify that the foregoing is true and correct to the best of my knowledge.

Payment to the contractor for waste removal does not constitute payment to the carrier and if the contractor does not pay the carrier, the shipper is obligated to pay the agreed rate offered to the contractor.

PLEASE PRINT NAME/TITLE REP FOR OWNER E. VAZQUEZ	SHIPPER'S SIGNATURE X <u>Eduardo Vazquez</u> I HAVE READ THE ABOVE AND UNDERSTAND AND AGREE TO ALL OF ITS CONTENT.	DATE SIGNED Feb 14 / 200
--------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------	-----------------------------

CONSIGNEE NAME/ADDRESS		PHONE		MID	
EQ Detroit Inc.		313-123-0080		784991568	
Detroit, MI 48211		AREA CODE	TRACTOR	TRAILER	APPOINTMENT TIME
		775	410		

FCI REP. UNLOADING (PRINT)	PROCEDURE <i>offload</i>	EQUIP SPOTTED	EQUIP REMOVED	TIME AT CONSIGNEE : ARRIVAL TIME	MILITARY TIME ONLY : DEPARTURE TIME
COMMENTS OR DELAYS AT CONSIGNEE				EQUIPMENT USED <i>VAN</i>	

PLEASE PRINT NAME/TITLE	CONSIGNEE SIGNATURE	DATE UNLOADED
	X _____	MO      DAY      YR

AR H-0257	MD HWH-167	MO H-1490	OH UPW-0190713-OH	TX 40705
CT CT-HW-307	2001-OPV-2335	ND WH-428	OK UPW-0190713-OH	WI 11602
DE DE-HW-203	ME ME-HWT-47	NH TNH-0047	ONTARIO, CANADA A 840943	WV UPW-0190713-OH
DE-SW-263	ME-WOT-47	NJ S-2265	PA PA-AH-0067	
IL UPW-0190713-OH	MI UPW-0190713-OH	15930	QUEBEC, CANADA QC-6ML-047	
MA MA-294	MN UPW-0190713-OH	NY NJ-113	RI RI-535	

White - FCI Original  
Yellow - FCI Biling  
Blue - FCI Office/ Customer  
Green - Retained by TSDP  
Gold - Retained by Generator

R 46558



**ADVANCED SITE RESTORATION, LLC**  
*ENVIRONMENTAL SERVICES*

## **Quarterly Sampling Report**

**Third Quarter, 2007**

**49-55 Dupont Street, Brooklyn, New York 11222**  
**NYSDEC SPILL # 06-01852**



**Prepared By:**

Advanced Site Restoration, LLC  
62 William Street, New York, N.Y. 10005

**Prepared For:**

49 Dupont Realty Corporation  
49-55 Dupont St., Brooklyn, New York 11222

Christopher Tomasello, IH  
Project Technician

Steven Muller, CEC  
Project Manager

**November 15, 2007**





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<b>1.0 INTRODUCTION.....</b>	<b>2</b>
<b>2.0 SITE CHARACTERIZATION.....</b>	<b>2</b>
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3.1 Monitoring Well Gauging	
3.2 Monitoring Well Sampling	
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3.4 LNAPL Recovery Program	
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## **FIGURES**

Figure – 1	Site Location Map
Figure – 2	Well Location Map (June 2007)
Figure – 3	Groundwater Gradient Map (August 2006)
Figure – 4	Product Plume Map

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Table – 1	Monitoring Well Gauging Data
Table – 2	Groundwater Dissolved Constituent Sampling
Table – 3	Product Recovery Data

## **APPENDEXES**

Appendix – A	Figures
Appendix – B	Monthly Monitoring Report
Appendix – C	Laboratory Analytical Report



## **1.0 INTRODUCTION**

Advanced Site Restoration, LLC (ASR) has developed this Quarterly Sampling Report on behalf of 49 Dupont Realty Corporation for 49-55 Dupont Street in Brooklyn, New York (the Site). The purpose of this report is to provide an update on the ongoing site investigation and Interim Remedial Measure (IRM) taking place at the Site.

In October, 2007, ASR conducted groundwater monitoring and sampling to provide an updated delineation of the contaminant plume. ASR began the subsurface investigation at the Site in July 2006, and has since performed monthly monitoring and quarterly groundwater sampling. In addition, ASR has performed light, non-aqueous phase liquid (LNAPL) recovery and removal from specially designated recovery wells and monitoring wells.

The October, 2007, groundwater monitoring and sampling data indicates that the contaminant plume is contained and stable. The thickness of LNAPL in the monitoring and recovery wells was found to be decreasing as the LNAPL removal program continues. All groundwater monitoring wells which do not contain LNAPL, including two (2) down gradient wells were sampled and analyzed. The October, 2007, analytical data indicated that no phthalates or VOCs were detected in excess of the laboratory minimum detection limits.

## **2.0 SITE CHARACTERIZATION**

### **2.1 Site Description**

The Site is legally identified as New York City Tax Block 2487, Tax Lots 1, 10, 12, 17, 18, 20, 21, 57, 72, and 78. The current owner since 1983 is 49 Dupont Realty Corporation. The Site is a former manufacturing facility. The New York City Department of Finance Occupancy Code is "F-9, Factory Industrial." According to the Sanborn Map Report from Environmental Data Resources, Inc. (EDR), industrial activity at the Site dates back to at least 1887.

Historic use of the Site has included manufacturing, office, storage, shipping and receiving. More recently, the site had been used as a plastic manufacturing facility since 1950. According to *FPM Group* who completed a Phase I Site Assessment, dated April 2005 for the Site, it is reported that commercial uses prior to 1950 included a boiler shop for Logan Ironworks, two stable buildings, a gas and light fixture factory, a sheet metal works, a soap manufacturer, a water proofing manufacturer, and a scrap metal facility.





### **3.0 SITE INVESTIGATION RESULTS**

#### **3.1 Monitoring Well Gauging**

On October 21, 2007, ASR personnel measured the depth to groundwater, and monitored for the presence of LNAPL at the Site and the surrounding monitoring well network. A total of twenty-two (22) monitoring wells were gauged. LNAPL was detected in fifteen (15) of the twenty-two (22) wells (MW-1, MW-4, MW-5, MW-6, MW-7, MW-9, MW-15, MW-16, RW-2, RW-3, RW-4, RW-5, RW-6, and RW-7). The measured thickness of LNAPL in twelve (12) of the fifteen (15) wells ranged from a sheen to 9 inches thick. In MW-5, LNAPL was detected at a thickness of 5.33 ft. In MW-9 and RW-7, LNAPL viscosity prevented an accurate thickness. Based on the monitoring results, the LNAPL plume appears to be contained to the west and northeast sections of the Site. Although LNAPL was detected beneath the sidewalk adjacent to the Site, it was not detected in either of the two (2) down gradient wells, (MW-12 and MW-13).

The depth to groundwater was detected at a range of 7.61 ft to 15.74 ft. A previous groundwater survey indicated that the groundwater flow direction is in a northwesterly direction. The location of all groundwater monitoring wells is shown on the Monitoring Well Location Map, Appendix-A Figure – 2. All monitoring data is attached as Appendix-B, *Monitoring Well Gauging Data*.

#### **3.2 Monitoring Well Sampling**

On October 20 and 22, 2007, ASR personnel sampled seven (7) groundwater monitoring wells (MW-2, MW-3, MW-8, MW-10, MW-12, MW-13, and MW-14). New disposable polyethylene tubing was used with a peristaltic pump for groundwater purging and sample collection. The groundwater samples were submitted to York Analytical Laboratories, Inc. for analysis by EPA Method 8270 BN.

On October 24, 2007, ASR personnel returned to the Site to collect groundwater samples from the same seven (7) groundwater monitoring wells. These groundwater samples were also submitted to York Analytical Laboratories, Inc. but were analyzed for volatile organic compounds (VOCs) using EPA Method 8260 Stars. All sampling data is attached in Appendix-C, *Groundwater Dissolved Constituent Sampling*.



### 3.3 Sampling Analysis

Bis (2-ethylhexyl) Phthalate has historically been detected as both LNAPL and a dissolved constituent in previous groundwater sampling activities. The October, 2007, groundwater analytical results indicated that no phthalates or VOCs were detected in any of the seven (7) groundwater monitoring wells that were sampled.

### 3.4 LNAPL Recovery Program

An LNAPL removal program was implemented in November, 2006, and has continued through the date of this report. The LNAPL being removed is a combination of plasticizers and #4 fuel oil. LNAPL recovery is occurring at recovery wells RW-2, RW-3, RW-8, RW-9, RW-8, RW-10, and monitoring wells MW-5, and MW-6. Monitoring wells MW-15 and MW-16 were recently added to the LNAPL recovery program and RW-7 was added in October 2007. Approximately 1,100 gallons of LNAPL was removed in the third quarter of 2007 using the *Spillbuster* product only pumps. In November, 2007, an additional 33 gallons of LNAPL was recovered. A total of approximately 4,200 gallons have been removed from the ground as of the date of this report. On August 16, 2007 3,200 gallons of LNAPL were removed from the site using a vacuum truck. The remaining 1,000 gallons are currently being stored on Site, as additional product continues to be recovered from the ground. A vacuum truck will remove all of the LNAPL being stored on Site when it is deemed necessary and efficient to do so.

## 4.0 CONCLUSION

As per the October 2007 groundwater monitoring and sampling activities, the contaminant plume is contained and stable. LNAPL continues to exist at the Site, ranging in thickness from a sheen to several feet. The thickness of LNAPL in the wells were found to be decreasing as the LNAPL recovery program continues. All groundwater monitoring wells not containing LNAPL, including two (2) down gradient monitoring wells, were sampled. Analysis indicated that no phthalates or VOCs were detected in excess of the laboratory minimum detection limits.

ASR will continue to monitor and sample all groundwater monitoring wells to determine the status of the identified contamination. ASR will also continue to perform the product recovery program as the ongoing IRM, and monitor the progress of this program.





## ADVANCED SITE RESTORATION, LLC

49-55 Dupont Street, Brooklyn, NY

Quarterly Sampling Report

November 15, 2007

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### APPENDIX – A

### Figures



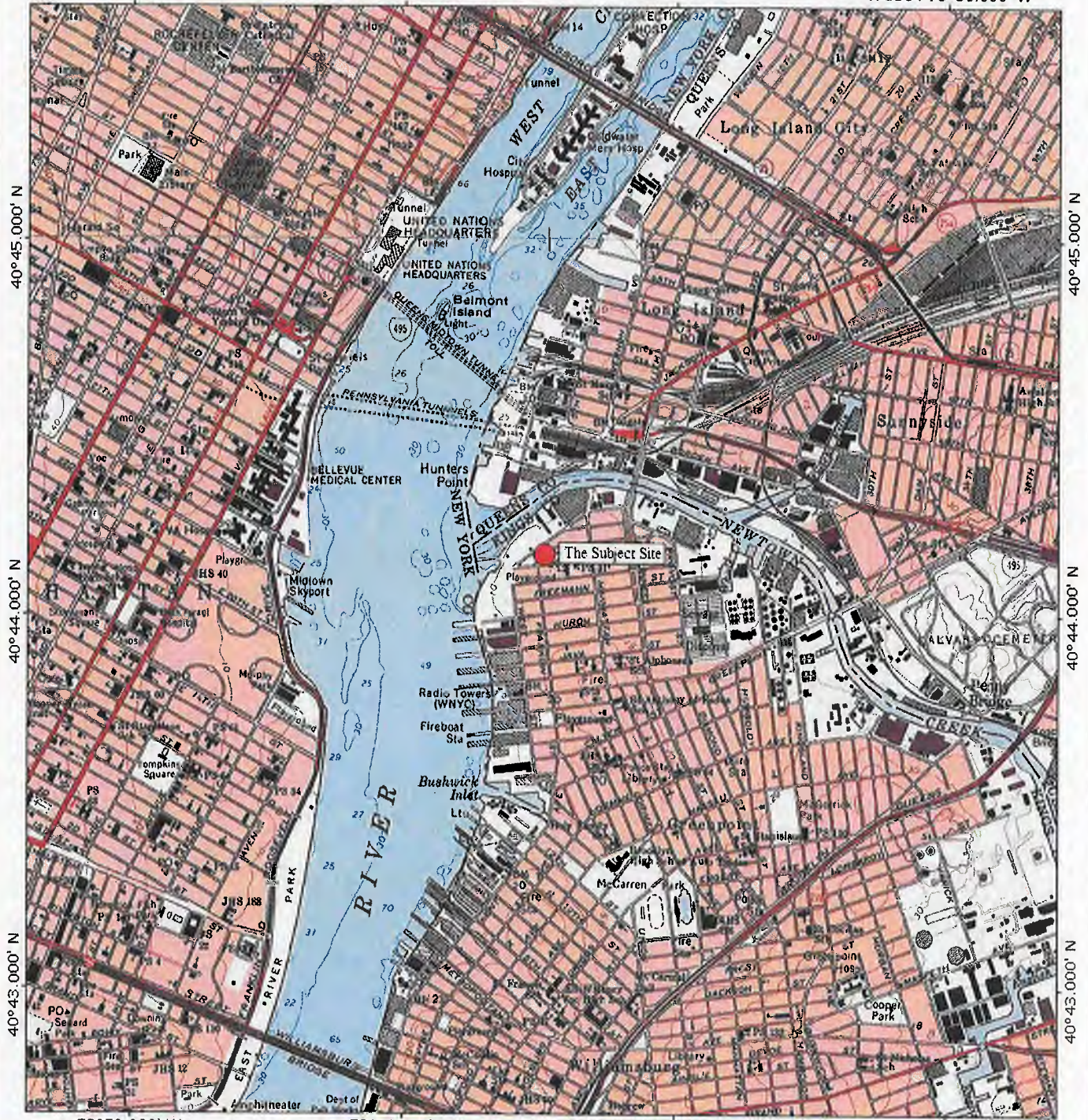
TOPO! map printed on 06/13/06 from "Northeast.tpo" and "Untitled.tpg"

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73°58.000' W

73°57.000' W

WGS84 73°56.000' W

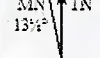


73°59.000' W

73°58.000' W

73°57.000' W

WGS84 73°56.000' W



Map created with TOPO!® ©2002 National Geographic (www.nationalgeographic.com/topo)

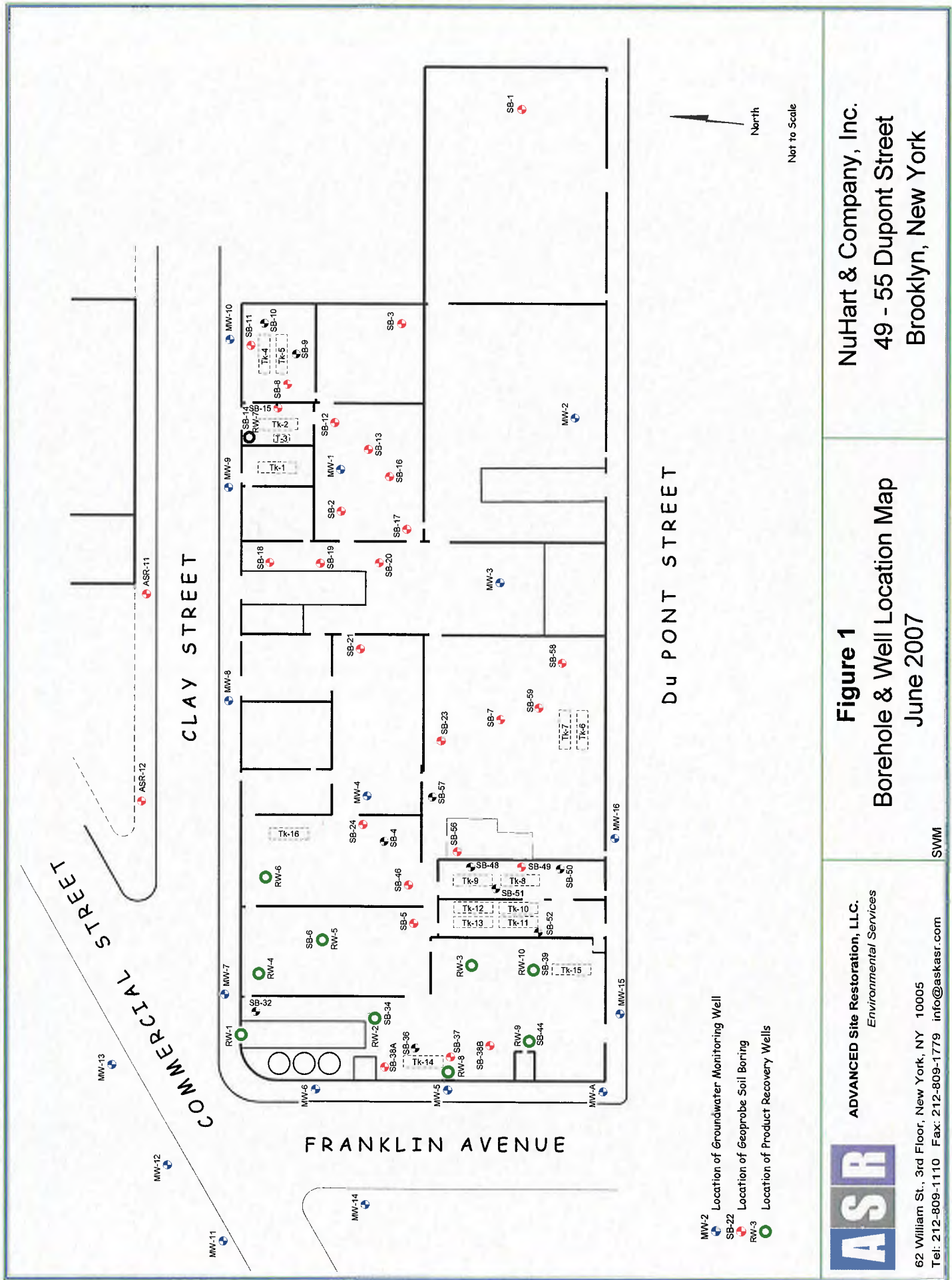


**ADVANCED Site Restoration, LLC.**  
Environmental Services

62 William St., 3rd Floor, New York, NY 10005  
Tel: 212-809-1110 Fax: 212-809-1779 info@askasr.com

**Site Location Map**  
**49-55 Dupont Street**  
**Brooklyn, New York 11222**



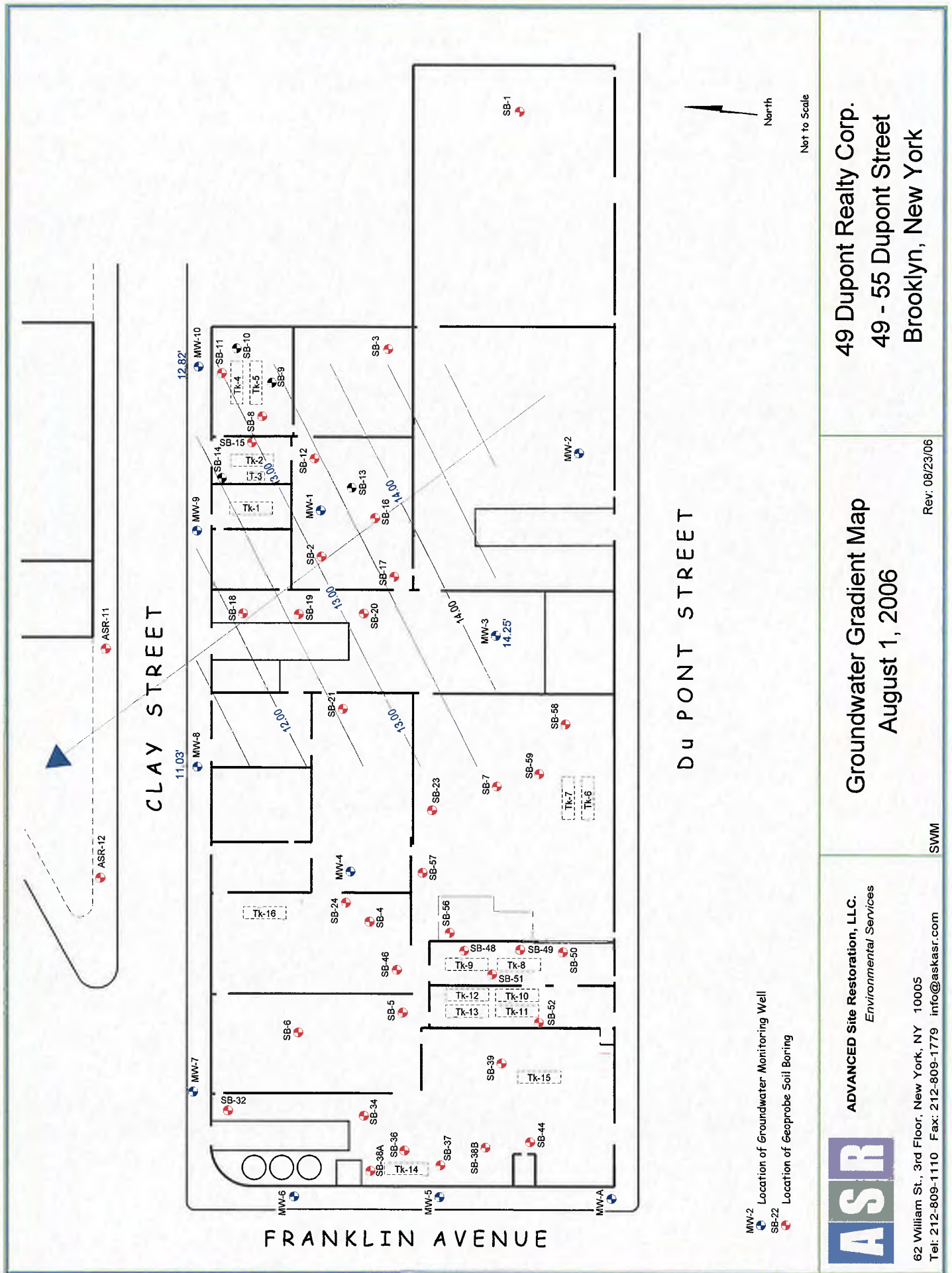


**NuHart & Company, Inc.**  
 49 - 55 Dupont Street  
 Brooklyn, New York

**Figure 1**  
 Borehole & Well Location Map  
 June 2007

**ASR**  
**ADVANCED Site Restoration, LLC.**  
*Environmental Services*  
 62 William St., 3rd Floor, New York, NY 10005  
 Tel: 212-809-1110 Fax: 212-809-1779 info@askasr.com

SWM



49 Dupont Realty Corp.  
49 - 55 Dupont Street  
Brooklyn, New York

# Groundwater Gradient Map August 1, 2006

Rev. 08/23/06

**ADVANCED Site Restoration, LLC.**  
Environmental Services



62 William St., 3rd Floor, New York, NY 10005  
Tel: 212-809-1110 Fax: 212-809-1779 info@askasr.com

SWM



COMMERCIAL STREET

CLAY STREET

FRANKLIN AVENUE

DUPONT STREET

Fuel Oil

Phthalate

Phthalate



ADVANCED Site Restoration, LLC.  
Environmental Services

62 William St., 3rd Floor, New York, NY 10005  
Tel: 212-809-1110 Fax: 212-809-1779 info@askasr.com

# LNAPL Plume Map 49 - 55 Dupont Street Brooklyn, New York

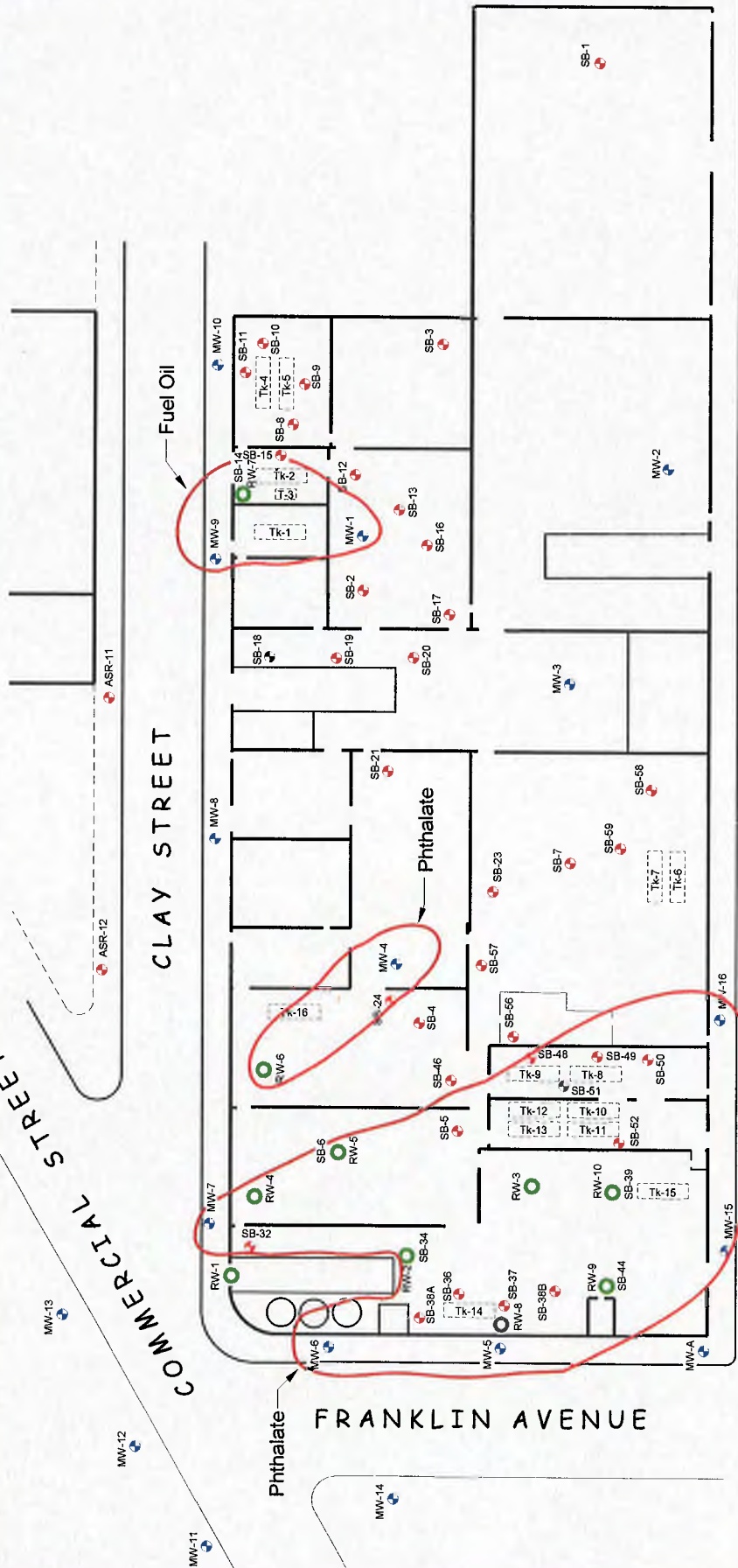
Oct., 2007

SWM

- MW-2 Location of Groundwater Monitoring Well
- SB-22 Location of Geoprobe Soil Boring
- RW-3 Location of Product Recovery Wells
- Area where LNAPL was detected



North  
Not to Scale





## ADVANCED SITE RESTORATION, LLC

49-55 Dupont Street, Brooklyn, NY

Quarterly Sampling Report

November 15, 2007

### APPENDIX – B

#### Monthly Monitoring Report





**ADVANCED SITE RESTORATION, LLC**  
ENVIRONMENTAL SERVICES

**MONTHLY MONITORING REPORT**

<b>Site Address:</b>	<i>NuHart &amp; Company, Inc. 49- 55 Dupont Street Brooklyn, New York</i>	<b>Regulatory Agency:</b>	<i>NYSDEC (Region II)</i>
		<b>Regulatory Contact:</b>	<i>Raphael Katani</i>
		<b>Spill File:</b>	<i>06-01852</i>
<b>Prepared for:</b>	<i>49 Dupont Realty Corp. Brooklyn, New York</i>	<b>Dupont Contact</b>	<i>Joe Folkman</i>
		<b>ASR Contact</b>	<i>Steven Muller</i>

**Report Date** *November 15, 2007*

**Current Site Status** *Former Manufacturing Facility*

**Monitoring Period** *October, 2007*

**Well Information**  
**Number/Type:** *15 - 2 inch diameter monitoring wells  
10 - 4 inch diameter recovery wells*

**Groundwater Monitoring**  
**Gauging Frequency:** *Monthly*  
**Sampling Frequency:** *Quarterly*  
**Wells containing LNAPL:** *15*  
**LNAPL Thickness (max):** *5.33 (MW-5)*  
**Total BTEX:** *<MDL (October, 2007)*  
**MtBE:** *<MDL (October, 2007)*  
**Groundwater Depth:** *7.61ft to 15.74ft*  
**Groundwater Flow Direction:** *Northwesterly*

**Surrounding Land Use:**  
**North:** *Hardware Store/Warehouse*  
**South:** *Residential Homes*  
**East:** *Multi-Family Residential Buildings*  
**West:** *New York City Lot*

**Remedial Activities:** *An Interim Remedial Measure consisting of two continuous operating product only pumps and daily hand bailing is on-going. Approximately 4,200 gallons of product have been removed from the site to date.*

**Prepared By:** Christopher Tomasello

**Reviewed By:** Steven Muller

**49 Dupont Street  
Brooklyn, New York**

Monitoring Well Gauging Data

Well Number	Date	Well Elevation (ft)	Depth to Groundwater (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)
MW-1	5/10/2006	25.19	10.89	10.88	0.01	14.30
	11/20/2006		10.83	10.79	0.04	14.36
	6/18/2007		10.70	10.68	0.02	14.49
	8/13/2007		10.30	10.25	0.05	14.89
	9/24/2007		11.14	11.12	0.02	14.05
	10/21/2007		11.32	11.34	0.02	13.87
MW-2	5/10/2006	25.34	11.78	----	----	13.56
	11/20/2006		NA			
	4/25/2007		7.66			17.68
	5/10/2007		8.64			16.70
	6/18/2007		9.66			15.68
	8/13/2007		8.30			17.04
	9/24/2007		10.20			15.14
	10/21/2007		10.44			14.90
MW-3	5/10/2006	25.52	9.83	----	----	15.69
	8/10/2006		11.27	----	----	14.25
	11/20/2006		NA			
	4/25/2007		10.98			14.54
	5/10/2007		9.50			16.02
	6/18/2007		11.53			13.99
	8/13/2007		11.01			14.51
	9/24/2007		11.94			13.68
	10/21/2007		12.26			13.36
MW-4	5/10/2006	25.62	13.90	12.28	1.62	11.72
	11/20/2006		13.56	12.28	1.28	12.06
	5/10/2007		11.92	11.80	0.12	13.70
	6/18/2007		12.55	12.37	0.18	13.07
	8/13/2007		12.42	12.07	0.35	13.20
	9/24/2007		12.98	12.78	0.20	12.63
	10/21/2007		13.02	13.14	0.12	12.60
MW-5	8/10/2006	19.57	14.90	9.11	5.79	4.67
	11/20/2006		10.30	9.17	1.13	9.27
	5/10/2007		9.29	8.82	0.47	10.28
	6/18/2007		12.25	9.27	2.98	7.32
	8/13/2007		9.70	9.16	0.54	9.87
	9/24/2007		11.79	9.70	2.09	7.78
	10/21/2007		15.04	9.71	5.33	4.43



**49 Dupont Street  
Brooklyn, New York**

Monitoring Well Gauging Data

Well Number	Date	Well Elevation (ft)	Depth to Groundwater (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)
MW-6	8/10/2006	18.62	12.00	8.28	3.72	6.62
	11/20/2006		8.85	8.23	0.62	9.77
	5/10/2007		8.41	7.87	0.54	10.21
	6/18/2007		9.34	9.07	0.27	9.28
	8/13/2007		10.25	8.69	1.56	8.37
	9/24/2007		9.82	9.45	0.37	8.79
	10/21/2007		9.99	9.62	0.37	8.63
MW-7	8/10/2006	18.75	10.52	8.62	1.90	8.23
	11/20/2006		8.80	8.52	0.28	9.95
	5/10/2007		8.33	8.21	0.12	10.42
	6/18/2007		9.12	8.66	0.46	9.63
	8/13/2007		9.50	8.65	0.85	9.25
	9/24/2007		9.71	9.10	0.61	9.04
	10/21/2007		9.48	9.14	0.34	9.27
MW-8	8/10/2006	20.26	9.46	----	----	10.80
	11/20/2006		NA			
	5/10/2007		8.86			11.40
	6/18/2007		9.40			10.86
	8/13/2007		9.45			10.81
	9/24/2007		9.78			10.48
	10/21/2007		10.03			10.23
MW-9	8/10/2006	20.62	10.22	7.88	2.34	10.40
	11/20/2006		LNAPL			
	6/18/2007		too thick			
	8/13/2007		too thick			
	9/24/2007		unknown	8.79		
	10/21/2007		unknown			
MW-10	8/1/2006	21.04	8.22	----	----	12.82
	5/10/2007		7.97			13.07
	6/18/2007		8.25			12.79
	9/24/2007		8.69			12.79
	10/21/2007		8.64			12.40

**49 Dupont Street  
Brooklyn, New York**

Monitoring Well Gauging Data

Well Number	Date	Well Elevation (ft)	Depth to Groundwater (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)
MW-11	9/19/2006	17.01	7.07	----	----	9.94
	11/20/2006					
	5/10/2007		DESTROYED			
MW-12	9/19/2006	16.99	7.10	----	----	9.89
	11/20/2006					
	5/10/2007		6.89			10.10
	8/13/2007		6.57			10.42
	9/24/2007		7.74			9.25
	10/21/2007		7.61			9.38
MW-13	9/19/2006	17.20	7.16	---	---	10.04
	11/20/2006					
	5/10/2007		6.87			10.33
	8/13/2007		6.51			10.69
	9/24/2007		7.89			9.31
	10/21/2007		7.72			9.48
MW-14	9/19/2006	18.23	8.11	----	----	10.12
	11/20/2006					
	5/10/2007		7.60			10.63
	8/13/2007		8.23			10.00
	9/24/2007		8.52			9.71
	10/21/2007		8.61			9.62
MW-15	5/10/2007	NA	10.83	9.35	1.48	
	5/23/2007		9.72	9.70	0.02	
	6/18/2007		10.02	9.93	0.09	
	8/13/2007		9.70	9.16	0.54	
	9/24/2007		10.73	10.32	0.41	
	10/21/2007		10.44	10.37	0.07	
MW-16	5/10/2007	NA	11.07	9.98	1.09	
	5/23/2007		10.54	10.31	0.23	
	6/18/2007		11.27	10.59	0.68	
	8/13/2007		11.81	10.46	1.35	
	9/24/2007		11.03	11.09	0.06	
	10/21/2007		11.16	11.14	0.02	

**49 Dupont Street  
Brooklyn, New York**

Monitoring Well Gauging Data

Well Number	Date	Well Elevation (ft)	Depth to Groundwater (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)
MW-A	8/10/2006	20.30	15.66	9.96	5.70	4.64
	11/20/2006					
	9/24/2007					
RW-1	11/20/2006	NA	8.38			
	4/25/2007		7.57			
	5/10/2007		8.04			
	6/18/2007		8.57			
	9/24/2007		9.10			
	10/21/2007		9.17			
RW-2	4/25/2007	NA	12.46	12.45	0.01	
	5/10/2007		12.91	12.71	0.20	
	10/21/2007		14.09	13.85	0.24	
RW-3	4/25/2007	NA	13.84	13.60	0.24	
	5/10/2007		14.17	14.00	0.17	
	6/18/2007		15.40	14.53	0.87	
	9/24/2007		15.63	14.96	0.67	
	10/21/2007		15.73	15.12	0.51	
RW-4	11/20/2006	NA	16.47	14.49	1.98	---
	4/25/2007		14.15	13.75	0.40	
	5/10/2007		14.44	14.10	0.34	
	6/18/2007		14.85	14.62	0.23	
	9/24/2007		16.87	15.29	1.58	
	10/21/2007		15.74	15.45	0.29	
RW-5	11/20/2006	NA	13.64	13.53	0.11	---
	4/25/2007		12.75	12.60	0.15	
	5/10/2007		13.10	13.02	0.08	
	6/18/2007		13.60	13.55	0.05	
	9/24/2007		14.24	13.94	0.30	
	10/21/2007		14.23	14.11	0.12	

**49 Dupont Street  
Brooklyn, New York**

Monitoring Well Gauging Data

Well Number	Date	Well Elevation (ft)	Depth to Groundwater (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)
RW-6	4/25/2007	NA	10.69			
	5/10/2007		11.08			
	6/18/2007		11.58			
	9/24/2007		12.77	11.94	0.83	
	10/21/2007		12.92	12.11	0.81	
RW-7	11/20/06		LNAPL			
	9/24/2007		unknown	9.05		
	10/21/2007		unknown			
RW-8	4/25/2007	NA	12.60	12.35	0.25	
	5/10/2007		13.11	12.78	0.33	
	6/18/2007		14.36	13.25	1.11	
	8/13/2007					
	9/24/2007		15.95	13.65	2.30	
	10/21/2007					
RW-9	4/25/2007	NA	12.10	11.95	0.15	
	5/10/2007		12.59	12.36	0.23	
	6/18/2007		13.60	12.83	0.77	
	8/13/2007					
	9/24/2007		14.80	13.30	1.50	
	10/21/2007					
RW-10	4/25/2007	NA	11.76	11.64	0.12	
	5/10/2007		12.13	12.05	0.08	
	8/13/2007		pump			
	9/24/2007		pump			
	10/21/2007		pump			

**49 Dupont Street  
Brooklyn, New York**

**Groundwater Dissolved Constituent Sampling**

Well Number	Sampling Date	Benzene	Toluene	Ethylbenzene	Total Xylene	MtBE	Bis(2-ethylhexyl)phthalate	Di-n-octylphthalate
MW-1	7/24/06	ND	ND	ND	ND	ND	ND	ND
	PRODUCT							
MW-2	7/24/06	ND	ND	ND	ND	ND	60	ND
	7/18/2007	ND	ND	ND	ND	ND	77	ND
	10/24/07	ND	ND	ND	ND	ND	ND	ND
MW-3	7/24/06	ND	ND	ND	ND	ND	31	ND
	7/18/2007	ND	ND	ND	ND	ND	ND	ND
	10/24/07	ND	ND	ND	ND	ND	ND	ND
MW-4	7/24/06	ND	ND	ND	ND	ND	120,000 P	160,000 P
	PRODUCT							
MW-5	7/24/06	ND	ND	ND	ND	ND	780,000 P	90,000 P
	PRODUCT							
MW-6	7/24/06	ND	ND	ND	ND	ND	1,300,000 P	ND
	PRODUCT							
MW-7	7/24/06	ND	ND	ND	ND	ND	370,000 P	ND
	7/18/2007	NT	NT	NT	NT	NT	4,600 P	ND
	PRODUCT							
MW-8	7/24/06	ND	ND	ND	ND	ND	89	ND
	7/18/2007	NT	NT	NT	NT	NT	230	ND
	10/24/07	ND	ND	ND	ND	ND	ND	ND
MW-9	7/24/06	ND	ND	11	11	ND	ND	ND
	PRODUCT							
MW-10	7/24/06	ND	ND	ND	ND	ND	6	ND
	7/18/2007	NT	NT	NT	NT	NT	57	ND
	10/24/07	ND	ND	ND	ND	ND	ND	ND

<MDL = Parameter below method detection limit

NA = Well not Accessible

NS = Not Sampled (LNAPL present)

NT = Not Tested

P = These wells developed free product shortly after sampling and are no longer sampled for dissolved constituents

**49 Dupont Street  
Brooklyn, New York**

**Groundwater Dissolved Constituent Sampling**

Well Number	Sampling Date	Benzene	Toluene	Ethylbenzene	Total Xylene	MtBE	Bis(2-ethylhexyl)phthalate	Di-n-octylphthalate
MW-11	9/18/2006	ND	ND	ND	ND	ND	ND	ND
	DESTROYED							
MW-12	9/18/2006	ND	ND	ND	ND	ND	17	ND
	7/18/2007	NT	NT	NT	NT	NT	ND	ND
	10/24/07	ND	ND	ND	ND	ND	ND	ND
MW-13	9/18/2006	ND	ND	ND	ND	ND	ND	ND
	7/18/2007	NT	NT	NT	NT	NT	ND	ND
	10/24/07	ND	ND	ND	ND	ND	ND	ND
MW-14	9/18/2006	ND	ND	ND	ND	ND	ND	ND
	7/18/2007	NT	NT	NT	NT	NT	ND	ND
	10/24/07	ND	ND	ND	ND	ND	ND	ND
MW-15	12/7/06	ND	ND	ND	ND	ND	6,400	ND
	PRODUCT							
MW-16	12/7/06	ND	ND	ND	ND	ND	ND	990
	PRODUCT							
RW-1	7/18/2007	ND	ND	ND	ND	ND	ND	ND

<MDL = Parameter below method detection limit

NA = Well not Accessible

NS = Not Sampled (LNAPL present)

NT = Not Tested

P = These wells developed free product shortly after sampling and are no longer sampled for dissolved constituents

## Date \_\_\_\_\_

Well Number	2007- Sep	2007- Aug	2007- July	2007- June	2007- May	2007- April	2007- March	2007- Feb	2007- Jan	2006- Dec	2006- Nov
RW-2	15	47	67	75	72	76	79	98	80	92	100
RW-3	43	89	82	90	96	92	95	87	93	67	60
RW-4			3	2	32	27					
RW-8	36	38	38	39	46	42	14	16	25	5	
RW-9	19	22	23	21	17	15	16	20	13	6	
RW-10	146	166	154	166	175	165	167	158	144	168	
MW-4			1	1	7	6			1	1	27
MW-5	22	16	28	25	28	27			5		1
MW-6	9	17	29	26	26	26			5		
MW-15	4	8	1	1	4						
MW-16	4	8									
	298	411	426	446	503	476	371	379	366	339	188



## ADVANCED SITE RESTORATION, LLC

49-55 Dupont Street, Brooklyn, NY

Quarterly Sampling Report

November 15, 2007

---

### APPENDIX – C

#### Laboratory Analytical Reports



# Technical Report

prepared for:

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

Report Date: 10/30/2007  
**Re: Client Project ID: 49-55 Dupont St.**  
York Project No.: 07100789

CT License No. PH-0723

New Jersey License No. CT-005

New York License No. 10854



Report Date: 10/30/2007  
Client Project ID: 49-55 Dupont St.  
York Project No.: 07100789

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

## 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 10/22/07. The project was identified as your project "49-55 Dupont St."

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			MW-14		MW-13	
York Sample ID			07100789-01		07100789-02	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables	SW846-8270	ug/L	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	5.25	Not detected	5.25
1,2-Dichlorobenzene			Not detected	5.25	Not detected	5.25
1,3-Dichlorobenzene			Not detected	5.25	Not detected	5.25
1,4-Dichlorobenzene			Not detected	5.25	Not detected	5.25
2,4-Dinitrotoluene			Not detected	5.25	Not detected	5.25
2,6-Dinitrotoluene			Not detected	5.25	Not detected	5.25
2-Chloronaphthalene			Not detected	5.25	Not detected	5.25
2-Methylnaphthalene			Not detected	5.25	Not detected	5.25
2-Nitroaniline			Not detected	5.25	Not detected	5.25
3,3'-Dichlorobenzidine			Not detected	5.25	Not detected	5.25
3-Nitroaniline			Not detected	5.25	Not detected	5.25
4-Bromophenyl phenyl ether			Not detected	5.25	Not detected	5.25
4-Chloroaniline			Not detected	5.25	Not detected	5.25
4-Chlorophenyl phenyl ether			Not detected	5.25	Not detected	5.25
4-Nitroaniline			Not detected	5.25	Not detected	5.25
Acenaphthene			Not detected	5.25	Not detected	5.25

**YORK**

Client Sample ID			MW-14		MW-13	
York Sample ID			07100789-01		07100789-02	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Acenaphthylene			Not detected	5.25	Not detected	5.25
Anthracene			Not detected	5.25	Not detected	5.25
Benzo(a)anthracene			Not detected	5.25	Not detected	5.25
Benzo(a)pyrene			Not detected	5.25	Not detected	5.25
Benzo(b)fluoranthene			Not detected	5.25	Not detected	5.25
Benzo(g,h,i)perylene			Not detected	5.25	Not detected	5.25
Benzo(k)fluoranthene			Not detected	5.25	Not detected	5.25
Bis(2-chloroethoxy)methane			Not detected	5.25	Not detected	5.25
Bis(2-chloroethyl)ether			Not detected	5.25	Not detected	5.25
Bis(2-chloroisopropyl)ether			Not detected	5.25	Not detected	5.25
Bis(2-ethylhexyl)phthalate			Not detected	5.25	Not detected	5.25
Butyl benzyl phthalate			Not detected	5.25	Not detected	5.25
Carbazole			Not detected	5.25	Not detected	5.25
Chrysene			Not detected	5.25	Not detected	5.25
Dibenzo(a,h)anthracene			Not detected	5.25	Not detected	5.25
Dibenzofuran			Not detected	5.25	Not detected	5.25
Diethylphthalate			Not detected	5.25	Not detected	5.25
Dimethylphthalate			Not detected	5.25	Not detected	5.25
Di-n-butylphthalate			Not detected	5.25	Not detected	5.25
Di-n-octylphthalate			Not detected	5.25	Not detected	5.25
Fluoranthene			Not detected	5.25	Not detected	5.25
Fluorene			Not detected	5.25	Not detected	5.25
Hexachlorobenzene			Not detected	5.25	Not detected	5.25
Hexachlorobutadiene			Not detected	5.25	Not detected	5.25
Hexachlorocyclopentadiene			Not detected	5.25	Not detected	5.25
Hexachloroethane			Not detected	5.25	Not detected	5.25
Indeno(1,2,3-cd)pyrene			Not detected	5.25	Not detected	5.25
Isophorone			Not detected	5.25	Not detected	5.25
Naphthalene			Not detected	5.25	Not detected	5.25
Nitrobenzene			Not detected	5.25	Not detected	5.25
N-Nitrosodi-n-propylamine			Not detected	5.25	Not detected	5.25
N-Nitrosodiphenylamine			Not detected	5.25	Not detected	5.25
Phenanthrene			Not detected	5.25	Not detected	5.25
Pyrene			Not detected	5.25	Not detected	5.25

Client Sample ID			MW-12		MW-10	
York Sample ID			07100789-03		07100789-04	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables	SW846-8270	ug/L	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	5.25	Not detected	5.25
1,2-Dichlorobenzene			Not detected	5.25	Not detected	5.25
1,3-Dichlorobenzene			Not detected	5.25	Not detected	5.25
1,4-Dichlorobenzene			Not detected	5.25	Not detected	5.25
2,4-Dinitrotoluene			Not detected	5.25	Not detected	5.25
2,6-Dinitrotoluene			Not detected	5.25	Not detected	5.25
2-Chloronaphthalene			Not detected	5.25	Not detected	5.25
2-Methylnaphthalene			Not detected	5.25	Not detected	5.25
2-Nitroaniline			Not detected	5.25	Not detected	5.25

**YORK**

Client Sample ID			MW-12		MW-10	
York Sample ID			07100789-03		07100789-04	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
3,3'-Dichlorobenzidine			Not detected	5.25	Not detected	5.25
3-Nitroaniline			Not detected	5.25	Not detected	5.25
4-Bromophenyl phenyl ether			Not detected	5.25	Not detected	5.25
4-Chloroaniline			Not detected	5.25	Not detected	5.25
4-Chlorophenyl phenyl ether			Not detected	5.25	Not detected	5.25
4-Nitroaniline			Not detected	5.25	Not detected	5.25
Acenaphthene			Not detected	5.25	Not detected	5.25
Acenaphthylene			Not detected	5.25	Not detected	5.25
Anthracene			Not detected	5.25	Not detected	5.25
Benzo(a)anthracene			Not detected	5.25	Not detected	5.25
Benzo(a)pyrene			Not detected	5.25	Not detected	5.25
Benzo(b)fluoranthene			Not detected	5.25	Not detected	5.25
Benzo(g,h,i)perylene			Not detected	5.25	Not detected	5.25
Benzo(k)fluoranthene			Not detected	5.25	Not detected	5.25
Bis(2-chloroethoxy)methane			Not detected	5.25	Not detected	5.25
Bis(2-chloroethyl)ether			Not detected	5.25	Not detected	5.25
Bis(2-chloroisopropyl)ether			Not detected	5.25	Not detected	5.25
Bis(2-ethylhexyl)phthalate			Not detected	5.25	Not detected	5.25
Butyl benzyl phthalate			Not detected	5.25	Not detected	5.25
Carbazole			Not detected	5.25	Not detected	5.25
Chrysene			Not detected	5.25	Not detected	5.25
Dibenzo(a,h)anthracene			Not detected	5.25	Not detected	5.25
Dibenzofuran			Not detected	5.25	Not detected	5.25
Diethylphthalate			Not detected	5.25	Not detected	5.25
Dimethylphthalate			Not detected	5.25	Not detected	5.25
Di-n-butylphthalate			Not detected	5.25	Not detected	5.25
Di-n-octylphthalate			Not detected	5.25	Not detected	5.25
Fluoranthene			Not detected	5.25	Not detected	5.25
Fluorene			Not detected	5.25	Not detected	5.25
Hexachlorobenzene			Not detected	5.25	Not detected	5.25
Hexachlorobutadiene			Not detected	5.25	Not detected	5.25
Hexachlorocyclopentadiene			Not detected	5.25	Not detected	5.25
Hexachloroethane			Not detected	5.25	Not detected	5.25
Indeno(1,2,3-cd)pyrene			Not detected	5.25	Not detected	5.25
Isophorone			Not detected	5.25	Not detected	5.25
Naphthalene			Not detected	5.25	Not detected	5.25
Nitrobenzene			Not detected	5.25	Not detected	5.25
N-Nitrosodi-n-propylamine			Not detected	5.25	Not detected	5.25
N-Nitrosodiphenylamine			Not detected	5.25	Not detected	5.25
Phenanthrene			Not detected	5.25	Not detected	5.25
Pyrene			Not detected	5.25	Not detected	5.25

**YORK**

Client Sample ID			MW-2		MW-3	
York Sample ID			07100789-05		07100789-06	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Base/Neutral Extractables	SW846-8270	ug/L	---	---	---	---
1,2,4-Trichlorobenzene			Not detected	5.25	Not detected	5.25
1,2-Dichlorobenzene			Not detected	5.25	Not detected	5.25
1,3-Dichlorobenzene			Not detected	5.25	Not detected	5.25
1,4-Dichlorobenzene			Not detected	5.25	Not detected	5.25
2,4-Dinitrotoluene			Not detected	5.25	Not detected	5.25
2,6-Dinitrotoluene			Not detected	5.25	Not detected	5.25
2-Chloronaphthalene			Not detected	5.25	Not detected	5.25
2-Methylnaphthalene			Not detected	5.25	Not detected	5.25
2-Nitroaniline			Not detected	5.25	Not detected	5.25
3,3'-Dichlorobenzidine			Not detected	5.25	Not detected	5.25
3-Nitroaniline			Not detected	5.25	Not detected	5.25
4-Bromophenyl phenyl ether			Not detected	5.25	Not detected	5.25
4-Chloroaniline			Not detected	5.25	Not detected	5.25
4-Chlorophenyl phenyl ether			Not detected	5.25	Not detected	5.25
4-Nitroaniline			Not detected	5.25	Not detected	5.25
Acenaphthene			Not detected	5.25	Not detected	5.25
Acenaphthylene			Not detected	5.25	Not detected	5.25
Anthracene			Not detected	5.25	Not detected	5.25
Benzo(a)anthracene			Not detected	5.25	Not detected	5.25
Benzo(a)pyrene			Not detected	5.25	Not detected	5.25
Benzo(b)fluoranthene			Not detected	5.25	Not detected	5.25
Benzo(g,h,i)perylene			Not detected	5.25	Not detected	5.25
Benzo(k)fluoranthene			Not detected	5.25	Not detected	5.25
Bis(2-chloroethoxy)methane			Not detected	5.25	Not detected	5.25
Bis(2-chloroethyl)ether			Not detected	5.25	Not detected	5.25
Bis(2-chloroisopropyl)ether			Not detected	5.25	Not detected	5.25
Bis(2-ethylhexyl)phthalate			Not detected	5.25	Not detected	5.25
Butyl benzyl phthalate			Not detected	5.25	Not detected	5.25
Carbazole			Not detected	5.25	Not detected	5.25
Chrysene			Not detected	5.25	Not detected	5.25
Dibenzo(a,h)anthracene			Not detected	5.25	Not detected	5.25
Dibenzofuran			Not detected	5.25	Not detected	5.25
Diethylphthalate			Not detected	5.25	Not detected	5.25
Dimethylphthalate			Not detected	5.25	Not detected	5.25
Di-n-butylphthalate			Not detected	5.25	Not detected	5.25
Di-n-octylphthalate			Not detected	5.25	Not detected	5.25
Fluoranthene			Not detected	5.25	Not detected	5.25
Fluorene			Not detected	5.25	Not detected	5.25
Hexachlorobenzene			Not detected	5.25	Not detected	5.25
Hexachlorobutadiene			Not detected	5.25	Not detected	5.25
Hexachlorocyclopentadiene			Not detected	5.25	Not detected	5.25
Hexachloroethane			Not detected	5.25	Not detected	5.25
Indeno(1,2,3-cd)pyrene			Not detected	5.25	Not detected	5.25
Isophorone			Not detected	5.25	Not detected	5.25
Naphthalene			Not detected	5.25	Not detected	5.25
Nitrobenzene			Not detected	5.25	Not detected	5.25
N-Nitrosodi-n-propylamine			Not detected	5.25	Not detected	5.25
N-Nitrosodiphenylamine			Not detected	5.25	Not detected	5.25
Phenanthrene			Not detected	5.25	Not detected	5.25

**YORK**

Client Sample ID			MW-2		MW-3	
York Sample ID			07100789-05		07100789-06	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Pyrene			Not detected	5.25	Not detected	5.25

Client Sample ID			MW-8	
York Sample ID			07100789-07	
Matrix			WATER	
Parameter	Method	Units	Results	MDL
Base/Neutral Extractables	SW846-8270	ug/L	---	---
1,2,4-Trichlorobenzene			Not detected	5.40
1,2-Dichlorobenzene			Not detected	5.40
1,3-Dichlorobenzene			Not detected	5.40
1,4-Dichlorobenzene			Not detected	5.40
2,4-Dinitrotoluene			Not detected	5.40
2,6-Dinitrotoluene			Not detected	5.40
2-Chloronaphthalene			Not detected	5.40
2-Methylnaphthalene			Not detected	5.40
2-Nitroaniline			Not detected	5.40
3,3'-Dichlorobenzidine			Not detected	5.40
3-Nitroaniline			Not detected	5.40
4-Bromophenyl phenyl ether			Not detected	5.40
4-Chloroaniline			Not detected	5.40
4-Chlorophenyl phenyl ether			Not detected	5.40
4-Nitroaniline			Not detected	5.40
Acenaphthene			Not detected	5.40
Acenaphthylene			Not detected	5.40
Anthracene			Not detected	5.40
Benzo(a)anthracene			Not detected	5.40
Benzo(a)pyrene			Not detected	5.40
Benzo(b)fluoranthene			Not detected	5.40
Benzo(g,h,i)perylene			Not detected	5.40
Benzo(k)fluoranthene			Not detected	5.40
Bis(2-chloroethoxy)methane			Not detected	5.40
Bis(2-chloroethyl)ether			Not detected	5.40
Bis(2-chloroisopropyl)ether			Not detected	5.40
Bis(2-ethylhexyl)phthalate			Not detected	5.40
Butyl benzyl phthalate			Not detected	5.40
Carbazole			Not detected	5.40
Chrysene			Not detected	5.40
Dibenzo(a,h)anthracene			Not detected	5.40
Dibenzofuran			Not detected	5.40
Diethylphthalate			Not detected	5.40
Dimethylphthalate			Not detected	5.40
Di-n-butylphthalate			Not detected	5.40
Di-n-octylphthalate			Not detected	5.40
Fluoranthene			Not detected	5.40
Fluorene			Not detected	5.40
Hexachlorobenzene			Not detected	5.40
Hexachlorobutadiene			Not detected	5.40
Hexachlorocyclopentadiene			Not detected	5.40
Hexachloroethane			Not detected	5.40

**YORK**

Client Sample ID			MW-8	
York Sample ID			07100789-07	
Matrix			WATER	
Parameter	Method	Units	Results	MDL
Indeno(1,2,3-cd)pyrene			Not detected	5.40
Isophorone			Not detected	5.40
Naphthalene			Not detected	5.40
Nitrobenzene			Not detected	5.40
N-Nitrosodi-n-propylamine			Not detected	5.40
N-Nitrosodiphenylamine			Not detected	5.40
Phenanthrene			Not detected	5.40
Pyrene			Not detected	5.40

Units Key:

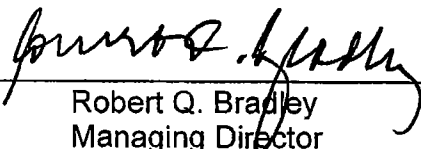
For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

### Notes for York Project No. 07100789

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By:

  
Robert Q. Bradley  
Managing Director

Date: 10/30/2007

**YORK**

Chain-of-Custody Record		Turn-Around Time	
Bottles Relinquished from Lab by	Date/Time	Sample Relinquished by	Date/Time
Bottles Received in Field by	Date/Time	Sample Received in LAB by	Date/Time
Comments/Special Instructions		4,2 °C Standard RUSH(define)	



# YORK

ANALYTICAL LABORATORIES, INC.

## Technical Report

prepared for:

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

Report Date: 11/5/2007  
*Re: Client Project ID: 49-55 Dupont St, Bklyn.*  
York Project No.: 07100915

CT License No. PH-0723

New Jersey License No. CT-005

New York License No. 10854



Report Date: 11/5/2007  
Client Project ID: 49-55 Dupont St., Bklyn.  
York Project No.: 07100915

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

## 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 10/25/07. The project was identified as your project "49-55 Dupont St., Bklyn."

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

### Analysis Results

Client Sample ID			MW-12		MW-13	
York Sample ID			07100915-01		07100915-02	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles, STARS List	SW846-8260	ug/L	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	5	Not detected	5
1,3,5-Trimethylbenzene			Not detected	5	Not detected	5
Benzene			Not detected	1	Not detected	1
Ethylbenzene			Not detected	5	Not detected	5
Isopropylbenzene			Not detected	5	Not detected	5
Methyl-tert-butyl ether			Not detected	5	Not detected	5
Naphthalene			Not detected	5	Not detected	5
n-Butylbenzene			Not detected	5	Not detected	5
n-Propylbenzene			Not detected	5	Not detected	5
o-Xylene			Not detected	5	Not detected	5
p- & m- Xylenes			Not detected	5	Not detected	5
p-Isopropyltoluene			Not detected	5	Not detected	5
sec-Butylbenzene			Not detected	5	Not detected	5
tert-Butylbenzene			Not detected	5	Not detected	5
Toluene			Not detected	5	Not detected	5

**YORK**

Client Sample ID			MW-14		MW-8	
York Sample ID			07100915-03		07100915-04	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles, STARS List	SW846-8260	ug/L	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	5	Not detected	5
1,3,5-Trimethylbenzene			Not detected	5	Not detected	5
Benzene			Not detected	1	Not detected	1
Ethylbenzene			Not detected	5	Not detected	5
Isopropylbenzene			Not detected	5	Not detected	5
Methyl-tert-butyl ether			Not detected	5	Not detected	5
Naphthalene			Not detected	5	Not detected	5
n-Butylbenzene			Not detected	5	Not detected	5
n-Propylbenzene			Not detected	5	Not detected	5
o-Xylene			Not detected	5	Not detected	5
p- & m- Xylenes			Not detected	5	Not detected	5
p-Isopropyltoluene			Not detected	5	Not detected	5
sec-Butylbenzene			Not detected	5	Not detected	5
tert-Butylbenzene			Not detected	5	Not detected	5
Toluene			Not detected	5	Not detected	5

Client Sample ID			MW-10		MW-2	
York Sample ID			07100915-05		07100915-06	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles, STARS List	SW846-8260	ug/L	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	5	Not detected	5
1,3,5-Trimethylbenzene			Not detected	5	Not detected	5
Benzene			Not detected	1	Not detected	1
Ethylbenzene			Not detected	5	Not detected	5
Isopropylbenzene			Not detected	5	Not detected	5
Methyl-tert-butyl ether			Not detected	5	Not detected	5
Naphthalene			Not detected	5	Not detected	5
n-Butylbenzene			Not detected	5	Not detected	5
n-Propylbenzene			Not detected	5	Not detected	5
o-Xylene			Not detected	5	Not detected	5
p- & m- Xylenes			Not detected	5	Not detected	5
p-Isopropyltoluene			Not detected	5	Not detected	5
sec-Butylbenzene			Not detected	5	Not detected	5
tert-Butylbenzene			Not detected	5	Not detected	5
Toluene			Not detected	5	Not detected	5

Client Sample ID			MW-3	
York Sample ID			07100915-07	
Matrix			WATER	
Parameter	Method	Units	Results	MDL
Volatiles, STARS List	SW846-8260	ug/L	---	---
1,2,4-Trimethylbenzene			Not detected	5
1,3,5-Trimethylbenzene			Not detected	5
Benzene			Not detected	1

**YORK**

Client Sample ID			MW-3	
York Sample ID			07100915-07	
Matrix			WATER	
Parameter	Method	Units	Results	MDL
Ethylbenzene			Not detected	5
Isopropylbenzene			Not detected	5
Methyl-tert-butyl ether			Not detected	5
Naphthalene			Not detected	5
n-Butylbenzene			Not detected	5
n-Propylbenzene			Not detected	5
o-Xylene			Not detected	5
p- & m- Xylenes			Not detected	5
p-Isopropyltoluene			Not detected	5
sec-Butylbenzene			Not detected	5
tert-Butylbenzene			Not detected	5
Toluene			Not detected	5

**Units Key:**

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

**Notes for York Project No. 07100915**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By: \_\_\_\_\_

Robert Q. Bradley  
Managing Director

Date: 11/5/2007


**YORK**

120 RESEARCH DRIVE STRATFORD, CT 06615  
(203) 325-1371 FAX (203) 357-0166

## Field Chain-of-Custody Record

Page \_\_\_\_ of \_\_\_\_

057100915

Company Name Advanced Site Restoration 607-William St	Report To: Steve	Invoice To: ASR	Project ID/No. 49-55 Dupont St Brooklyn	Samples Collected By (Signature) 	Name/(Printed) Anthony Alessi
----------------------------------------------------------------	---------------------	--------------------	-----------------------------------------------	-----------------------------------------------------------------------------------------------------------------------	----------------------------------

[illegible]

Chain-of-Custody Record		Turn-Around Time	
Bottles Relinquished from Lab by	Date/Time	Sample Relinquished by	Date/Time
Bottles Received in Field by	Date/Time	Sample Received in LAB by	Date/Time
Comments/Special Instructions		Standard RUSH(define)	



**ADVANCED SITE RESTORATION, LLC**  
ENVIRONMENTAL SERVICES

## Monthly Monitoring Report

**49-55 Dupont Street, Brooklyn, New York 11222**  
**NYSDEC SPILL # 06-01852**



### **Prepared By:**

Advanced Site Restoration, LLC  
62 William Street, New York N.Y. 10005

### **Prepared For:**

49 Dupont Realty Corporation  
49-55 Dupont St., Brooklyn, New York 11222

  
Steve Müller, CEC  
ASR Project Technician

  
Christopher Tomasello, IH.  
ASR Project Manager

**December 27, 2007**



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## **APPENDIX- A FIGURES**

Figure – 1	Site Location Map
Figure – 2	Well Location Map
Figure – 3	Groundwater Gradient Map

## **APPENDIX- B TABLES**

Table – 1	Monitoring Well Gauging Data
Table – 2	Product Recovery Data



## **1.0 INTRODUCTION**

Advanced Site Restoration, LLC (ASR) has developed this Monthly Monitoring Report on behalf of 49 Dupont Realty Corporation for 49-55 Dupont Street in Brooklyn New York (the site). The purpose of this report is to provide an update on the ongoing site investigation and Interim Remedial Measure (IRM) taking place at the site.

In December 2007, ASR conducted groundwater monitoring to provide an updated delineation of the contaminant plume. ASR began the subsurface investigation at the site in July 2006, and has since performed monthly monitoring and quarterly sampling. In addition, ASR has performed LNAPL recovery and removal from specially designated recovery wells and monitoring wells. All on-site activities have been documented thus far and are provided for in Appendix B, Table - 1 and Table -2.

As per the December 2007 groundwater monitoring activities, the contaminant plume is contained and stable. The level of LNAPL in the wells was found to be decreasing as the LNAPL removal program continues.

## **2.0 SITE CHARACTERIZATION**

The site is legally identified as New York City Tax Block 2487, Tax Lots 1, 10, 12, 17, 18, 20, 21, 57, 72, and 78. The current owner since 1983 is 49 Dupont Realty Corporation. The site is a former manufacturing facility. The New York City Department of Finance Occupancy Code is "F-9, Factory Industrial." According to the Sanborn Map Report from Environmental Data Resources, Inc. (EDR), industrial activity at the site dates back to 1887. Site location map is located in Appendix A Figure – 1.

Historic use of the site has included manufacturing, office, storage, shipping and receiving. More recently, the site had been used as a plastic manufacturing facility since 1950. According to *FPM Group* who completed a Phase I Site Assessment, dated April 2005 for the site, reported that commercial uses prior to 1950 included a boiler shop for Logan Ironworks, two stable buildings, a gas and light fixture factory, a sheet metal works, a soap manufacturer, a water proofing manufacturer, and a scrap metal facility.





### **3.0 SITE INVESTIGATION RESULT**

On December 14, 2007 ASR measured the depth to water, and monitored for the presence of LNAPL at the site and the surrounding area. A total of fifteen (15) monitoring wells and ten (10) recovery wells were monitored. LNAPL (Light Non-Aqueous Phase Liquid) was detected in seventeen (17) of the twenty five (25) wells (MW-1, MW-4, MW-5, MW-6, MW-7, MW-9, MW-15, MW-16, RW-2, RW-3, RW-4, RW-5, RW-6, RW-7, RW-8, RW-9 and RW-10). The LNAPL in sixteen (16) of the twenty five (25) wells ranged from a sheen to several inches thick. In MW-9 and RW-7, LNAPL was too thick for a reading to be taken. Based on the monitoring results the LNAPL plume appears to be contained to the west and north east sections of the site. Although LNAPL was detected beneath the sidewalk adjacent to the site, it was not detected in either of the two (2) down gradient wells, (MW-12 and MW-13). The location of all groundwater monitoring wells and recovery wells is shown on the Monitoring Well Location Map, Appendix A Figure – 2. All monitoring data is attached as Appendix B, Table - 1 (*Monitoring Well Gauging Data*).

The depth to groundwater was detected at a range of 7.33 ft to 15.84 ft. A previous groundwater survey indicated that the groundwater flow direction is in a north westerly direction. A Groundwater Gradient Map is located in Appendix A Figure – 3.

### **4.0 LNAPL REMOVAL PROGRAM**

In November 2006, ASR implemented an Interim Remedial Measure (IRM) which included the recovered of LNAPL by both mechanical and hand bailing methods. This IRM has continued uninterrupted removing a combination of plasticizers and #4 Fuel Oil. The main wells that product has been, and is being removed from, are RW-2, RW-3, RW-8, RW-9, RW-8, RW-10, MW-5, MW-6. Monitoring wells MW-15 and MW-16 were recently added to the LNAPL removal program in May 2007 along with RW-7 containing the fuel oil which was added in October 2007. Approximately 841 gallons of LNAPL was removed in the fourth quarter of 2007 using *Spillbuster Inc.* pumps and hand bailing, of which 8 gallons was fuel oil. A total of approximately 5,044 gallons has been removed from the ground as of the date of this report. On August 16, 2007 3,200 gallons of LNAPL were removed from the site using a vacuum truck. The remaining 1,844 gallons are currently being stored on site, as additional product continues to be removed from the ground. A vacuum truck will remove all of the LNAPL being stored on-site when it is deemed necessary and efficient to do so. The product recovery data is located in Appendix B Table - 2.



## **5.0 CONCLUSION**

As per the November 2007 groundwater monitoring activities, the contaminant plume is contained and stable. LNAPL continues to exist at and around the site, ranging from sheen to several feet in thickness. The levels of LNAPL in the wells were found to be decreasing as the LNAPL removal program continues.

ASR will continue to monitor and sample all groundwater monitoring wells to determine the status of the identified contamination. ASR will also continue to perform the product removal program as the ongoing IRM and monitor the progress of this program.



**APPENDIX - A**



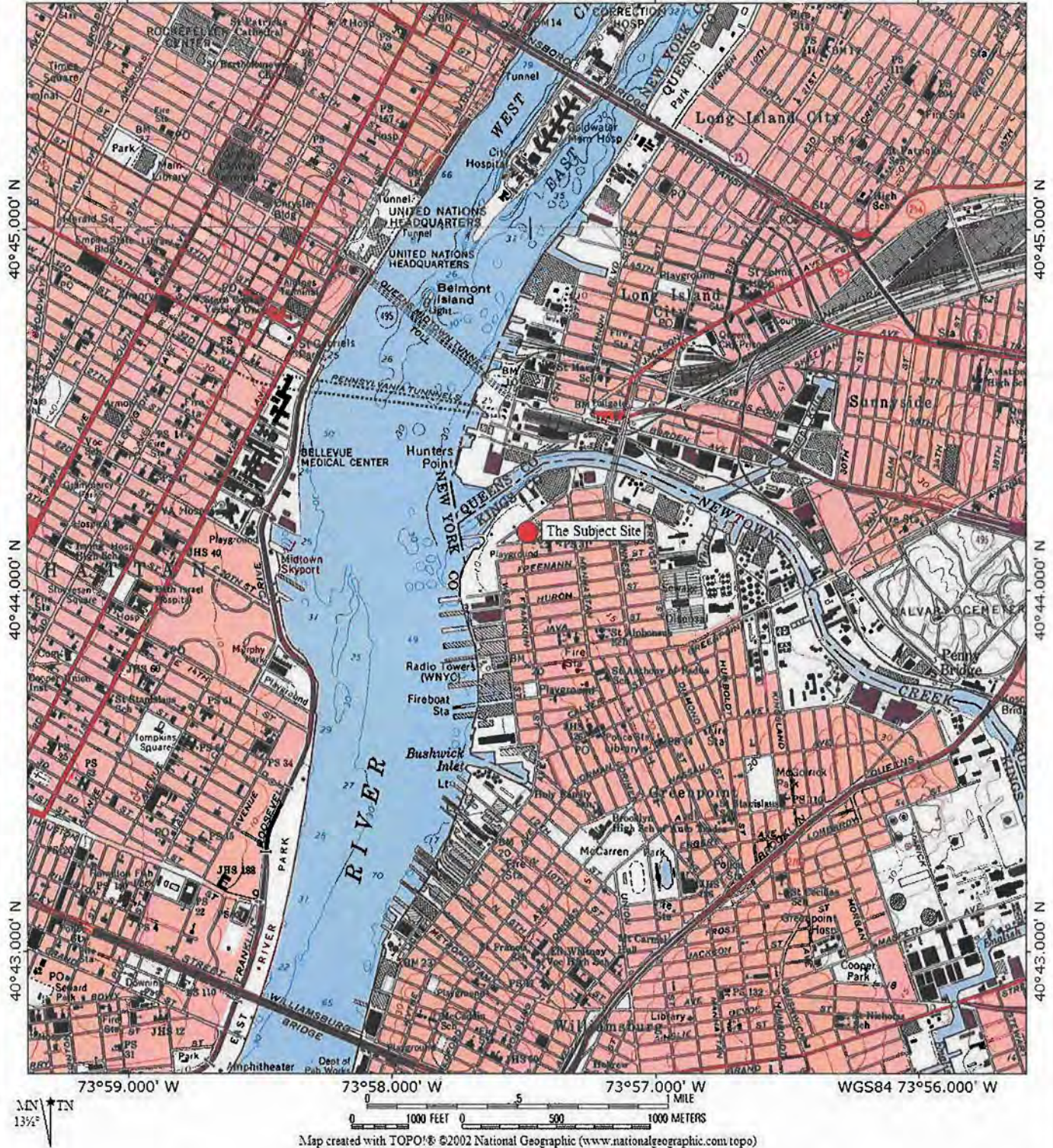
TOPO! map printed on 06/13/06 from "Northeast.tpo" and "Untitled.tpg"

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73°58.000' W

73°57.000' W

WGS84 73°56.000' W

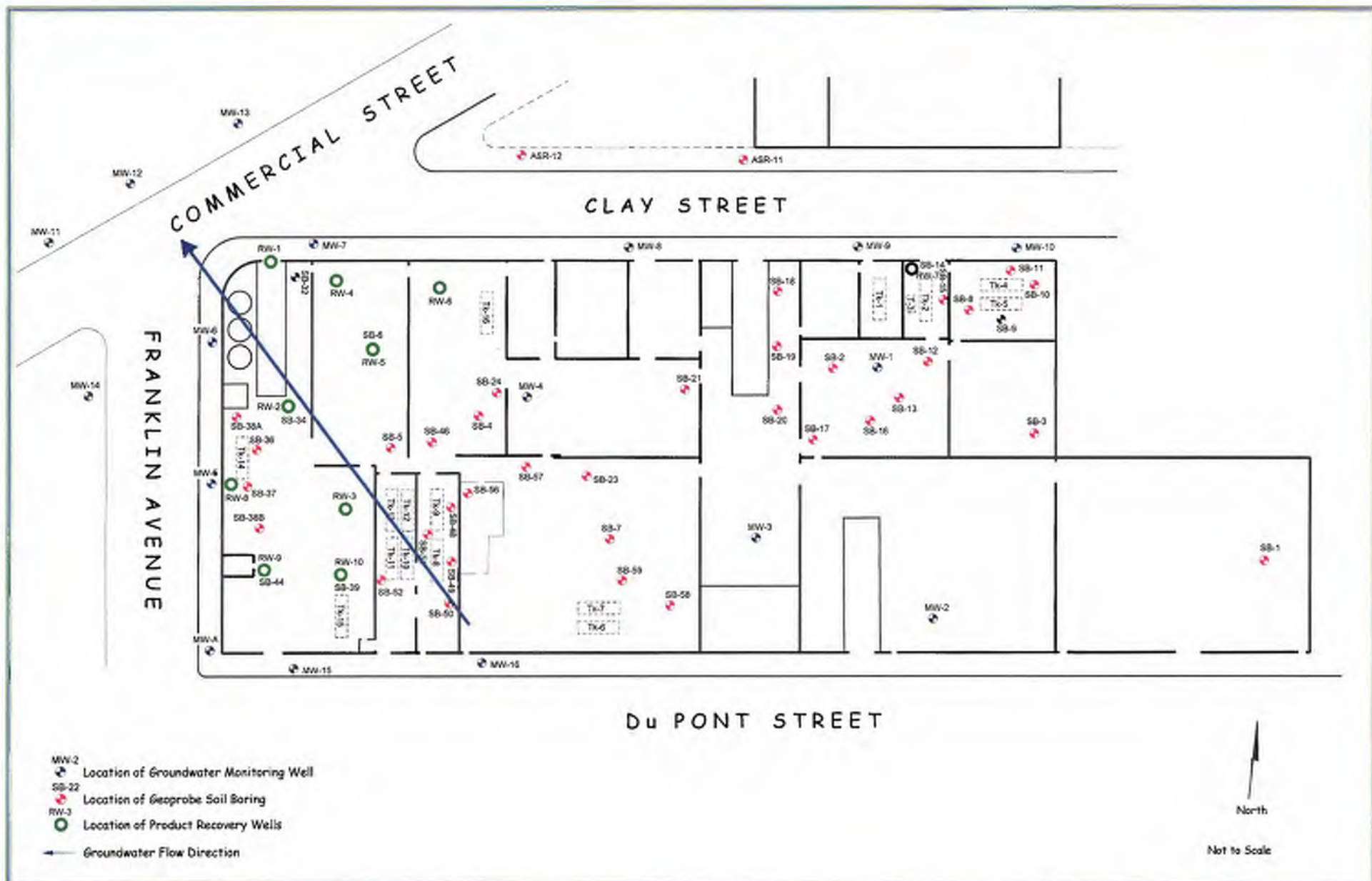


ADVANCED Site Restoration, LLC.  
Environmental Services

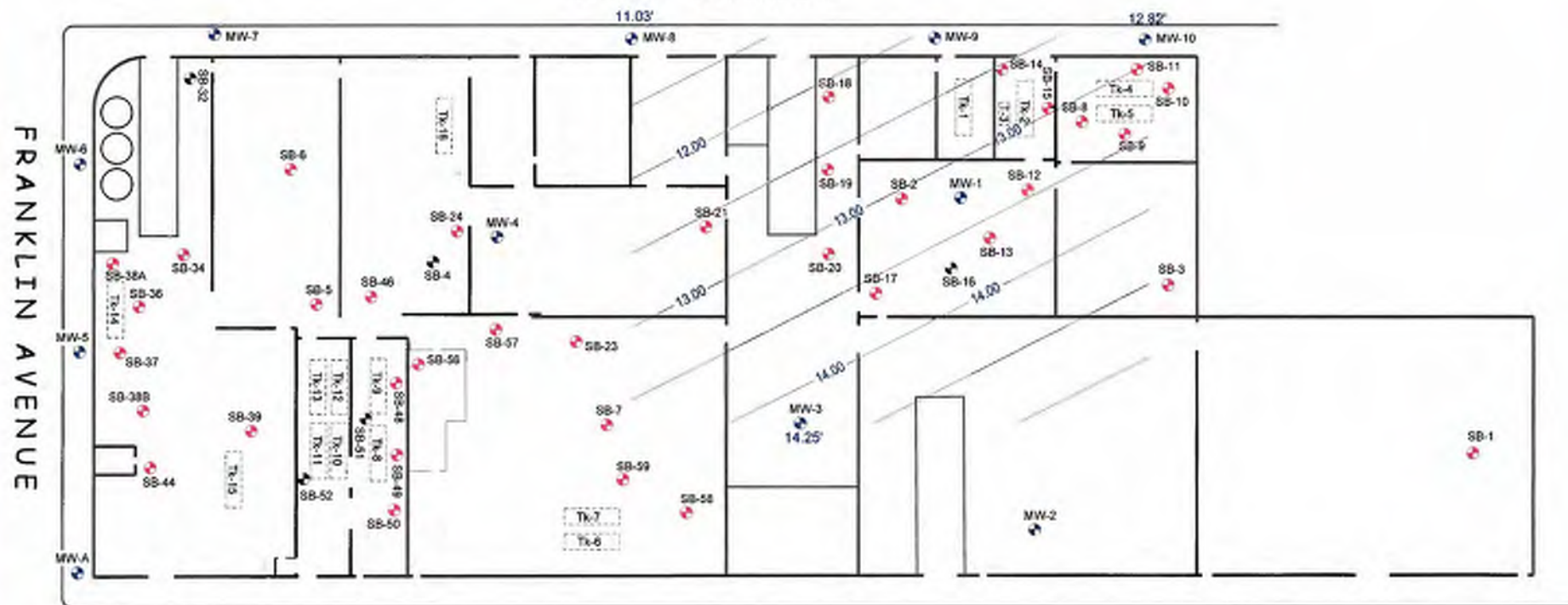
62 William St., 3rd Floor, New York, NY 10005  
Tel: 212-809-1110 Fax: 212-809-1779 info@askasr.com

Figure - 1  
Site Location Map  
49-55 Dupont Street  
Brooklyn, New York 11222





CLAY STREET



MW-2  
Location of Groundwater Monitoring Well  
SB-22  
Location of Geoprobe Soil Boring

North

Not to Scale



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Tel: 212-809-1110 Fax: 212-809-1779 info@askasr.com

SWM

Groundwater Gradient Map  
August 1, 2006

Rev: 08/23/06

49 Dupont Realty Corp.  
49 - 55 Dupont Street  
Brooklyn, New York



**APPENDIX - B**

**TABLE - 1**

## Monitoring Well Gauging Data

Well Number	Date	Well Elevation (ft)	Depth to Groundwater (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)
MW-1	5/10/2006	25.19	10.89	10.88	0.01	14.30
	11/20/2006		10.83	10.79	0.04	14.36
	6/18/2007		10.70	10.68	0.02	14.49
	8/13/2007		10.30	10.25	0.05	14.89
	9/24/2007		11.14	11.12	0.02	14.05
	10/21/2007		11.32	11.34	0.02	13.87
	11/23/2007		11.32	11.31	0.01	13.87
	12/14/2007		11.48	11.47	0.01	13.71
MW-2	5/10/2006	25.34	11.78	----	----	13.56
	11/20/2006		NA			
	4/25/2007		7.66			17.68
	5/10/2007		8.64			16.70
	6/18/2007		9.66			15.68
	8/13/2007		8.30			17.04
	9/24/2007		10.20			15.14
	10/21/2007		10.44			14.90
	11/23/2007		10.59			14.75
	12/14/2007		10.76			14.58
MW-3	5/10/2006	25.52	9.83	----	----	15.69
	8/10/2006		11.27	----	----	14.25
	11/20/2006		NA			
	4/25/2007		10.98			14.54
	5/10/2007		9.50			16.02
	6/18/2007		11.53			13.99
	8/13/2007		11.01			14.51
	9/24/2007		11.94			13.68
	10/21/2007		12.26			13.36
	11/23/2007		12.45			13.07
	12/14/2007		12.75			12.77
MW-4	5/10/2006	25.62	13.90	12.28	1.62	11.72
	11/20/2006		13.56	12.28	1.28	12.06
	5/10/2007		11.92	11.80	0.12	13.70
	6/18/2007		12.55	12.37	0.18	13.07
	8/13/2007		12.42	12.07	0.35	13.20
	9/24/2007		12.98	12.78	0.20	12.63
	10/21/2007		13.02	13.14	0.12	12.60
	11/23/2007		13.14	13.13	0.01	12.48
	12/14/2007		13.31	13.29	0.02	12.31
MW-5	8/10/2006	19.57	14.90	9.11	5.79	4.67
	11/20/2006		10.30	9.17	1.13	9.27
	5/10/2007		9.29	8.82	0.47	10.28
	6/18/2007		12.25	9.27	2.98	7.32
	8/13/2007		9.70	9.16	0.54	9.87
	9/24/2007		11.79	9.70	2.09	7.78
	10/21/2007		15.04	9.71	5.33	4.43
	11/23/2007		15.51	9.81	5.70	4.06
	12/14/2007		14.81	9.88	4.93	4.76



**TABLE - 1**

## Monitoring Well Gauging Data

Well Number	Date	Well Elevation (ft)	Depth to Groundwater (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)
MW-6	8/10/2006	18.62	12.00	8.28	3.72	6.62
	11/20/2006		8.85	8.23	0.62	9.77
	5/10/2007		8.41	7.87	0.54	10.21
	6/18/2007		9.34	9.07	0.27	9.28
	8/13/2007		10.25	8.69	1.56	8.37
	9/24/2007		9.82	9.45	0.37	8.79
	10/21/2007		9.99	9.62	0.37	8.63
	11/23/2007		9.76	9.06	0.70	8.86
	12/14/2007		9.68	9.13	0.55	8.94
MW-7	8/10/2006	18.75	10.52	8.62	1.90	8.23
	11/20/2006		8.80	8.52	0.28	9.95
	5/10/2007		8.33	8.21	0.12	10.42
	6/18/2007		9.12	8.66	0.46	9.63
	8/13/2007		9.50	8.65	0.85	9.25
	9/24/2007		9.71	9.10	0.61	9.04
	10/21/2007		9.48	9.14	0.34	9.27
	11/23/2007		9.79	9.13	0.66	8.96
	12/14/2007		9.65	9.32	0.33	9.10
MW-8	8/10/2006	20.26	9.46	----	----	10.80
	11/20/2006		NA			
	5/10/2007		8.86			11.40
	6/18/2007		9.40			10.86
	8/13/2007		9.45			10.81
	9/24/2007		9.78			10.48
	10/21/2007		10.03			10.23
	11/23/2007		10.16			10.10
	12/14/2007		10.21			10.05
MW-9	8/10/2006	20.62	10.22	7.88	2.34	10.40
	11/20/2006		LNAPL			
	6/18/2007		too thick			
	8/13/2007		too thick			
	9/24/2007		unknown	8.79		
	10/21/2007		too thick			
	11/23/2007		9.33	9.29		11.29
	12/14/2007		too thick			

**TABLE - 1**

Monitoring Well Gauging Data

Well Number	Date	Well Elevation (ft)	Depth to Groundwater (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)
MW-10	8/1/2006	21.04	8.22	----	----	12.82
	5/10/2007		7.97			13.07
	6/18/2007		8.25			12.79
	9/24/2007		8.69			12.79
	10/21/2007		8.64			12.40
	11/23/2007		8.88			12.16
	12/14/2007		8.96			12.08
MW-11	9/19/2006	17.01	7.07	----	----	9.94
	11/20/2006					
	5/10/2007		DESTROYED			
MW-12	9/19/2006	16.99	7.10	----	----	9.89
	11/20/2006					
	5/10/2007		6.89			10.10
	8/13/2007		6.57			10.42
	9/24/2007		7.74			9.25
	10/21/2007		7.61			9.38
	11/23/2007		7.64			9.35
	12/14/2007		7.21			9.78
MW-13	9/19/2006	17.20	7.16	----	----	10.04
	11/20/2006					
	5/10/2007		6.87			10.33
	8/13/2007		6.51			10.69
	9/24/2007		7.89			9.31
	10/21/2007		7.72			9.48
	11/23/2007		7.77			9.43
	12/14/2007		7.33			9.87

**TABLE - 1**

## Monitoring Well Gauging Data

Well Number	Date	Well Elevation (ft)	Depth to Groundwater (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)
MW-14	9/19/2006	18.23	8.11	----	----	10.12
	11/20/2006					
	5/10/2007		7.60			10.63
	8/13/2007		8.23			10.00
	9/24/2007		8.52			9.71
	10/21/2007		8.61			9.62
	11/23/2007		8.71			9.52
	12/14/2007		NA			
MW-15	5/10/2007	NA	10.83	9.35	1.48	----
	5/23/2007		9.72	9.70	0.02	----
	6/18/2007		10.02	9.93	0.09	----
	8/13/2007		9.70	9.16	0.54	----
	9/24/2007		10.73	10.32	0.41	----
	10/21/2007		11.37	10.44	0.07	----
	11/23/2007		NA			
	12/14/2007		11.15	10.63	0.52	----
MW-16	5/10/2007	NA	11.07	9.98	1.09	----
	5/23/2007		10.54	10.31	0.23	----
	6/18/2007		11.27	10.59	0.68	----
	8/13/2007		11.81	10.46	1.35	----
	9/24/2007		11.03	11.09	0.06	----
	10/21/2007		11.16	11.14	0.02	----
	11/23/2007		NA			
	12/14/2007		11.35	11.32	0.03	----

TABLE - 1

## Monitoring Well Gauging Data

Well Number	Date	Well Elevation (ft)	Depth to Groundwater (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)
RW-1	11/20/2006	NA	8.38			----
	4/25/2007		7.57			----
	5/10/2007		8.04			----
	6/18/2007		8.57			----
	9/24/2007		9.10			----
	10/21/2007		9.17			----
	11/23/2007		9.31			----
	12/14/2007		9.22			----
RW-2	4/25/2007	NA	12.46	12.45	0.01	----
	5/10/2007		12.91	12.71	0.20	----
	10/21/2007		14.09	13.85	0.24	----
	11/23/2007		15.81	14.51	1.30	----
	12/14/2007		15.22	13.85	1.37	----
RW-3	4/25/2007	NA	13.84	13.60	0.24	----
	5/10/2007		14.17	14.00	0.17	----
	6/18/2007		15.40	14.53	0.87	----
	9/24/2007		15.63	14.96	0.67	----
	10/21/2007		15.73	15.12	0.51	----
	11/23/2007		16.51	15.15	1.36	----
	12/14/2007		15.55	13.33	2.22	----
RW-4	11/20/2006	NA	16.47	14.49	1.98	----
	4/25/2007		14.15	13.75	0.40	----
	5/10/2007		14.44	14.10	0.34	----
	6/18/2007		14.85	14.62	0.23	----
	9/24/2007		16.87	15.29	1.58	----
	10/21/2007		15.74	15.45	0.29	----
	11/23/2007		15.88	15.42	0.46	----
	12/14/2007		15.84	15.48	0.36	----
RW-5	11/20/2006	NA	13.64	13.53	0.11	----
	4/25/2007		12.75	12.60	0.15	----
	5/10/2007		13.10	13.02	0.08	----
	6/18/2007		13.60	13.55	0.05	----
	9/24/2007		14.24	13.94	0.30	----
	10/21/2007		14.23	14.11	0.12	----
	11/23/2007		14.23	14.13	0.10	----
	12/14/2007		14.75	14.26	0.49	----

**TABLE - 1**

## Monitoring Well Gauging Data

Well Number	Date	Well Elevation (ft)	Depth to Groundwater (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)
RW-6	4/25/2007	NA	10.69			----
	5/10/2007		11.08			----
	6/18/2007		11.58			----
	9/24/2007		12.77	11.94	0.83	----
	10/21/2007		12.92	12.11	0.81	----
	11/23/2007		12.85	12.14	0.71	----
	12/14/2007		12.78	12.21	0.57	----
RW-7	11/20/06		LNAPL			----
	9/24/2007		unknown	9.05		----
	10/21/2007		9.51	too thick		----
	11/23/2007		9.83	9.77		----
	12/14/2007		9.80	too thick		----
RW-8	4/25/2007	NA	12.60	12.35	0.25	----
	5/10/2007		13.11	12.78	0.33	----
	6/18/2007		14.36	13.25	1.11	----
	8/13/2007					----
	9/24/2007		15.95	13.65	2.30	----
	10/21/2007		NS			----
	11/23/2007		14.45	13.98	0.47	----
	12/14/2007		14.78	13.95	0.83	----
RW-9	4/25/2007	NA	12.10	11.95	0.15	----
	5/10/2007		12.59	12.36	0.23	----
	6/18/2007		13.60	12.83	0.77	----
	8/13/2007					----
	9/24/2007		14.80	13.30	1.50	----
	10/21/2007		NS			----
	11/23/2007		13.97	13.23	0.74	----
	12/14/2007		14.15	13.59	0.56	----
RW-10	4/25/2007	NA	11.76	11.64	0.12	----
	5/10/2007		12.13	12.05	0.08	----
	8/13/2007		pump			----
	9/24/2007		pump			----
	10/21/2007		pump			----
	11/23/2007		13.89	13.18	0.71	----
	12/14/2007		13.72	13.31	0.41	----

**TABLE - 2****Product Recovery**

Well Number	Dec-07	Nov-07	Oct-07	Sep-07	Aug-07	Jul-07	Jun-07	May-07	Apr-07	Mar-07	Feb-07	Jan-07	Dec-06	Nov-06
RW-2	20	23	27	15	47	67	75	72	76	79	98	80	92	100
RW-3	35	52	87	43	89	82	90	96	92	95	87	93	67	60
RW-4	0	0	0	0	0	3	2	32	27	0	0	0	0	0
RW-5	8	10	9	0	0	0	0	0	0	0	0	0	0	0
RW-7	2	4	2	0	0	0	0	0	0	0	0	0	0	0
RW-8	25	22	27	36	38	38	39	46	42	14	16	25	5	0
RW-9	15	26	14	19	22	23	21	17	15	16	20	13	6	0
RW-10	108	110	120	146	166	154	166	175	165	167	158	144	168	0
MW-4	0	0	0	0	0	1	1	7	6	0	0	1	1	27
MW-5	18	22	20	22	16	28	25	28	27	0	0	5	0	1
MW-6	2	8	14	9	17	29	26	26	26	0	0	5	0	0
MW-7	0	1	1	0	0	0	0	0	0	0	0	0	0	0
MW-9	1	2	0	0	0	0	0	0	0	0	0	0	0	0
MW-15	1	1	3	4	8	1	1	4	0	0	0	0	0	0
MW-16	0	1	0	4	8	0	0	0	0	0	0	0	0	0

<b>Total =</b>	235	282	324	298	411	426	446	503	476	371	379	366	339	188
----------------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

**TOTAL (GAL.) RECOVERD****5,044**



**ADVANCED SITE RESTORATION, LLC**  
ENVIRONMENTAL SERVICES

## **Quarterly Sampling Report**

**First Quarter 2008**

**49-55 Dupont Street, Brooklyn, New York 11222**  
**NYSDEC SPILL # 06-01852**



**Prepared By:**

Advanced Site Restoration, LLC  
62 William Street, New York N.Y. 10005

**Prepared For:**

49 Dupont Realty Corporation  
49-55 Dupont St., Brooklyn, New York 11222

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Steven Muller, CEC  
Project Technician

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Christopher Tomasello, IH  
Project Manager

**March 2008**



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2.0	SITE CHARACTERIZATION .....	2
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3.0	SITE INVESTIGATION RESULTS .....	3
3.1	Monitoring Well Gauging.....	3
3.2	Monitoring Well Sampling .....	3
3.3	Sampling Analysis.....	3
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4.0	CONCLUSION.....	4

## **APPENDIX - A FIGURES**

Figure – 1	Site Location Map
Figure – 2	Well Location Map
Figure – 3	Groundwater Gradient Map
Figure – 4	Monitoring/Sampling Results Map Jan/08-Feb/08

## **APPENDIX - B TABLES**

Table – 1	Monitoring Well Gauging Data
Table – 2	Groundwater Dissolved Constituent Sampling
Table – 3	Product Recovery Data

## **APPENDIX - C REPORTS**

Laboratory Analytical Reports

## **APPENDIX - D MANIFEST**



## **1.0 INTRODUCTION**

Advanced Site Restoration, LLC (ASR) has developed this Quarterly Sampling Report on behalf of 49 Dupont Realty Corporation for 49-55 Dupont Street in Brooklyn New York (the subject site). The purpose of this report is to provide an update on the ongoing site investigation and Interim Remedial Measure (IRM) taking place at the site.

In January 2008, ASR conducted groundwater monitoring and sampling to provide an updated status of the contaminant plume. ASR began the subsurface investigation at the site in July 2006, and has since performed monthly monitoring and quarterly sampling. In addition, ASR has performed LNAPL recovery and removal from specially designated recovery wells and monitoring wells. All on-site activities have been documented thus far, and are attached as Appendix-B.

As per the January 2008 groundwater monitoring and sampling activities, the contaminant plume is contained and stable. The level of LNAPL in the wells was found to be decreasing as the LNAPL removal program continues. All groundwater monitoring wells free of LNAPL, including two (2) down gradient wells, were sampled, and analysis indicated that no VOCs were detected in excess of the laboratory minimum detection limits.

## **2.0 SITE CHARACTERIZATION**

### **2.1 Site Description**

The site is legally identified as New York City Tax Block 2487, Tax Lots 1, 10, 12, 17, 18, 20, 21, 57, 72, and 78. The current owner since 1983 is 49 Dupont Realty Corporation. The site is a former manufacturing facility. The New York City Department of Finance Occupancy Code is "F-9, Factory Industrial." According to the Sanborn Map Report from Environmental Data Resources, Inc. (EDR), industrial activity at the site dates back to 1887.

Historic use of the site has included manufacturing, office, storage, shipping and receiving. More recently, the site had been used as a plastic manufacturing facility since 1950. According to *FPM Group* who completed a Phase I Site Assessment, dated April 2005 for the site, reported that commercial uses prior to 1950 included a boiler shop for Logan Ironworks, two stable buildings, a gas and light fixture factory, a sheet metal works, a soap manufacturer, a water proofing manufacturer, and a scrap metal facility.

### **3.0 SITE INVESTIGATION RESULTS**

#### **3.1 Monitoring Well Gauging**

On January 11, 2008 ASR measured the depth to water, and monitored for the presence of LNAPL at the site and the surrounding area. A total of twenty five (25) wells were monitored. LNAPL (Light Non-Aqueous Phase Liquid) was detected in seventeen (17) of the twenty five (25) wells (MW-1, MW-4, MW-5, MW-6, MW-7, MW-9, MW-15, MW-16, RW-1, RW-2, RW-3, RW-4, RW-5, RW-6, RW-7, RW-8, RW-9 and RW-10). The LNAPL in the seventeen (17) wells were all below 12 inches thick. Based on the monitoring results the LNAPL plume appears to be contained to the west and north east sections of the site. Although LNAPL was detected beneath the sidewalk adjacent to the site, it was not detected in either of the two (2) down gradient wells, (MW-12 and MW-13).

The depth to groundwater was detected at a range of 7.37 ft to 15.19 ft. A previous groundwater survey indicated that the groundwater flow direction is in a north westerly direction. The location of all groundwater monitoring wells is shown on the Monitoring Well Location Map, Appendix-A Figure – 2. All monitoring data is attached as Appendix-B, *Monitoring Well Gauging Data*.

#### **3.2 Monitoring Well Sampling**

On January 11, 2008 ASR sampled seven (7) groundwater monitoring wells (MW-2, MW-3, MW-8, MW-10, MW-12, MW-13, MW-14). New disposable polyethylene tubing was used with a peristaltic pump for sample collection. The groundwater samples were submitted to York Analytical Laboratories, Inc. and analyzed for Volatile Organic Compounds (VOCs) using EPA Method 8260 Stars and Semi Volatile Organic Compounds (SVOCs) using EPA Method 8270 Stars. All sampling data is attached in Appendix-B, *Groundwater Dissolved Constituent Sampling*.

#### **3.3 Sampling Analysis**

Bis (2-ethylhexyl) Phthalate has historically been detected as both LNAPL and a dissolved constituent in previous groundwater sampling activities. The January 2008 groundwater analytical results indicated that phthalates were detected in five (5) of the seven (7) groundwater samples collected. Dissolved phthalates were

detected in the groundwater samples collected from MW-12, MW-13, and MW-14. The detection in these wells, which had not previously reflected the presence of phthalates, was immediately suspected to be the result of cross contamination during the sampling process. No other VOCs were detected in any of the seven (7) sampled groundwater monitoring wells.

As a result of concerns with the initial detection of low levels of dissolved phthalates in monitoring wells MW-12, MW-13, and MW-14, and the possibility of cross contamination, these wells were resampled. On February 7, 2008 ASR returned to the site and collected groundwater samples from MW-12, MW-13 and MW14 after proper purging and development. The samples were and delivered to York Analytical Laboratories, Inc. and analyzed for EPA 8270 BN. The results indicated no detection of any phthalates in all three (3) samples. The laboratory analytical report is attached in Appendix-C.

### **3.4 LNAPL Removal Program**

In November 2006, ASR implemented an Interim Remedial Measure (IRM) which included the recovered LNAPL by both mechanical and hand bailing methods. This IRM has continued uninterrupted removing a combination of phthalates and #4 Fuel Oil. Since November 2006 product has been recovered from RW-2, RW-3, RW-5, RW-7, RW-8, RW-9, RW-10, and monitoring wells MW-5, MW-6. Additional monitoring wells MW-15 and MW-16 were recently added to the LNAPL removal program in May 2007 along with RW-7 containing the fuel oil which was added in October 2007. Approximately 873 gallons of LNAPL was recovered in the first quarter of 2008 using *Spillbuster Inc.* pumps and hand bailing, of which 22 gallons was fuel oil. A total of approximately 5,400 gallons has been recovered from the ground as of the date of this report. On August 16, 2007, 3,200 gallons of LNAPL was recovered from the site using a vacuum truck. On February 7 2008 an additional 3,115 gallons of recovered phthalates was removed from the site by a vacuum truck. The manifest is attached in Appendix-D. Additional product continues to be recovered from the ground and stored on site. The product recovery data is located in Appendix - B Table - 2.

## **4.0 CONCLUSION**

As per the January 2008 groundwater monitoring and sampling activities, the contaminant plume is contained and stable. LNAPL continues to be detected at the subject site, ranging in thickness from a sheen to several inches. The levels of LNAPL in the wells were found to be decreasing as the LNAPL removal program continues. All groundwater monitoring wells free of LNAPL were sampled and analyzed.

The low level detection of phthalates in the results of the three (3) down gradient well locations was suspected to be the result of cross contamination encountered during sampling and not indicative of the quality of the groundwater at these locations. As a result, ASR collected and analyzed additional samples from these wells. The data indicated no detection of phthalates in any of the samples. No other VOCs were detected in excess of the laboratory minimum detection limits in any samples.

ASR will continue to perform monthly monitoring and quarterly sampling of all groundwater monitoring wells to monitor the status of the identified contamination. ASR will also continue to perform the product recovery program as an ongoing IRM, and continue to provide updated status reports on the progress of this program.



APPENDIX - A



APPENDIX - B



APPENDIX - C



APPENDIX - D





**ADVANCED SITE RESTORATION, LLC**  
ENVIRONMENTAL SERVICES

## **Quarterly Sampling Report**

**Second Quarter 2008**

**49-55 Dupont Street, Brooklyn, New York 11222**  
**NYSDEC SPILL # 06-01852**



### **Prepared By:**

Advanced Site Restoration, LLC  
62 William Street, New York N.Y. 10005

### **Prepared For:**

49 Dupont Realty Corporation  
49-55 Dupont St., Brooklyn, New York 11222

Steven Muller, CEC  
Project Technician

Christopher Tomasello, IH  
Project Manager

**August 2008**



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## **1.0 INTRODUCTION**

Advanced Site Restoration, LLC (ASR) has developed this Quarterly Sampling Report on behalf of 49 Dupont Realty Corporation for 49-55 Dupont Street in Brooklyn New York (the subject site). The purpose of this report is to provide an update on the ongoing site investigation and Interim Remedial Measure (IRM) taking place at the site.

In August 2008, ASR conducted groundwater monitoring and sampling to provide an updated status of the contaminant plume. ASR began the subsurface investigation at the site in July 2006, and has since performed monthly monitoring and quarterly sampling. In addition, ASR has performed LNAPL recovery and removal from specially designated recovery wells and monitoring wells. All on-site activities have been documented thus far, and are attached as Appendix-B.

As per the August 2008 groundwater monitoring and sampling activities, the contaminant plume is contained and stable. The level of LNAPL in the wells was found to be decreasing as the LNAPL removal program continues. All groundwater monitoring wells free of LNAPL, including two (2) down gradient wells, were sampled, and analysis indicated that no VOCs were detected in excess of the laboratory minimum detection limits.

## **2.0 SITE CHARACTERIZATION**

### **2.1 Site Description**

The site is legally identified as New York City Tax Block 2487, Tax Lots 1, 10, 12, 17, 18, 20, 21, 57, 72, and 78. The current owner since 1983 is 49 Dupont Realty Corporation. The site is a former manufacturing facility. The New York City Department of Finance Occupancy Code is "F-9, Factory Industrial." According to the Sanborn Map Report from Environmental Data Resources, Inc. (EDR), industrial activity at the site dates back to 1887.

Historic use of the site has included manufacturing, office, storage, shipping and receiving. More recently, the site had been used as a plastic manufacturing facility since 1950. According to *FPM Group* who completed a Phase I Site Assessment, dated April 2005 for the site, reported that commercial uses prior to 1950 included a boiler shop for Logan Ironworks, two stable buildings, a gas and light fixture factory, a sheet metal works, a soap manufacturer, a water proofing manufacturer, and a scrap metal facility.



### **3.0 SITE INVESTIGATION RESULTS**

#### **3.1 Monitoring Well Gauging**

On August 21, 2008 ASR measured the depth to water, and monitored for the presence of LNAPL at the site and the surrounding area. A total of twenty five (25) wells were monitored. LNAPL (Light Non-Aqueous Phase Liquid) was detected in sixteen (16) of the twenty five (25) wells (MW-3, MW-4, MW-5, MW-6, MW-7, MW-9, MW-15, MW-16, RW-2, RW-3, RW-4, RW-5, RW-6, RW-7, RW-8, RW-9 and RW-10). The LNAPL in thirteen (13) of the sixteen (16) wells were at or below 12 inches thick, MW-5 had 2.18 ft and RW-8 had 1.45 ft of LNAPL, MW-9 readings were not recorded due to the product thickness in well. Based on the monitoring results the LNAPL plume appears to be contained to the west and north east sections of the site. Although LNAPL was detected beneath the sidewalk adjacent to the site, it was not detected in either of the two (2) down gradient wells, (MW-12 and MW-13).

The depth to groundwater was detected at a range of 7.35 ft to 15.10 ft. A previous groundwater survey indicated that the groundwater flow direction is in a north westerly direction. The location of all groundwater monitoring wells is shown on the Monitoring Well Location Map, Appendix-A Figure – 2. All monitoring data is attached as Appendix-B, *Monitoring Well Gauging Data*.

#### **3.2 Monitoring Well Sampling**

On August 21, 2008 ASR sampled eight (8) groundwater monitoring wells and one (1) recovery well (MW-2, MW-3, MW-8, MW-10, MW-12, MW-13, MW-14 and RW-1). New disposable polyethylene tubing was used with a peristaltic pump for sample collection. Three volumes of purged water were removed from monitoring wells prior to sampling. The groundwater samples were submitted to York Analytical Laboratories, Inc. and analyzed for Volatile Organic Compounds (VOCs) using EPA Method 8260 Stars and Semi Volatile Organic Compounds (SVOCs) using EPA Method 8270 Stars. All sampling data is attached in Appendix-B, *Groundwater Dissolved Constituent Sampling*.

#### **3.3 Sampling Analysis**

Bis (2-ethylhexyl) Phthalate has historically been detected as both LNAPL and a dissolved constituent in previous groundwater sampling activities. The August 2008 groundwater analytical results indicated that phthalates were not detected in



any of the eight (8) groundwater samples collected. 1,2-Dichloroethylene and Trichloroethylene in MW-8 were above method detected. A low trace of Trichloroethylene was found in MW-10. No other VOC's were detected in any of the eight (8) sampled groundwater monitoring wells.

### **3.4 LNAPL Removal Program**

In November 2006, ASR implemented an Interim Remedial Measure (IRM) which included the recovered LNAPL by both mechanical and hand bailing methods. This IRM has continued uninterrupted removing a combination of phthalates and #4 Fuel Oil. Since November 2006 product has been recovered from RW-2, RW-3, RW-5, RW-7, RW-8, RW-9, RW-10, and monitoring wells MW-5, MW-6. Additional monitoring wells MW-15 and MW-16 were recently added to the LNAPL removal program in May 2007 along with RW-7 containing the fuel oil which was added in October 2007. Approximately 1044 gallons of LNAPL was recovered in the third quarter of 2008 using *Spillbuster Inc.* pumps and hand bailing. A total of approximately 6,247 gallons has been recovered from the ground as of the date of this report. On August 16, 2007, 3,200 gallons of LNAPL was recovered from the site using a vacuum truck. On February 7 2008 an additional 3,115 gallons of recovered phthalates was removed from the site by a vacuum truck. The manifest is attached in Appendix-D. Additional product continues to be recovered from the ground and stored on site. The product recovery data is located in Appendix - B Table - 2.

## **4.0 CONCLUSION**

As per the August 2008 groundwater monitoring and sampling activities, the contaminant plume is contained and stable. LNAPL continues to be detected at the subject site, ranging in from a sheen to 2 ft in thickness. The levels of LNAPL in the wells were found to be decreasing as the LNAPL removal program continues. All groundwater monitoring wells free of LNAPL were sampled and analyzed.

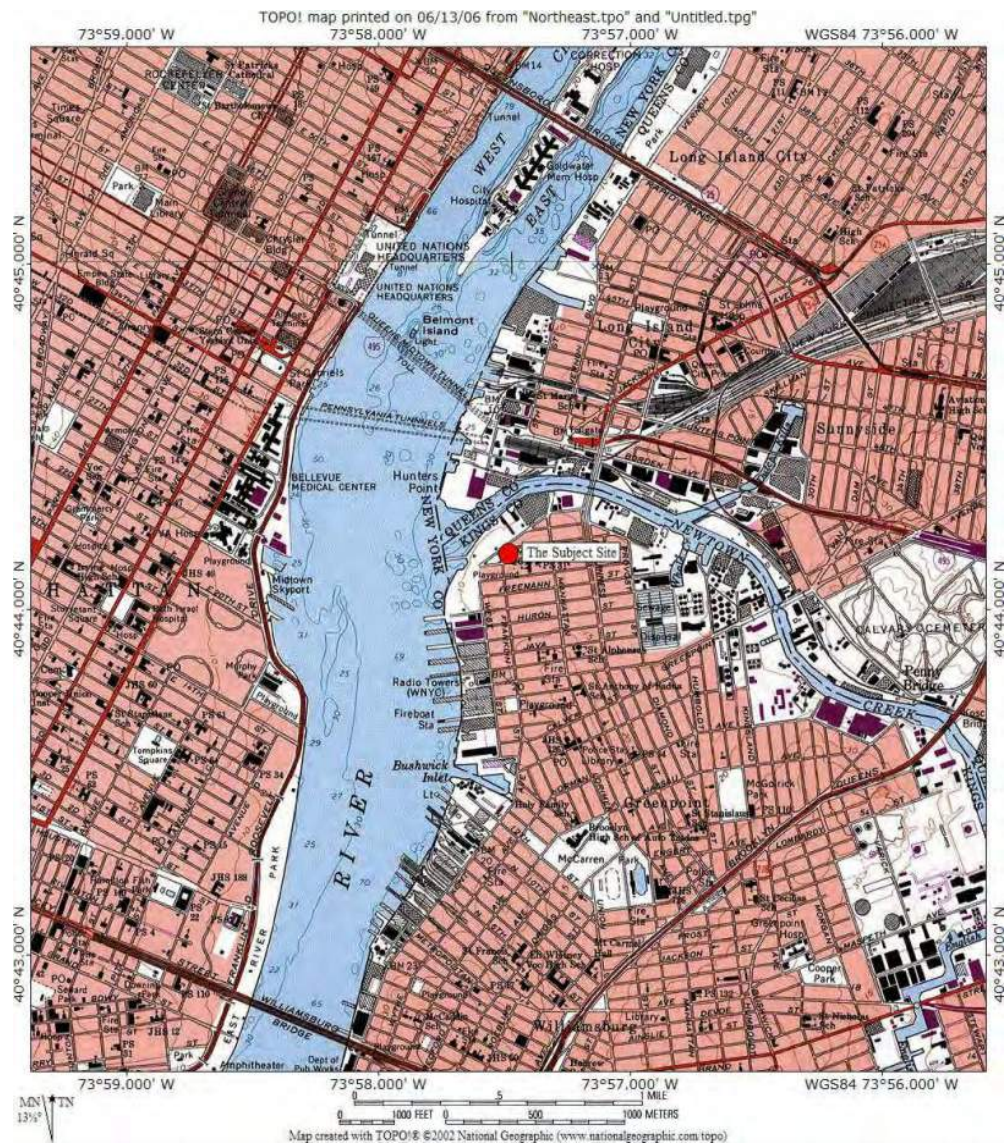
ASR will continue to perform monthly monitoring and quarterly sampling of all groundwater monitoring wells to monitor the status of the identified contamination. ASR will also continue to perform the product recovery program as an ongoing IRM, and continue to provide updated status reports on the progress of this program.



**ADVANCED SITE RESTORATION, LLC**  
*ENVIRONMENTAL SERVICES*

APPENDIX - A

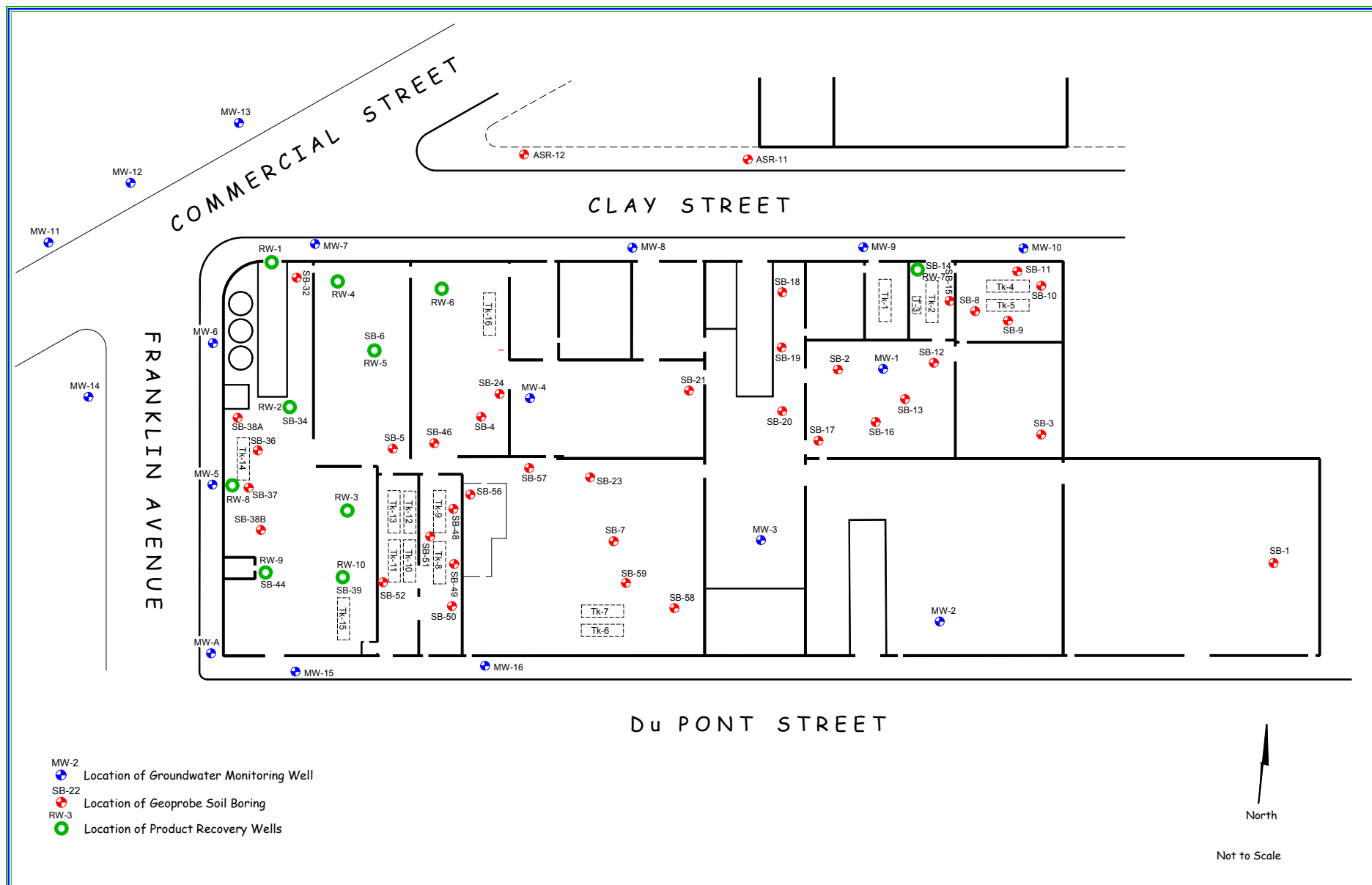




**ADVANCED Site Restoration, LLC.**  
Environmental Services

62 William St., 3rd Floor, New York, NY 10005  
Tel: 212-809-1110 Fax: 212-809-1779 info@askasr.com

Figure - 1  
Site Location Map  
49-55 Dupont Street  
Brooklyn, New York 11222



**ADVANCED Site Restoration, LLC.**  
Environmental Services

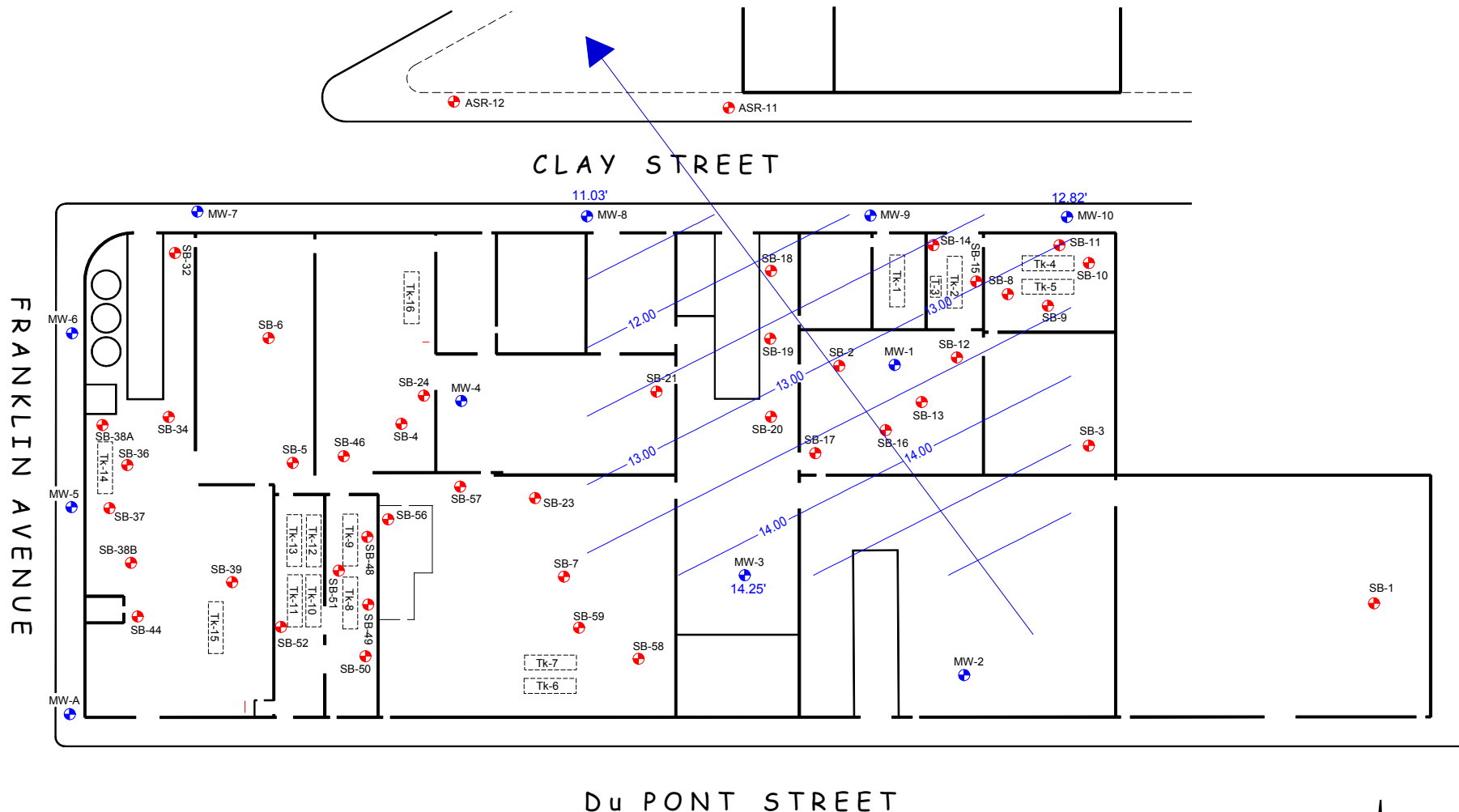
62 William St., 3rd Floor, New York, NY 10005  
Tel: 212-809-1110 Fax: 212-809-1779 info@askasr.com

SWM

**Figure - 2**  
**Well Location Map**  
**December 2007**

**49 Dupont Realty Corp.**  
**49 - 55 Dupont Street**  
**Brooklyn, New York**





MW-2  
 Location of Groundwater Monitoring Well  
 SB-22  
 Location of Geoprobe Soil Boring



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 Tel: 212-809-1110 Fax: 212-809-1779 info@askasr.com

SWM

Figure - 3  
 Groundwater Gradient Map  
 August 1, 2006

Rev: 08/23/06

49 Dupont Realty Corp.  
 49 - 55 Dupont Street  
 Brooklyn, New York



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*ENVIRONMENTAL SERVICES*

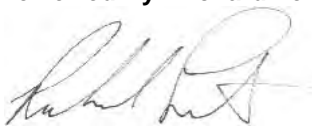

**APPENDIX - B**



**ADVANCED SITE RESTORATION, LLC**  
ENVIRONMENTAL SERVICES

**MONTHLY MONITORING REPORT**

<b>Site Address:</b>	<i>NuHart &amp; Company, Inc. 49- 55 Dupont Street Brooklyn, New York</i>	<b>Regulatory Agency:</b>	<i>NYSDEC (Region II)</i>
		<b>Regulatory Contact:</b>	<i>Raphael Katani</i>
		<b>Spill File:</b>	<i>06-01852</i>
<b>Prepared for:</b>	<i>49 Dupont Realty Corp. Brooklyn, New York</i>	<b>Dupont Contact</b>	<i>Joe Folkman</i>
		<b>ASR Contact</b>	<i>Steven Muller</i>

<b>Report Date</b>	<i>July, 2008</i>
<b>Current Site Status</b>	<i>Former Manufacturing Facility</i>
<b>Monitoring Period</b>	<i>July 2008</i>
<b>Well Information</b>	
<b>Number/Type:</b>	<i>15 - 2 inch diameter monitoring wells 10 - 4 inch diameter recovery wells</i>
<b>Groundwater Monitoring</b>	
<b>Gauging Frequency:</b>	<i>Monthly</i>
<b>Sampling Frequency:</b>	<i>Quarterly</i>
<b>Wells containing LNAPL:</b>	<i>14</i>
<b>LNAPL Thickness (max):</b>	
<b>Total BTEX:</b>	<i>&lt;MDL (April 2008)</i>
<b>MtBE:</b>	<i>&lt;MDL (April 2008)</i>
<b>Groundwater Depth:</b>	<i>8.01 ft to 15.23 ft</i>
<b>Groundwater Flow Direction:</b>	<i>Northwesterly</i>
<b>Surrounding Land Use:</b>	
<b>North:</b>	<i>Hardware Store/Warehouse</i>
<b>South:</b>	<i>Residential Homes</i>
<b>East:</b>	<i>Multi-Family Residential Buildings</i>
<b>West:</b>	<i>New York City Lot</i>
<b>Remedial Activities:</b>	<i>An Interim Remedial Measure consisting of two continous operating product only pumps and daily hand bailing is on-going.</i>
<b>Reviewed By: Richard Levato</b>	<b>Reviewed By: Steven Muller, CEC</b>
	

**Table-1**  
**49 Dupont Street**  
**Brooklyn, New York**

Well Number	Date	Well Elevation (ft)	Depth to Groundwater (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)
MW-1	5/10/2006	25.19	10.89	10.88	0.01	14.30
	11/20/2006		10.83	10.79	0.04	14.36
	6/18/2007		10.70	10.68	0.02	14.49
	8/13/2007		10.30	10.25	0.05	14.89
	9/24/2007		11.14	11.12	0.02	14.05
	10/21/2007		11.32	11.34	0.02	13.87
	11/23/2007		11.32	11.31	0.01	13.87
	12/14/2007		11.48	11.47	0.01	13.71
	1/11/2008		11.09	11.08	0.01	14.10
	2/28/2008		11.19			14.00
	3/24/2008		10.85			14.34
	4/7/2008		10.95	Sheen		14.24
	5/12/2008		10.87			14.32
	6/4/2008		10.92			14.90
	7/25/2008		11.30			13.89
	8/21/2008		11.71			13.48
MW-2	5/10/2006	25.34	11.78	----	----	13.56
	11/20/2006		NA			
	4/25/2007		7.66			17.68
	5/10/2007		8.64			16.70
	6/18/2007		9.66			15.68
	8/13/2007		8.30			17.04
	9/24/2007		10.20			15.14
	10/21/2007		10.44			14.90
	11/23/2007		10.59			14.75
	12/14/2007		10.76			14.58
	1/11/2008		10.37			14.97
	2/28/2008		10.10			15.24
	3/24/2008		9.90			15.44
	4/7/2008		9.94			15.40
	5/12/2008		9.97			15.37
	6/4/2008		10.05			15.30
	7/25/2008		10.49			14.85
	8/21/2008		10.72			14.52
MW-3	5/10/2006	25.52	9.83	----	----	15.69
	8/10/2006		11.27	----	----	14.25
	11/20/2006		NA			
	4/25/2007		10.98			14.54
	5/10/2007		9.50			16.02
	6/18/2007		11.53			13.99
	8/13/2007		11.01			14.51
	9/24/2007		11.94			13.68
	10/21/2007		12.26			13.36
	11/23/2007		12.45			13.07
	12/14/2007		12.75			12.77
	1/11/2008		12.34			13.18
	2/28/2008		12.11			13.41
	3/24/2008		11.97			13.55
	4/7/2008		12.03			13.49
	5/12/2008		21.08			4.44
	6/4/2008		12.06			13.46
	7/25/2008		12.35			13.17
	8/21/2008		12.52			13.00
MW-4	5/10/2006	25.62	13.90	12.28	1.62	11.72
	11/20/2006		13.56	12.28	1.28	12.06
	5/10/2007		11.92	11.80	0.12	13.70
	6/18/2007		12.55	12.37	0.18	13.07
	8/13/2007		12.42	12.07	0.35	13.20
	9/24/2007		12.98	12.78	0.20	12.63
	10/21/2007		13.02	13.14	0.12	12.60
	11/23/2007		13.14	13.13	0.01	12.48
	12/14/2007		13.31	13.29	0.02	12.31
	1/11/2008		12.88	12.87	0.01	12.74
	2/28/2008		13.25	13.15	0.10	12.37
	3/24/2008		13.10	12.55	0.55	12.52
	4/7/2008		12.79	12.69	0.10	12.83
	5/12/2008		12.82	12.68	0.14	12.80
	6/4/2008		12.90	12.70	0.20	12.72
	7/25/2008		12.70			12.92
	8/21/2008		12.75	12.55	0.20	12.87



**Table-1**  
**49 Dupont Street**  
**Brooklyn, New York**

Well Number	Date	Well Elevation (ft)	Depth to Groundwater (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)
MW-5	8/10/2006	19.57	14.90	9.11	5.79	4.67
	11/20/2006		10.30	9.17	1.13	9.27
	5/10/2007		9.29	8.82	0.47	10.28
	6/18/2007		12.25	9.27	2.98	7.32
	8/13/2007		9.70	9.16	0.54	9.87
	9/24/2007		11.79	9.70	2.09	7.78
	10/21/2007		15.04	9.71	5.33	4.43
	11/23/2007		15.51	9.81	5.70	4.06
	12/14/2007		14.81	9.88	4.93	4.76
	1/11/2008		9.64	9.61	0.03	9.93
	2/28/2008		12.15	9.92	3.00	7.42
	3/24/2008		14.35	11.74	2.61	5.22
	4/7/2008		12.92	10.74	2.18	6.65
	5/12/2008		14.10	9.38	4.72	5.47
	6/4/2008		13.32	9.50	3.82	6.25
	7/25/2008		14.10	9.38	4.72	5.47
	8/21/2008		13.92	10.85	3.13	5.55
MW-6	8/10/2006	18.62	12.00	8.28	3.72	6.62
	11/20/2006		8.85	8.23	0.62	9.77
	5/10/2007		8.41	7.87	0.54	10.21
	6/18/2007		9.34	9.07	0.27	9.28
	8/13/2007		10.25	8.69	1.56	8.37
	9/24/2007		9.82	9.45	0.37	8.79
	10/21/2007		9.99	9.62	0.37	8.63
	11/23/2007		9.76	9.06	0.70	8.86
	12/14/2007		9.68	9.13	0.55	8.94
	1/11/2008		8.91	8.85	0.06	9.71
	2/28/2008		9.09	8.98	0.11	9.53
	3/24/2008		8.76	8.02	0.74	9.86
	4/7/2008		8.89	7.98	0.91	9.73
	5/12/2008		9.32	8.65	0.67	9.30
	6/4/2008		9.04	8.73	0.31	9.58
	7/25/2008		9.04			9.58
	8/21/2008		9.10	Sheen	Sheen	9.52
MW-7	8/10/2006	18.75	10.52	8.62	1.90	8.23
	11/20/2006		8.80	8.52	0.28	9.95
	5/10/2007		8.33	8.21	0.12	10.42
	6/18/2007		9.12	8.66	0.46	9.63
	8/13/2007		9.50	8.65	0.85	9.25
	9/24/2007		9.71	9.10	0.61	9.04
	10/21/2007		9.48	9.14	0.34	9.27
	11/23/2007		9.79	9.13	0.66	8.96
	12/14/2007		9.65	9.32	0.33	9.10
	1/11/2008		9.10	9.08	0.02	9.65
	2/28/2008		9.23	9.03	0.20	9.52
	3/24/2008		8.96	8.84	0.12	9.79
	4/7/2008		9.33	9.24	0.09	9.42
	5/12/2008		9.15	8.79	0.36	9.60
	6/4/2008		Did Not Monitor			
	7/25/2008		9.15	8.79	0.36	9.60
	8/21/2008		9.20	8.80	0.40	9.55
MW-8	8/10/2006	20.26	9.46	----	----	10.80
	11/20/2006		NA			
	5/10/2007		8.86			11.40
	6/18/2007		9.40			10.86
	8/13/2007		9.45			10.81
	9/24/2007		9.78			10.48
	10/21/2007		10.03			10.23
	11/23/2007		10.16			10.10
	12/14/2007		10.21			10.05
	1/11/2008		9.96			10.30
	2/28/2008		9.76			10.50
	3/24/2008		9.62			10.64
	4/7/2008		9.74			10.52
	5/12/2008		9.76			10.50
	6/4/2008		Did Not Monitor			
	7/25/2008		10.07			10.19
	8/21/2008		10.20			10.06

**Table-1**  
**49 Dupont Street**  
**Brooklyn, New York**

Well Number	Date	Well Elevation (ft)	Depth to Groundwater (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)
MW-9	8/10/2006	20.62	10.22	7.88	2.34	10.40
	11/20/2006		LNAPL			
	6/18/2007		too thick			
	8/13/2007		too thick			
	9/24/2007		unknown	8.79		
	10/21/2007		too thick			
	11/23/2007		9.33	9.29	0.04	11.29
	12/14/2007		too thick			
	1/11/2008		9.21	9.18	0.03	11.41
	2/28/2008		9.32	9.02	0.30	11.30
	3/24/2008		too thick			
	4/7/2008		too thick			
	5/12/2008		9.15	8.90	0.25	11.47
	6/4/2008		Did Not Monitor			
	7/25/2008		9.85	8.90	0.95	10.77
	8/21/2008		9.91	9.87	0.04	10.71
MW-10	8/1/2006	21.04	8.22	----	----	12.82
	5/10/2007		7.97			13.07
	6/18/2007		8.25			12.79
	9/24/2007		8.69			12.79
	10/21/2007		8.64			12.40
	11/23/2007		8.88			12.16
	12/14/2007		8.96			12.08
	1/11/2008		8.63			12.41
	2/28/2008		8.42			12.62
	3/24/2008		8.37			12.67
	4/7/2008		8.45			12.59
	5/12/2008		8.41			12.63
	6/4/2008		Did Not Monitor			
	7/25/2008		8.79			12.25
	8/21/2008		9.19			
MW-11	9/19/2006	17.01	7.07	----	----	9.94
	11/20/2006					
	5/10/2007		DESTROYED			
MW-12	9/19/2006	16.99	7.10	----	----	9.89
	11/20/2006					
	5/10/2007		6.89			10.10
	8/13/2007		6.57			10.42
	9/24/2007		7.74			9.25
	10/21/2007		7.61			9.38
	11/23/2007		7.64			9.35
	12/14/2007		7.21			9.78
	1/11/2008		7.37			9.62
	2/28/2008		7.47			9.52
	3/24/2008		7.38			9.61
	4/7/2008		7.40			9.59
	5/12/2008		7.13			9.86
	6/4/2008		7.36			9.63
	7/25/2008		7.82			9.17
	8/21/2008		7.94			9.05

**Table-1**  
**49 Dupont Street**  
**Brooklyn, New York**

Well Number	Date	Well Elevation (ft)	Depth to Groundwater (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)
MW-13	9/19/2006	17.20	7.16	----	----	10.04
	11/20/2006					
	5/10/2007		6.87			10.33
	8/13/2007		6.51			10.69
	9/24/2007		7.89			9.31
	10/21/2007		7.72			9.48
	11/23/2007		7.77			9.43
	12/14/2007		7.33			9.87
	1/11/2008		7.52			9.68
	2/28/2008		7.40			9.80
	3/24/2008		7.27			9.93
	4/7/2008		7.35			9.85
	5/12/2008		7.09			10.11
	6/4/2008		7.50			9.70
	7/25/2008		8.01			9.19
	8/21/2008		8.00			9.20

MW-14	9/19/2006	18.23	8.11	----	----	10.12
	5/10/2007		7.60			10.63
	8/13/2007		8.23			10.00
	9/24/2007		8.52			9.71
	10/21/2007		8.61			9.62
	11/23/2007		8.71			9.52
	12/14/2007		NA			----
	1/11/2008		8.53			9.70
	2/28/2008		8.32			9.91
	3/24/2008		8.15			10.08
	4/7/2008		8.30			9.93
	5/12/2008		8.20			10.03
	6/4/2008		8.35			9.88
	7/25/2008		8.65			9.58
	8/21/2008		9.20			9.03

MW-15	5/10/2007	NA	10.83	9.35	1.48	----
	5/23/2007		9.72	9.70	0.02	----
	6/18/2007		10.02	9.93	0.09	----
	8/13/2007		9.70	9.16	0.54	----
	9/24/2007		10.73	10.32	0.41	----
	10/21/2007		11.37	10.44	0.07	----
	11/23/2007		NA			----
	12/14/2007		11.15	10.63	0.52	----
	1/11/2008		10.39	10.37	0.02	----
	2/28/2008		10.36	10.18	0.18	----
	3/24/2008		10.19	10.05	0.14	----
	4/7/2008		10.94	10.17	0.77	----
	5/12/2008		10.45	10.13	0.32	----
	6/4/2008		Did Not Monitor			----
	7/25/2008		10.45	10.13	0.32	----
	8/21/2008		10.47	10.41	0.06	----

MW-16	5/10/2007	NA	11.07	9.98	1.09	----
	5/23/2007		10.54	10.31	0.23	----
	6/18/2007		11.27	10.59	0.68	----
	8/13/2007		11.81	10.46	1.35	----
	9/24/2007		11.03	11.09	0.06	----
	10/21/2007		11.16	11.14	0.02	----
	11/23/2007		NA			----
	12/14/2007		11.35	11.32	0.03	----
	1/11/2008		11.06	11.05	0.01	----
	2/28/2008		11.00	10.85	0.15	----
	3/24/2008		10.91	10.71	0.20	----
	4/7/2008		10.96	10.17	0.79	----
	5/12/2008		10.85	10.32	0.53	----
	6/4/2008		Did Not Monitor			----
	7/25/2008		10.85	10.32	0.53	----
	8/21/2008		10.91	10.87	0.04	----



**Table-1**  
**49 Dupont Street**  
**Brooklyn, New York**

Well Number	Date	Well Elevation (ft)	Depth to Groundwater (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)
RW-1	11/20/2006	NA	8.38			----
	4/25/2007		7.57			----
	5/10/2007		8.04			----
	6/18/2007		8.57			----
	9/24/2007		9.10			----
	10/21/2007		9.17			----
	11/23/2007		9.31			----
	12/14/2007		9.22			----
	1/11/2008		13.06			----
	2/28/2008		8.83			----
	3/24/2008		8.73			----
	4/7/2008		8.84			----
	5/12/2008		8.74			----
	6/4/2008		8.85			----
	7/25/2008		9.16			----
	8/21/2008		9.23			----
RW-2	4/25/2007	NA	12.46	12.45	0.01	----
	5/10/2007		12.91	12.71	0.20	----
	10/21/2007		14.09	13.85	0.24	----
	11/23/2007		15.81	14.51	1.30	----
	12/14/2007		15.22	13.85	1.37	----
	1/11/2008		13.64	13.31	0.33	----
	2/28/2008		13.44	13.26	0.18	----
	3/24/2008		13.52	13.16	0.36	----
	4/7/2008		13.25	13.01	0.24	----
	5/12/2008		13.60	13.36	0.24	----
	6/4/2008		Did Not Monitor			----
	7/25/2008		13.60	13.36	0.24	----
	8/21/2008		13.65	13.28	0.37	----
RW-3	4/25/2007	NA	13.84	13.60	0.24	----
	5/10/2007		14.17	14.00	0.17	----
	6/18/2007		15.40	14.53	0.87	----
	9/24/2007		15.63	14.96	0.67	----
	10/21/2007		15.73	15.12	0.51	----
	11/23/2007		16.51	15.15	1.36	----
	12/14/2007		15.55	13.33	2.22	----
	1/11/2008		14.94	14.71	0.23	----
	2/28/2008		14.99	14.39	0.60	----
	3/24/2008		15.30	14.70	0.60	----
	4/7/2008		14.96	14.40	0.56	----
	5/12/2008		15.23	14.75	0.48	----
	6/4/2008		Did Not Monitor			----
	7/25/2008		15.23	14.75	0.48	----
	8/21/2008		15.31	15.01	0.30	----
RW-4	11/20/2006	NA	16.47	14.49	1.98	----
	4/25/2007		14.15	13.75	0.40	----
	5/10/2007		14.44	14.10	0.34	----
	6/18/2007		14.85	14.62	0.23	----
	9/24/2007		16.87	15.29	1.58	----
	10/21/2007		15.74	15.45	0.29	----
	11/23/2007		15.88	15.42	0.46	----
	12/14/2007		15.84	15.48	0.36	----
	1/11/2008		15.19	15.04	0.15	----
	2/28/2008		15.06	14.84	0.22	----
	3/24/2008		15.14	14.85	0.29	----
	4/7/2008		15.10	14.92	0.18	----
	5/12/2008		15.22	14.83	0.39	----
	6/4/2008		Did Not Monitor			----
	7/25/2008		15.22	14.38	0.84	----
	8/21/2008		15.23	15.20	0.03	----

**Table-1**  
**49 Dupont Street**  
**Brooklyn, New York**

Well Number	Date	Well Elevation (ft)	Depth to Groundwater (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)
RW-5	11/20/2006	NA	13.64	13.53	0.11	----
	4/25/2007		12.75	12.60	0.15	----
	5/10/2007		13.10	13.02	0.08	----
	6/18/2007		13.60	13.55	0.05	----
	9/24/2007		14.24	13.94	0.30	----
	10/21/2007		14.23	14.11	0.12	----
	11/23/2007		14.23	14.13	0.10	----
	12/14/2007		14.75	14.26	0.49	----
	1/11/2008		13.94	13.81	0.13	----
	2/28/2008		14.01	14.00	0.01	----
	3/24/2008		14.35	14.12	0.23	----
	4/7/2008		14.21	14.20	0.01	----
	5/12/2008		13.58	13.56	0.02	----
	6/4/2008		13.32	9.50	3.82	----
	7/25/2008		13.32	9.50	3.82	----
	8/21/2008		13.34	11.25	2.09	----
RW-6	4/25/2007	NA	10.69			----
	5/10/2007		11.08			----
	6/18/2007		11.58			----
	9/24/2007		12.77	11.94	0.83	----
	10/21/2007		12.92	12.11	0.81	----
	11/23/2007		12.85	12.14	0.71	----
	12/14/2007		12.78	12.21	0.57	----
	1/11/2008		11.96	11.71	0.25	----
	2/28/2008		12.14	11.55	0.59	----
	3/24/2008		12.02	11.98	0.04	----
	4/7/2008		12.11	12.01	0.10	----
	5/12/2008		11.77	11.74	0.03	----
	6/4/2008		11.86	SHEEN		----
	7/25/2008		12.17	SHEEN		----
	8/21/2008		12.01	Sheen		----
RW-7	11/20/2006	NA	LNAPL			----
	9/24/2007		unknown	9.05		----
	10/21/2007		9.51	too thick		----
	11/23/2007		9.83	9.77	0.06	----
	12/14/2007		9.80	too thick		----
	1/11/2008		9.26	9.22	0.04	----
	2/28/2008		9.35	9.27	0.08	----
	3/24/2008		too thick			----
	4/7/2008		9.22	9.06	0.16	----
	5/12/2008		too thick			----
	6/4/2008		too thick			----
	7/25/2008		9.22	9.06	0.16	----
	8/21/2008		9.28	9.18	0.10	----
RW-8	4/25/2007	NA	12.60	12.35	0.25	----
	5/10/2007		13.11	12.78	0.33	----
	6/18/2007		14.36	13.25	1.11	----
	8/13/2007					----
	9/24/2007		15.95	13.65	2.30	----
	10/21/2007		NS			----
	11/23/2007		14.45	13.98	0.47	----
	12/14/2007		14.78	13.95	0.83	----
	1/11/2008		13.69	13.44	0.25	----
	2/28/2008		15.22	13.87	1.35	----
	3/24/2008		14.97	13.86	1.11	----
	4/7/2008		15.01	13.56	1.45	----
	5/12/2008		14.28	13.45	0.83	----
	6/4/2008		Did Not Monitor			----
	7/25/2008		14.28	13.45	0.83	----
	8/21/2008		14.30	13.85	0.45	----

**Table-1**  
**49 Dupont Street**  
**Brooklyn, New York**

Well Number	Date	Well Elevation (ft)	Depth to Groundwater (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)
RW-9	4/25/2007	NA	12.10	11.95	0.15	----
	5/10/2007		12.59	12.36	0.23	----
	6/18/2007		13.60	12.83	0.77	----
	8/13/2007					----
	9/24/2007		14.80	13.30	1.50	----
	10/21/2007		NS			----
	11/23/2007		13.97	13.23	0.74	----
	12/14/2007		14.15	13.59	0.56	----
	1/11/2008		13.31	13.19	0.12	----
	2/28/2008		13.26	12.78	0.48	----
	3/24/2008		13.31	12.58	0.73	----
	4/7/2008		13.41	12.42	0.99	----
	5/12/2008		13.44	13.03	0.41	----
	6/4/2008		Did Not Monitor			----
	7/25/2008		13.44	13.03	0.41	----
	8/21/2008		13.50	13.25	0.25	----
RW-10	4/25/2007	NA	11.76	11.64	0.12	----
	5/10/2007		12.13	12.05	0.08	----
	8/13/2007		pump			----
	9/24/2007		pump			----
	10/21/2007		pump			----
	11/23/2007		13.89	13.18	0.71	----
	12/14/2007		13.72	13.31	0.41	----
	1/11/2008		13.28	13.14	0.14	----
	2/28/2008		13.43	13.39	0.04	----
	3/24/2008		13.26	13.19	0.07	----
	4/7/2008		13.33	13.21	0.12	----
	5/12/2008		13.40	13.33	0.07	----
	6/4/2008		Did Not Monitor			----
	7/25/2008		13.40	13.33	0.07	----
	8/21/2008		13.46	12.85	0.61	----

**Table-2**  
**49 Dupont Street**  
**Brooklyn, New York**

Well Number	Sampling Date	Benzene	Toluene	Ethylbenzene	Total Xylene	MtBE	Bis(2-ethylhexyl)phthalate	Di-n-octylphthalate
MW-1	7/24/2006	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	7/18/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	10/24/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	1/11/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	4/7/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	8/21/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
MW-2	7/24/2006	<MDL	<MDL	<MDL	<MDL	<MDL	60	<MDL
	7/18/2007	<MDL	<MDL	<MDL	<MDL	<MDL	77	<MDL
	10/24/2007	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	1/11/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	4/7/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	8/21/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
MW-3	7/24/2006	<MDL	<MDL	<MDL	<MDL	<MDL	31	<MDL
	7/18/2007	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	10/24/2007	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	1/11/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	4/7/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	8/21/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
MW-4	7/24/2006	<MDL	<MDL	<MDL	<MDL	<MDL	120,000 P	160,000 P
	7/18/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	10/24/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	1/11/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	4/7/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
MW-5	7/24/2006	<MDL	<MDL	<MDL	<MDL	<MDL	780,000 P	90,000 P
	7/18/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	10/24/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	1/11/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	4/7/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
MW-6	7/24/2006	<MDL	<MDL	<MDL	<MDL	<MDL	1,300,000 P	<MDL
	7/18/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	10/24/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	1/11/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	4/7/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
MW-7	7/24/2006	<MDL	<MDL	<MDL	<MDL	<MDL	370,000 P	<MDL
	7/18/2007	NT	NT	NT	NT	NT	4,600 P	<MDL
	10/24/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	1/11/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	4/7/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL

<MDL = Parameter below method detection limit

NA = Well not Accessible

NT = Not Tested

P = These wells developed free product shortly after sampling and are no longer sampled for dissolved constituents

**Table-2**  
**49 Dupont Street**  
**Brooklyn, New York**

Well Number	Sampling Date	Benzene	Toluene	Ethylbenzene	Total Xylene	MtBE	Bis(2-ethylhexyl)phthalate	Di-n-octylphthalate
MW-8	7/24/2006	<MDL	<MDL	<MDL	<MDL	<MDL	89	<MDL
	7/18/2007	NT	NT	NT	NT	NT	230	<MDL
	10/24/2007	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	1/11/2008	<MDL	<MDL	<MDL	<MDL	<MDL	22	<MDL
	4/7/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	8/21/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
MW-9	7/24/2006	<MDL	<MDL	11	11	<MDL	<MDL	<MDL
	7/18/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	10/24/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	1/11/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	4/7/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
MW-10	7/24/2006	<MDL	<MDL	<MDL	<MDL	<MDL	6	<MDL
	7/18/2007	NT	NT	NT	NT	NT	57	<MDL
	10/24/07	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	1/11/2008	<MDL	<MDL	<MDL	<MDL	<MDL	99	<MDL
	4/7/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	8/21/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
MW-11	9/18/2006	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	DESTROYED	DESTROYED	DESTROYED	DESTROYED	DESTROYED	DESTROYED	DESTROYED	DESTROYED
MW-12	9/18/2006	<MDL	<MDL	<MDL	<MDL	<MDL	17	<MDL
	7/18/2007	NT	NT	NT	NT	NT	ND	<MDL
	10/24/2007	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	1/11/2008	<MDL	<MDL	<MDL	<MDL	<MDL	14	<MDL
	4/7/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	8/21/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
MW-13	9/18/2006	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	7/18/2007	NT	NT	NT	NT	NT	<MDL	<MDL
	10/24/2007	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	1/11/2008	<MDL	<MDL	<MDL	<MDL	<MDL	170	<MDL
	4/7/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	8/21/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL

<MDL = Parameter below method detection limit

NA = Well not Accessible

NT = Not Tested

P = These wells developed free product shortly after sampling and are no longer sampled for dissolved constituents

**Table-2**  
**49 Dupont Street**  
**Brooklyn, New York**

Well Number	Sampling Date	Benzene	Toluene	Ethylbenzene	Total Xylene	MtBE	Bis(2-ethylhexyl)phthalate	Di-n-octylphthalate
MW-14	9/18/2006	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	7/18/2007	NT	NT	NT	NT	NT	<MDL	<MDL
	10/24/2007	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	1/11/2008	<MDL	<MDL	<MDL	<MDL	<MDL	86	<MDL
	4/7/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	8/21/2008							
MW-15	12/7/2006	<MDL	<MDL	<MDL	<MDL	<MDL	6,400	<MDL
	7/18/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	10/24/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
MW-16	12/7/2006	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	990
	7/18/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	10/24/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
RW-1	7/18/2007	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	4/7/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
RW-6	7/18/2007	<MDL	<MDL	<MDL	<MDL	<MDL	40	<MDL

<MDL = Parameter below method detection limit

NA = Well not Accessible

NT = Not Tested

P = These wells developed free product shortly after sampling and are no longer sampled for dissolved constituents

**Table-3**  
**49 Dupont Street**  
**Brooklyn, New York**

Well Number	RW-2	RW-3	RW-4	RW-5	RW-7	RW-8	RW-9	RW-10	MW-4	MW-5	MW-6	MW-7	MW-9	MW-15	MW-16	TOTAL
<b>Nov-06</b>	100	60	0	0	0	0	0	0	27	1	0	0	0	0	0	<b>188</b>
<b>Dec-06</b>	92	67	0	0	0	5	6	168	1	0	0	0	0	0	0	<b>339</b>
<b>Jan-07</b>	80	93	0	0	0	25	13	144	1	5	5	0	0	0	0	<b>366</b>
<b>Feb-07</b>	98	87	0	0	0	16	20	158	0	0	0	0	0	0	0	<b>379</b>
<b>Mar-07</b>	79	95	0	0	0	14	16	167	0	0	0	0	0	0	0	<b>371</b>
<b>Apr-07</b>	76	92	27	0	0	42	15	165	6	27	26	0	0	0	0	<b>476</b>
<b>May-07</b>	72	96	32	0	0	46	17	175	7	28	26	0	0	4	0	<b>503</b>
<b>Jun-07</b>	75	90	2	0	0	39	21	166	1	25	26	0	0	1	0	<b>446</b>
<b>Jul-07</b>	67	82	3	0	0	38	23	154	1	28	29	0	0	1	0	<b>426</b>
<b>Aug-07</b>	47	89	0	0	0	38	22	166	0	16	17	0	0	8	8	<b>411</b>
<b>Sep-07</b>	15	43	0	0	0	36	19	146	0	22	9	0	0	4	4	<b>298</b>
<b>Oct-07</b>	27	87	0	9	2	27	14	120	0	20	14	1	0	3	0	<b>324</b>
<b>Nov-07</b>	23	52	0	10	4	22	26	110	0	22	8	1	2	1	1	<b>282</b>
<b>Dec-07</b>	20	35	0	8	2	25	15	108	0	18	2	0	1	1	0	<b>235</b>
<b>Jan-08</b>	37	12	0	16	13	24	40	148	0	14	21	24	0	6	1	<b>356</b>
<b>Feb-08</b>	28	11	0	14	15	21	16	99	0	12	23	12	0	0	0	<b>251</b>
<b>Mar-08</b>	24	12	0	9	8	22	15	142	0	18	22	16	0	0	0	<b>288</b>
<b>Apr-08</b>	29	12	0	8	9	25	17	151	0	28	16	13	0	0	0	<b>308</b>
<b>May-08</b>	34	11	4	0	1	28	9	106	0	18	28	0	0	0	0	<b>239</b>
<b>Jun-08</b>	25	10	5	1	2	37	10	120	0	20	25	0	10	0	0	<b>265</b>
<b>Jul-08</b>	35	12	2	2	3	32	11	125	0	21	30	0	0	0	0	<b>273</b>
<b>Aug-08</b>	28	13	2	2	2	35	17	110	0	21	28	0	6	2	1	<b>267</b>
<b>Total =</b>	<b>1111</b>	<b>1161</b>	<b>77</b>	<b>79</b>	<b>61</b>	<b>597</b>	<b>362</b>	<b>2948</b>	<b>44</b>	<b>364</b>	<b>355</b>	<b>67</b>	<b>19</b>	<b>31</b>	<b>15</b>	<b>7291</b>



**ADVANCED SITE RESTORATION, LLC**  
*ENVIRONMENTAL SERVICES*

APPENDIX - C



# Technical Report

prepared for:

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

Report Date: 8/29/2008  
***Re: Client Project ID: 49 Dupont***  
York Project No.: 08080810

CT License No. PH-0723

New Jersey License No. CT-005

New York License No. 10854



Report Date: 8/29/2008  
Client Project ID: 49 Dupont  
York Project No.: 08080810

**Advanced Site Restoration**  
62 William St.  
New York, NY 10005  
Attention: Steve Muller

## 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 08/22/08. The project was identified as your project "49 Dupont".

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 NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

### Analysis Results

Client Sample ID			MW1		MW2	
York Sample ID			08080810-01		08080810-02	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles, STARS List	SW846-8260	ug/L	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	5	Not detected	5
1,3,5-Trimethylbenzene			Not detected	5	Not detected	5
Benzene			Not detected	1	Not detected	1
Ethylbenzene			Not detected	5	Not detected	5
Isopropylbenzene			Not detected	5	Not detected	5
Methyl-tert-butyl ether			Not detected	5	Not detected	5
Naphthalene			Not detected	5	Not detected	5
n-Butylbenzene			Not detected	5	Not detected	5
n-Propylbenzene			Not detected	5	Not detected	5
o-Xylene			Not detected	5	Not detected	5
p- & m- Xylenes			Not detected	5	Not detected	5
p-Isopropyltoluene			Not detected	5	Not detected	5
sec-Butylbenzene			Not detected	5	Not detected	5
tert-Butylbenzene			Not detected	5	Not detected	5
Toluene			Not detected	5	Not detected	5

**YORK**

Client Sample ID			MW1		MW2	
York Sample ID			08080810-01		08080810-02	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Semi-Volatiles, STARS List	SW846-8270	ug/L	---	---	---	---
Acenaphthene			Not detected	6.2	Not detected	5.6
Acenaphthylene			Not detected	6.2	Not detected	5.6
Anthracene			Not detected	6.2	Not detected	5.6
Benzo[a]anthracene			Not detected	6.2	Not detected	5.6
Benzo[a]pyrene			Not detected	6.2	Not detected	5.6
Benzo[b]fluoranthene			Not detected	6.2	Not detected	5.6
Benzo[g,h,i]perylene			Not detected	6.2	Not detected	5.6
Benzo[k]fluoranthene			Not detected	6.2	Not detected	5.6
Chrysene			Not detected	6.2	Not detected	5.6
Dibenz[a,h]anthracene			Not detected	6.2	Not detected	5.6
Fluoranthene			Not detected	6.2	Not detected	5.6
Fluorene			Not detected	6.2	Not detected	5.6
Indeno[1,2,3-cd]pyrene			Not detected	6.2	Not detected	5.6
Naphthalene			Not detected	6.2	Not detected	5.6
Phenanthrene			Not detected	6.2	Not detected	5.6
Pyrene			Not detected	6.2	Not detected	5.6

Client Sample ID			MW3		MW8	
York Sample ID			08080810-03		08080810-04	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles, STARS List	SW846-8260	ug/L	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	5	Not detected	5
1,3,5-Trimethylbenzene			Not detected	5	Not detected	5
Benzene			Not detected	1	Not detected	1
Ethylbenzene			Not detected	5	Not detected	5
Isopropylbenzene			Not detected	5	Not detected	5
Methyl-tert-butyl ether			Not detected	5	Not detected	5
Naphthalene			Not detected	5	Not detected	5
n-Butylbenzene			Not detected	5	Not detected	5
n-Propylbenzene			Not detected	5	Not detected	5
o-Xylene			Not detected	5	Not detected	5
p- & m- Xylenes			Not detected	5	Not detected	5
p-Isopropyltoluene			Not detected	5	Not detected	5
sec-Butylbenzene			Not detected	5	Not detected	5
tert-Butylbenzene			Not detected	5	Not detected	5
Toluene			Not detected	5	Not detected	5
Semi-Volatiles, STARS List	SW846-8270	ug/L	---	---	---	---
Acenaphthene			Not detected	6.7	Not detected	6.2
Acenaphthylene			Not detected	6.7	Not detected	6.2
Anthracene			Not detected	6.7	Not detected	6.2
Benzo[a]anthracene			Not detected	6.7	Not detected	6.2
Benzo[a]pyrene			Not detected	6.7	Not detected	6.2
Benzo[b]fluoranthene			Not detected	6.7	Not detected	6.2
Benzo[g,h,i]perylene			Not detected	6.7	Not detected	6.2
Benzo[k]fluoranthene			Not detected	6.7	Not detected	6.2
Chrysene			Not detected	6.7	Not detected	6.2
Dibenz[a,h]anthracene			Not detected	6.7	Not detected	6.2

**YORK**

Client Sample ID			MW3		MW8	
York Sample ID			08080810-03		08080810-04	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Fluoranthene			Not detected	6.7	Not detected	6.2
Fluorene			Not detected	6.7	Not detected	6.2
Indeno[1,2,3-cd]pyrene			Not detected	6.7	Not detected	6.2
Naphthalene			Not detected	6.7	Not detected	6.2
Phenanthrene			Not detected	6.7	Not detected	6.2
Pyrene			Not detected	6.7	Not detected	6.2

Client Sample ID			MW10		MW12	
York Sample ID			08080810-05		08080810-06	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Volatiles, STARS List</b>	SW846-8260	ug/L	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	5	Not detected	5
1,3,5-Trimethylbenzene			Not detected	5	Not detected	5
Benzene			Not detected	1	Not detected	1
Ethylbenzene			Not detected	5	Not detected	5
Isopropylbenzene			Not detected	5	Not detected	5
Methyl-tert-butyl ether			Not detected	5	Not detected	5
Naphthalene			Not detected	5	Not detected	5
n-Butylbenzene			Not detected	5	Not detected	5
n-Propylbenzene			Not detected	5	Not detected	5
o-Xylene			Not detected	5	Not detected	5
p- & m- Xylenes			Not detected	5	Not detected	5
p-Isopropyltoluene			Not detected	5	Not detected	5
sec-Butylbenzene			Not detected	5	Not detected	5
tert-Butylbenzene			Not detected	5	Not detected	5
Toluene			Not detected	5	Not detected	5
<b>Semi-Volatiles, STARS List</b>	SW846-8270	ug/L	---	---	---	---
Acenaphthene			Not detected	5.6	Not detected	5.9
Acenaphthylene			Not detected	5.6	Not detected	5.9
Anthracene			Not detected	5.6	Not detected	5.9
Benzo[a]anthracene			Not detected	5.6	Not detected	5.9
Benzo[a]pyrene			Not detected	5.6	Not detected	5.9
Benzo[b]fluoranthene			Not detected	5.6	Not detected	5.9
Benzo[g,h,i]perylene			Not detected	5.6	Not detected	5.9
Benzo[k]fluoranthene			Not detected	5.6	Not detected	5.9
Chrysene			Not detected	5.6	Not detected	5.9
Dibenz[a,h]anthracene			Not detected	5.6	Not detected	5.9
Fluoranthene			Not detected	5.6	Not detected	5.9
Fluorene			Not detected	5.6	Not detected	5.9
Indeno[1,2,3-cd]pyrene			Not detected	5.6	Not detected	5.9
Naphthalene			Not detected	5.6	Not detected	5.9
Phenanthrene			Not detected	5.6	Not detected	5.9
Pyrene			Not detected	5.6	Not detected	5.9

**YORK**

Client Sample ID			MW13		MW14	
York Sample ID			08080810-07		08080810-08	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Volatiles, STARS List</b>	SW846-8260	ug/L	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	5	Not detected	5
1,3,5-Trimethylbenzene			Not detected	5	Not detected	5
Benzene			Not detected	1	Not detected	1
Ethylbenzene			Not detected	5	Not detected	5
Isopropylbenzene			Not detected	5	Not detected	5
Methyl-tert-butyl ether			Not detected	5	Not detected	5
Naphthalene			Not detected	5	Not detected	5
n-Butylbenzene			Not detected	5	Not detected	5
n-Propylbenzene			Not detected	5	Not detected	5
o-Xylene			Not detected	5	Not detected	5
p- & m- Xylenes			Not detected	5	Not detected	5
p-Isopropyltoluene			Not detected	5	Not detected	5
sec-Butylbenzene			Not detected	5	Not detected	5
tert-Butylbenzene			Not detected	5	Not detected	5
Toluene			Not detected	5	Not detected	5
<b>Semi-Volatiles, STARS List</b>	SW846-8270	ug/L	---	---	---	---
Acenaphthene			Not detected	5.9	Not detected	6.7
Acenaphthylene			Not detected	5.9	Not detected	6.7
Anthracene			Not detected	5.9	Not detected	6.7
Benzo[a]anthracene			Not detected	5.9	Not detected	6.7
Benzo[a]pyrene			Not detected	5.9	Not detected	6.7
Benzo[b]fluoranthene			Not detected	5.9	Not detected	6.7
Benzo[g,h,i]perylene			Not detected	5.9	Not detected	6.7
Benzo[k]fluoranthene			Not detected	5.9	Not detected	6.7
Chrysene			Not detected	5.9	Not detected	6.7
Dibenz[a,h]anthracene			Not detected	5.9	Not detected	6.7
Fluoranthene			Not detected	5.9	Not detected	6.7
Fluorene			Not detected	5.9	Not detected	6.7
Indeno[1,2,3-cd]pyrene			Not detected	5.9	Not detected	6.7
Naphthalene			Not detected	5.9	Not detected	6.7
Phenanthrene			Not detected	5.9	Not detected	6.7
Pyrene			Not detected	5.9	Not detected	6.7

**Units Key:**

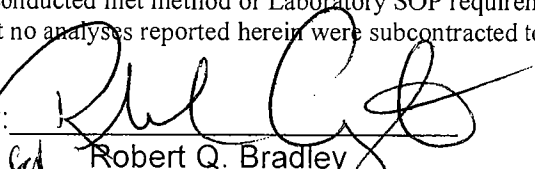
For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

**Notes for York Project No. 08080810**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for 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.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By:

  
 Robert Q. Bradley  
 Managing Director

Date: 8/29/2008

**YORK**

# YORK

ANALYTICAL LABORATORIES, INC.

120 RESEARCH DRIVE STRATFORD, CT 06615  
(203) 325-1371 FAX (203) 357-0166

## Field Chain-of-Custody Record

Page \_\_\_\_ of \_\_\_\_

08080810

Company Name <b>ASR</b>	Report To: <b>Steve Muller</b>	Invoice To: <b>ASR</b>	Project ID/No. <b>49 Dupont</b>	Samples Collected By (Signature) _____ Name (Printed) _____
----------------------------	-----------------------------------	---------------------------	------------------------------------	----------------------------------------------------------------------

Sample No.	Location/ID	Date Sampled	Sample Matrix			ANALYSES REQUESTED	Container Description(s)
			Water	Soil	Air OTHER		
1	mw1	8/21/08	X			260 Stars / 8272 BN	3
2	mw2	/	X				3
3	mw3		X				3
4	mw8		X				3
5	mw10		X				3
6	mw12		X				3
7	mw13		X				3
8	mw14		X				3

<b>Chain-of-Custody Record</b>		Sample Relinquished by <b>Michael Lwab</b> 8/21 Date/Time		Sample Received by <b>H. Bernard Porter</b> 8-22-08 Date/Time
Bottles Relinquished from Lab by	Date/Time	Sample Relinquished by	Date/Time	Sample Received in LAB by

Comments/Special Instructions	Turn-Around Time <b>4.1 hr</b>	Standard <input checked="" type="checkbox"/> RUSH(define) _____
-------------------------------	-----------------------------------	-----------------------------------------------------------------



**ADVANCED SITE RESTORATION, LLC**  
*ENVIRONMENTAL SERVICES*

May 9, 2009

Mr. Raphael Katani  
NYSDEC Region 2  
Hunters Point Plaza  
47-40 21<sup>st</sup> Street  
Long Island City, New York 11101

Re: Quarterly Status Report – First Quarter 2009  
49-55 Dupont Street  
Brooklyn, New York  
NYSDEC Spill Number 06-01852

Dear Mr. Katani:

Advanced Site Restoration, LLC (ASR) has prepared the enclosed Quarterly Status Report on behalf of 49 Dupont Realty Corp. The report details the subsurface assessment results from site work conducted between January 2009 and March 2009.

If you have any questions, please do not hesitate to contact us.

Sincerely,  
Advanced Site Restoration, LLC

Chris Tomasello  
Project Manager

Encl. Quarterly Status Report – First Quarter 2009



**ADVANCED SITE RESTORATION, LLC**

## **QUARTERLY STATUS REPORT**

**(JANUARY 2009 through MARCH 2009)**

**Prepared For:** 49 Dupont Reality Corp.  
**Prepared By:** Advanced Site Restoration, LLC  
**Report Date:** March 26, 2009

### **SITE DESCRIPTION**

Street Address:	49-55 Dupont Street
City:	Brooklyn
State:	New York
Regulatory Agency:	NYSDEC Region 2
Regulatory Contact:	Raphael Katani
NYSDEC Spill Number:	06-01852
ASR Contact:	Steven Muller
Current Property Use:	Former Manufacturing Facility

The location of the subject site is shown on the Site Location Map (Figure 1). The monitoring well locations and other site features are shown on the Well Location Map (Figure 2).

### **SITE WORK PERFORMED THIS REPORTING PERIOD**

The monitoring well network was gauged on January 19, 2009, February 19, 2009, and March 26, 2009 and sampled on March 26, 2009.

### **PRODUCT RECOVERY PROGRAM**

Free floating product was historically detected in the area surrounding MW-4 through MW-7, MW-9, MW-15, MW-16, and RW-2 through RW-10. The free floating product was removed, recorded, and properly disposed. This was achieved through the use of a peristaltic pump and/or P-10 sticks, an all natural absorbent. After preliminary product removal, several inches of floating product reappeared in MW-4 through MW-7, MW-9, MW-15, MW-16, and RW-2 through RW-10. ASR began a product recovery program consisting of groundwater monitoring and product bailing until the floating product is no longer detected. It is estimated that approximately six hundred forty one (641) gallons of product was recovered from MW-4 through MW-7, MW-9, MW-15, MW-16, and RW-2 through RW-10 in three (3) months of bailing activities, January 2009 through March 2009. Monitoring well gauging date reports are attached as Table-1. A Product Removal Log is attached as Table- 3.





Quarterly Status Report

49-55 Dupont Street

March, 2009

Page 2

## **GROUND WATER GAUGING AND SAMPLING METHODS**

During this groundwater monitoring event, the monitoring wells were gauged for depth to groundwater and for the presence of light non-aqueous phase liquid (LNAPL). The depth to groundwater and presence of LNAPL, if any, were gauged using an oil/water interface probe capable of measuring to the nearest 0.01 foot. The groundwater level measurements were converted to groundwater elevations using top of monitoring well casing elevations. Top of casing elevations were referenced to an arbitrary, on-site datum. Ground water elevations were corrected for the presence of LNAPL, as appropriate, using a reference value for LNAPL specific gravity of 0.75.

Prior to sampling, the volume of water contained within each monitoring well was calculated using the well diameter and water column height. Whenever possible, a volume of groundwater equivalent to at least three well volumes was purged from each monitoring well using a disposable polyethylene bailer and/or a mechanical pump with dedicated polyethylene tubing. Dedicated polyethylene bailers were used to collect the groundwater samples. The samples were poured from the bailers into dedicated laboratory-supplied glassware. The glassware was then placed into a cooler and maintained at a temperature of less than 4-degrees Celsius during transportation to the laboratory.

The groundwater samples were forwarded under chain-of-custody procedures to York Analytical Laboratories, Inc. (York) of Stratford, Connecticut. York is a New York State Department of Health-ELAP certified laboratory (Certification Number 09030963). The groundwater samples were analyzed for volatile organic compounds (VOCs), including benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tertiary-butyl ether (MTBE) in accordance with United States Environmental Protection Agency (USEPA) Method 8260 STARS.

## **MONITORING WELL GAUGING RESULTS**

During this groundwater monitoring event, groundwater monitoring wells were gauged as previously described. The gauging information and the calculated water level elevations are provided in Monitoring Well Gauging Data (Table 1). The groundwater elevation measurements are plotted on the Groundwater Gradient Map, (Figure 3).

Quarterly Status Report  
49-55 Dupont Street  
March, 2009  
Page 3

The monitoring well gauging results are summarized as follows:

Gauging Date:	1/29/09, 2/19/09, 3/26/09
Number of Wells Gauged (ID):	25 (MW-1 through MW-10, MW-12 through MW-16, RW-1 through RW-10)
Number of Wells Not Gauged (ID[Reason]):	none
Gauging Frequency:	Monthly
Wells with LNAPL (amount):	9 (0.10' to 1.35')
Depth to Groundwater (ft):	8.03' to 15.27'
Interpreted Groundwater Flow Direction:	Northwest

#### **MONITORING WELL SAMPLING ANALYTICAL RESULTS**

During the March 26, 2009 groundwater monitoring event, groundwater samples were collected as previously described. BTEX and MTBE compounds in excess of applicable New York State Department of Environmental Conservation (NYSDEC) Ground Water Quality Standards (GWQS) were not detected in any of the wells sampled.

The monitoring well sample analytical results are summarized as follows:

Sampling Date:	March 26, 2009
Number of Wells Sampled (ID):	16 (MW-1 through MW-10, MW-12 through MW-16, RW-6)
Number of Wells not Sampled(ID,Reason):	none
Sampling Frequency:	Quarterly
Total BTEX Concentration Range (ug/l):	None
MTBE Concentration Range (ug/l):	None

The groundwater laboratory analytical results are provided in Groundwater Dissolved Constituent Sampling Data (Table 2). The laboratory analytical report is provided as Appendix A. Historical ground water analytical data are also provided in Groundwater Dissolved Constituent Sampling Data (Table 2).

Quarterly Status Report  
49-55 Dupont Street  
March, 2009  
Page 4

## **CONCLUSIONS AND RECOMMENDATIONS**

Concentration of BTEX in excess of applicable NYSDEC GWQS was not detected in any of the groundwater samples collected during this groundwater sampling event. ASR intends to continue monthly groundwater monitoring at the subject site. The next sampling event is scheduled for June, 2009. LNAPL was last detected on March 26, 2009 in MW-4 through MW-7, MW-9, MW-15, MW-16, RW-2 and RW-10.

A noticeable decrease in the plume size has been seen throughout this quarter. Wells that have historically contained product now only contain only sheens (MW-7, MW-9, MW-15, and MW-16). Product recovery seems to be having noticeable impact on both the size and thickness of the LNAPL plume.

## **LIMITATIONS**

The recommendations contained in this report represents ASR's professional opinions based upon currently available information and are arrived at in accordance with currently acceptable professional standards. This report is based upon a specific scope of work requested by the client. The Contract between ASR and its client outlines the scope of work and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of ASR's client and anyone else specifically listed on this report. ASR will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, ASR makes no express or implied warranty as to the contents of this report.

Prepared By:

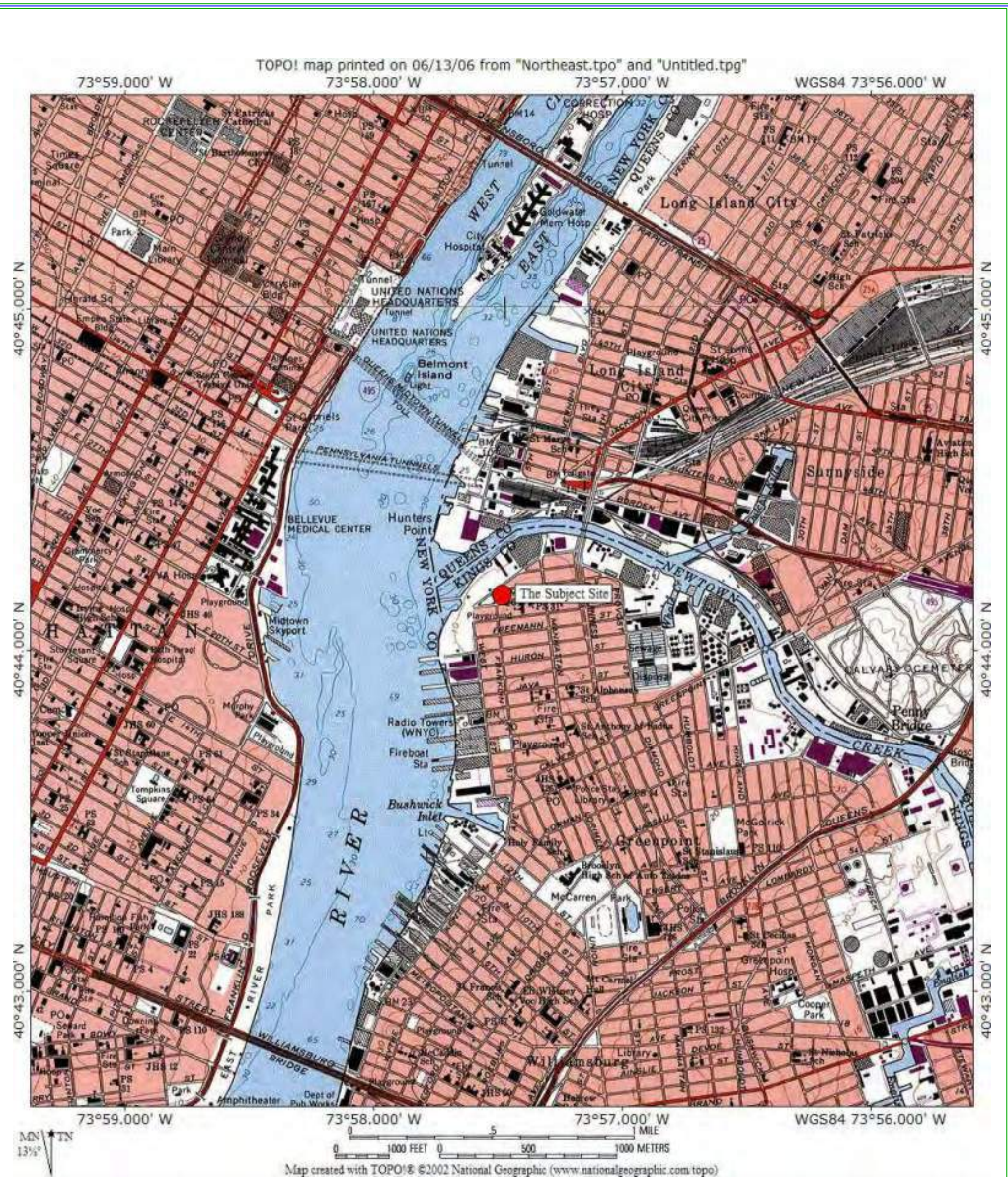


Steven Muller  
Project Manager

Reviewed By:



Christopher Tomasello, IH  
Project Professional

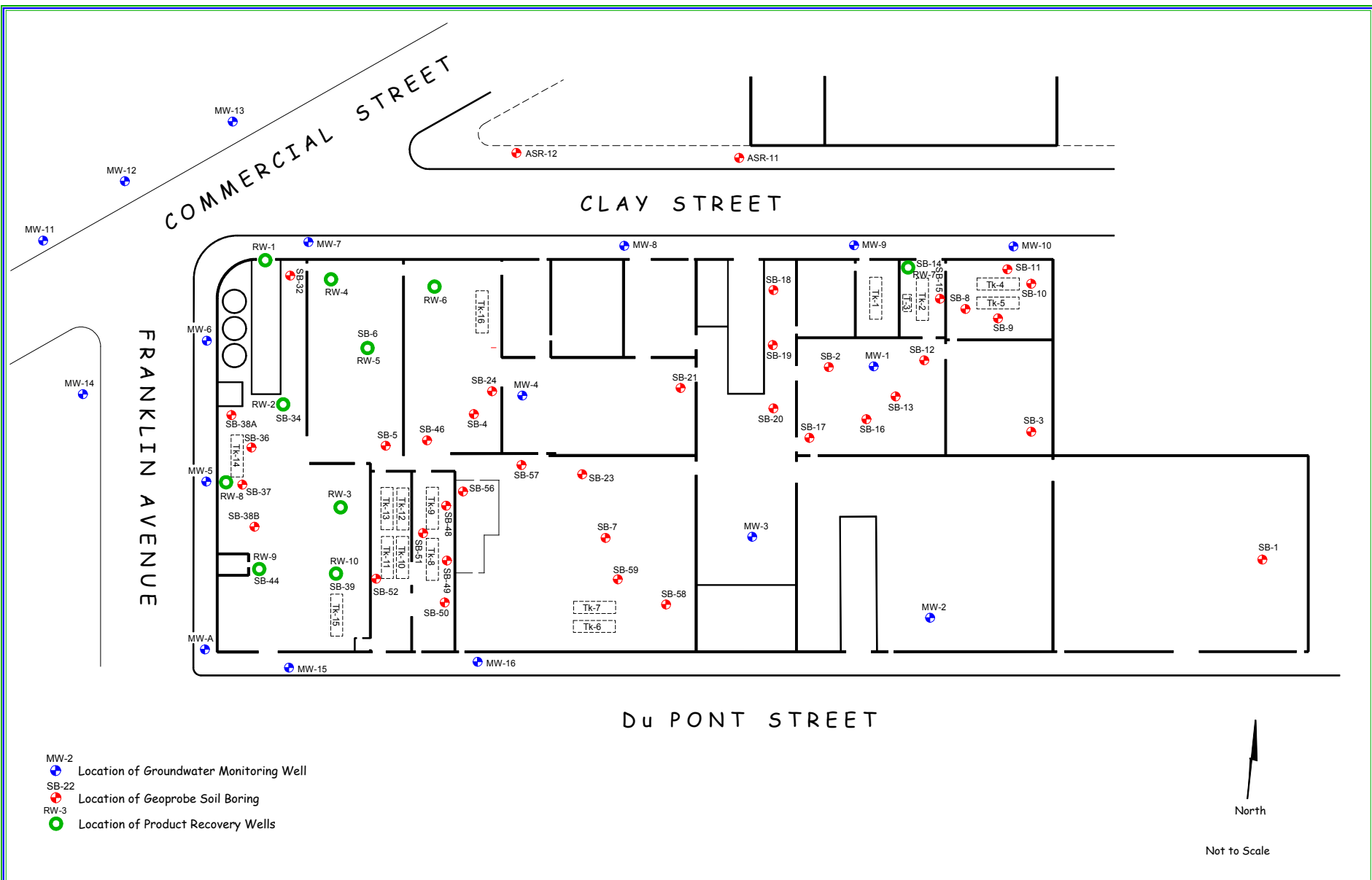


**ADVANCED Site Restoration, LLC.**  
Environmental Services

62 William St., 3rd Floor, New York, NY 10005  
Tel: 212-809-1110 Fax: 212-809-1779 info@askasr.com

Figure - 1  
Site Location Map  
49-55 Dupont Street  
Brooklyn, New York 11222





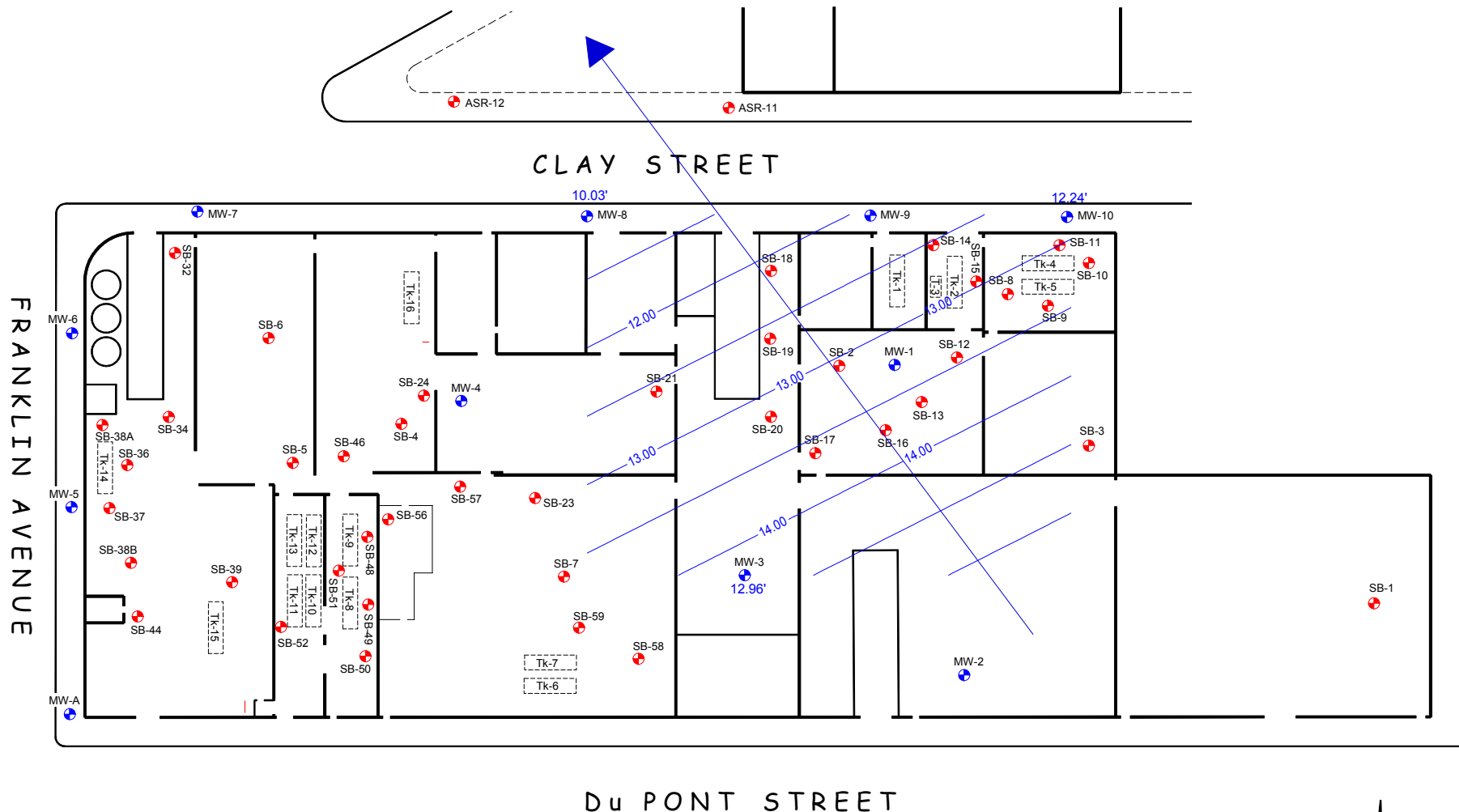
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Tel: 212-809-1110 Fax: 212-809-1779 info@askasr.com

SWM

**Figure - 2**  
**Well Location Map**

**49 Dupont Realty Corp.**  
**49 - 55 Dupont Street**  
**Brooklyn, New York**



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Tel: 212-809-1110 Fax: 212-809-1779 info@askasr.com

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**Figure - 3**  
**Groundwater Gradient Map**  
**March 26, 2009**

**49 Dupont Realty Corp.**  
**49 - 55 Dupont Street**  
**Brooklyn, New York**



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Tel: 212-809-1110 Fax: 212-809-1779 info@askasr.com

SWM

**Figure - 4**  
**Monitoring/Sampling Results Map**  
**March 26, 2009**

**49 Dupont Realty Corp.**  
**49 - 55 Dupont Street**  
**Brooklyn, New York**

**Table-1**  
**49 Dupont Street**  
**Brooklyn, New York**

Well Number	Date	Well Elevation (ft)	Depth to Groundwater (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)		
MW-1	5/10/2006	25.19	10.89	10.88	0.01			
	11/20/2006		10.83	10.79	0.04			
	6/18/2007		10.70	10.68	0.02			
	8/13/2007		10.30	10.25	0.05			
	9/24/2007		11.14	11.12	0.02			
	10/21/2007		11.32	11.34	0.02			
	11/23/2007		11.32	11.31	0.01			
	12/14/2007		11.48	11.47	0.01			
	1/11/2008		11.09	11.08	0.01			
	2/28/2008		11.19					
	3/24/2008		10.85					
	4/7/2008		10.95	Sheen				
	5/12/2008		10.87			14.32		
	6/4/2008		10.92		14.90			
	7/25/2008		11.30		13.89			
	8/21/2008		11.71		13.48			
	9/19/2008		11.64		13.55			
	10/22/2008		11.68		13.51			
	11/14/2008		11.48		13.71			
	12/31/2008		10.92		14.27			
	1/29/2009		11.22		13.97			
	2/19/2009		11.03		14.16			
	3/26/2009		11.56		13.63			
	MW-2		5/10/2006	25.34	11.78	---	---	13.56
			11/20/2006		NA			---
			4/25/2007		7.66			17.68
5/10/2007		8.64				16.70		
6/18/2007		9.66				15.68		
8/13/2007		8.30				17.04		
9/24/2007		10.20				15.14		
10/21/2007		10.44				14.90		
11/23/2007		10.59				14.75		
12/14/2007		10.76				14.58		
1/11/2008		10.37				14.97		
2/28/2008		10.10				15.24		
3/24/2008		9.90				15.44		
4/7/2008		9.94				15.40		
5/12/2008		9.97				15.37		
6/4/2008		10.05				15.30		
7/25/2008		10.49				14.85		
8/21/2008		10.72				14.52		
9/19/2008		10.66				14.58		
10/22/2008		10.96				14.28		
11/14/2008		10.89				14.45		
12/31/2008		11.35				13.99		
1/29/2009		10.30				15.04		
2/19/2009		9.67				15.67		
3/26/2009		10.26				15.08		
MW-3		5/10/2006	25.52		9.83	----	----	15.69
	8/10/2006	11.27		----	----	14.25		
	11/20/2006	NA						
	4/25/2007	10.98				14.54		
	5/10/2007	9.50				16.02		
	6/18/2007	11.53				13.99		
	8/13/2007	11.01				14.51		
	9/24/2007	11.94				13.68		
	10/21/2007	12.26				13.36		
	11/23/2007	12.45				13.07		
	12/14/2007	12.75				12.77		
	1/11/2008	12.34				13.18		
	2/28/2008	12.11				13.41		
	3/24/2008	11.97				13.55		
	4/7/2008	12.03				13.49		
	5/12/2008	21.08				4.44		
	6/4/2008	12.06				13.46		
	7/25/2008	12.35				13.17		
	8/21/2008	12.52				13.00		
	9/19/2008	12.48				13.04		
	10/22/2008	8.65				16.87		
	11/14/2008	12.59				12.93		
	12/31/2008	12.14				13.38		
	1/29/2009	12.22				13.30		
	2/19/2009	12.09				13.43		
	3/26/2009	12.56				12.96		



**Table-1**  
**49 Dupont Street**

Well Number	Date	Well Elevation (ft)	Depth to Groundwater (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)
MW-4	5/10/2006	25.62	13.90	12.28	1.62	
	11/20/2006		13.56	12.28	1.28	
	5/10/2007		11.92	11.80	0.12	
	6/18/2007		12.55	12.37	0.18	
	8/13/2007		12.42	12.07	0.35	
	9/24/2007		12.98	12.78	0.20	
	10/21/2007		13.02	13.14	0.12	
	11/23/2007		13.14	13.13	0.01	
	12/14/2007		13.31	13.29	0.02	
	1/11/2008		12.88	12.87	0.01	
	2/28/2008		13.25	13.15	0.10	
	3/24/2008		13.10	12.55	0.55	
	4/7/2008		12.79	12.69	0.10	
	5/12/2008		12.82	12.68	0.14	
	6/4/2008		12.90	12.70	0.20	
	7/25/2008		12.70			
	8/21/2008		12.75	Sheen	Sheen	
	9/19/2008		n/a			
	10/22/2008		n/a	Sheen	Sheen	
	11/14/2008		Sheen			
12/31/2008	12.75	Sheen	Sheen			
1/29/2009	13.02	Sheen	Sheen			
2/19/2009	12.86	Sheen	Sheen			
3/26/2009	12.55	Sheen	Sheen			
MW-5	8/10/2006	19.57	14.90	9.11	5.79	
	11/20/2006		10.30	9.17	1.13	
	5/10/2007		9.29	8.82	0.47	
	6/18/2007		12.25	9.27	2.98	
	8/13/2007		9.70	9.16	0.54	
	9/24/2007		11.79	9.70	2.09	
	10/21/2007		15.04	9.71	5.33	
	11/23/2007		15.51	9.81	5.70	
	12/14/2007		14.81	9.88	4.93	
	1/11/2008		9.64	9.61	0.03	
	2/28/2008		12.15	9.92	3.00	
	3/24/2008		14.35	11.74	2.61	
	4/7/2008		12.92	10.74	2.18	
	5/12/2008		14.10	9.38	4.72	
	6/4/2008		13.32	9.50	3.82	
	7/25/2008		14.10	9.38	4.72	
	8/21/2008		13.92	10.85	3.13	
	9/19/2008		13.89	11.02	2.87	
	10/22/2008		13.90	11.90	2.00	
	11/14/2008		12.79	11.79	1.00	
12/31/2008	12.67	11.29	1.38			
1/29/2009	12.81	11.09	1.72			
2/19/2009	12.72	11.23	1.49			
3/26/2009	12.51	11.16	1.35			
MW-6	8/10/2006	18.62	12.00	8.28	3.72	
	11/20/2006		8.85	8.23	0.62	
	5/10/2007		8.41	7.87	0.54	
	6/18/2007		9.34	9.07	0.27	
	8/13/2007		10.25	8.69	1.56	
	9/24/2007		9.82	9.45	0.37	
	10/21/2007		9.99	9.62	0.37	
	11/23/2007		9.76	9.06	0.70	
	12/14/2007		9.68	9.13	0.55	
	1/11/2008		8.91	8.85	0.06	
	2/28/2008		9.09	8.98	0.11	
	3/24/2008		8.76	8.02	0.74	
	4/7/2008		8.89	7.98	0.91	
	5/12/2008		9.32	8.65	0.67	
	6/4/2008		9.04	8.73	0.31	
	7/25/2008		9.04			
	8/21/2008		9.10	Sheen	Sheen	
	9/19/2008		10.05	10.04	0.01	
	10/22/2008		10.00	9.89	0.21	
	11/14/2008		10.05			
12/31/2008	10.15	9.99	0.16			
1/29/2009	9.99	9.59	0.40			
2/19/2009	10.01	9.96	0.05			
3/26/2009	10.08	10.01	0.07			

**Table-1**  
**49 Dupont Street**  
**Brooklyn, New Yor**

Well Number	Date	Well Elevation (ft)	Depth to Groundwater (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)
MW-7	8/10/2006	18.75	10.52	8.62	1.90	
	11/20/2006		8.80	8.52	0.28	
	5/10/2007		8.33	8.21	0.12	
	6/18/2007		9.12	8.66	0.46	
	8/13/2007		9.50	8.65	0.85	
	9/24/2007		9.71	9.10	0.61	
	10/21/2007		9.48	9.14	0.34	
	11/23/2007		9.79	9.13	0.66	
	12/14/2007		9.65	9.32	0.33	
	1/11/2008		9.10	9.08	0.02	
	2/28/2008		9.23	9.03	0.20	
	3/24/2008		8.96	8.84	0.12	
	4/7/2008		9.33	9.24	0.09	
	5/12/2008		9.15	8.79	0.36	
	6/4/2008	<i>Did Not Monitor</i>				
	7/25/2008		9.15	8.79	0.36	
	8/21/2008		9.20	8.80	0.40	
	9/19/2008		9.19	8.88	0.31	
	10/22/2008		n/s			
	11/14/2008		NS			
	12/31/2008		9.23	Sheen	Sheen	
	1/29/2009		9.18	Sheen	Sheen	
	2/19/2009		9.32	Sheen	Sheen	
	3/26/2009		9.48	Sheen	Sheen	
MW-8	8/10/2006	20.26	9.46	----	----	10.80
	11/20/2006		NA			
	5/10/2007		8.86			11.40
	6/18/2007		9.40			10.86
	8/13/2007		9.45			10.81
	9/24/2007		9.78			10.48
	10/21/2007		10.03			10.23
	11/23/2007		10.16			10.10
	12/14/2007		10.21			10.05
	1/11/2008		9.96			10.30
	2/28/2008		9.76			10.50
	3/24/2008		9.62			10.64
	4/7/2008		9.74			10.52
	5/12/2008		9.76			10.50
	6/4/2008	<i>Did Not Monitor</i>				
	7/25/2008		10.07			10.19
	8/21/2008		10.20			10.06
	9/19/2008		10.19			10.07
	10/22/2008		10.30			9.96
	11/14/2008		10.24			10.02
	12/31/2008		9.71			10.55
	1/29/2009		<i>Blocked</i>			----
	2/19/2009		10.31			9.95
	3/26/2009		10.23			10.03

**Table-1**  
**49 Dupont Street**  
**Brooklyn, New York**

Well Number	Date	Well Elevation (ft)	Depth to Groundwater (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)
MW-9	8/10/2006	20.62	10.22	7.88	2.34	
	11/20/2006		LNAPL			
	6/18/2007		too thick			
	8/13/2007		too thick			
	9/24/2007		unknown	8.79		
	10/21/2007		too thick			
	11/23/2007		9.33	9.29	0.04	
	12/14/2007		too thick			
	1/11/2008		9.21	9.18	0.03	
	2/28/2008		9.32	9.02	0.30	
	3/24/2008		too thick			
	4/7/2008		too thick			
	5/12/2008		9.15	8.90	0.25	
	6/4/2008		Did Not Monitor			
	7/25/2008		9.85	8.90	0.95	
	8/21/2008		9.91	9.87	0.04	
	9/19/2008		9.89	9.88	0.01	
	10/22/2008		9.90	Sheen	Sheen	
	11/14/2008		9.90	Sheen	Sheen	
	12/31/2008		9.92	Sheen	Sheen	
	1/29/2009		10.01	Sheen	Sheen	
	2/19/2009		9.85	Sheen	Sheen	
	3/26/2009		8.98	Sheen	Sheen	
MW-10	8/1/2006	21.04	8.22	---	---	12.82
	5/10/2007		7.97			13.07
	6/18/2007		8.25			12.79
	9/24/2007		8.69			12.79
	10/21/2007		8.64			12.40
	11/23/2007		8.88			12.16
	12/14/2007		8.96			12.08
	1/11/2008		8.63			12.41
	2/28/2008		8.42			12.62
	3/24/2008		8.37			12.67
	4/7/2008		8.45			12.59
	5/12/2008		8.41			12.63
	6/4/2008		Did Not Monitor			---
	7/25/2008		8.79			12.25
	8/21/2008		9.19			11.85
	9/19/2008		8.66			12.38
	10/22/2008		8.93			12.11
	11/14/2008		8.75			12.29
	12/31/2008		8.24			12.80
	1/29/2009		ice			---
	2/19/2009		8.88			12.16
	3/26/2009		8.80			12.24
MW-11	9/19/2006	17.01	7.07	---	---	9.94
	11/20/2006					
	5/10/2007		DESTROYED			
MW-12	9/19/2006	16.99	7.10	---	---	9.89
	11/20/2006					---
	5/10/2007		6.89			10.10
	8/13/2007		6.57			10.42
	9/24/2007		7.74			9.25
	10/21/2007		7.61			9.38
	11/23/2007		7.64			9.35
	12/14/2007		7.21			9.78
	1/11/2008		7.37			9.62
	2/28/2008		7.47			9.52
	3/24/2008		7.38			9.61
	4/7/2008		7.40			9.59
	5/12/2008		7.13			9.86
	6/4/2008		7.36			9.63
	7/25/2008		7.82			9.17
	8/21/2008		7.94			9.05
	9/19/2008		7.57			9.42
	10/22/2008		7.90			9.09
	11/14/2008		7.57			9.42
	12/31/2008		7.24			9.75
	1/29/2009		ice			---
	2/19/2009		7.17			9.82
	3/26/2009		8.03			8.96

**Table-1**  
**49 Dupont Street**  
**Brooklyn, New York**

Well Number	Date	Well Elevation (ft)	Depth to Groundwater (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)
MW-13	9/19/2006	17.20	7.16	----	----	10.04
	11/20/2006					----
	5/10/2007		6.87			10.33
	8/13/2007		6.51			10.69
	9/24/2007		7.89			9.31
	10/21/2007		7.72			9.48
	11/23/2007		7.77			9.43
	12/14/2007		7.33			9.87
	1/11/2008		7.52			9.68
	2/28/2008		7.40			9.80
	3/24/2008		7.27			9.93
	4/7/2008		7.35			9.85
	5/12/2008		7.09			10.11
	6/4/2008		7.50			9.70
	7/25/2008		8.01			9.19
	8/21/2008		8.00			9.20
	9/19/2008		7.67			9.53
	10/22/2008		7.99			9.30
	11/14/2008		7.69			9.51
	12/31/2008		7.08			10.12
	1/29/2009		ice			----
	2/19/2009		7.77			9.43
	3/26/2009		8.05			9.15

MW-14	9/19/2006	18.23	8.11	---	---	10.12
	5/10/2007		7.60			10.63
	8/13/2007		8.23			10.00
	9/24/2007		8.52			9.71
	10/21/2007		8.61			9.62
	11/23/2007		8.71			9.52
	12/14/2007		NA			---
	1/11/2008		8.53			9.70
	2/28/2008		8.32			9.91
	3/24/2008		8.15			10.08
	4/7/2008		8.30			9.93
	5/12/2008		8.20			10.03
	6/4/2008		8.35			9.88
	7/25/2008		8.65			9.58
	8/21/2008		9.20			9.03
	9/19/2008		8.72			9.51
	10/22/2008		8.85			9.38
	11/14/2008		8.71			9.52
	12/31/2008		8.23			10.00
	1/29/2009		8.90			9.33
	2/19/2009		8.54			9.69
	3/26/2009		8.82			9.41

MW-15	5/10/2007	NA	10.83	9.35	1.48	----
	5/23/2007		9.72	9.70	0.02	----
	6/18/2007		10.02	9.93	0.09	----
	8/13/2007		9.70	9.16	0.54	----
	9/24/2007		10.73	10.32	0.41	----
	10/21/2007		11.37	10.44	0.07	----
	11/23/2007		NA			----
	12/14/2007		11.15	10.63	0.52	----
	1/11/2008		10.39	10.37	0.02	----
	2/28/2008		10.36	10.18	0.18	----
	3/24/2008		10.19	10.05	0.14	----
	4/7/2008		10.94	10.17	0.77	----
	5/12/2008		10.45	10.13	0.32	----
	6/4/2008	Did Not Monitor				
	7/25/2008		10.45	10.13	0.32	----
	8/21/2008		10.47	10.41	0.06	----
	9/19/2008		10.46	10.42	0.04	----
	10/22/2008		10.55	10.51	0.04	----
	11/14/2008		10.54	10.18	0.36	----
	12/31/2008		10.60	Sheen	Sheen	----
1/29/2009		10.88	Sheen	Sheen	----	
2/19/2009		9.97	Sheen	Sheen	----	
3/26/2009		10.12	Sheen	Sheen	----	

MW-16	5/10/2007	NA	11.07	9.98	1.09	----
	5/23/2007		10.54	10.31	0.23	----
	6/18/2007		11.27	10.59	0.68	----
	8/13/2007		11.81	10.46	1.35	----
	9/24/2007		11.03	11.09	0.06	----
	10/21/2007		11.16	11.14	0.02	----
	11/23/2007		NA			----
	12/14/2007		11.35	11.32	0.03	----
	1/11/2008		11.06	11.05	0.01	----
	2/28/2008		11.00	10.85	0.15	----
	3/24/2008		10.91	10.71	0.20	----
	4/7/2008		10.96	10.17	0.79	----
	5/12/2008		10.85	10.32	0.53	----
	6/4/2008		Did Not Monitor			----
	7/25/2008		10.85	10.32	0.53	----
	8/21/2008		10.91	10.87	0.04	----
	9/19/2008		10.87	10.85	0.02	----
	10/22/2008		10.85	Sheen	Sheen	----
	11/14/2008		11.01	Sheen	Sheen	----
	12/31/2008		10.95	Sheen	Sheen	----
1/29/2009		11.02	Sheen	Sheen	----	
2/19/2009		10.84	Sheen	Sheen	----	
3/26/2009		10.91	Sheen	Sheen	----	

**Table-1**  
**49 Dupont Street**  
**Brooklyn, New York**

Well Number	Date	Well Elevation (ft)	Depth to Groundwater (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)
RW-1	11/20/2006	NA	8.38			----
	4/25/2007		7.57			----
	5/10/2007		8.04			----
	6/18/2007		8.57			----
	9/24/2007		9.10			----
	10/21/2007		9.17			----
	11/23/2007		9.31			----
	12/14/2007		9.22			----
	1/11/2008		13.06			----
	2/28/2008		8.83			----
	3/24/2008		8.73			----
	4/7/2008		8.84			----
	5/12/2008		8.74			----
	6/4/2008		8.85			----
	7/25/2008		9.16			----
	8/21/2008		9.23			----
	9/19/2008		n/a			----
	10/22/2008		9.33			----
	11/14/2008		Did not monitor			----
	12/31/2008		8.70			----
1/29/2009		8.55			----	
2/19/2009		8.64			----	
3/26/2009		9.35			----	
RW-2	4/25/2007	NA	12.46	12.45	0.01	----
	5/10/2007		12.91	12.71	0.20	----
	10/21/2007		14.09	13.85	0.24	----
	11/23/2007		15.81	14.51	1.30	----
	12/14/2007		15.22	13.85	1.37	----
	1/11/2008		13.64	13.31	0.33	----
	2/28/2008		13.44	13.26	0.18	----
	3/24/2008		13.52	13.16	0.36	----
	4/7/2008		13.25	13.01	0.24	----
	5/12/2008		13.60	13.36	0.24	----
	6/4/2008		Did Not Monitor			----
	7/25/2008		13.60	13.36	0.24	----
	8/21/2008		13.65	13.28	0.37	----
	9/19/2008		13.59	13.21	0.38	----
	10/22/2008		NS			----
	11/14/2008		13.68	12.00	1.68	----
	12/31/2008		13.47	13.00	0.47	----
	1/29/2009		13.06	12.50	0.44	----
	2/19/2009		12.89	12.55	0.34	----
	3/26/2009		13.02	12.85	0.27	----
RW-3	4/25/2007	NA	13.84	13.60	0.24	----
	5/10/2007		14.17	14.00	0.17	----
	6/18/2007		15.40	14.53	0.87	----
	9/24/2007		15.63	14.96	0.67	----
	10/21/2007		15.73	15.12	0.51	----
	11/23/2007		16.51	15.15	1.36	----
	12/14/2007		15.55	13.33	2.22	----
	1/11/2008		14.94	14.71	0.23	----
	2/28/2008		14.99	14.39	0.60	----
	3/24/2008		15.30	14.70	0.60	----
	4/7/2008		14.96	14.40	0.56	----
	5/12/2008		15.23	14.75	0.48	----
	6/4/2008		Did Not Monitor			----
	7/25/2008		15.23	14.75	0.48	----
	8/21/2008		15.31	15.01	0.30	----
	9/19/2008		15.28	15.11	0.17	----
	10/22/2008		15.18	15.00	0.18	----
	11/14/2008		15.33	14.43	0.90	----
	12/31/2008		15.40	13.99	1.41	----
	1/29/2009		15.15	14.87	0.28	----
2/19/2009		14.96	14.71	0.25	----	
3/26/2009		15.05	14.82	0.23	----	
RW-4	11/20/2006	NA	16.47	14.49	1.98	----
	4/25/2007		14.15	13.75	0.40	----
	5/10/2007		14.44	14.10	0.34	----
	6/18/2007		14.85	14.62	0.23	----
	9/24/2007		16.87	15.29	1.58	----
	10/21/2007		15.74	15.45	0.29	----
	11/23/2007		15.88	15.42	0.46	----
	12/14/2007		15.84	15.48	0.36	----
	1/11/2008		15.19	15.04	0.15	----
	2/28/2008		15.06	14.84	0.22	----
	3/24/2008		15.14	14.85	0.29	----
	4/7/2008		15.10	14.92	0.18	----
	5/12/2008		15.22	14.83	0.39	----
	6/4/2008		Did Not Monitor			----
	7/25/2008		15.22	14.38	0.84	----
	8/21/2008		15.23	15.20	0.03	----
	9/19/2008		15.21			----
	10/22/2008		15.19	15.14	0.05	----
	11/14/2008		15.30	15.00	0.30	----
	12/31/2008		14.99	14.50	0.49	----
1/29/2009		15.43	15.06	0.37	----	
2/19/2009		15.05	14.92	0.13	----	
3/26/2009		15.27	14.89	0.32	----	

**Table-1**  
**49 Dupont Street**  
**Brooklyn, New York**

Well Number	Date	Well Elevation (ft)	Depth to Groundwater (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)
RW-5	11/20/2006	NA	13.64	13.53	0.11	----
	4/25/2007		12.75	12.60	0.15	----
	5/10/2007		13.10	13.02	0.08	----
	6/18/2007		13.60	13.55	0.05	----
	9/24/2007		14.24	13.94	0.30	----
	10/21/2007		14.23	14.11	0.12	----
	11/23/2007		14.23	14.13	0.10	----
	12/14/2007		14.75	14.26	0.49	----
	1/11/2008		13.91	13.81	0.13	----
	2/28/2008		14.01	14.00	0.01	----
	3/24/2008		14.35	14.12	0.23	----
	4/7/2008		14.21	14.20	0.01	----
	5/12/2008		13.58	13.56	0.02	----
	6/4/2008		13.32	9.50	3.82	----
	7/25/2008		13.32	9.50	3.82	----
	8/21/2008		13.34	11.25	2.09	----
	9/19/2008		13.31	11.15	2.16	----
	10/22/2008		13.21	13.02	0.19	----
	11/14/2008		13.35	Sheen	Sheen	----
	12/31/2008		13.28	Sheen	Sheen	----
	1/29/2009		14.87	Sheen	Sheen	----
	2.19.2009		13.53	Sheen	Sheen	----
	3/26/2009		13.66	Sheen	Sheen	----
RW-6	4/25/2007	NA	10.69			----
	5/10/2007		11.08			----
	6/18/2007		11.58			----
	9/24/2007		12.77	11.94	0.83	----
	10/21/2007		12.92	12.11	0.81	----
	11/23/2007		12.85	12.14	0.71	----
	12/14/2007		12.78	12.21	0.57	----
	1/11/2008		11.96	11.71	0.25	----
	2/28/2008		12.14	11.55	0.59	----
	3/24/2008		12.02	11.98	0.04	----
	4/7/2008		12.11	12.01	0.10	----
	5/12/2008		11.77	11.74	0.03	----
	6/4/2008		11.86	SHEEN	Sheen	----
	7/25/2008		12.17	SHEEN	Sheen	----
	8/21/2008		12.01	Sheen	Sheen	----
	9/19/2008		12.12			----
	10/22/2008		12.01	Sheen	Sheen	----
	11/14/2008		12.19	12.02	0.17	----
	12/31/2008		12.23	Sheen	Sheen	----
	1/29/2009		12.45	SHEEN	Sheen	----
	2/19/2009		12.87	SHEEN	Sheen	----
	3/26/2009		12.62	SHEEN	Sheen	----
RW-7	11/20/2006	NA	LNAPL			----
	9/24/2007		unknown	9.05		----
	10/21/2007		9.51	too thick		----
	11/23/2007		9.83	9.77	0.06	----
	12/14/2007		9.80	too thick		----
	1/11/2008		9.26	9.22	0.04	----
	2/28/2008		9.35	9.27	0.08	----
	3/24/2008		too thick			----
	4/7/2008		9.22	9.06	0.16	----
	5/12/2008		too thick			----
	6/4/2008		too thick			----
	7/25/2008		9.22	9.06	0.16	----
	8/21/2008		9.28	9.18	0.10	----
	9/19/2008		9.26	9.19	0.07	----
	10/22/2008		9.20	Sheen	Sheen	----
	11/14/2008		9.34	9.27	0.07	----
	12/31/2008		9.50	Sheen	Sheen	----
	1/29/2009		9.46	Sheen	Sheen	----
	2/19/2009		9.72	9.67	0.05	----
3/26/2009	9.65	9.55	0.10	----		

**Table-1**  
**49 Dupont Street**  
**Brooklyn, New Yor**

Well Number	Date	Well Elevation (ft)	Depth to Groundwater (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)
RW-8	4/25/2007	NA	12.60	12.35	0.25	----
	5/10/2007		13.11	12.78	0.33	----
	6/18/2007		14.36	13.25	1.11	----
	8/13/2007					----
	9/24/2007		15.95	13.65	2.30	----
	10/21/207		NS			----
	11/23/2007		14.45	13.98	0.47	----
	12/14/2007		14.78	13.95	0.83	----
	1/11/2008		13.69	13.44	0.25	----
	2/28/2008		15.22	13.87	1.35	----
	3/24/2008		14.97	13.86	1.11	----
	4/7/2008		15.01	13.56	1.45	----
	5/12/2008		14.28	13.45	0.83	----
	6/4/2008		Did Not Monitor			----
	7/25/2008		14.28	13.45	0.83	----
	8/21/2008		14.30	13.85	0.45	----
	9/19/2008		14.30	13.99	0.31	----
	10/22/2008		14.28	13.18	1.10	----
	11/14/2008		14.33	12.89	1.44	----
	12/31/2008		14.23	13.98	0.25	----
	1/29/2009		15.12	13.77	1.45	----
	2/19/2009		14.76	13.09	1.67	----
	3/26/2009		14.43	13.21	1.22	----

RW-9	4/25/2007	NA	12.10	11.95	0.15	----
	5/10/2007		12.59	12.36	0.23	----
	6/18/2007		13.60	12.83	0.77	----
	8/13/2007					----
	9/24/2007		14.80	13.30	1.50	----
	10/21/2007		NS			----
	11/23/2007		13.97	13.23	0.74	----
	12/14/2007		14.15	13.59	0.56	----
	1/11/2008		13.31	13.19	0.12	----
	2/28/2008		13.26	12.78	0.48	----
	3/24/2008		13.31	12.58	0.73	----
	4/7/2008		13.41	12.42	0.99	----
	5/12/2008		13.44	13.03	0.41	----
	6/4/2008	Did Not Monitor				----
	7/25/2008		13.44	13.03	0.41	----
	8/21/2008		13.50	13.25	0.25	----
	9/19/2008		13.48	13.28	0.20	----
	10/22/2008		13.37	13.02	0.35	----
	11/14/2008		13.55	12.91	0.64	----
	12/31/2008		13.65	13.27	0.38	----
1/29/2009		14.02	13.89	0.13	----	
2/19/2009		13.41	13.01	0.40	----	
3/26/2009		13.04	12.82	0.22	----	

RW-10	4/25/2007	NA	11.76	11.64	0.12	----
	5/10/2007		12.13	12.05	0.08	----
	8/13/2007		pump			----
	9/24/2007		pump			----
	10/21/2007		pump			----
	11/23/2007		13.89	13.18	0.71	----
	12/14/2007		13.72	13.31	0.41	----
	1/11/2008		13.28	13.14	0.14	----
	2/28/2008		13.43	13.39	0.04	----
	3/24/2008		13.26	13.19	0.07	----
	4/7/2008		13.33	13.21	0.12	----
	5/12/2008		13.40	13.33	0.07	----
	6/4/2008	Did Not Monitor				----
	7/25/2008		13.40	13.33	0.07	----
	8/21/2008		13.46	12.85	0.61	----
	9/19/2008		13.43	12.78	0.65	----
	10/22/2008		13.50	12.95	0.65	----
	11/14/2008		13.54	12.99	0.55	----
	12/31/2008		13.43	13.10	0.33	----
	1/29/2009		13.87	13.11	0.76	----
	2/19/2009		13.67	13.23	0.44	----
	3/26/2009		13.60	13.05	0.50	----

**49 Dupont Street  
Brooklyn, New York**

Well Number	Sampling Date	Benzene	Toluene	Ethylbenzene	Total Xylene	MtBE	Bis(2-ethylhexyl)phtalate	Di-n-octylphthalate
MW-1	7/24/2006	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	7/18/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	10/24/07	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	1/11/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	4/7/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	8/21/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	11/26/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	3/26/2009	<MDL	<MDL	<MDL	<MDL	<MDL	7	<MDL
MW-2	7/24/2006	<MDL	<MDL	<MDL	<MDL	<MDL	60	<MDL
	7/18/2007	<MDL	<MDL	<MDL	<MDL	<MDL	77	<MDL
	10/24/2007	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	1/11/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	4/7/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	8/21/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	11/26/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	3/26/2009	<MDL	<MDL	<MDL	<MDL	<MDL	16	<MDL
MW-3	7/24/2006	<MDL	<MDL	<MDL	<MDL	<MDL	31	<MDL
	7/18/2007	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	10/24/2007	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	1/11/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	4/7/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	8/21/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	11/26/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	3/26/2009	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
MW-4	7/24/2006	<MDL	<MDL	<MDL	<MDL	<MDL	120,000 <sup>P</sup>	160,000 <sup>P</sup>
	7/18/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	10/24/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	1/11/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	4/7/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	3/26/2009	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
MW-5	7/24/2006	<MDL	<MDL	<MDL	<MDL	<MDL	780,000 <sup>P</sup>	90,000 <sup>P</sup>
	7/18/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	10/24/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	1/11/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	4/7/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	3/26/2009	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
MW-6	7/24/2006	<MDL	<MDL	<MDL	<MDL	<MDL	1,300,000 <sup>P</sup>	<MDL
	7/18/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	10/24/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	1/11/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	4/7/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	3/26/2009	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
MW-7	7/24/2006	<MDL	<MDL	<MDL	<MDL	<MDL	370,000 <sup>P</sup>	<MDL
	7/18/2007	NT	NT	NT	NT	NT	4,600 <sup>P</sup>	<MDL
	10/24/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	1/11/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	4/7/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	3/26/2009	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL

<MDL = Parameter below method detection limit

NA = Well not Accessible

NT = Not Tested

P = These wells developed free product shortly after sampling and are no longer sampled for dissolved constituents



**49 Dupont Street  
Brooklyn, New York**

Well Number	Sampling Date	Benzene	Toluene	Ethylbenzene	Total Xylene	MtBE	Bis(2-ethylhexyl)phtalate	Di-n-octylphthalate
MW-8	7/24/2006	<MDL	<MDL	<MDL	<MDL	<MDL	89	<MDL
	7/18/2007	NT	NT	NT	NT	NT	230	<MDL
	10/24/2007	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	1/11/2008	<MDL	<MDL	<MDL	<MDL	<MDL	22	<MDL
	4/7/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	8/21/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	11/26/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	3/26/2009	<MDL	<MDL	<MDL	<MDL	<MDL	7	<MDL
MW-9	7/24/2006	<MDL	<MDL	11	11	<MDL	<MDL	<MDL
	7/18/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	10/24/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	1/11/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	4/7/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	3/26/2009	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
MW-10	7/24/2006	<MDL	<MDL	<MDL	<MDL	<MDL	6	<MDL
	7/18/2007	NT	NT	NT	NT	NT	57	<MDL
	10/24/07	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	1/11/2008	<MDL	<MDL	<MDL	<MDL	<MDL	99	<MDL
	4/7/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	8/21/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	11/26/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	3/26/2009	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
MW-11	9/18/2006	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	DESTROYED	DESTROYED	DESTROYED	DESTROYED	DESTROYED	DESTROYED	DESTROYED	DESTROYED
MW-12	9/18/2006	<MDL	<MDL	<MDL	<MDL	<MDL	17	<MDL
	7/18/2007	NT	NT	NT	NT	NT	ND	<MDL
	10/24/2007	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	1/11/2008	<MDL	<MDL	<MDL	<MDL	<MDL	14	<MDL
	4/7/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	8/21/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	11/26/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	3/26/2009	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
MW-13	9/18/2006	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	7/18/2007	NT	NT	NT	NT	NT	<MDL	<MDL
	10/24/2007	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	1/11/2008	<MDL	<MDL	<MDL	<MDL	<MDL	170	<MDL
	4/7/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	8/21/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	11/26/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	3/26/2009	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL

<MDL = Parameter below method detection limit  
NA = Well not Accessible  
NT = Not Tested  
P = These wells developed free product shortly after sampling and are no longer sampled for dissolved constituents

**49 Dupont Street  
Brooklyn, New York**

Well Number	Sampling Date	Benzene	Toluene	Ethylbenzene	Total Xylene	MtBE	Bis(2-ethylhexyl)phthalate	Di-n-octylphthalate
MW-14	9/18/2006	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	7/18/2007	NT	NT	NT	NT	NT	<MDL	<MDL
	10/24/2007	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	1/11/2008	<MDL	<MDL	<MDL	<MDL	<MDL	86	<MDL
	4/7/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	8/21/2008							
	11/26/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	3/26/2009	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
MW-15	12/7/2006	<MDL	<MDL	<MDL	<MDL	<MDL	6,400	<MDL
	7/18/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	10/24/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	3/26/2009	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
MW-16	12/7/2006	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	990
	7/18/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	10/24/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
	3/26/2009	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL
RW-1	7/18/2007	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	4/7/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	11/26/2008	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
	3/26/2009	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
RW-6	7/18/2007	<MDL	<MDL	<MDL	<MDL	<MDL	40	<MDL
	3/26/2009	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL

<MDL = Parameter below method detection limit

NA = Well not Accessible

NT = Not Tested

P = These wells developed free product shortly after sampling and are no longer sampled for dissolved constituents

Table-3

**49 Dupont Street  
Brooklyn, New York**

Well Number	RW-2	RW-3	RW-4	RW-5	RW-7	RW-8	RW-9	RW-10	RW-11	RW-12	MW-4	MW-5	MW-6	MW-7	MW-9	MW-15	MW-16	TOTAL
Nov-06	100	60	0	0	0	0	0	0			27	1	0	0	0	0	0	188
Dec-06	92	67	0	0	0	5	6	168			1	0	0	0	0	0	0	339
Jan-07	80	93	0	0	0	25	13	144			1	5	5	0	0	0	0	366
Feb-07	98	87	0	0	0	16	20	158			0	0	0	0	0	0	0	379
Mar-07	79	95	0	0	0	14	16	167			0	0	0	0	0	0	0	371
Apr-07	76	92	27	0	0	42	15	165			6	27	26	0	0	0	0	476
May-07	72	96	32	0	0	46	17	175			7	28	26	0	0	4	0	503
Jun-07	75	90	2	0	0	39	21	166			1	25	26	0	0	1	0	446
Jul-07	67	82	3	0	0	38	23	154			1	28	29	0	0	1	0	426
Aug-07	47	89	0	0	0	38	22	166			0	16	17	0	0	8	8	411
Sep-07	15	43	0	0	0	36	19	146			0	22	9	0	0	4	4	298
Oct-07	27	87	0	9	2	27	14	120			0	20	14	1	0	3	0	324
Nov-07	23	52	0	10	4	22	26	110			0	22	8	1	2	1	1	282
Dec-07	20	35	0	8	2	25	15	108			0	18	2	0	1	1	0	235
Jan-08	37	12	0	16	13	24	40	148			0	14	21	24	0	6	1	356
Feb-08	28	11	0	14	15	21	16	99			0	12	23	12	0	0	0	251
Mar-08	24	12	0	9	8	22	15	142			0	18	22	16	0	0	0	288
Apr-08	29	12	0	8	9	25	17	151			0	28	16	13	0	0	0	308
May-08	34	11	4	0	1	28	9	106			0	18	28	0	0	0	0	239
Jun-08	25	10	5	1	2	37	10	120			0	20	25	0	10	0	0	265
Jul-08	35	12	2	2	3	32	11	125			0	21	30	0	0	0	0	273
Aug-08	28	13	2	2	2	35	17	110			0	21	28	0	6	2	1	267
Sep-08	32	11	3	5	0	23	20	140			0	20	22	22	5	8	1	312
Oct-08	22	16	2	4	1	26	19	120			0	19	30	6	4	4	1	274
Nov-08	22	10	1	4	1	28	12	140			0	20	18	12	4	2	1	275
Dec-08	30	2.5	2.5	3	0	18	14	89			0	20	15	6	3	1	0	204
Jan-09	23	2	2	4	1	21	12	102			1	15	16	3	3	1	1	207
Feb-09	21	5	3	2	1	19	18	105			0	14	18	2	2	1	1	212
Mar-09	22	6	2	2	1	20	16	110			0	19	18	2	2	1	1	222
Apr-09																		
May-09																		
Total =	1283	1213.5	92.5	103	66	752	473	3754			45	491	492	120	42	49	21	8997

# **INTERIM INVESTIGATION REPORT**

**For The Property Located At**

**44-55 Dupont Street  
Borough of Brooklyn, New York**

**April 2010**

**ESI File: SB09110.50**



**Ecosystems Strategies, Inc.**

24 Davis Avenue, Poughkeepsie, NY 12603

phone 845.452.1658 | fax 845.485.7083 | [ecosystemsstrategies.com](http://ecosystemsstrategies.com)

## INTERIM INVESTIGATION REPORT

For The Property Located At

**44-55 Dupont Street  
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**ESI File: SB09110.50**

**April 2010**

**Prepared By:**

**Ecosystems Strategies, Inc.  
24 Davis Avenue  
Poughkeepsie, New York 12603**

**Prepared For:**

**49 Dupont Realty Corporation  
P.O. Box 786  
Deer Park, NY 11729**

The undersigned has reviewed this Interim Investigation Report and certifies to 49 Dupont Realty Corporation that the information provided in this document is accurate as of the date of issuance by this office.

Any and all questions or comments, including requests for additional information, should be submitted to the undersigned.



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Paul H. Ciminello  
President

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## 1.0 INTRODUCTION

### 1.1 Purpose

This Interim Investigation Report (Report) summarizes all interim investigative services performed by Ecosystems Strategies, Inc. [ESI] personnel at, 49-55 Dupont Street (hereafter referred to as the subject property), Borough of Brooklyn, New York (see Section 1.2, below).

The purpose of this investigation was 1) to provide current (2010) groundwater quality data, to document the presence or absence of product in on-site and off-site wells, and to measure the thickness of all product present; 2) to identify the presence or absence of meaningful concentrations of phthalates in product known to be present in the northeastern corner of the property and currently presumed to be free-product petroleum (possibly Fuel Oil #6); 3) to calculate the current elevation of groundwater throughout all portions of the property, to confirm the direction of flow, and to determine if any of the monitoring wells are tidally influenced; and 4) to provide this information to the NYSDEC so that the NYSDEC can determine if one or more lots of the property present a “significant threat”, as defined by 6 NYCRR Part 375, such that inclusion in the Inactive Hazardous Waste Disposal Site Registry would be warranted, and, if so, what lots are to be included within the boundaries of said site.

### 1.2 Subject Property Location and Description

The subject property is a 2.81-acre, rectangular-shaped parcel located between Clay and Dupont Streets at the intersection with Commercial Street and Franklin Avenue. The property consists of New York City Block 2487, Tax Lots 1, 10, 12, 17, 18, 20, 21, 57, 72, and 78. Contamination of soils and groundwater by phthalates, compounds which were known to be stored on Lots 1, 10, and 78 and were utilized on-site to produce various plastic and vinyl products (see Section 1.4, below), have been detected on the western portion of the property (specifically on Lots 1 and 10; see Section 1.5, below). Petroleum contamination has been identified in the northeastern portion of the property (specifically on Lot 20).

The property is bordered by commercial/industrial facilities to the north, multi-family residential structures to the east and south, and a park to the west. The property is currently vacant. A Site Location Map is provided as Figure 1 and a Tax Lot Map is provided as Figure 2 in Appendix A.

### 1.3 Limitations

This written analysis summarizes investigative activities conducted on a specified portion of the property located at 49-55 Dupont Street, Borough of Brooklyn, New York and is not relevant to other portions of this property or any other property. This Report presents subject property conditions as of the respective dates of investigative activities, and cannot be held accountable for activities or events resulting in contamination after the dates of fieldwork.

Services summarized in this Report were performed in accordance with generally accepted practices and established NYSDEC protocols. Unless specifically noted, the findings and conclusions contained herein must be considered not as scientific certainties, but as probabilities based on professional judgement.

### 1.4 Property History and Site History

Information regarding the property's history was obtained during the completion of a Phase I Environmental Site Assessment for the property (see below). The property had several commercial/industrial uses prior to 1950 including: an ironworks, stables, a gas and light fixture factory, a sheet metal works, a soap manufacturer, a water proofing manufacturer, and a scrap

metal facility. After 1950, the property was primarily used for the production, storage, and shipping of plastic and vinyl products.

The property is currently comprised of ten (10) separate tax lots, each with a separate structure located on it. See Figure 2. The referenced figure clearly shows different buildings, which over time, have become interconnected to improve industrial efficiency. However, each structure was built at a different time and continues to have separate utility connections as well as separate foundation walls (including footings). Within this larger complex of buildings, (now interior) walls have painted windows and bricked up doorways that had, at one time, led to the outside.

The documents ESI has reviewed indicate that chemical storage and handling was restricted to the westernmost buildings on the property (tax Lots #1, #10 and #78) with the remaining buildings used for storage of finished products and facility maintenance. The facility's boilers are located in the northeastern portion of the property, on tax Lot #20; this lot is the location of the known petroleum release (NYSDEC Spill # 0601852).

## 1.5 Previous Environmental Activities

A Preliminary Phase I Site Assessment and a Phase I Environmental Site Assessment were completed for the property by RTP Environmental Associates Inc. and FPM Group, respectively. These reports identified the presence of underground storage tanks (USTs), asbestos, an oil and water separator, sub-grade pipe trenches, a loading dock drain, drum storage area, printing press pits, silos, a freight elevator, oil stained walls, and possible contamination due to previous on-site activities, as environmental concerns for the property.

NYSDEC spill number 0601852 was assigned to the property on May 19, 2006. The record does not specify the reason for the opening of the spill or the reporting party.

All on-site USTs were closed and on-site trenches were addressed as documented in Advanced Site Restoration LLC (ASR) Underground Tank Closure Report, dated July 2006. Prior to closure, all USTs were opened and inspected; any remaining product was removed for off-site disposal; and the tanks were cleaned and filled with foam. According to ASR, no visual signs of leaking or damaged tanks were observed during this process. In addition, any remaining materials were removed from the bottom of on-site trenches and containerized for off-site disposal; any remaining staining was removed using a surfactant.

At the same time, ASR advanced 41 soil borings throughout the property and collected soil samples (see Figure 3, Appendix A); most samples were collected from the groundwater interface. Elevated concentrations of phthalates, specifically bis(2-ethylhexyl) phthalate and di-n-octyl phthalate, were detected at seven of the borings located on the western portion of the property (primarily in Lots 1 and 10, although slightly elevated concentrations of phthalates were detected in Lot 72 at SB-57). In addition, elevated concentrations of volatile organic compounds (VOCs) were detected at SB-14, located near the former fuel oil USTs located on Lot 20 (northeast corner of property).

Groundwater monitoring wells and product recovery wells were installed by ASR as documented in a Phase II Site Assessment report, dated March 2007. A total of sixteen groundwater monitoring wells were installed; four inside of the building, eight on the sidewalk surrounding the building, and four off-site (across Commercial Street and Franklin Avenue). The presence of free product detected in several of the on-site wells initiated the installation of ten product recovery wells (RW-1 through RW-12); nine on the western portion of the property (on Lots 1 and 10) and one near the former fuel oil UST (on Lot 20). Removal of the free product from the recovery wells was instituted in November 2006.

Product removal activities have been documented in a Monthly Monitoring Report, dated December 27, 2007 and several Quarterly Sampling Reports prepared by ASR. Free product



continues to be present in on-site wells and product recovery activities are on-going at the property.

An inspection of the property was conducted on December 23, 2009 by personnel from ESI, the NYSDEC, and 49 Dupont Realty Corporation. The inspection included a walkthrough of the on-site buildings focusing on the former on-site processing activities and the location of former USTs. It was noted at that time that twelve recovery wells existed on-site; it is assumed that RW-11 and RW-12 were installed subsequent to the Phase II Site Assessment Report. In addition, two monitoring wells (MW-4 and MW-6) were tested for the presence of free product using an interface probe. Free product was detected at both of these wells with 3 inches of product detected at MW-4 and 3.89 feet of product detected at MW-6.

Additional investigative activities to further characterize on-site conditions, as described in Section 1.1, above, are documented in Section 2.0, below.

## 2.0 SUMMARY OF FIELDWORK

### 2.1 Overview of Services

Fieldwork documented in this Report was performed in accordance with the NYSDEC approved Interim Investigation Work Plan (Work Plan), dated December 2009, and the subsequent addendum to the Work Plan, dated January 20, 2010 which also formally approved the Work Plan.

This Report documents the following fieldwork activities:

- Completion of a tidal influence study (Section 2.2.1, below);
- Measurement of free product levels in all monitoring and recovery wells, if present (Section 2.2.2, below);
- Determination of the direction of groundwater flow (Section 2.2.3, below);
- Collection and Analysis of water quality samples from monitoring wells without measurable free product (Section 2.2.4, below); and,
- Collection and analysis of a free product sample from recovery well RW-7, as described in the Work Plan and addendum. In addition, a product sample was collected from MW-4 and RW-12 in order to identify the components of each product, if possible (Section 2.2.5, below).

Section 2.2 documents fieldwork activities (including the tidal influence investigation, measurement of free product, and collection of soil and groundwater samples) and Section 2.3 presents the findings of laboratory analysis of collected samples. Section 3.0 provides conclusions and recommendations for further actions based on these investigative activities.

### 2.2 Fieldwork Activities

#### 2.2.1 Tidal Influence Assessment

In order to complete the tidal assessment, ESI installed level loggers in three on-site monitoring wells (MW-1, MW-2, and MW-3) and three off-site monitoring wells (MW-12, MW-13, and MW-14) on Friday February 12, 2010. These wells were chosen based on lack of free product detected during past monitoring conducted by ASR; however, free product was detected in MW-1 during subsequent free product measurement (see Section 2.2.2, below). The level loggers were recovered on Monday February 15, 2010, providing data for approximately 72 hours.

Although the water rises and falls in all of the wells over the 72 hour testing period, a repeating pattern of the water rising and falling over approximately 12 hours cycles is evident in MW-12 and MW-13 indicating tidal influence (see the water level graphs for each well located in Appendix B). MW-12 and MW-13 are located to the northwest of the subject property, closest to the confluence of Newtown Creek and the East River.

Alternatively, the next closest well (MW-14); located to south of MW-12 and MW-13, does not have a repeating pattern of rising and falling water levels indicating that this well is not tidally influenced. In addition, the water level measurements from MW-1, MW-2, and MW-3, located on-site to the east of MW-14, do not indicate tidal influence. Based on this data, it is likely that on-site wells would be minimally influenced by the tide, if at all.

## 2.2.2 Measurement of Free Product and Depth to Groundwater

All existing groundwater and recovery wells were investigated for the presence of free product. The protective cap on the well was opened (as applicable) and the presence or absence and depth (as applicable) of free product were measured (relative to the top of the PVC casing) with a decontaminated interface probe. The depth to water was also recorded (as determined by the tone of the interface probe).

Depth to free product and groundwater measurements for the groundwater monitoring wells were conducted on February 15 and February 22, 2010. The measurements for each well are documented in Table A, below.

**Table A: Free Product and Depth to Groundwater Measurements**

Well ID	Depth to Product (feet)	Depth to Water (feet)	Product Depth (feet)	Product Depth (inches)	Field Observations
MW-1	11.35	11.45	0.1	1.2	Dark black product, petroleum odor
MW-2	NA	10.23	None	None	Well did not recharge, could not sample, PID 0.0
MW-3	NA	12.23	None	None	Clear water, ok recharge, PID 0.0
MW-4	12.87	13.8	0.93	11.16	Light yellow product, slightly sour-sweet odor, PID 0.0
MW-5	9.63	14.5	4.87	58.44	Dark black product, thick and sticky, PID 0.9
MW-6	8.73	12.49	3.76	45.12	Dark black product, thick and sticky, PID 0.0
MW-7	9	11.79	2.79	33.48	Dark black product, thick and sticky, PID 0.2
MW-8	NA	9.92	None	None	Well did not recharge, could not sample
MW-9	8.78	Not Measured*	Unknown	Unknown	Dark black product, very viscous, petroleum odor, PID = 36.5
MW-10	NA	8.7	None	None	Clear water, good recharge
MW-12	NA	7.73	None	None	Clear water, good recharge
MW-13	NA	7.78	None	None	Clear water, good recharge
MW-14	NA	8.55	None	None	Clear water, good recharge
MW-15	10.35	11.09	0.74	8.88	Dark black product, thick and sticky
MW-16	11.05	11.2	0.15	1.8	Dark product globules, not as dark or sticky as other wells
RW-1	NA	9	None	None	No product measured, PID 0.4,
RW-2	12.21	16.5	4.29	51.48	Dark brown to black viscous product, PID 0.0
RW-3	15.02	16.35	1.33	15.96	Dark brown to black viscous product, PID 0.0
RW-4	15.05	16.42	1.37	16.44	Dark brown to black viscous product, thicker than wells to west, PID 0.1
RW-5	13.92	14.5	0.58	6.96	Dark brown to black viscous product, thicker than wells to west, PID 1.5
RW-6	12.06	12.3	0.24	2.88	Dark brown to black product; slightly lighter than other wells, PID 0.1
RW-7	7.9	Not Measured*	Unknown	Unknown	Dark black product, very viscous, petroleum odor
RW-8	13.68	16.89	3.21	38.52	Dark brown to black viscous product, PID 0.5
RW-9	13.3	14.75	1.45	17.4	Dark brown to black viscous product, PID 4.5
RW-10	Pumped**	-	-	-	-
RW-11	13.28	15.55	2.27	27.24	Dark brown to black viscous product, PID 0.1
RW-12	12.87	17.66	4.79	57.48	Dark brown to black viscous product, PID 0.3

\* Product thickness makes determining depth to water impossible, product coats meter which cannot determine presence of water.

\*\* A skimmer pump continuously removes product from RW-10.

No free product was detected in several of the on-site and off-site groundwater monitoring wells including: MW-2 and MW-3 located in the southeastern portion of the building; MW-8 and MW-10 located in the sidewalk directly north of the on-site building; and, MW-12, MW-13, and MW-14 located to the northwest and west of subject property across the adjoining roadways.

Free product observations indicated the presence of three distinctly different products including 1) a dark, black, very viscous product (depth to water could not be measured due to coating meter) with a petroleum odor observed in MW-1, MW-9, and RW-7 located near the former fuel oil USTs; 2) a light yellow product with a slightly sour-sweet odor observed in MW-4 located near the western portion of the property; and, 3) a dark brown to black, sticky, product on the western portion of the subject property observed in MW-5 through MW-7; MW-15, MW-16, and RW-2 through RW-6; and, RW-8 through RW-12. No free product was observed in recovery well RW-1. The known lateral extent of free product, based on the measurements above, is depicted on Figure 4, Appendix A.

### **2.2.3 Direction of Groundwater Flow**

ESI surveyed the height of each well casing relative to a fixed on-site benchmark, located four feet, four and one-quarter inch above the sidewalk on the southwest corner of the building and five feet eleven and three-quarters inch above the sidewalk on the northwest portion of the building (this corner of the building is rounded), and calculated the direction of groundwater flow based on the elevation of static groundwater as measured at all on-site monitoring wells, measured prior to water quality sample collection. Measurements were collected with an interface probe with an accuracy of measuring depth to the nearest 0.01 foot.

Groundwater was determined to be flowing from the east to the west across the subject property with the greatest elevation at MW-2 (87.52 feet) and the lowest elevation at MW-5 (80.15 feet, see Figure 5, Appendix A).

### **2.2.4 Monitoring Well Sampling**

Groundwater sampling was conducted on February 15, 2009. Prior to sampling, each monitoring well casing was opened and the well column was immediately screened with a MiniRAE 3000 PID; however, the PID malfunctioned during the monitoring event and readings were not completed for all of the wells (see Table A, above). Each well was then investigated for the presence or absence of free product using a decontaminated interface probe (see Section 2.2.2, above).

Wells without free product present were purged using USEPA low-flow methodology as follows: 1) dedicated tubing was lowered to the bottom of the well and connected to a peristaltic pump; 2) the water level was measured before the pump was started and the well was pumped at a rate of 200 to 500 milliliters per minute; 3) the water level was measured every three minutes to ensure that stabilization (drawdown of 0.3' or less) was achieved; 4) during pumping, field indicator parameters (turbidity, temperature, specific conductance, pH, redox potential, and dissolved oxygen) were monitored and recorded; 5) the wells was pumped until stabilized was reached, when the indicator parameters stabilized for three consecutive readings; 6) the sample was collected directly from the pump tubing into laboratory supplied containers; 7) the purge water was containerized for proper off-site disposal at a later date; and, 8) the containers were placed in a cool (4° C), dry place prior to their transport to the laboratory. Appropriate chain-of-custody procedures were followed.

Groundwater was encountered between 7.7' (MW-12) and 14.5' (MW-5) bsg in the monitoring wells. Only seven wells did not have free product present (MW-2, MW-3, MW-8, MW-10, MW-12, MW-13, and MW-14) and of those wells, two (MW-2 and MW-8) could not be sampled because the wells would not stabilize during sampling (i.e., water level continued to drop regardless of pumping rate) indicating that connection to the groundwater table was not well established.

### 2.2.5 Collection of Free Product Samples

A product sample was collected from recovery well RW-7 (a dark, black, very viscous product with a petroleum odor), located near the former fuel oil USTs. This product sample was obtained by lowering an absorbent boom into the recovery well, allowing the boom to absorb some of the product, and then collecting the available free product directly into laboratory supplied glassware.

As described in Section 2.2.2, product with distinctly different characteristics was observed in other on-site monitoring and recovery wells during depth of product measurements. Product samples from two other wells, MW-4 (a light yellow product with a slightly sour-sweet odor) and RW-12 (a dark brown to black, sticky product), were collected by lowering an absorbent boom into the recovery well, allowing the boom to absorb some of the product, and then collecting the available free product directly into laboratory supplied glassware.

## 2.3 Laboratory Analysis

A summary of the results of the laboratory analyses conducted on the groundwater and free product samples is presented below. Data summary tables and the laboratory reports are provided in Appendices C and D, respectively, recommendations regarding these findings are located in Section 3.0.

### 2.3.1 Guidance Levels

The term "guidance level," as defined in this Report, refers to the concentration of a particular contaminant above which remedial actions are considered more likely. The overall objective of setting guidance levels is to assess the integrity of on-site groundwater relative to conditions that are likely to present a threat to public health or the environment, given the existing and probable future uses of the subject property. On-site groundwater with contaminant concentrations exceeding these guidance levels is considered more likely to warrant remediation. No independent risk assessment was performed as part of this investigation.

Guidance levels for groundwater are based on the NYSDEC Division of Water Technical & Operational Guidance Series 1.1.1 Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998 Edition (as modified through June 2004).

### 2.3.2 Sample Submission

Groundwater samples were submitted for laboratory analysis of VOCs (USEPA Method 8260) and semi-volatile organic compounds (SVOCs, USEPA Method 8270).

The free product sample from RW-7 was submitted to the laboratory for analysis of the presence of phthalates using USEPA Method 8270 selected ion monitoring.

The free product samples from MW-4 and RW-12 were submitted for identification of semi-volatile organic compounds by a library search using a gas chromatograph fitted with a mass spectrometer (GC/MS).

### 2.3.2 Laboratory Results

#### **Groundwater**

An elevated concentration of trichloroethylene (guidance level 5 µg/L) was detected in the sample from off-site monitoring well MW-13 (15 µg/L); estimated, low level concentrations of trichloroethylene were also detected in the samples from off-site wells MW-10 (1.1 µg/L) and MW-12 (2.5 µg/L). Estimated low levels of 1,1,1-trichloroethane (guidance level 5 µg/L) and 1,2,4-trimethylbenzene (guidance level 5 µg/L) were detected in the sample from MW-3 at a

concentration of 2.4 µg/L and 1.1 µg/L, respectively. In addition, estimated, low levels of methylene chloride (guidance level 5 µg/L), often a laboratory introduced contaminant, were detected in all samples (peak detection 3.9 µg/L, average detection 3.5 µg/L) and in the associated laboratory blank. No other VOCs were detected in any of the other samples.

An estimated, low level concentration of bis(2-ethylhexyl)phthalate (guidance level 5 µg/L) was detected at MW-13 (3.57 µg/L). No other SVOCs were detected in any of the other samples.

### **Free Product Samples**

As stated above, three distinct products (based of field observations) were identified at the subject property (see Figure 4, Appendix A). The Work Plan included sampling of the free product from recovery well RW-7 with the intent of determining the presence or absence of significant concentrations of phthalates in the fuel oil known to be present in this area. Although sampling of the remaining free product was not included in the Work Plan, analysis of these two products was completed in order to more fully characterize existing conditions at the subject property. Analysis of the three products present at the subject property included the following results:

#### Fuel Oil Free Product

The free product sample from RW-7 was analyzed for the presence of seven common phthalate compounds (including benzyl butyl phthalate, bis(2-ethylhexyl)adipate, bis(2-ethylhexyl)phthalate, diethyl phthalate, dimethyl phthalate, di-n-butyl phthalate, and di-n-octyl phthalate).

Only two phthalate compounds, bis(2-ethylhexyl)phthalate and di-n-butyl phthalate, were detected in the free product sample from RW-7 at low levels. These compounds were detected at a de minimis level comprising 0.016% of the total free product sample (130 mg/kg of bis(2-ethylhexyl)phthalate and 30 mg/kg [estimated] of di-n-butyl phthalate). The absence of elevated concentrations of phthalates supports the conclusion that the product present in the recovery well is not an admixture of industrial wastes and can continue to be managed as a petroleum release.

#### Other Free Product Samples

GC/MS analysis of the samples indicated that the sample from MW-4 (light yellow product with a slightly sour-sweet odor) consisted of approximately 40.5% carboxylic acid esters (phthalates) and the sample from RW-12 (a dark brown to black, sticky, product) consisted of approximately 18% phthalates. The sample from RW-12 also consisted of a high boiling, paraffinic, petroleum based oil (e.g., mineral oil); the sample from MW-4 did not contain a significant amount of petroleum based oil.

Discussion of the results with the laboratory performing the analysis, Friedman & Bruya, Inc., indicated that the product from RW-12 consisted of a complex mixture of phthalates and a paraffinic oil (the components of paraffinic oil cannot be identified by the mass spectrometer because it does not separate into identifiable peaks) and that although only 40.5% of the product in MW-4 was identified as phthalates, it is likely that this product consists primarily of phthalates.

Several of the phthalates were repeatedly identified by the mass spectrometer during the analysis. This repeating of compounds is due to the comparison of detected peaks to the "library" of known chemicals. Although different peaks were identified, no known compound could be exactly matched to the specific peak, so the closest comparison was identified by the mass spectrometer.



### 3.0 CONCLUSIONS AND RECOMMENDATIONS

This office has completed the services summarized in Section 2.0 of this Report on the specified portion of the property, located at 49-55 Dupont Street, Borough of Brooklyn, New York. Services included: performing a tidal influence study, gauging of free product in all monitoring and recovery wells, if present, determining the direction of groundwater flow, sampling of monitoring wells without measurable free product to document groundwater quality and, collection and analysis of a free product sample from MW-4, RW-7, and RW-12 in order to identify the presence or absence of phthalates in RW-7 and the components of the products in MW-4 and RW-12.

Based on the services provided by this office and analytical data generated, the following conclusions and recommendations (shown in **bold**) are provided below.

1. Off-site monitoring wells MW-12 and MW-13 were determined to be tidally influenced but on-site wells showed no tidal fluctuation. Groundwater was determined to be flowing from the east to the west across the subject property.
2. Three distinctly different free products are located on-site; based on field evidence and laboratory analysis. These products include a) fuel oil, located on the northeast portion of the subject property, b) free product phthalates, located near the western portion of the property at monitoring well MW-4, and c) a mixture of phthalates and paraffinic oil, located on the western portion of the subject property.

No free product was detected in the off-site wells located across the street to the west and northwest of the subject property (MW-12, MW-13, and MW-14). Free product phthalate and paraffinic oil depths ranged from a peak of 4.87 feet and 4.79 feet measured in MW-5 and RW-12, respectively, to 1.8 inches measured in MW-16. Free product petroleum measured 1.2 inches in MW-1; no free product petroleum depth measurement could be determined in RW-7 and MW-9 (located closest to the former fuel oil USTs) due to the consistency of the free product present.

**An Interim Remedial Measure Work Plan (IRM Work Plan) is being submitted under separate cover to address mass removal and source control of free product on the western portion of the subject property. Subsequent to implementation of the IRM Work Plan, a full-scale remediation plan should be developed and implemented to fully address the presence of free product phthalate on-site, which has been identified on the western portion of the subject property.**

3. Sampling of monitoring wells was limited due to the presence of free product in many wells and the groundwater drawdown during pumping of monitoring wells MW-3 and MW-8. Current sampling data documents no significant contamination in any of the wells sampled, with the exception of trichloroethylene and a low level of bis(2-ethylhexyl) phthalate detected at off-site monitoring well MW-13, located to the northwest of the subject property.

**Prior to another round of groundwater monitoring, ESI recommends re-developing MW-3 and MW-8 in order to attempt to clear fine grained material which may be clogging the well screen leading to drawdown of the wells when pumping.**

4. Previous reports have documented the presence of elevated levels of phthalates in soil on the western portion of the subject property (on Lots 1 and 10, only) and dissolved phase phthalates in on-site groundwater.

**Additional investigative and remedial activities will be needed to fully characterize groundwater quality and to address soil contamination subsequent to the implementation of the full-scale remediation of free product on-site (see #2, above).**

5. Free product petroleum present on the northeast portion of the subject property is unrelated to on-site production of plastic and vinyl products.

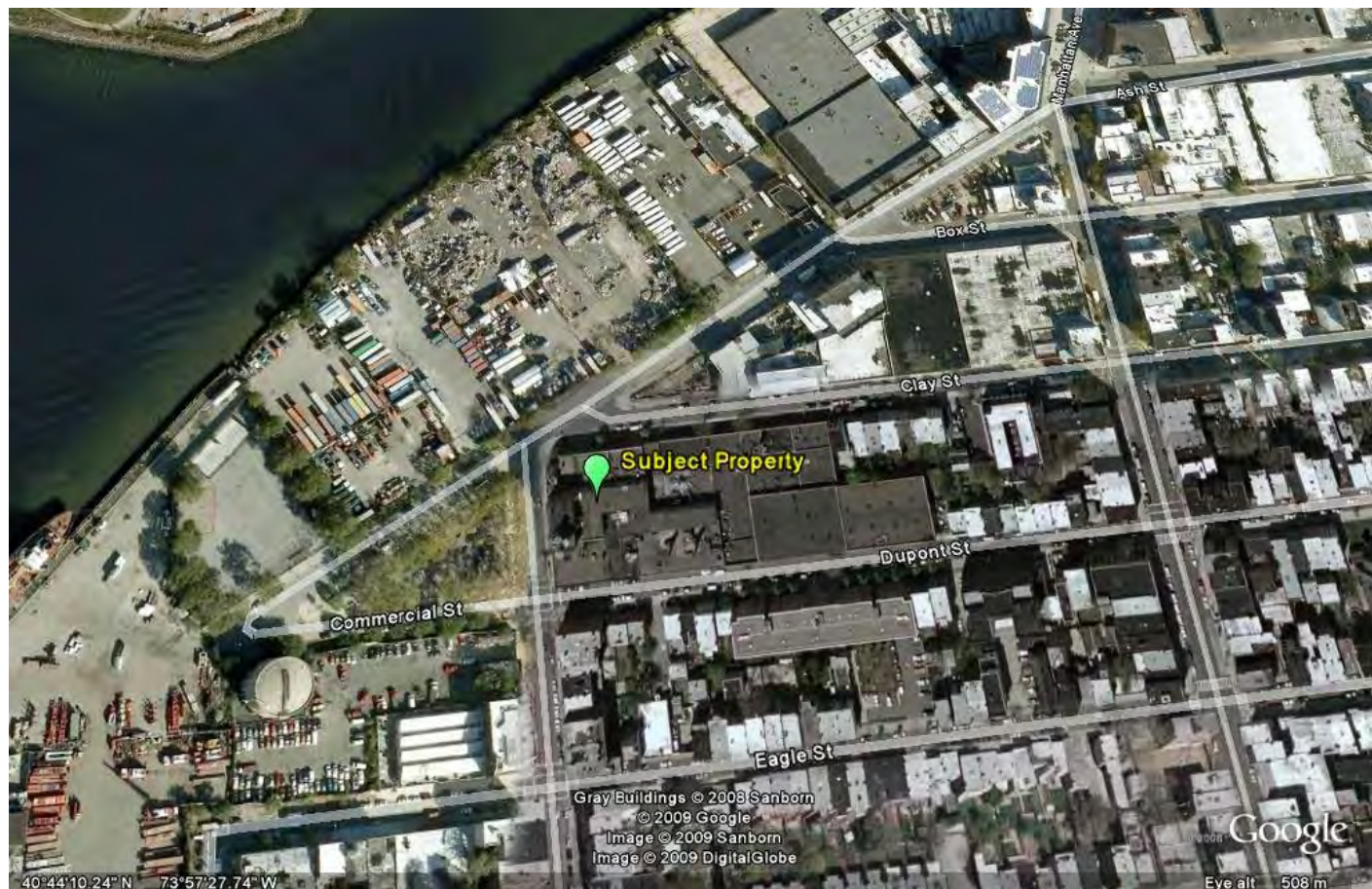
**It is recommended that this oil product be removed consistent with the Remedial Work Plan submitted to and approved by the NYSDEC spill officer assigned to event #0601852.**





## **APPENDIX A**

### ***Maps***



**Figure 1: Site Location Map**

49-55 Dupont Street  
Borough of Brooklyn  
Kings County, New York



ESI File: SB09110.51

April 2010

Appendix A

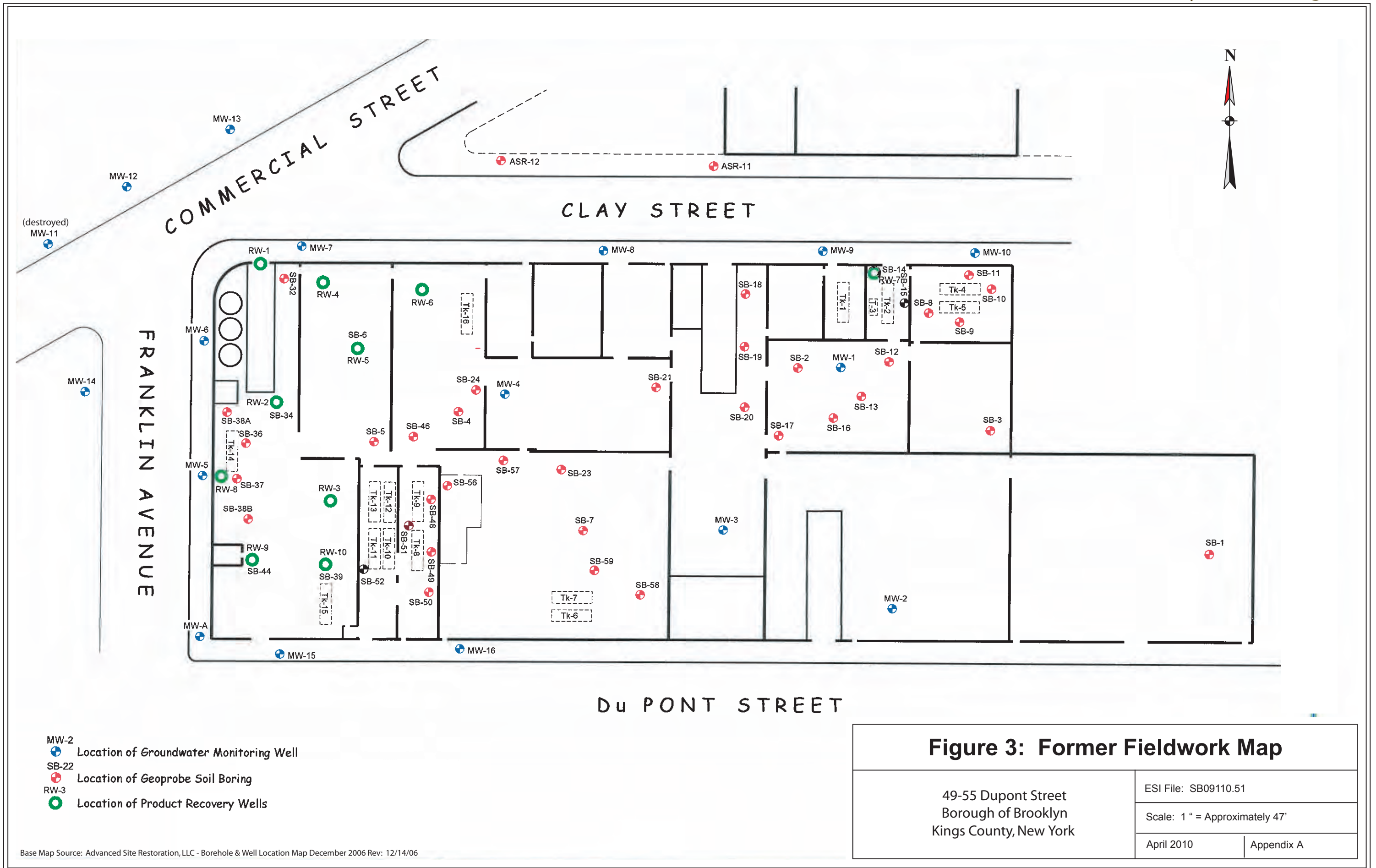


Source: Tax Lot lines from New York City Department of Finance, Digital Tax Map  
and Site Photograph from Google.com

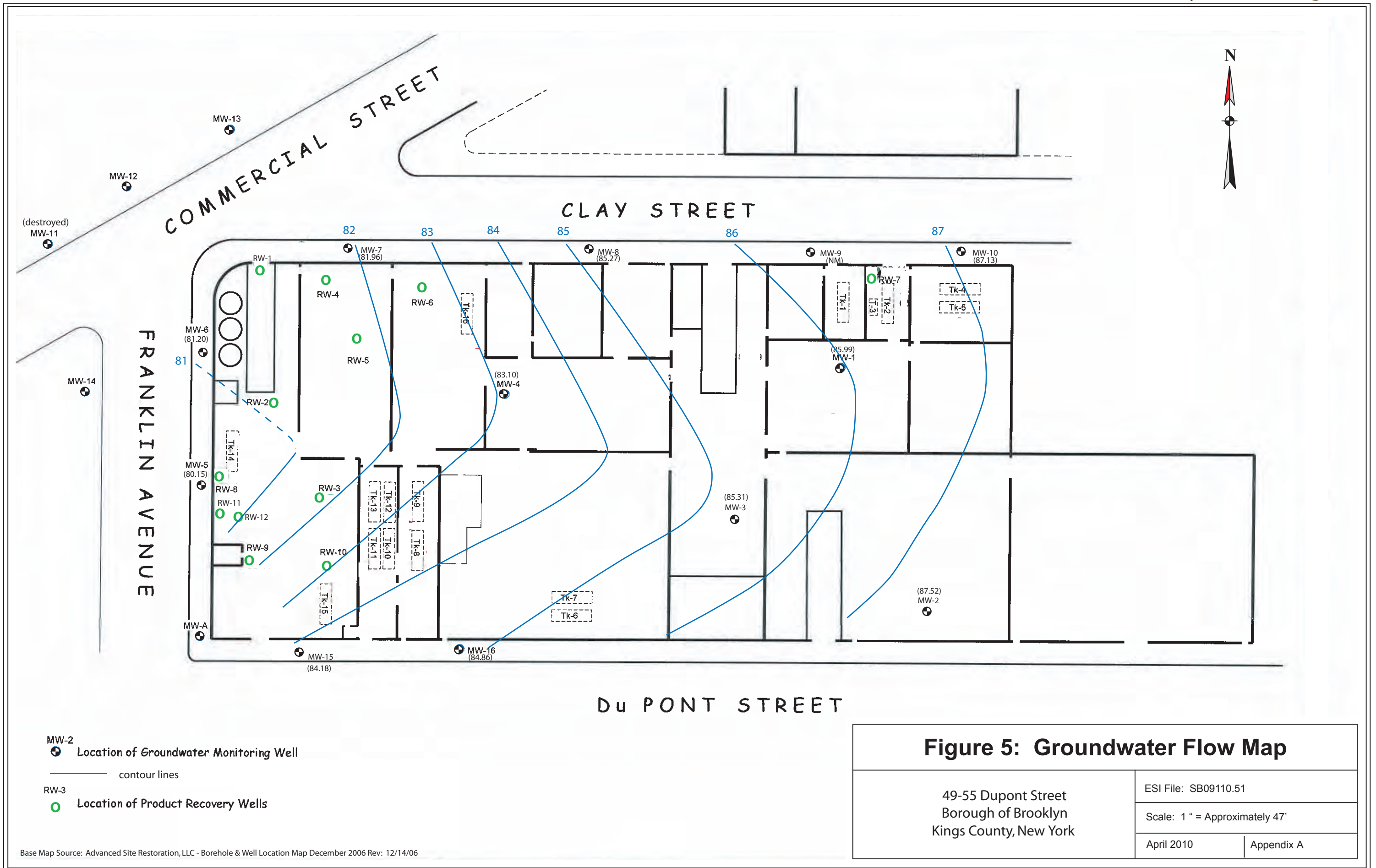
Figure 2: Tax Lot Map

49-55 Dupont Street Borough of Brooklyn Kings County, New York	ESI File: SB09110.51	
	Not to Scale	
	April 2010	Appendix A







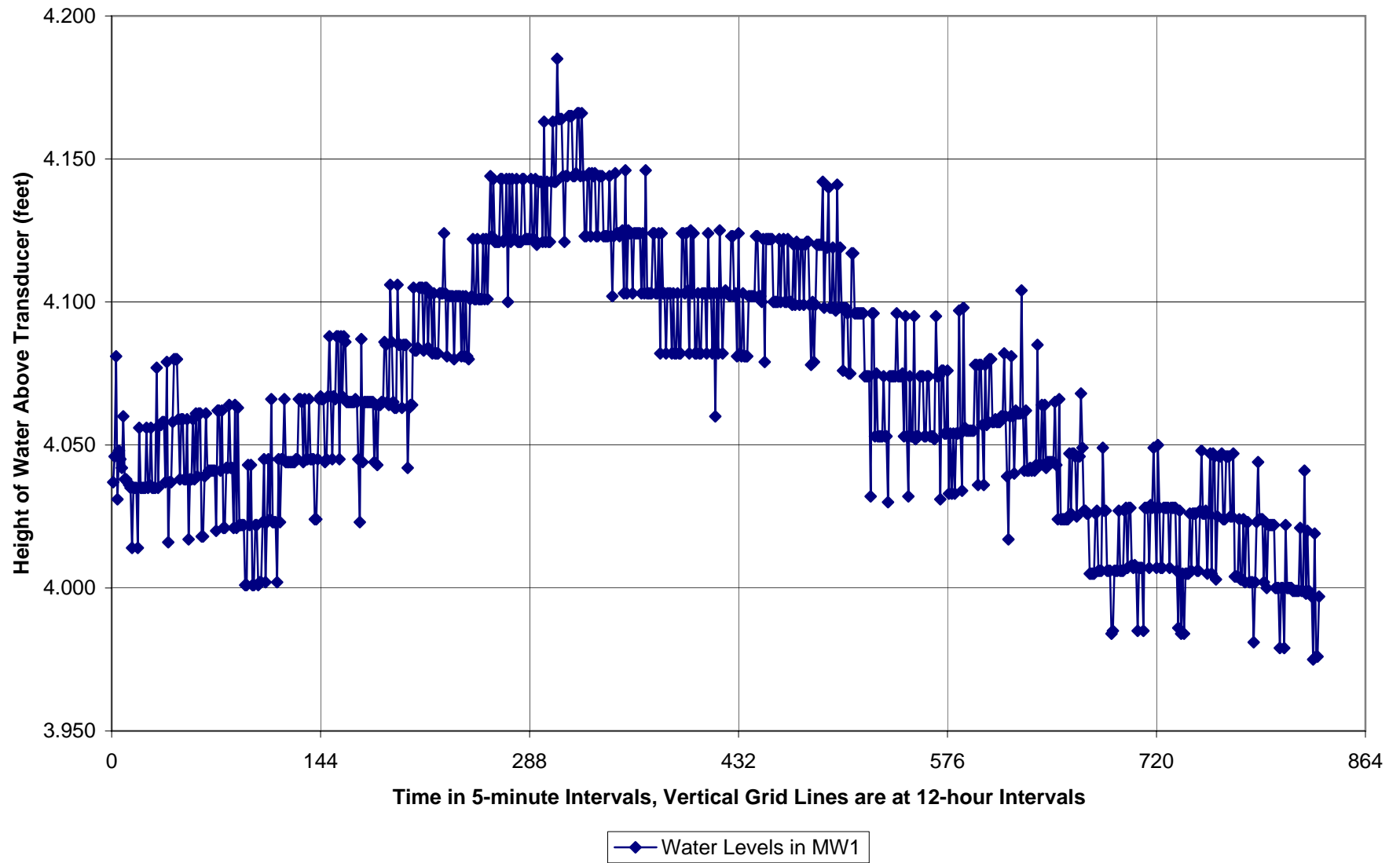




## **APPENDIX B**

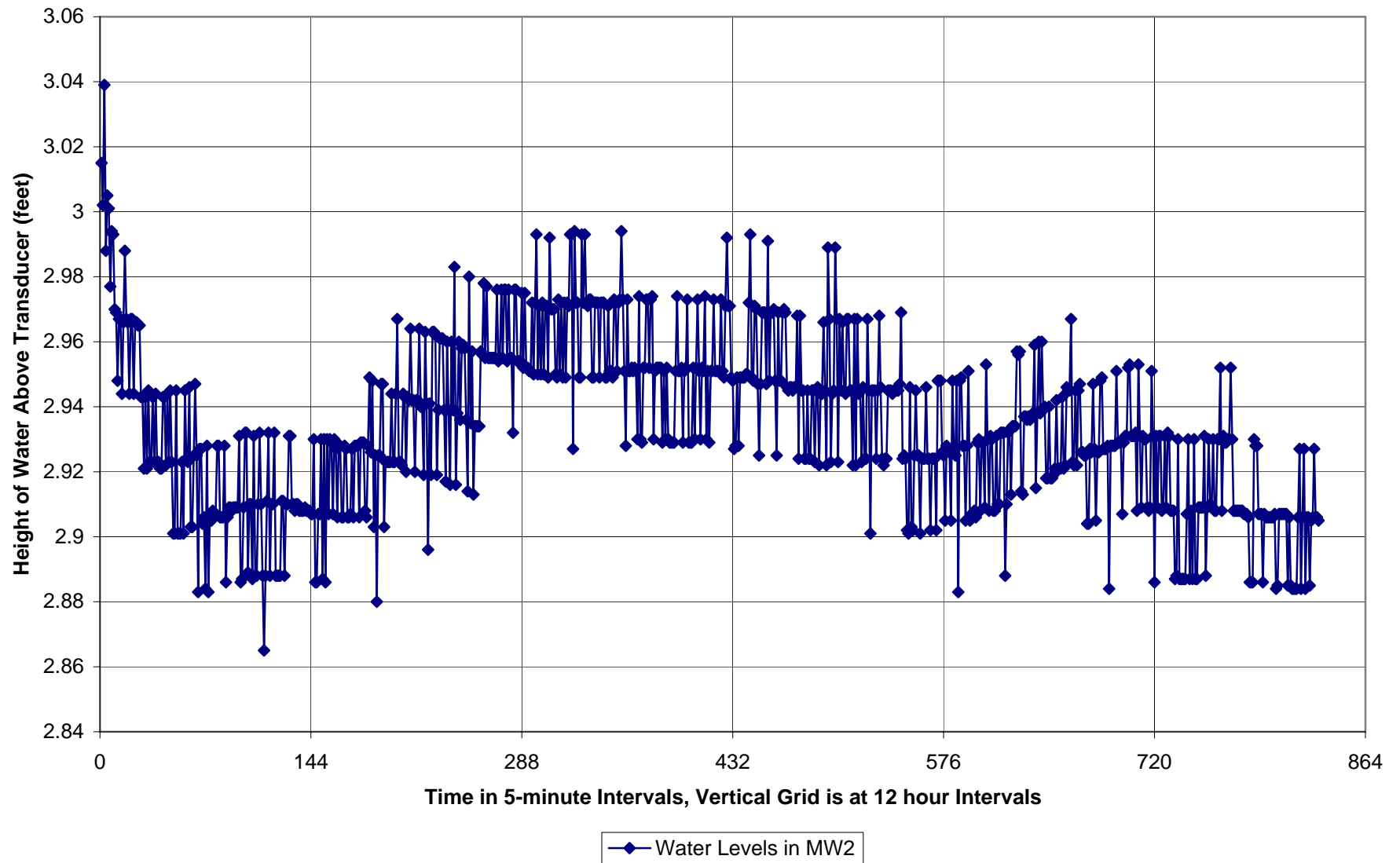
### ***Water Level Graphs***

Water Levels in MW1

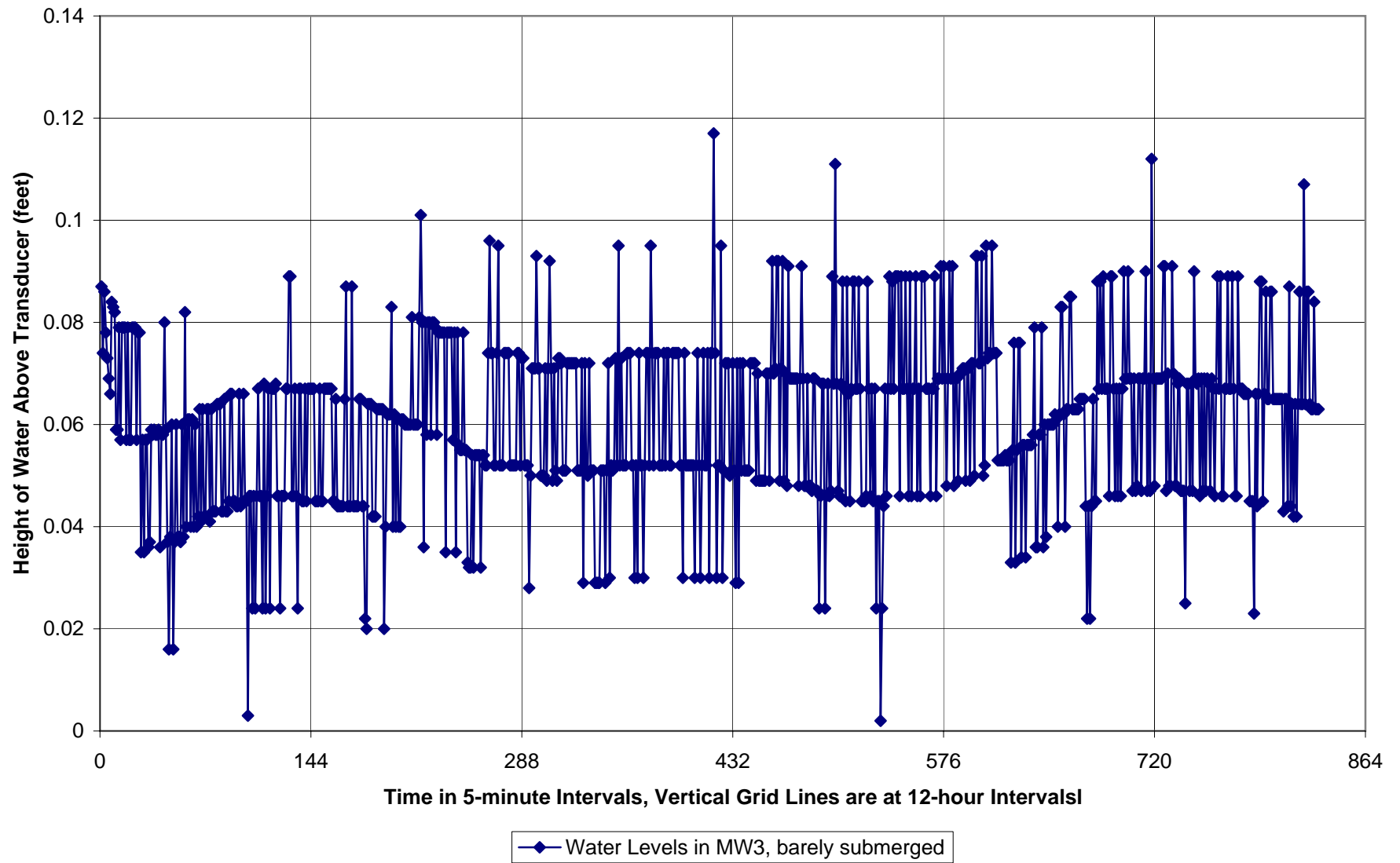




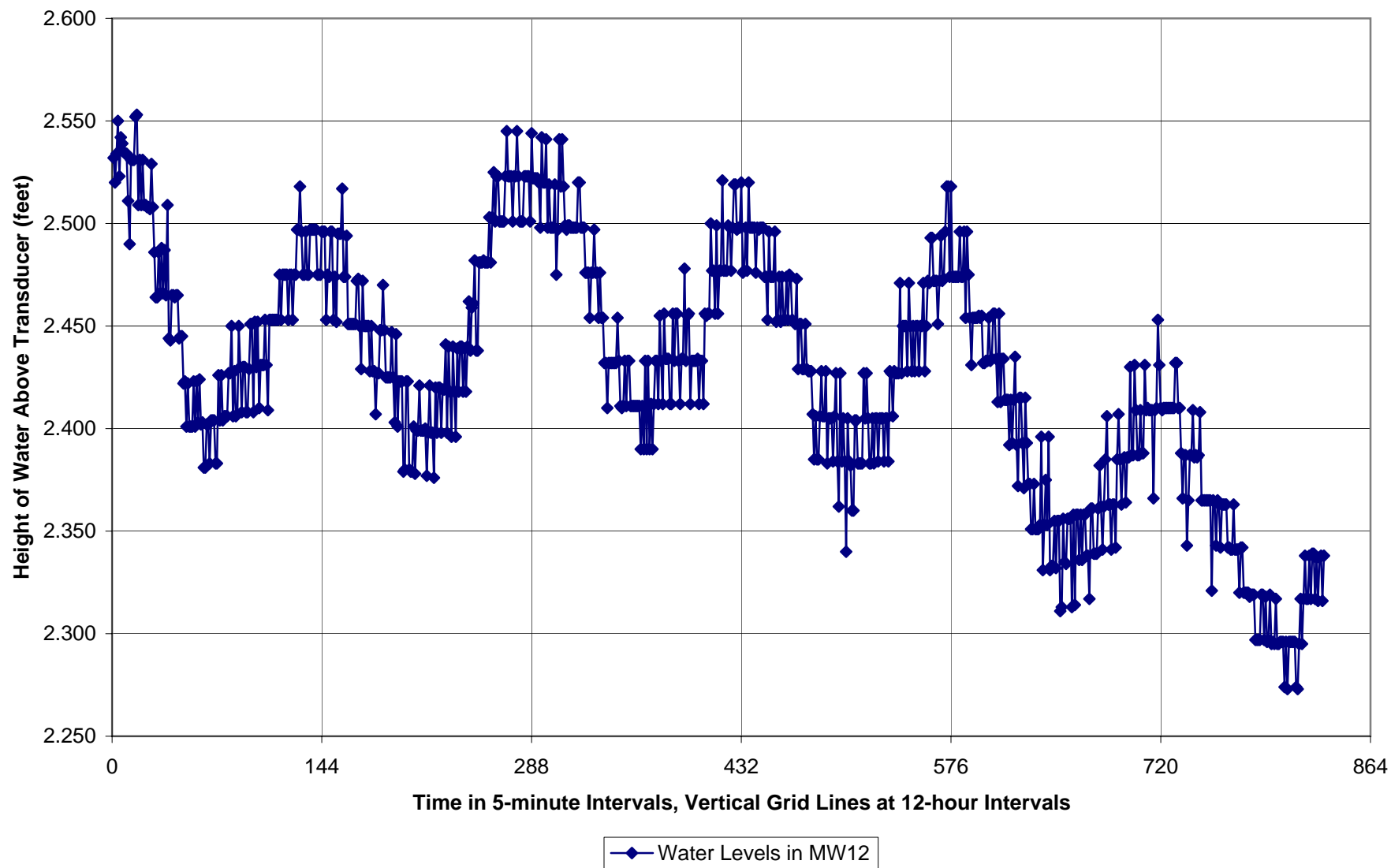
Water Levels in MW2



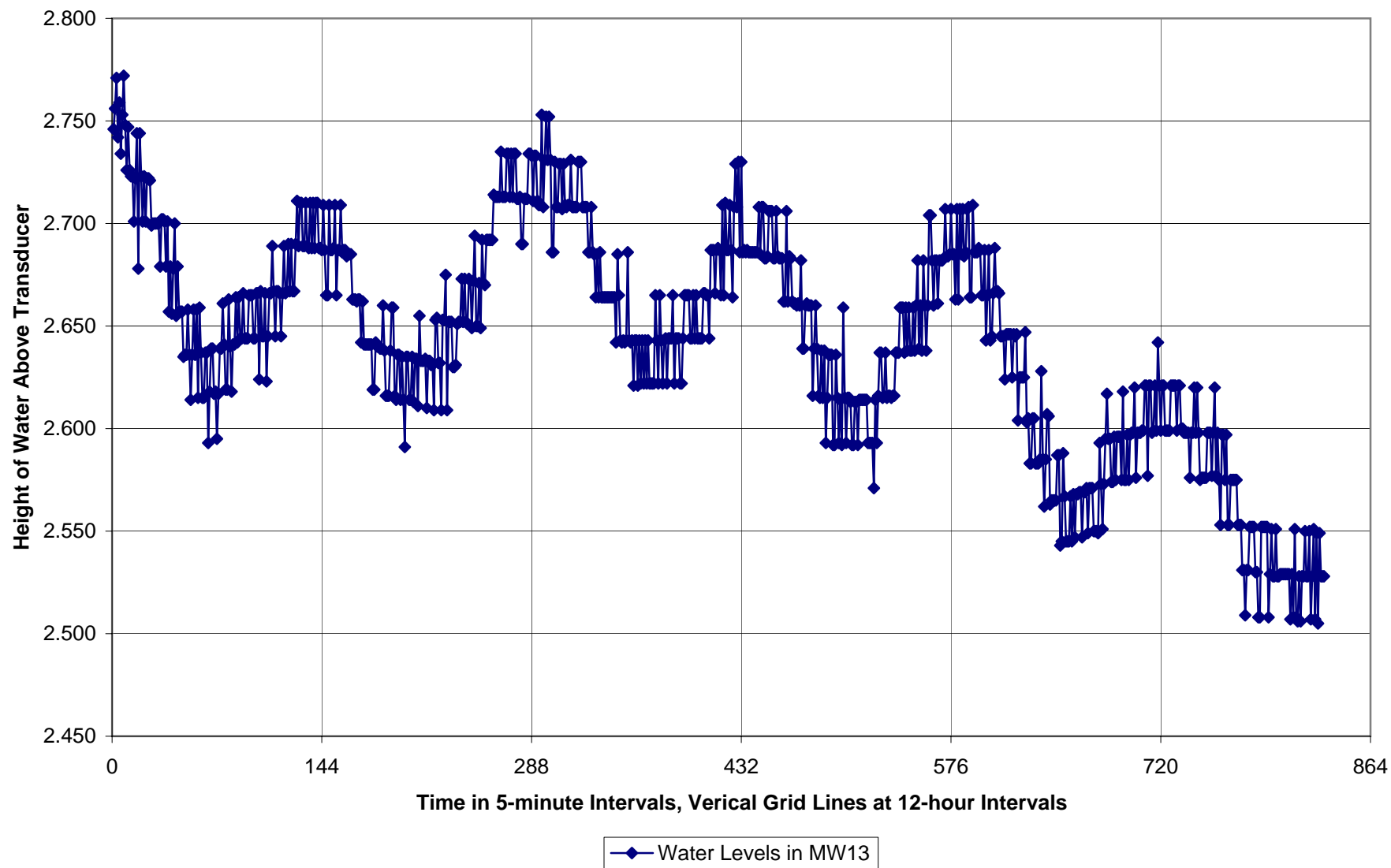
Water Levels in MW3, barely submerged



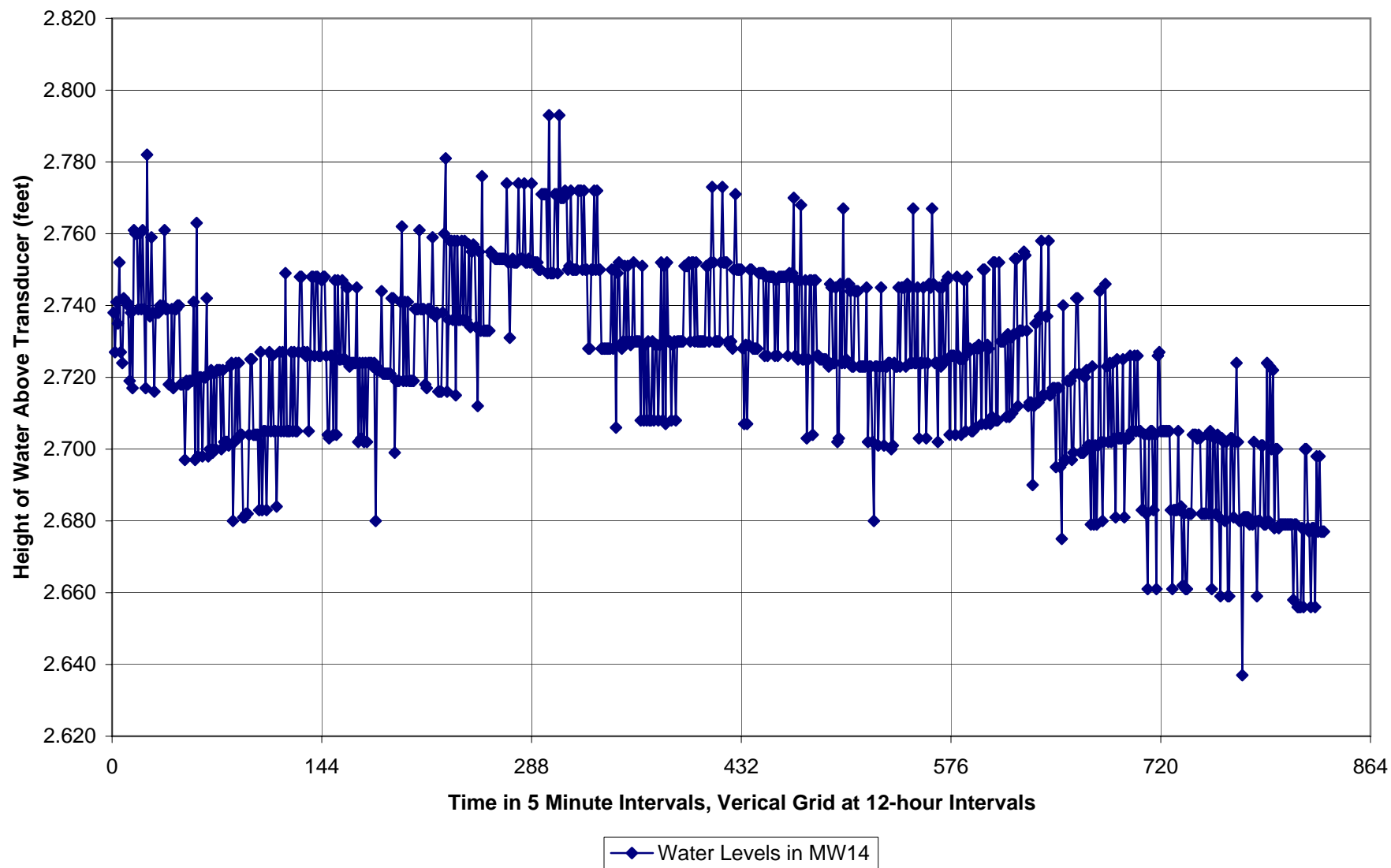
Water Levels in MW12



Water Levels in MW13



Water Levels in MW14





## **APPENDIX C**

### ***Data Summary Tables***

**Table 1: VOCs in Water - ESI File: SB09110**

All results provided in µg/L. Results in **bold** exceed designated guidance levels.

Compound (USEPA Method 8260)	Guidance Level	Sample Identification				
		MW-3	MW-10	MW-12	MW-13	MW-14
1,1,1,2-Tetrachloroethane	5	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5	2.4 (J)	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	ND	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ND	ND	ND	ND	ND
1,1-Dichloroethylene	5	ND	ND	ND	ND	ND
1,1-Dichloropropylene	5	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	5	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	0.04	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	5	1.1 (J)	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	0.04	ND	ND	ND	ND	ND
1,2-Dibromoethane	5	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	3	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.6	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	3	ND	ND	ND	ND	ND
1,3-Dichloropropane	5	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	3	ND	ND	ND	ND	ND
2,2-Dichloropropane	5	ND	ND	ND	ND	ND
2-Chlorotoluene	5	ND	ND	ND	ND	ND
4-Chlorotoluene	5	ND	ND	ND	ND	ND
Benzene	1	ND	ND	ND	ND	ND
Bromobenzene	5	ND	ND	ND	ND	ND
Bromochloromethane	5	ND	ND	ND	ND	ND
Bromodichloromethane	50	ND	ND	ND	ND	ND
Bromoform	50	ND	ND	ND	ND	ND
Bromomethane	5	ND	ND	ND	ND	ND
Carbon tetrachloride	5	ND	ND	ND	ND	ND
Chlorobenzene	5	ND	ND	ND	ND	ND
Chloroethane	5	ND	ND	ND	ND	ND
Chloroform	7	ND	ND	ND	ND	ND
Chloromethane	5	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	5	ND	ND	ND	ND	ND
cis-1,3-Dichloropropylene	0.4	ND	ND	ND	ND	ND
Dibromochloromethane	5	ND	ND	ND	ND	ND
Dibromomethane	5	ND	ND	ND	ND	ND
Dichlorodifluoromethane	5	ND	ND	ND	ND	ND
Ethylbenzene	5	ND	ND	ND	ND	ND
Hexachlorobutadiene	0.5	ND	ND	ND	ND	ND
Isopropylbenzene	5	ND	ND	ND	ND	ND
Methylene chloride	5	3.4 (J)	3.4 (J)	3.0 (J)	3.9 (J)	3.6 (J)
Methyl tert-butyl ether (MTBE)	10	ND	ND	ND	ND	ND
Naphthalene	10	ND	ND	ND	ND	ND
n-Butylbenzene	5	ND	ND	ND	ND	ND
n-Propylbenzene	5	ND	ND	ND	ND	ND
o-Xylene	5	ND	ND	ND	ND	ND
p-&m-Xylenes	5	ND	ND	ND	ND	ND
p-Isopropyltoluene	5	ND	ND	ND	ND	ND
sec-Butylbenzene	5	ND	ND	ND	ND	ND
Styrene	5	ND	ND	ND	ND	ND
tert-Butylbenzene	5	ND	ND	ND	ND	ND
Tetrachloroethylene	5	ND	ND	ND	ND	ND
Toluene	5	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	5	ND	ND	ND	ND	ND
trans-1,3-Dichloropropylene	0.4	ND	ND	ND	ND	ND
Trichloroethylene	5	ND	1.1 (J)	2.5 (J)	15	ND
Trichlorofluoromethane	5	ND	ND	ND	ND	ND
Vinyl chloride	2	ND	ND	ND	ND	ND

Notes:

Guidance levels based on NYSDEC Division of Water TOGS 1.1.1 (June 1998) and subsequent NYSDEC Memoranda

J - Data indicate the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero.

ND = Not Detected

**Table 2: SVOCs in Water - ESI File: SB09110**

All results provided in µg/L (parts per billion). Results in **bold** exceed designated guidance levels.

Compound (USEPA Method 8270)	Guidance Level	Sample Identification				
		MW-3	MW-10	MW-12	MW-13	MW-14
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	3	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	3	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	3	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	NE	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	NE	ND	ND	ND	ND	ND
2,4-Dichlorophenol	5	ND	ND	ND	ND	ND
2,4-Dimethylphenol	50	ND	ND	ND	ND	ND
2,4-Dinitrophenol	10	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	5	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	5	ND	ND	ND	ND	ND
2-Chloronaphthalene	10	ND	ND	ND	ND	ND
2-Chlorophenol	NE	ND	ND	ND	ND	ND
2-Methylnaphthalene	NE	ND	ND	ND	ND	ND
2-Methylphenol	NE	ND	ND	ND	ND	ND
2-Nitroaniline	5	ND	ND	ND	ND	ND
2-Nitrophenol	NE	ND	ND	ND	ND	ND
3,3-Dichlorobenzidine	5	ND	ND	ND	ND	ND
3-Nitroaniline	5	ND	ND	ND	ND	ND
4,6-Dinitro-2-methylphenol	NE	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	NE	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	NE	ND	ND	ND	ND	ND
4-Chloroaniline	5	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	NE	ND	ND	ND	ND	ND
4-Methylphenol	NE	ND	ND	ND	ND	ND
4-Nitroaniline	5	ND	ND	ND	ND	ND
4-Nitrophenol	5	ND	ND	ND	ND	ND
Acenaphthene	20	ND	ND	ND	ND	ND
Acenaphthylene	NE	ND	ND	ND	ND	ND
Aniline	5	ND	ND	ND	ND	ND
Anthracene	50	ND	ND	ND	ND	ND
Benzo(a)anthracene	0.002	ND	ND	ND	ND	ND
Benzo(a)pyrene	NE	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	0.002	ND	ND	ND	ND	ND
Benzo(ghi)perylene	NE	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.002	ND	ND	ND	ND	ND
Benzyl alcohol	NE	ND	ND	ND	ND	ND
Bis(2-chloroethoxy)methane	5	ND	ND	ND	ND	ND
Bis(2-chloroethyl)ether	1	ND	ND	ND	ND	ND
Bis(2-chloroisopropyl)ether	NE	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	5	ND	ND	ND	3.57 (J)	ND
Chrysene	0.002	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	NE	ND	ND	ND	ND	ND
Dibenzofuran	NE	ND	ND	ND	ND	ND
Diethyl phthalate	50	ND	ND	ND	ND	ND
Dimethyl phthalate	50	ND	ND	ND	ND	ND
Di-n-butyl phthalate	50	ND	ND	ND	ND	ND
Di-n-octyl phthalate	50	ND	ND	ND	ND	ND
Fluoranthene	50	ND	ND	ND	ND	ND
Fluorene	50	ND	ND	ND	ND	ND
Hexachlorobenzene	0.04	ND	ND	ND	ND	ND
Hexachlorobutadiene	0.5	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	5	ND	ND	ND	ND	ND
Hexachloroethane	5	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	ND	ND	ND	ND	ND
Isophorone	50	ND	ND	ND	ND	ND
Naphthalene	10	ND	ND	ND	ND	ND
Nitrobenzene	0.4	ND	ND	ND	ND	ND
n-Nitroso-di-n-propylamine	NE	ND	ND	ND	ND	ND
n-Nitrosodimethylamine	50	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	50	ND	ND	ND	ND	ND
Pentachlorophenol	1	ND	ND	ND	ND	ND
Phenanthrene	50	ND	ND	ND	ND	ND
Phenol	1	ND	ND	ND	ND	ND
Pyrene	50	ND	ND	ND	ND	ND
Pyridine	50	ND	ND	ND	ND	ND

Notes:

Guidance levels based on NYSDEC TOQS 1.1.1. (June 1998) and subsequent NYSDEC Memoranda

J - Data indicate the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero.

ND = Not Detected NE = Not Established NA = Not Analyzed





## **APPENDIX D**

### ***Laboratory Data Reports***



# Technical Report

prepared for:

**Ecosystems Strategies, Inc.**

24 Davis Avenue

Poughkeepsie NY, 12603

**Attention: Emery Lawson**

Report Date: 02/22/2010

**Client Project ID: SB09110**

York Project (SDG) No.: 10B0508

CT License No. PH-0723

New Jersey License No. CT-005



New York License No. 10854

PA Reg. 68-04440

Report Date: 02/22/2010  
Client Project ID: SB09110  
York Project (SDG) No.: 10B0508

**Ecosystems Strategies, Inc.**  
24 Davis Avenue  
Poughkeepsie NY, 12603  
Attention: Emery Lawson

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## 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 17, 2010 and listed below. The project was identified as your project: **SB09110**.

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>
10B0508-01	MW-3	Water	02/15/2010	02/17/2010
10B0508-02	MW-10	Water	02/15/2010	02/17/2010
10B0508-03	MW-12	Water	02/15/2010	02/17/2010
10B0508-04	MW-13	Water	02/15/2010	02/17/2010
10B0508-05	MW-14	Water	02/15/2010	02/17/2010

## **General Notes for York Project (SDG) No.: 10B0508**

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.

**Approved By:**



Robert Q. Bradley  
Managing Director

**Date:** 02/22/2010

**YORK**

### Sample Information

**Client Sample ID:** MW-3

**York Sample ID:** 10B0508-01

York Project (SDG) No.  
10B0508

Client Project ID  
SB09110

Matrix  
Water

Collection Date/Time  
February 15, 2010 3:00 pm

Date Received  
02/17/2010

#### Volatile Organics, 8260 List

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	02/19/2010 22:56	02/19/2010 22:56	SS
71-55-6	<b>1,1,1-Trichloroethane</b>	<b>2.4</b>	J	"	0.95	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
79-34-5	1,1,2,2-Tetrachloroethane	ND		"	0.57	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		"	0.60	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
79-00-5	1,1,2-Trichloroethane	ND		"	0.61	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
75-34-3	1,1-Dichloroethane	ND		"	0.69	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
75-35-4	1,1-Dichloroethylene	ND		"	1.3	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
563-58-6	1,1-Dichloropropylene	ND		"	0.43	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
87-61-6	1,2,3-Trichlorobenzene	ND		"	0.37	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
96-18-4	1,2,3-Trichloropropane	ND		"	1.1	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
120-82-1	1,2,4-Trichlorobenzene	ND		"	0.48	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
95-63-6	<b>1,2,4-Trimethylbenzene</b>	<b>1.1</b>	J	"	0.53	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
96-12-8	1,2-Dibromo-3-chloropropane	ND		"	1.3	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
106-93-4	1,2-Dibromoethane	ND		"	0.68	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
95-50-1	1,2-Dichlorobenzene	ND		"	0.59	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
107-06-2	1,2-Dichloroethane	ND		"	0.65	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
78-87-5	1,2-Dichloropropane	ND		"	0.22	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
108-67-8	1,3,5-Trimethylbenzene	ND		"	0.37	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
541-73-1	1,3-Dichlorobenzene	ND		"	0.47	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
142-28-9	1,3-Dichloropropane	ND		"	0.69	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
106-46-7	1,4-Dichlorobenzene	ND		"	0.68	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
594-20-7	2,2-Dichloropropane	ND		"	0.96	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
95-49-8	2-Chlorotoluene	ND		"	0.49	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
106-43-4	4-Chlorotoluene	ND		"	0.49	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
71-43-2	Benzene	ND		"	0.48	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
108-86-1	Bromobenzene	ND		"	0.61	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
74-97-5	Bromochloromethane	ND		"	1.3	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
75-27-4	Bromodichloromethane	ND		"	0.62	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
75-25-2	Bromoform	ND		"	0.58	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
74-83-9	Bromomethane	ND		"	1.2	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
56-23-5	Carbon tetrachloride	ND		"	1.0	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
108-90-7	Chlorobenzene	ND		"	0.35	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
75-00-3	Chloroethane	ND		"	0.76	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
67-66-3	Chloroform	ND		"	0.36	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"

### Sample Information

**Client Sample ID:** MW-3

**York Sample ID:** 10B0508-01

York Project (SDG) No.  
10B0508

Client Project ID  
SB09110

Matrix  
Water

Collection Date/Time  
February 15, 2010 3:00 pm

Date Received  
02/17/2010

#### **Volatile Organics, 8260 List**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-87-3	Chloromethane	ND		ug/L	0.89	5.0	1	EPA SW846-8260B	02/19/2010 22:56	02/19/2010 22:56	"
156-59-2	cis-1,2-Dichloroethylene	ND		"	0.96	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
10061-01-5	cis-1,3-Dichloropropylene	ND		"	0.35	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
124-48-1	Dibromochloromethane	ND		"	0.67	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
74-95-3	Dibromomethane	ND		"	1.3	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
87-68-3	Dichlorodifluoromethane	ND		"	0.83	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
100-41-4	Ethyl Benzene	ND		"	0.35	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
87-68-3	Hexachlorobutadiene	ND		"	0.43	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
98-82-8	Isopropylbenzene	ND		"	0.39	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		"	0.38	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
75-09-2	<b>Methylene chloride</b>	<b>3.4</b>	B, J	"	1.1	10	"	"	02/19/2010 22:56	02/19/2010 22:56	"
91-20-3	Naphthalene	ND		"	0.50	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
104-51-8	n-Butylbenzene	ND		"	0.32	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
103-65-1	n-Propylbenzene	ND		"	0.58	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
95-47-6	o-Xylene	ND		"	0.50	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
1330-20-7P/M	p- & m- Xylenes	ND		"	0.55	10	"	"	02/19/2010 22:56	02/19/2010 22:56	"
99-87-6	p-Isopropyltoluene	ND		"	0.25	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
135-98-8	sec-Butylbenzene	ND		"	0.52	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
100-42-5	Styrene	ND		"	0.43	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
98-06-6	tert-Butylbenzene	ND		"	0.46	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
127-18-4	Tetrachloroethylene	ND		"	0.52	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
108-88-3	Toluene	ND		"	0.23	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
156-60-5	trans-1,2-Dichloroethylene	ND		"	0.65	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
10061-02-6	trans-1,3-Dichloropropylene	ND		"	0.68	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
79-01-6	Trichloroethylene	ND		"	0.57	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
75-69-4	Trichlorofluoromethane	ND		"	0.91	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"
75-01-4	Vinyl Chloride	ND		"	0.97	5.0	"	"	02/19/2010 22:56	02/19/2010 22:56	"

### Sample Information

**Client Sample ID:** MW-3

**York Sample ID:** 10B0508-01

York Project (SDG) No.  
10B0508

Client Project ID  
SB09110

Matrix  
Water

Collection Date/Time  
February 15, 2010 3:00 pm

Date Received  
02/17/2010

#### Semi-Volatiles, 8270 Target List

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	1.35	5.13	1	EPA SW-846 8270C	02/18/2010 12:31	02/18/2010 23:55	TD
95-50-1	1,2-Dichlorobenzene	ND		"	1.68	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
541-73-1	1,3-Dichlorobenzene	ND		"	2.82	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
106-46-7	1,4-Dichlorobenzene	ND		"	3.31	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
95-95-4	2,4,5-Trichlorophenol	ND		"	3.70	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
88-06-2	2,4,6-Trichlorophenol	ND		"	3.36	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
120-83-2	2,4-Dichlorophenol	ND		"	3.17	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
105-67-9	2,4-Dimethylphenol	ND		"	3.78	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
51-28-5	2,4-Dinitrophenol	ND		"	9.85	10.3	"	"	02/18/2010 12:31	02/18/2010 23:55	"
121-14-2	2,4-Dinitrotoluene	ND		"	2.43	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
606-20-2	2,6-Dinitrotoluene	ND		"	3.60	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
91-58-7	2-Chloronaphthalene	ND		"	3.58	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
95-57-8	2-Chlorophenol	ND		"	3.50	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
91-57-6	2-Methylnaphthalene	ND		"	3.15	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
95-48-7	2-Methylphenol	ND		"	0.879	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
88-74-4	2-Nitroaniline	ND		"	3.08	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
88-75-5	2-Nitrophenol	ND		"	3.18	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
91-94-1	3,3'-Dichlorobenzidine	ND		"	3.60	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
99-09-2	3-Nitroaniline	ND		"	1.64	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
534-52-1	4,6-Dinitro-2-methylphenol	ND		"	6.87	10.3	"	"	02/18/2010 12:31	02/18/2010 23:55	"
101-55-3	4-Bromophenyl phenyl ether	ND		"	3.53	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
59-50-7	4-Chloro-3-methylphenol	ND		"	3.72	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
106-47-8	4-Chloroaniline	ND		"	3.84	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
7005-72-3	4-Chlorophenyl phenyl ether	ND		"	3.20	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
100-01-6	4-Methylphenol	ND		"	3.81	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
100-02-7	4-Nitroaniline	ND		"	3.87	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
56-57-5	4-Nitrophenol	ND		"	4.04	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
83-32-9	Acenaphthene	ND		"	3.32	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
208-96-8	Acenaphthylene	ND		"	4.38	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
62-53-3	Aniline	ND		"	2.02	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
120-12-7	Anthracene	ND		"	3.75	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
56-55-3	Benzo(a)anthracene	ND		"	4.17	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
50-32-8	Benzo(a)pyrene	ND		"	4.97	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
205-99-2	Benzo(b)fluoranthene	ND		"	4.23	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
191-24-2	Benzo(g,h,i)perylene	ND		"	4.26	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"

### Sample Information

**Client Sample ID:** MW-3

**York Sample ID:** 10B0508-01

York Project (SDG) No.  
10B0508

Client Project ID  
SB09110

Matrix  
Water

Collection Date/Time  
February 15, 2010 3:00 pm

Date Received  
02/17/2010

### Semi-Volatiles, 8270 Target List

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	3.54	5.13	1	EPA SW-846 8270C	02/18/2010 12:31	02/18/2010 23:55	"
100-51-6	Benzyl alcohol	ND		"	4.10	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
85-68-7	Benzyl butyl phthalate	ND		"	2.36	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
111-91-1	Bis(2-chloroethoxy)methane	ND		"	4.97	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
111-44-4	Bis(2-chloroethyl)ether	ND		"	4.23	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
108-60-1	Bis(2-chloroisopropyl)ether	ND		"	4.26	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
117-81-7	Bis(2-ethylhexyl)phthalate	ND		"	2.64	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
218-01-9	Chrysene	ND		"	4.26	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
53-70-3	Dibenzo(a,h)anthracene	ND		"	3.18	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
132-64-9	Dibenzofuran	ND		"	2.97	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
84-66-2	Diethyl phthalate	ND		"	2.26	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
131-11-3	Dimethyl phthalate	ND		"	4.97	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
84-74-2	Di-n-butyl phthalate	ND		"	4.23	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
117-84-0	Di-n-octyl phthalate	ND		"	4.26	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
206-44-0	Fluoranthene	ND		"	1.64	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
86-73-7	Fluorene	ND		"	3.31	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
118-74-1	Hexachlorobenzene	ND		"	3.03	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
87-68-3	Hexachlorobutadiene	ND		"	3.39	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
77-47-4	Hexachlorocyclopentadiene	ND		"	3.53	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
67-72-1	Hexachloroethane	ND		"	3.72	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
193-39-5	Indeno(1,2,3-cd)pyrene	ND		"	2.82	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
78-59-1	Isophorone	ND		"	3.31	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
91-20-3	Naphthalene	ND		"	3.96	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
98-95-3	Nitrobenzene	ND		"	2.02	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
62-75-9	N-Nitrosodimethylamine	ND		"	3.18	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
621-64-7	N-nitroso-di-n-propylamine	ND		"	2.64	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
86-30-6	N-Nitrosodiphenylamine	ND		"	3.71	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
87-86-5	Pentachlorophenol	ND		"	3.86	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
85-01-8	Phenanthrene	ND		"	3.70	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
108-95-2	Phenol	ND		"	3.36	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
129-00-0	Pyrene	ND		"	2.43	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"
110-86-1	Pyridine	ND		"	3.27	5.13	"	"	02/18/2010 12:31	02/18/2010 23:55	"



### Sample Information

**Client Sample ID:** MW-10

**York Sample ID:** 10B0508-02

York Project (SDG) No.  
10B0508

Client Project ID  
SB09110

Matrix  
Water

Collection Date/Time  
February 15, 2010 3:00 pm

Date Received  
02/17/2010

#### **Volatile Organics, 8260 List**

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	02/19/2010 23:31	02/19/2010 23:31	SS
71-55-6	1,1,1-Trichloroethane	ND		"	0.95	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
79-34-5	1,1,2,2-Tetrachloroethane	ND		"	0.57	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		"	0.60	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
79-00-5	1,1,2-Trichloroethane	ND		"	0.61	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
75-34-3	1,1-Dichloroethane	ND		"	0.69	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
75-35-4	1,1-Dichloroethylene	ND		"	1.3	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
563-58-6	1,1-Dichloropropylene	ND		"	0.43	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
87-61-6	1,2,3-Trichlorobenzene	ND		"	0.37	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
96-18-4	1,2,3-Trichloropropane	ND		"	1.1	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
120-82-1	1,2,4-Trichlorobenzene	ND		"	0.48	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
95-63-6	1,2,4-Trimethylbenzene	ND		"	0.53	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
96-12-8	1,2-Dibromo-3-chloropropane	ND		"	1.3	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
106-93-4	1,2-Dibromoethane	ND		"	0.68	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
95-50-1	1,2-Dichlorobenzene	ND		"	0.59	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
107-06-2	1,2-Dichloroethane	ND		"	0.65	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
78-87-5	1,2-Dichloropropane	ND		"	0.22	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
108-67-8	1,3,5-Trimethylbenzene	ND		"	0.37	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
541-73-1	1,3-Dichlorobenzene	ND		"	0.47	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
142-28-9	1,3-Dichloropropane	ND		"	0.69	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
106-46-7	1,4-Dichlorobenzene	ND		"	0.68	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
594-20-7	2,2-Dichloropropane	ND		"	0.96	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
95-49-8	2-Chlorotoluene	ND		"	0.49	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
106-43-4	4-Chlorotoluene	ND		"	0.49	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
71-43-2	Benzene	ND		"	0.48	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
108-86-1	Bromobenzene	ND		"	0.61	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
74-97-5	Bromochloromethane	ND		"	1.3	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
75-27-4	Bromodichloromethane	ND		"	0.62	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
75-25-2	Bromoform	ND		"	0.58	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
74-83-9	Bromomethane	ND		"	1.2	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
56-23-5	Carbon tetrachloride	ND		"	1.0	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
108-90-7	Chlorobenzene	ND		"	0.35	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
75-00-3	Chloroethane	ND		"	0.76	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
67-66-3	Chloroform	ND		"	0.36	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"

### Sample Information

**Client Sample ID:** MW-10

**York Sample ID:** 10B0508-02

York Project (SDG) No.  
10B0508

Client Project ID  
SB09110

Matrix  
Water

Collection Date/Time  
February 15, 2010 3:00 pm

Date Received  
02/17/2010

#### **Volatile Organics, 8260 List**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-87-3	Chloromethane	ND		ug/L	0.89	5.0	1	EPA SW846-8260B	02/19/2010 23:31	02/19/2010 23:31	"
156-59-2	cis-1,2-Dichloroethylene	ND		"	0.96	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
10061-01-5	cis-1,3-Dichloropropylene	ND		"	0.35	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
124-48-1	Dibromochloromethane	ND		"	0.67	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
74-95-3	Dibromomethane	ND		"	1.3	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
87-68-3	Dichlorodifluoromethane	ND		"	0.83	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
100-41-4	Ethyl Benzene	ND		"	0.35	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
87-68-3	Hexachlorobutadiene	ND		"	0.43	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
98-82-8	Isopropylbenzene	ND		"	0.39	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		"	0.38	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
75-09-2	<b>Methylene chloride</b>	<b>3.4</b>	B, J	"	1.1	10	"	"	02/19/2010 23:31	02/19/2010 23:31	"
91-20-3	Naphthalene	ND		"	0.50	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
104-51-8	n-Butylbenzene	ND		"	0.32	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
103-65-1	n-Propylbenzene	ND		"	0.58	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
95-47-6	o-Xylene	ND		"	0.50	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
1330-20-7P/M	p- & m- Xylenes	ND		"	0.55	10	"	"	02/19/2010 23:31	02/19/2010 23:31	"
99-87-6	p-Isopropyltoluene	ND		"	0.25	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
135-98-8	sec-Butylbenzene	ND		"	0.52	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
100-42-5	Styrene	ND		"	0.43	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
98-06-6	tert-Butylbenzene	ND		"	0.46	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
127-18-4	Tetrachloroethylene	ND		"	0.52	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
108-88-3	Toluene	ND		"	0.23	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
156-60-5	trans-1,2-Dichloroethylene	ND		"	0.65	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
10061-02-6	trans-1,3-Dichloropropylene	ND		"	0.68	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
79-01-6	<b>Trichloroethylene</b>	<b>1.1</b>	J	"	0.57	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
75-69-4	Trichlorofluoromethane	ND		"	0.91	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"
75-01-4	Vinyl Chloride	ND		"	0.97	5.0	"	"	02/19/2010 23:31	02/19/2010 23:31	"

### Sample Information

**Client Sample ID:** MW-10

**York Sample ID:** 10B0508-02

York Project (SDG) No.  
10B0508

Client Project ID  
SB09110

Matrix  
Water

Collection Date/Time  
February 15, 2010 3:00 pm

Date Received  
02/17/2010

### Semi-Volatiles, 8270 Target List

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	1.35	5.13	1	EPA SW-846 8270C	02/18/2010 12:31	02/19/2010 00:30	TD
95-50-1	1,2-Dichlorobenzene	ND		"	1.68	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
541-73-1	1,3-Dichlorobenzene	ND		"	2.82	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
106-46-7	1,4-Dichlorobenzene	ND		"	3.31	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
95-95-4	2,4,5-Trichlorophenol	ND		"	3.70	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
88-06-2	2,4,6-Trichlorophenol	ND		"	3.36	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
120-83-2	2,4-Dichlorophenol	ND		"	3.17	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
105-67-9	2,4-Dimethylphenol	ND		"	3.78	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
51-28-5	2,4-Dinitrophenol	ND		"	9.85	10.3	"	"	02/18/2010 12:31	02/19/2010 00:30	"
121-14-2	2,4-Dinitrotoluene	ND		"	2.43	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
606-20-2	2,6-Dinitrotoluene	ND		"	3.60	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
91-58-7	2-Chloronaphthalene	ND		"	3.58	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
95-57-8	2-Chlorophenol	ND		"	3.50	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
91-57-6	2-Methylnaphthalene	ND		"	3.15	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
95-48-7	2-Methylphenol	ND		"	0.879	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
88-74-4	2-Nitroaniline	ND		"	3.08	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
88-75-5	2-Nitrophenol	ND		"	3.18	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
91-94-1	3,3'-Dichlorobenzidine	ND		"	3.60	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
99-09-2	3-Nitroaniline	ND		"	1.64	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
534-52-1	4,6-Dinitro-2-methylphenol	ND		"	6.87	10.3	"	"	02/18/2010 12:31	02/19/2010 00:30	"
101-55-3	4-Bromophenyl phenyl ether	ND		"	3.53	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
59-50-7	4-Chloro-3-methylphenol	ND		"	3.72	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
106-47-8	4-Chloroaniline	ND		"	3.84	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
7005-72-3	4-Chlorophenyl phenyl ether	ND		"	3.20	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
100-01-6	4-Methylphenol	ND		"	3.81	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
100-02-7	4-Nitroaniline	ND		"	3.87	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
56-57-5	4-Nitrophenol	ND		"	4.04	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
83-32-9	Acenaphthene	ND		"	3.32	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
208-96-8	Acenaphthylene	ND		"	4.38	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
62-53-3	Aniline	ND		"	2.02	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
120-12-7	Anthracene	ND		"	3.75	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
56-55-3	Benzo(a)anthracene	ND		"	4.17	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
50-32-8	Benzo(a)pyrene	ND		"	4.97	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
205-99-2	Benzo(b)fluoranthene	ND		"	4.23	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
191-24-2	Benzo(g,h,i)perylene	ND		"	4.26	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"

### Sample Information

**Client Sample ID:** MW-10

**York Sample ID:** 10B0508-02

York Project (SDG) No.  
10B0508

Client Project ID  
SB09110

Matrix  
Water

Collection Date/Time  
February 15, 2010 3:00 pm

Date Received  
02/17/2010

### Semi-Volatiles, 8270 Target List

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	3.54	5.13	1	EPA SW-846 8270C	02/18/2010 12:31	02/19/2010 00:30	"
100-51-6	Benzyl alcohol	ND		"	4.10	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
85-68-7	Benzyl butyl phthalate	ND		"	2.36	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
111-91-1	Bis(2-chloroethoxy)methane	ND		"	4.97	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
111-44-4	Bis(2-chloroethyl)ether	ND		"	4.23	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
108-60-1	Bis(2-chloroisopropyl)ether	ND		"	4.26	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
117-81-7	Bis(2-ethylhexyl)phthalate	ND		"	2.64	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
218-01-9	Chrysene	ND		"	4.26	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
53-70-3	Dibenzo(a,h)anthracene	ND		"	3.18	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
132-64-9	Dibenzofuran	ND		"	2.97	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
84-66-2	Diethyl phthalate	ND		"	2.26	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
131-11-3	Dimethyl phthalate	ND		"	4.97	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
84-74-2	Di-n-butyl phthalate	ND		"	4.23	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
117-84-0	Di-n-octyl phthalate	ND		"	4.26	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
206-44-0	Fluoranthene	ND		"	1.64	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
86-73-7	Fluorene	ND		"	3.31	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
118-74-1	Hexachlorobenzene	ND		"	3.03	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
87-68-3	Hexachlorobutadiene	ND		"	3.39	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
77-47-4	Hexachlorocyclopentadiene	ND		"	3.53	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
67-72-1	Hexachloroethane	ND		"	3.72	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
193-39-5	Indeno(1,2,3-cd)pyrene	ND		"	2.82	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
78-59-1	Isophorone	ND		"	3.31	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
91-20-3	Naphthalene	ND		"	3.96	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
98-95-3	Nitrobenzene	ND		"	2.02	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
62-75-9	N-Nitrosodimethylamine	ND		"	3.18	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
621-64-7	N-nitroso-di-n-propylamine	ND		"	2.64	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
86-30-6	N-Nitrosodiphenylamine	ND		"	3.71	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
87-86-5	Pentachlorophenol	ND		"	3.86	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
85-01-8	Phenanthrene	ND		"	3.70	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
108-95-2	Phenol	ND		"	3.36	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
129-00-0	Pyrene	ND		"	2.43	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"
110-86-1	Pyridine	ND		"	3.27	5.13	"	"	02/18/2010 12:31	02/19/2010 00:30	"

### Sample Information

**Client Sample ID:** MW-12

**York Sample ID:** 10B0508-03

York Project (SDG) No.  
10B0508

Client Project ID  
SB09110

Matrix  
Water

Collection Date/Time  
February 15, 2010 3:00 pm

Date Received  
02/17/2010

#### **Volatile Organics, 8260 List**

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	02/20/2010 00:05	02/20/2010 00:05	SS
71-55-6	1,1,1-Trichloroethane	ND		"	0.95	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
79-34-5	1,1,2,2-Tetrachloroethane	ND		"	0.57	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		"	0.60	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
79-00-5	1,1,2-Trichloroethane	ND		"	0.61	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
75-34-3	1,1-Dichloroethane	ND		"	0.69	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
75-35-4	1,1-Dichloroethylene	ND		"	1.3	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
563-58-6	1,1-Dichloropropylene	ND		"	0.43	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
87-61-6	1,2,3-Trichlorobenzene	ND		"	0.37	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
96-18-4	1,2,3-Trichloropropane	ND		"	1.1	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
120-82-1	1,2,4-Trichlorobenzene	ND		"	0.48	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
95-63-6	1,2,4-Trimethylbenzene	ND		"	0.53	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
96-12-8	1,2-Dibromo-3-chloropropane	ND		"	1.3	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
106-93-4	1,2-Dibromoethane	ND		"	0.68	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
95-50-1	1,2-Dichlorobenzene	ND		"	0.59	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
107-06-2	1,2-Dichloroethane	ND		"	0.65	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
78-87-5	1,2-Dichloropropane	ND		"	0.22	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
108-67-8	1,3,5-Trimethylbenzene	ND		"	0.37	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
541-73-1	1,3-Dichlorobenzene	ND		"	0.47	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
142-28-9	1,3-Dichloropropane	ND		"	0.69	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
106-46-7	1,4-Dichlorobenzene	ND		"	0.68	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
594-20-7	2,2-Dichloropropane	ND		"	0.96	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
95-49-8	2-Chlorotoluene	ND		"	0.49	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
106-43-4	4-Chlorotoluene	ND		"	0.49	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
71-43-2	Benzene	ND		"	0.48	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
108-86-1	Bromobenzene	ND		"	0.61	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
74-97-5	Bromochloromethane	ND		"	1.3	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
75-27-4	Bromodichloromethane	ND		"	0.62	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
75-25-2	Bromoform	ND		"	0.58	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
74-83-9	Bromomethane	ND		"	1.2	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
56-23-5	Carbon tetrachloride	ND		"	1.0	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
108-90-7	Chlorobenzene	ND		"	0.35	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
75-00-3	Chloroethane	ND		"	0.76	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
67-66-3	Chloroform	ND		"	0.36	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"

### Sample Information

**Client Sample ID:** MW-12

**York Sample ID:** 10B0508-03

York Project (SDG) No.  
10B0508

Client Project ID  
SB09110

Matrix  
Water

Collection Date/Time  
February 15, 2010 3:00 pm

Date Received  
02/17/2010

#### **Volatile Organics, 8260 List**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-87-3	Chloromethane	ND		ug/L	0.89	5.0	1	EPA SW846-8260B	02/20/2010 00:05	02/20/2010 00:05	"
156-59-2	cis-1,2-Dichloroethylene	ND		"	0.96	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
10061-01-5	cis-1,3-Dichloropropylene	ND		"	0.35	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
124-48-1	Dibromochloromethane	ND		"	0.67	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
74-95-3	Dibromomethane	ND		"	1.3	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
87-68-3	Dichlorodifluoromethane	ND		"	0.83	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
100-41-4	Ethyl Benzene	ND		"	0.35	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
87-68-3	Hexachlorobutadiene	ND		"	0.43	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
98-82-8	Isopropylbenzene	ND		"	0.39	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		"	0.38	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
75-09-2	<b>Methylene chloride</b>	<b>3.0</b>	B, J	"	1.1	10	"	"	02/20/2010 00:05	02/20/2010 00:05	"
91-20-3	Naphthalene	ND		"	0.50	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
104-51-8	n-Butylbenzene	ND		"	0.32	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
103-65-1	n-Propylbenzene	ND		"	0.58	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
95-47-6	o-Xylene	ND		"	0.50	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
1330-20-7P/M	p- & m- Xylenes	ND		"	0.55	10	"	"	02/20/2010 00:05	02/20/2010 00:05	"
99-87-6	p-Isopropyltoluene	ND		"	0.25	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
135-98-8	sec-Butylbenzene	ND		"	0.52	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
100-42-5	Styrene	ND		"	0.43	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
98-06-6	tert-Butylbenzene	ND		"	0.46	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
127-18-4	Tetrachloroethylene	ND		"	0.52	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
108-88-3	Toluene	ND		"	0.23	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
156-60-5	trans-1,2-Dichloroethylene	ND		"	0.65	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
10061-02-6	trans-1,3-Dichloropropylene	ND		"	0.68	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
79-01-6	<b>Trichloroethylene</b>	<b>2.5</b>	J	"	0.57	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
75-69-4	Trichlorofluoromethane	ND		"	0.91	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"
75-01-4	Vinyl Chloride	ND		"	0.97	5.0	"	"	02/20/2010 00:05	02/20/2010 00:05	"

### Sample Information

**Client Sample ID:** MW-12

**York Sample ID:** 10B0508-03

York Project (SDG) No.  
10B0508

Client Project ID  
SB09110

Matrix  
Water

Collection Date/Time  
February 15, 2010 3:00 pm

Date Received  
02/17/2010

### Semi-Volatiles, 8270 Target List

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	1.35	5.13	1	EPA SW-846 8270C	02/18/2010 12:31	02/19/2010 01:04	TD
95-50-1	1,2-Dichlorobenzene	ND		"	1.68	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
541-73-1	1,3-Dichlorobenzene	ND		"	2.82	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
106-46-7	1,4-Dichlorobenzene	ND		"	3.31	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
95-95-4	2,4,5-Trichlorophenol	ND		"	3.70	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
88-06-2	2,4,6-Trichlorophenol	ND		"	3.36	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
120-83-2	2,4-Dichlorophenol	ND		"	3.17	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
105-67-9	2,4-Dimethylphenol	ND		"	3.78	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
51-28-5	2,4-Dinitrophenol	ND		"	9.85	10.3	"	"	02/18/2010 12:31	02/19/2010 01:04	"
121-14-2	2,4-Dinitrotoluene	ND		"	2.43	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
606-20-2	2,6-Dinitrotoluene	ND		"	3.60	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
91-58-7	2-Chloronaphthalene	ND		"	3.58	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
95-57-8	2-Chlorophenol	ND		"	3.50	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
91-57-6	2-Methylnaphthalene	ND		"	3.15	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
95-48-7	2-Methylphenol	ND		"	0.879	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
88-74-4	2-Nitroaniline	ND		"	3.08	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
88-75-5	2-Nitrophenol	ND		"	3.18	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
91-94-1	3,3'-Dichlorobenzidine	ND		"	3.60	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
99-09-2	3-Nitroaniline	ND		"	1.64	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
534-52-1	4,6-Dinitro-2-methylphenol	ND		"	6.87	10.3	"	"	02/18/2010 12:31	02/19/2010 01:04	"
101-55-3	4-Bromophenyl phenyl ether	ND		"	3.53	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
59-50-7	4-Chloro-3-methylphenol	ND		"	3.72	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
106-47-8	4-Chloroaniline	ND		"	3.84	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
7005-72-3	4-Chlorophenyl phenyl ether	ND		"	3.20	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
100-01-6	4-Methylphenol	ND		"	3.81	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
100-02-7	4-Nitroaniline	ND		"	3.87	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
56-57-5	4-Nitrophenol	ND		"	4.04	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
83-32-9	Acenaphthene	ND		"	3.32	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
208-96-8	Acenaphthylene	ND		"	4.38	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
62-53-3	Aniline	ND		"	2.02	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
120-12-7	Anthracene	ND		"	3.75	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
56-55-3	Benzo(a)anthracene	ND		"	4.17	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
50-32-8	Benzo(a)pyrene	ND		"	4.97	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
205-99-2	Benzo(b)fluoranthene	ND		"	4.23	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
191-24-2	Benzo(g,h,i)perylene	ND		"	4.26	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"

### Sample Information

**Client Sample ID:** MW-12

**York Sample ID:** 10B0508-03

York Project (SDG) No.  
10B0508

Client Project ID  
SB09110

Matrix  
Water

Collection Date/Time  
February 15, 2010 3:00 pm

Date Received  
02/17/2010

#### Semi-Volatiles, 8270 Target List

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	3.54	5.13	1	EPA SW-846 8270C	02/18/2010 12:31	02/19/2010 01:04	"
100-51-6	Benzyl alcohol	ND		"	4.10	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
85-68-7	Benzyl butyl phthalate	ND		"	2.36	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
111-91-1	Bis(2-chloroethoxy)methane	ND		"	4.97	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
111-44-4	Bis(2-chloroethyl)ether	ND		"	4.23	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
108-60-1	Bis(2-chloroisopropyl)ether	ND		"	4.26	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
117-81-7	Bis(2-ethylhexyl)phthalate	ND		"	2.64	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
218-01-9	Chrysene	ND		"	4.26	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
53-70-3	Dibenzo(a,h)anthracene	ND		"	3.18	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
132-64-9	Dibenzofuran	ND		"	2.97	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
84-66-2	Diethyl phthalate	ND		"	2.26	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
131-11-3	Dimethyl phthalate	ND		"	4.97	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
84-74-2	Di-n-butyl phthalate	ND		"	4.23	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
117-84-0	Di-n-octyl phthalate	ND		"	4.26	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
206-44-0	Fluoranthene	ND		"	1.64	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
86-73-7	Fluorene	ND		"	3.31	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
118-74-1	Hexachlorobenzene	ND		"	3.03	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
87-68-3	Hexachlorobutadiene	ND		"	3.39	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
77-47-4	Hexachlorocyclopentadiene	ND		"	3.53	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
67-72-1	Hexachloroethane	ND		"	3.72	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
193-39-5	Indeno(1,2,3-cd)pyrene	ND		"	2.82	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
78-59-1	Isophorone	ND		"	3.31	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
91-20-3	Naphthalene	ND		"	3.96	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
98-95-3	Nitrobenzene	ND		"	2.02	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
62-75-9	N-Nitrosodimethylamine	ND		"	3.18	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
621-64-7	N-nitroso-di-n-propylamine	ND		"	2.64	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
86-30-6	N-Nitrosodiphenylamine	ND		"	3.71	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
87-86-5	Pentachlorophenol	ND		"	3.86	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
85-01-8	Phenanthrene	ND		"	3.70	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
108-95-2	Phenol	ND		"	3.36	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
129-00-0	Pyrene	ND		"	2.43	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"
110-86-1	Pyridine	ND		"	3.27	5.13	"	"	02/18/2010 12:31	02/19/2010 01:04	"



### Sample Information

**Client Sample ID:** MW-13

**York Sample ID:** 10B0508-04

York Project (SDG) No.  
10B0508

Client Project ID  
SB09110

Matrix  
Water

Collection Date/Time  
February 15, 2010 3:00 pm

Date Received  
02/17/2010

#### **Volatile Organics, 8260 List**

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	02/20/2010 00:40	02/20/2010 00:40	SS
71-55-6	1,1,1-Trichloroethane	ND		"	0.95	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
79-34-5	1,1,2,2-Tetrachloroethane	ND		"	0.57	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		"	0.60	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
79-00-5	1,1,2-Trichloroethane	ND		"	0.61	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
75-34-3	1,1-Dichloroethane	ND		"	0.69	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
75-35-4	1,1-Dichloroethylene	ND		"	1.3	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
563-58-6	1,1-Dichloropropylene	ND		"	0.43	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
87-61-6	1,2,3-Trichlorobenzene	ND		"	0.37	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
96-18-4	1,2,3-Trichloropropane	ND		"	1.1	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
120-82-1	1,2,4-Trichlorobenzene	ND		"	0.48	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
95-63-6	1,2,4-Trimethylbenzene	ND		"	0.53	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
96-12-8	1,2-Dibromo-3-chloropropane	ND		"	1.3	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
106-93-4	1,2-Dibromoethane	ND		"	0.68	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
95-50-1	1,2-Dichlorobenzene	ND		"	0.59	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
107-06-2	1,2-Dichloroethane	ND		"	0.65	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
78-87-5	1,2-Dichloropropane	ND		"	0.22	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
108-67-8	1,3,5-Trimethylbenzene	ND		"	0.37	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
541-73-1	1,3-Dichlorobenzene	ND		"	0.47	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
142-28-9	1,3-Dichloropropane	ND		"	0.69	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
106-46-7	1,4-Dichlorobenzene	ND		"	0.68	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
594-20-7	2,2-Dichloropropane	ND		"	0.96	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
95-49-8	2-Chlorotoluene	ND		"	0.49	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
106-43-4	4-Chlorotoluene	ND		"	0.49	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
71-43-2	Benzene	ND		"	0.48	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
108-86-1	Bromobenzene	ND		"	0.61	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
74-97-5	Bromochloromethane	ND		"	1.3	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
75-27-4	Bromodichloromethane	ND		"	0.62	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
75-25-2	Bromoform	ND		"	0.58	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
74-83-9	Bromomethane	ND		"	1.2	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
56-23-5	Carbon tetrachloride	ND		"	1.0	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
108-90-7	Chlorobenzene	ND		"	0.35	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
75-00-3	Chloroethane	ND		"	0.76	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
67-66-3	Chloroform	ND		"	0.36	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"

### Sample Information

**Client Sample ID:** MW-13

**York Sample ID:** 10B0508-04

York Project (SDG) No.  
10B0508

Client Project ID  
SB09110

Matrix  
Water

Collection Date/Time  
February 15, 2010 3:00 pm

Date Received  
02/17/2010

#### **Volatile Organics, 8260 List**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-87-3	Chloromethane	ND		ug/L	0.89	5.0	1	EPA SW846-8260B	02/20/2010 00:40	02/20/2010 00:40	"
156-59-2	cis-1,2-Dichloroethylene	ND		"	0.96	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
10061-01-5	cis-1,3-Dichloropropylene	ND		"	0.35	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
124-48-1	Dibromochloromethane	ND		"	0.67	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
74-95-3	Dibromomethane	ND		"	1.3	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
87-68-3	Dichlorodifluoromethane	ND		"	0.83	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
100-41-4	Ethyl Benzene	ND		"	0.35	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
87-68-3	Hexachlorobutadiene	ND		"	0.43	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
98-82-8	Isopropylbenzene	ND		"	0.39	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		"	0.38	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
75-09-2	<b>Methylene chloride</b>	<b>3.9</b>	B, J	"	1.1	10	"	"	02/20/2010 00:40	02/20/2010 00:40	"
91-20-3	Naphthalene	ND		"	0.50	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
104-51-8	n-Butylbenzene	ND		"	0.32	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
103-65-1	n-Propylbenzene	ND		"	0.58	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
95-47-6	o-Xylene	ND		"	0.50	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
1330-20-7P/M	p- & m- Xylenes	ND		"	0.55	10	"	"	02/20/2010 00:40	02/20/2010 00:40	"
99-87-6	p-Isopropyltoluene	ND		"	0.25	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
135-98-8	sec-Butylbenzene	ND		"	0.52	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
100-42-5	Styrene	ND		"	0.43	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
98-06-6	tert-Butylbenzene	ND		"	0.46	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
127-18-4	Tetrachloroethylene	ND		"	0.52	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
108-88-3	Toluene	ND		"	0.23	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
156-60-5	trans-1,2-Dichloroethylene	ND		"	0.65	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
10061-02-6	trans-1,3-Dichloropropylene	ND		"	0.68	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
79-01-6	<b>Trichloroethylene</b>	<b>15</b>		"	0.57	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
75-69-4	Trichlorofluoromethane	ND		"	0.91	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"
75-01-4	Vinyl Chloride	ND		"	0.97	5.0	"	"	02/20/2010 00:40	02/20/2010 00:40	"

### Sample Information

**Client Sample ID:** MW-13

**York Sample ID:** 10B0508-04

York Project (SDG) No.  
10B0508

Client Project ID  
SB09110

Matrix  
Water

Collection Date/Time  
February 15, 2010 3:00 pm

Date Received  
02/17/2010

### Semi-Volatiles, 8270 Target List

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	1.42	5.41	1	EPA SW-846 8270C	02/18/2010 12:31	02/19/2010 02:12	TD
95-50-1	1,2-Dichlorobenzene	ND		"	1.77	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
541-73-1	1,3-Dichlorobenzene	ND		"	2.97	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
106-46-7	1,4-Dichlorobenzene	ND		"	3.49	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
95-95-4	2,4,5-Trichlorophenol	ND		"	3.90	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
88-06-2	2,4,6-Trichlorophenol	ND		"	3.54	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
120-83-2	2,4-Dichlorophenol	ND		"	3.34	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
105-67-9	2,4-Dimethylphenol	ND		"	3.98	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
51-28-5	2,4-Dinitrophenol	ND		"	10.4	10.8	"	"	02/18/2010 12:31	02/19/2010 02:12	"
121-14-2	2,4-Dinitrotoluene	ND		"	2.56	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
606-20-2	2,6-Dinitrotoluene	ND		"	3.79	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
91-58-7	2-Chloronaphthalene	ND		"	3.77	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
95-57-8	2-Chlorophenol	ND		"	3.69	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
91-57-6	2-Methylnaphthalene	ND		"	3.32	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
95-48-7	2-Methylphenol	ND		"	0.927	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
88-74-4	2-Nitroaniline	ND		"	3.25	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
88-75-5	2-Nitrophenol	ND		"	3.35	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
91-94-1	3,3'-Dichlorobenzidine	ND		"	3.80	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
99-09-2	3-Nitroaniline	ND		"	1.72	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
534-52-1	4,6-Dinitro-2-methylphenol	ND		"	7.24	10.8	"	"	02/18/2010 12:31	02/19/2010 02:12	"
101-55-3	4-Bromophenyl phenyl ether	ND		"	3.73	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
59-50-7	4-Chloro-3-methylphenol	ND		"	3.92	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
106-47-8	4-Chloroaniline	ND		"	4.04	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
7005-72-3	4-Chlorophenyl phenyl ether	ND		"	3.37	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
100-01-6	4-Methylphenol	ND		"	4.02	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
100-02-7	4-Nitroaniline	ND		"	4.07	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
56-57-5	4-Nitrophenol	ND		"	4.26	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
83-32-9	Acenaphthene	ND		"	3.50	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
208-96-8	Acenaphthylene	ND		"	4.62	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
62-53-3	Aniline	ND		"	2.13	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
120-12-7	Anthracene	ND		"	3.96	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
56-55-3	Benzo(a)anthracene	ND		"	4.40	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
50-32-8	Benzo(a)pyrene	ND		"	5.24	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
205-99-2	Benzo(b)fluoranthene	ND		"	4.45	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
191-24-2	Benzo(g,h,i)perylene	ND		"	4.49	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"

### Sample Information

**Client Sample ID:** MW-13

**York Sample ID:** 10B0508-04

York Project (SDG) No.  
10B0508

Client Project ID  
SB09110

Matrix  
Water

Collection Date/Time  
February 15, 2010 3:00 pm

Date Received  
02/17/2010

### Semi-Volatiles, 8270 Target List

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	3.74	5.41	1	EPA SW-846 8270C	02/18/2010 12:31	02/19/2010 02:12	"
100-51-6	Benzyl alcohol	ND		"	4.32	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
85-68-7	Benzyl butyl phthalate	ND		"	2.49	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
111-91-1	Bis(2-chloroethoxy)methane	ND		"	5.24	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
111-44-4	Bis(2-chloroethyl)ether	ND		"	4.45	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
108-60-1	Bis(2-chloroisopropyl)ether	ND		"	4.49	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
117-81-7	<b>Bis(2-ethylhexyl)phthalate</b>	<b>3.57</b>	J	"	2.78	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
218-01-9	Chrysene	ND		"	4.49	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
53-70-3	Dibenzo(a,h)anthracene	ND		"	3.35	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
132-64-9	Dibenzofuran	ND		"	3.14	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
84-66-2	Diethyl phthalate	ND		"	2.38	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
131-11-3	Dimethyl phthalate	ND		"	5.24	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
84-74-2	Di-n-butyl phthalate	ND		"	4.45	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
117-84-0	Di-n-octyl phthalate	ND		"	4.49	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
206-44-0	Fluoranthene	ND		"	1.72	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
86-73-7	Fluorene	ND		"	3.49	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
118-74-1	Hexachlorobenzene	ND		"	3.20	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
87-68-3	Hexachlorobutadiene	ND		"	3.58	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
77-47-4	Hexachlorocyclopentadiene	ND		"	3.73	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
67-72-1	Hexachloroethane	ND		"	3.92	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
193-39-5	Indeno(1,2,3-cd)pyrene	ND		"	2.97	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
78-59-1	Isophorone	ND		"	3.49	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
91-20-3	Naphthalene	ND		"	4.18	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
98-95-3	Nitrobenzene	ND		"	2.13	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
62-75-9	N-Nitrosodimethylamine	ND		"	3.35	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
621-64-7	N-nitroso-di-n-propylamine	ND		"	2.78	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
86-30-6	N-Nitrosodiphenylamine	ND		"	3.91	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
87-86-5	Pentachlorophenol	ND		"	4.07	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
85-01-8	Phenanthrene	ND		"	3.90	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
108-95-2	Phenol	ND		"	3.54	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
129-00-0	Pyrene	ND		"	2.56	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"
110-86-1	Pyridine	ND		"	3.44	5.41	"	"	02/18/2010 12:31	02/19/2010 02:12	"

### Sample Information

**Client Sample ID:** MW-14

**York Sample ID:** 10B0508-05

York Project (SDG) No.  
10B0508

Client Project ID  
SB09110

Matrix  
Water

Collection Date/Time  
February 15, 2010 3:00 pm

Date Received  
02/17/2010

#### **Volatile Organics, 8260 List**

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	02/20/2010 01:14	02/20/2010 01:14	SS
71-55-6	1,1,1-Trichloroethane	ND		"	0.95	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
79-34-5	1,1,2,2-Tetrachloroethane	ND		"	0.57	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		"	0.60	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
79-00-5	1,1,2-Trichloroethane	ND		"	0.61	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
75-34-3	1,1-Dichloroethane	ND		"	0.69	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
75-35-4	1,1-Dichloroethylene	ND		"	1.3	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
563-58-6	1,1-Dichloropropylene	ND		"	0.43	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
87-61-6	1,2,3-Trichlorobenzene	ND		"	0.37	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
96-18-4	1,2,3-Trichloropropane	ND		"	1.1	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
120-82-1	1,2,4-Trichlorobenzene	ND		"	0.48	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
95-63-6	1,2,4-Trimethylbenzene	ND		"	0.53	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
96-12-8	1,2-Dibromo-3-chloropropane	ND		"	1.3	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
106-93-4	1,2-Dibromoethane	ND		"	0.68	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
95-50-1	1,2-Dichlorobenzene	ND		"	0.59	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
107-06-2	1,2-Dichloroethane	ND		"	0.65	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
78-87-5	1,2-Dichloropropane	ND		"	0.22	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
108-67-8	1,3,5-Trimethylbenzene	ND		"	0.37	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
541-73-1	1,3-Dichlorobenzene	ND		"	0.47	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
142-28-9	1,3-Dichloropropane	ND		"	0.69	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
106-46-7	1,4-Dichlorobenzene	ND		"	0.68	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
594-20-7	2,2-Dichloropropane	ND		"	0.96	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
95-49-8	2-Chlorotoluene	ND		"	0.49	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
106-43-4	4-Chlorotoluene	ND		"	0.49	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
71-43-2	Benzene	ND		"	0.48	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
108-86-1	Bromobenzene	ND		"	0.61	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
74-97-5	Bromochloromethane	ND		"	1.3	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
75-27-4	Bromodichloromethane	ND		"	0.62	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
75-25-2	Bromoform	ND		"	0.58	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
74-83-9	Bromomethane	ND		"	1.2	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
56-23-5	Carbon tetrachloride	ND		"	1.0	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
108-90-7	Chlorobenzene	ND		"	0.35	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
75-00-3	Chloroethane	ND		"	0.76	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
67-66-3	Chloroform	ND		"	0.36	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"

### Sample Information

**Client Sample ID:** MW-14

**York Sample ID:** 10B0508-05

York Project (SDG) No.  
10B0508

Client Project ID  
SB09110

Matrix  
Water

Collection Date/Time  
February 15, 2010 3:00 pm

Date Received  
02/17/2010

#### **Volatile Organics, 8260 List**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-87-3	Chloromethane	ND		ug/L	0.89	5.0	1	EPA SW846-8260B	02/20/2010 01:14	02/20/2010 01:14	"
156-59-2	cis-1,2-Dichloroethylene	ND		"	0.96	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
10061-01-5	cis-1,3-Dichloropropylene	ND		"	0.35	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
124-48-1	Dibromochloromethane	ND		"	0.67	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
74-95-3	Dibromomethane	ND		"	1.3	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
87-68-3	Dichlorodifluoromethane	ND		"	0.83	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
100-41-4	Ethyl Benzene	ND		"	0.35	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
87-68-3	Hexachlorobutadiene	ND		"	0.43	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
98-82-8	Isopropylbenzene	ND		"	0.39	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		"	0.38	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
75-09-2	<b>Methylene chloride</b>	<b>3.6</b>	B, J	"	1.1	10	"	"	02/20/2010 01:14	02/20/2010 01:14	"
91-20-3	Naphthalene	ND		"	0.50	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
104-51-8	n-Butylbenzene	ND		"	0.32	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
103-65-1	n-Propylbenzene	ND		"	0.58	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
95-47-6	o-Xylene	ND		"	0.50	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
1330-20-7P/M	p- & m- Xylenes	ND		"	0.55	10	"	"	02/20/2010 01:14	02/20/2010 01:14	"
99-87-6	p-Isopropyltoluene	ND		"	0.25	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
135-98-8	sec-Butylbenzene	ND		"	0.52	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
100-42-5	Styrene	ND		"	0.43	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
98-06-6	tert-Butylbenzene	ND		"	0.46	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
127-18-4	Tetrachloroethylene	ND		"	0.52	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
108-88-3	Toluene	ND		"	0.23	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
156-60-5	trans-1,2-Dichloroethylene	ND		"	0.65	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
10061-02-6	trans-1,3-Dichloropropylene	ND		"	0.68	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
79-01-6	Trichloroethylene	ND		"	0.57	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
75-69-4	Trichlorofluoromethane	ND		"	0.91	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"
75-01-4	Vinyl Chloride	ND		"	0.97	5.0	"	"	02/20/2010 01:14	02/20/2010 01:14	"

### Sample Information

**Client Sample ID:** MW-14

**York Sample ID:** 10B0508-05

York Project (SDG) No.  
10B0508

Client Project ID  
SB09110

Matrix  
Water

Collection Date/Time  
February 15, 2010 3:00 pm

Date Received  
02/17/2010

### Semi-Volatiles, 8270 Target List

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	1.46	5.56	1	EPA SW-846 8270C	02/18/2010 12:31	02/19/2010 02:46	TD
95-50-1	1,2-Dichlorobenzene	ND		"	1.82	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
541-73-1	1,3-Dichlorobenzene	ND		"	3.05	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
106-46-7	1,4-Dichlorobenzene	ND		"	3.58	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
95-95-4	2,4,5-Trichlorophenol	ND		"	4.01	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
88-06-2	2,4,6-Trichlorophenol	ND		"	3.64	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
120-83-2	2,4-Dichlorophenol	ND		"	3.43	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
105-67-9	2,4-Dimethylphenol	ND		"	4.09	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
51-28-5	2,4-Dinitrophenol	ND		"	10.7	11.1	"	"	02/18/2010 12:31	02/19/2010 02:46	"
121-14-2	2,4-Dinitrotoluene	ND		"	2.63	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
606-20-2	2,6-Dinitrotoluene	ND		"	3.90	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
91-58-7	2-Chloronaphthalene	ND		"	3.88	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
95-57-8	2-Chlorophenol	ND		"	3.80	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
91-57-6	2-Methylnaphthalene	ND		"	3.42	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
95-48-7	2-Methylphenol	ND		"	0.952	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
88-74-4	2-Nitroaniline	ND		"	3.34	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
88-75-5	2-Nitrophenol	ND		"	3.45	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
91-94-1	3,3'-Dichlorobenzidine	ND		"	3.90	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
99-09-2	3-Nitroaniline	ND		"	1.77	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
534-52-1	4,6-Dinitro-2-methylphenol	ND		"	7.44	11.1	"	"	02/18/2010 12:31	02/19/2010 02:46	"
101-55-3	4-Bromophenyl phenyl ether	ND		"	3.83	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
59-50-7	4-Chloro-3-methylphenol	ND		"	4.03	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
106-47-8	4-Chloroaniline	ND		"	4.16	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
7005-72-3	4-Chlorophenyl phenyl ether	ND		"	3.47	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
100-01-6	4-Methylphenol	ND		"	4.13	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
100-02-7	4-Nitroaniline	ND		"	4.19	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
56-57-5	4-Nitrophenol	ND		"	4.38	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
83-32-9	Acenaphthene	ND		"	3.60	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
208-96-8	Acenaphthylene	ND		"	4.75	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
62-53-3	Aniline	ND		"	2.18	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
120-12-7	Anthracene	ND		"	4.07	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
56-55-3	Benzo(a)anthracene	ND		"	4.52	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
50-32-8	Benzo(a)pyrene	ND		"	5.39	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
205-99-2	Benzo(b)fluoranthene	ND		"	4.58	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
191-24-2	Benzo(g,h,i)perylene	ND		"	4.61	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"

### Sample Information

**Client Sample ID:** MW-14

**York Sample ID:** 10B0508-05

York Project (SDG) No.  
10B0508

Client Project ID  
SB09110

Matrix  
Water

Collection Date/Time  
February 15, 2010 3:00 pm

Date Received  
02/17/2010

### Semi-Volatiles, 8270 Target List

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	3.84	5.56	1	EPA SW-846 8270C	02/18/2010 12:31	02/19/2010 02:46	"
100-51-6	Benzyl alcohol	ND		"	4.44	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
85-68-7	Benzyl butyl phthalate	ND		"	2.56	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
111-91-1	Bis(2-chloroethoxy)methane	ND		"	5.39	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
111-44-4	Bis(2-chloroethyl)ether	ND		"	4.58	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
108-60-1	Bis(2-chloroisopropyl)ether	ND		"	4.61	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
117-81-7	Bis(2-ethylhexyl)phthalate	ND		"	2.86	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
218-01-9	Chrysene	ND		"	4.61	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
53-70-3	Dibenzo(a,h)anthracene	ND		"	3.44	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
132-64-9	Dibenzofuran	ND		"	3.22	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
84-66-2	Diethyl phthalate	ND		"	2.44	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
131-11-3	Dimethyl phthalate	ND		"	5.39	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
84-74-2	Di-n-butyl phthalate	ND		"	4.58	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
117-84-0	Di-n-octyl phthalate	ND		"	4.61	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
206-44-0	Fluoranthene	ND		"	1.77	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
86-73-7	Fluorene	ND		"	3.58	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
118-74-1	Hexachlorobenzene	ND		"	3.28	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
87-68-3	Hexachlorobutadiene	ND		"	3.68	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
77-47-4	Hexachlorocyclopentadiene	ND		"	3.83	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
67-72-1	Hexachloroethane	ND		"	4.03	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
193-39-5	Indeno(1,2,3-cd)pyrene	ND		"	3.05	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
78-59-1	Isophorone	ND		"	3.58	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
91-20-3	Naphthalene	ND		"	4.29	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
98-95-3	Nitrobenzene	ND		"	2.18	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
62-75-9	N-Nitrosodimethylamine	ND		"	3.45	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
621-64-7	N-nitroso-di-n-propylamine	ND		"	2.86	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
86-30-6	N-Nitrosodiphenylamine	ND		"	4.02	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
87-86-5	Pentachlorophenol	ND		"	4.18	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
85-01-8	Phenanthrene	ND		"	4.01	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
108-95-2	Phenol	ND		"	3.64	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
129-00-0	Pyrene	ND		"	2.63	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"
110-86-1	Pyridine	ND		"	3.54	5.56	"	"	02/18/2010 12:31	02/19/2010 02:46	"



### Notes and Definitions

S-AC	Acid surrogate recovery outside of control limits. The data was accepted based on valid recovery of remaining two acid surrogates.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
J	Detected but 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 blank as well as in the sample.
<hr/>	
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.

## Field Chain-of-Custody Record

Page \_\_\_\_ of \_\_\_\_

York Project No. 10 B0508

NOTE: York's Std. Terms & Conditions are listed on the back side of this document.  
This document serves as your written authorization to York to proceed with the analyses requested and your signature binds you to York's Std. Terms & Conditions unless superseded by written contract.

<b>Client Information</b> Company: Ecosystems Strategies Address: 24 Davis Avenue Poughkeepsie, NY 12603 Phone no.: (845) 452-1658 Contact Person: Emery Lawson E-mail Addr.: FAX No.: (845) 485-7083		<b>Report to:</b> SAME <input checked="" type="checkbox"/> X Name: Brenda Wells Company: Ecosystems Strategies Address: E-mail: Fax No.:		<b>Invoice To:</b> SAME <input type="checkbox"/> Name: Brenda Wells Company: Ecosystems Strategies Address: E-mail: Fax No.:		<b>Client Project ID</b> SB09110 Purchase Order no.: Samples from: CT_NY_NJ_OTHER		<b>Turn-Around Time</b> RUSH Same Day RUSH Next Day RUSH Two Day RUSH Three Day RUSH Four Day Standard (5-7 days) X OTHER EDD		<b>Report Type/Deliverables</b> Summary X QA/QC Summary CT RCP Pkg ASP A Pkg ASP B Pkg Excel X EDD			
<b>Print Clearly and Legibly. All Information must be complete. Samples will NOT be logged in and the turn-around time clock will not begin until any questions by York are resolved.</b> Samples Collected/Authorized By (Signature) Emery Lawson Name (printed)		<b>Volatiles</b> 8260 full 624 STARS BTX MTBE TCE list TAGM CT RCP Arom. Halog. App IX 8021B list		<b>Semi-Vols./Pesticides</b> 8270 or 625 STARS BN Only Acids Only PAH TAGM CT RCP TCE list TICs App IX SPL Por TCEP 1608 PCB		<b>Metals</b> RCRA8 PP13 TAL CT15 Total Dissolved SPL Por TCEP Lead, Cad, Cu Hg, Pb, As, Cr Chloride 608 Pest TCEP BNA 1608 PCB		<b>Misc. Org.</b> TPH GRO TPH DRO CT ETPH NY 310-13 Full App IX TPH 418.1 Air TO14A Air STARS Air VPH Air TICs Methane Heptane		<b>Miscellaneous Parameters</b> Conductivity Reactivity Ignitability Flash Point Sieve Anal. Heterotrophs TOX BTU/lb. Aquatic Tox. F.O.G. pH MBAS Silica		<b>Special Instructions</b> Field Filled <input type="checkbox"/> Lab to Filter <input type="checkbox"/> Color Phenols Cyanide-T Cyanide-A BOD5 Ammonia-N Chloride Phosphate BOD28 COD Tot. Phos. Oil & Grease TSS Total Solids ID5 TPH-IR	
<b>Choose Analyses Needed from the Menu Above and Enter Below</b>													
MW-3		2/15/2010		GW		VOCs (8260 full), SVOCs (8270)		2, 40ml vials and Amber Liters					
MW-10		2/15/2010		GW		VOCs (8260 full), SVOCs (8270)		2, 40ml vials and Amber Liters					
MW-12		2/15/2010		GW		VOCs (8260 full), SVOCs (8270)		2, 40ml vials and Amber Liters					
MW-13		2/15/2010		GW		VOCs (8260 full), SVOCs (8270)		2, 40ml vials and Amber Liters					
MW-14		2/15/2010		GW		VOCs (8260 full), SVOCs (8270)		2, 40ml vials and Amber Liters					
RW-7		2/16/2010		Other - Free Product		SVOCs (Phthalates, USEPA 8270 Selected Ion Monitoring)		8 oz jar					
<b>Comments</b> Preservation "X" those applicable Temperature on Receipt 3.6 °C													

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Charlene Morrow, M.S.  
Yelena Aravkina, M.S.  
Bradley T. Benson, B.S.  
Kurt Johnson, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
TEL: (206) 285-8282  
FAX: (206) 283-5044  
e-mail: fbi@isomedia.com

March 31, 2010

Emery Lawson, Project Manager  
Ecosystems Strategies, Inc.  
24 Davis Avenue  
Poughkeepsie, NY 12603

Dear Ms. Lawson:

Included are the results from the testing of material submitted on February 25, 2010 from the 49 Dupont Street/SB09110, F&BI 002242 project. The product samples submitted for forensic evaluation arrived in good condition. Upon arrival, the samples RW-12 and MW-4 were placed in a refrigerator maintained at 4°C until removed for sample processing.

The samples RW-12 and MW-4 were diluted and analyzed for semivolatile organic compounds with library search using a gas chromatograph fitted with a mass spectrometer (GC/MS). The results of this testing are enclosed.

Review of the GC/MS results generated shows that the majority of material present in the samples RW-12 and MW-4 is consistent with carboxylic acid esters. Phthalates are in the class of compounds known as carboxylic acid esters.

In addition, review of the GC/MS results generated shows that the sample RW-12 also contains material which appears to be a high boiling petroleum based oil. Selective ion monitoring was performed on this sample to determine if this oil is paraffinic or naphthenic in nature. Review of the data generated shows that this sample contains a prominent pattern of material with a M/Z ratio of 43, 57, 71, and 85. These ions are consistent with paraffinic material.

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Emery Lawson  
March 31, 2010  
Page 2

Please contact us if additional consultation is needed by our firm in the interpretation of the analytical results provided. We appreciate this opportunity to be of service to you and hope you will call if you should have any questions. We will hold your samples for 30 days before disposal unless directed otherwise.

Sincerely,

FRIEDMAN & BRUYA, INC.

A handwritten signature in black ink, reading "Bradley T. Benson". The signature is written in a cursive style with a large, stylized 'B' and 'T'.

Bradley T. Benson  
Chemist

Enclosures  
mcp/BTB  
NAA0331R.DOC

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### GC/MS Library Search Compound Report By EPA Method 8270D

Client Sample ID: RW-12	Client: Ecosystems Strategies, Inc.
Date Received: 02/25/10	Project: 49 Dupont Street, F&BI 002242
Date Extracted: 03/02/10	Lab ID: 002242-01 1/100
Date Analyzed: 03/02/10	Data File: 030213.D
Matrix: Product	Instrument: GCMS3
Units: mg/kg (ppm)	Operator: YA

Tentative ID	CAS #	Qual.	Conc.
1,2-Benzenedicarboxylic acid, decyl hexyl ester	025724-58-7	64	26,000
1,2-Benzenedicarboxylic acid, isodecyl octyl ester	001330-96-7	64	25,000
1,2-Benzenedicarboxylic acid, diisononyl ester	028553-12-0	64	24,000
1,2-Benzenedicarboxylic acid, bis(4-methylpentyl) ester	000146-50-9	64	20,000
Bis(2-ethylhexyl) phthalate	000117-81-7	53	15,000
1,2-Benzenedicarboxylic acid, butyl 8-methylnonyl ester	000089-18-9	64	14,000
Cyclopropanenonanoic acid, 2-[(2-butylcyclopropyl)methyl]-, methyl ester	010152-69-9	95	12,000
1,2-Benzenedicarboxylic acid, diisononyl ester	028553-12-0	72	11,000
1,2-Benzenedicarboxylic acid, isodecyl octyl ester	001330-96-7	59	7,900
1,2-Benzenedicarboxylic acid, bis(1-methylheptyl) ester	000131-15-7	59	6,300
1,2-Benzenedicarboxylic acid, isodecyl octyl ester	001330-96-7	72	5,700
1,2-Benzenedicarboxylic acid, isodecyl octyl ester	001330-96-7	64	5,000
1,2-Benzenedicarboxylic acid, diisooctyl ester	027554-26-3	50	4,700
1,2-Benzenedicarboxylic acid, bis(8-methylnonyl) ester	000089-16-7	59	4,300

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

GC/MS Library Search Compound Report By EPA Method 8270D

Client Sample ID:	MW-4	Client:	Ecosystems Strategies, Inc.
Date Received:	02/25/10	Project:	49 Dupont Street, F&BI 002242
Date Extracted:	03/02/10	Lab ID:	002242-02 1/100
Date Analyzed:	03/02/10	Data File:	030214.D
Matrix:	Product	Instrument:	GCMS3
Units:	mg/kg (ppm)	Operator:	YA

Tentative ID	CAS #	Qual.	Conc.
Hexanedioic acid, mono(2-ethylhexyl) ester	004337-65-9	64	96,000
Phosphoric acid, tris(2-ethylhexyl) ester	000078-42-2	72	63,000
1,2-Benzenedicarboxylic acid, bis(1-methylheptyl) ester	000131-15-7	80	43,000
Cyclopropanenonanoic acid, 2-[(2-butylcyclopropyl)methyl]-, methyl ester	010152-69-9	59	40,000
1,2-Benzenedicarboxylic acid, diheptyl ester	003648-21-3	78	37,000
1,2-Benzenedicarboxylic acid, bis(4-methylpentyl) ester	000146-50-9	50	26,000
1,2-Benzenedicarboxylic acid, isodecyl octyl ester	001330-96-7	72	25,000
1,2-Benzenedicarboxylic acid, diheptyl ester	003648-21-3	86	15,000
1,2-Benzenedicarboxylic acid, isodecyl octyl ester	001330-96-7	78	11,000
1,2-Benzenedicarboxylic acid, butyl octyl ester	000084-78-6	64	10,000
1,2-Benzenedicarboxylic acid, bis(4-methylpentyl) ester	000146-50-9	64	9,900
1,2-Benzenedicarboxylic acid, decyl octyl ester	000119-07-3	72	9,300
1,2-Benzenedicarboxylic acid, bis(1-methylheptyl) ester	000131-15-7	72	9,200
1,2-Benzenedicarboxylic acid, isodecyl octyl ester	001330-96-7	72	6,800
1,2-Benzenedicarboxylic acid, diheptyl ester	003648-21-3	78	4,400

FRIEDMAN & BRUYA, INC.

---

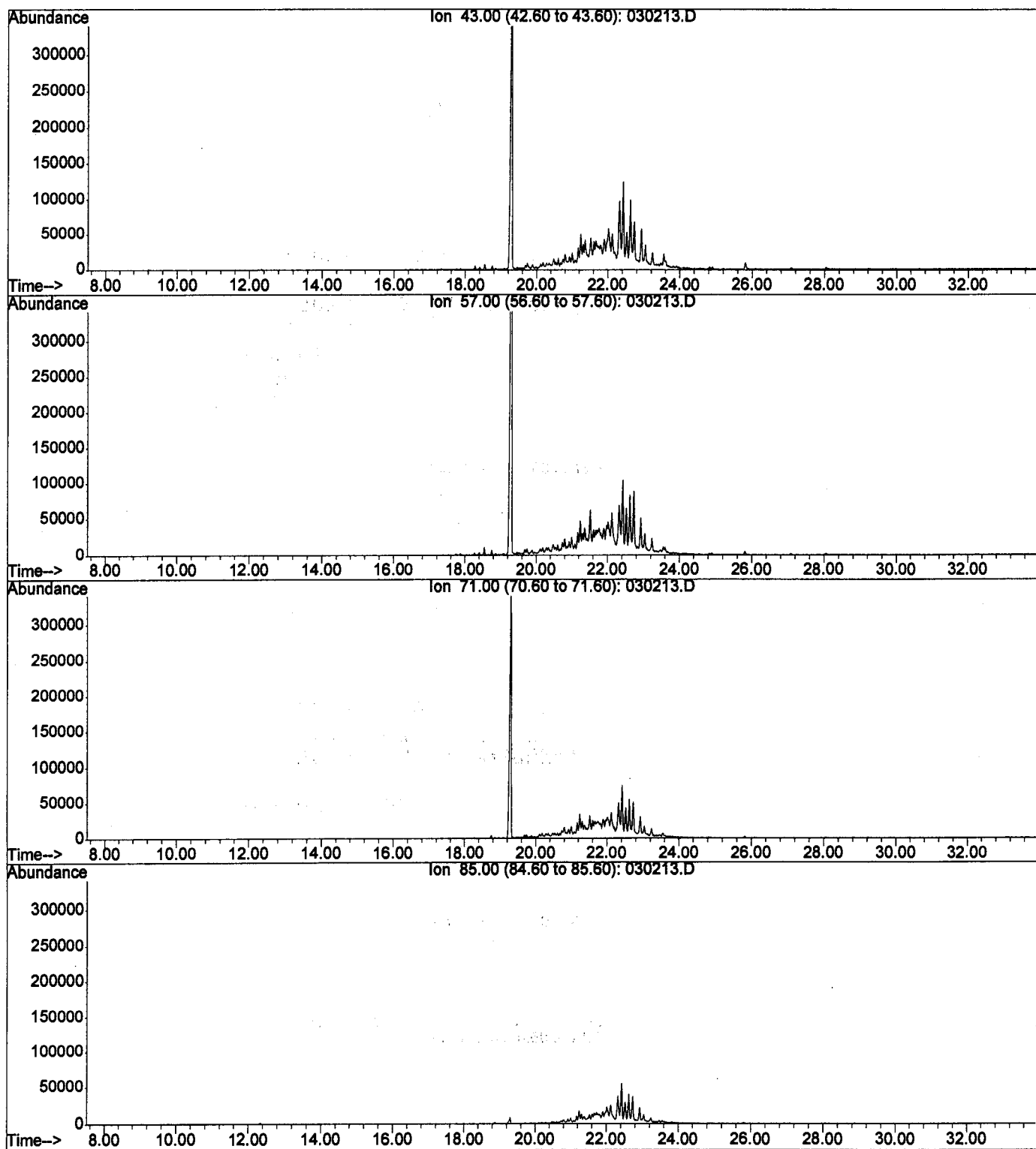
ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	Method Blank	Client:	Ecosystems Strategies, Inc.
Date Received:	Not Applicable	Project:	49 Dupont Street, F&BI 002242
Date Extracted:	03/02/10	Lab ID:	00293mb
Date Analyzed:	03/02/10	Data File:	030210.D
Matrix:	Product	Instrument:	GCMS3
Units:	mg/kg (ppm)	Operator:	YA

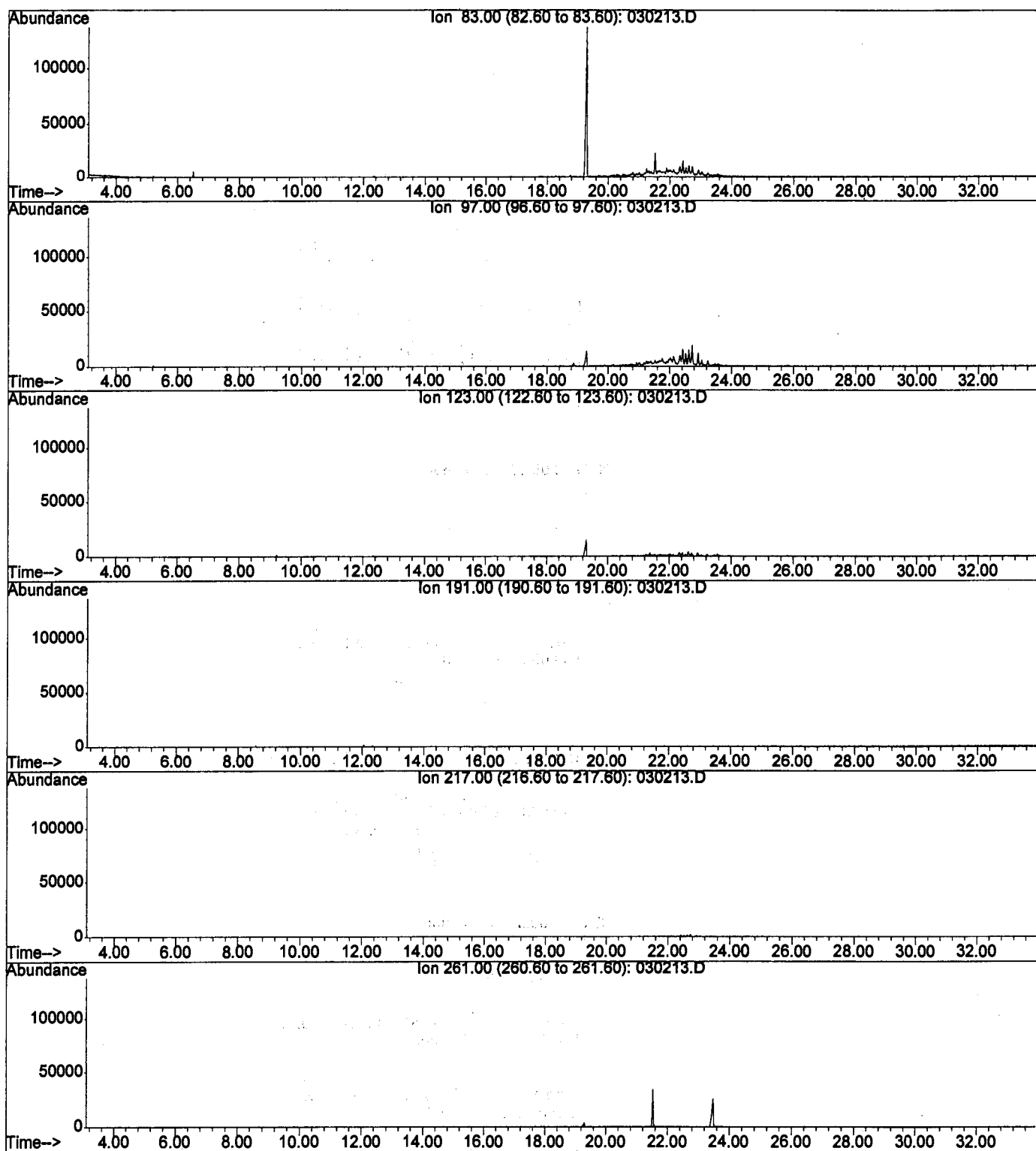
Note: There were no library search compounds detected.

File : D:\DATA\03-02-10\030213.D  
Operator : YA  
Acquired : 2 Mar 2010 7:07 pm using AcqMethod 0222BNA  
Instrument : GCMS3  
Sample Name: 002242-01 1/100  
Misc Info : product  
Vial Number: 10

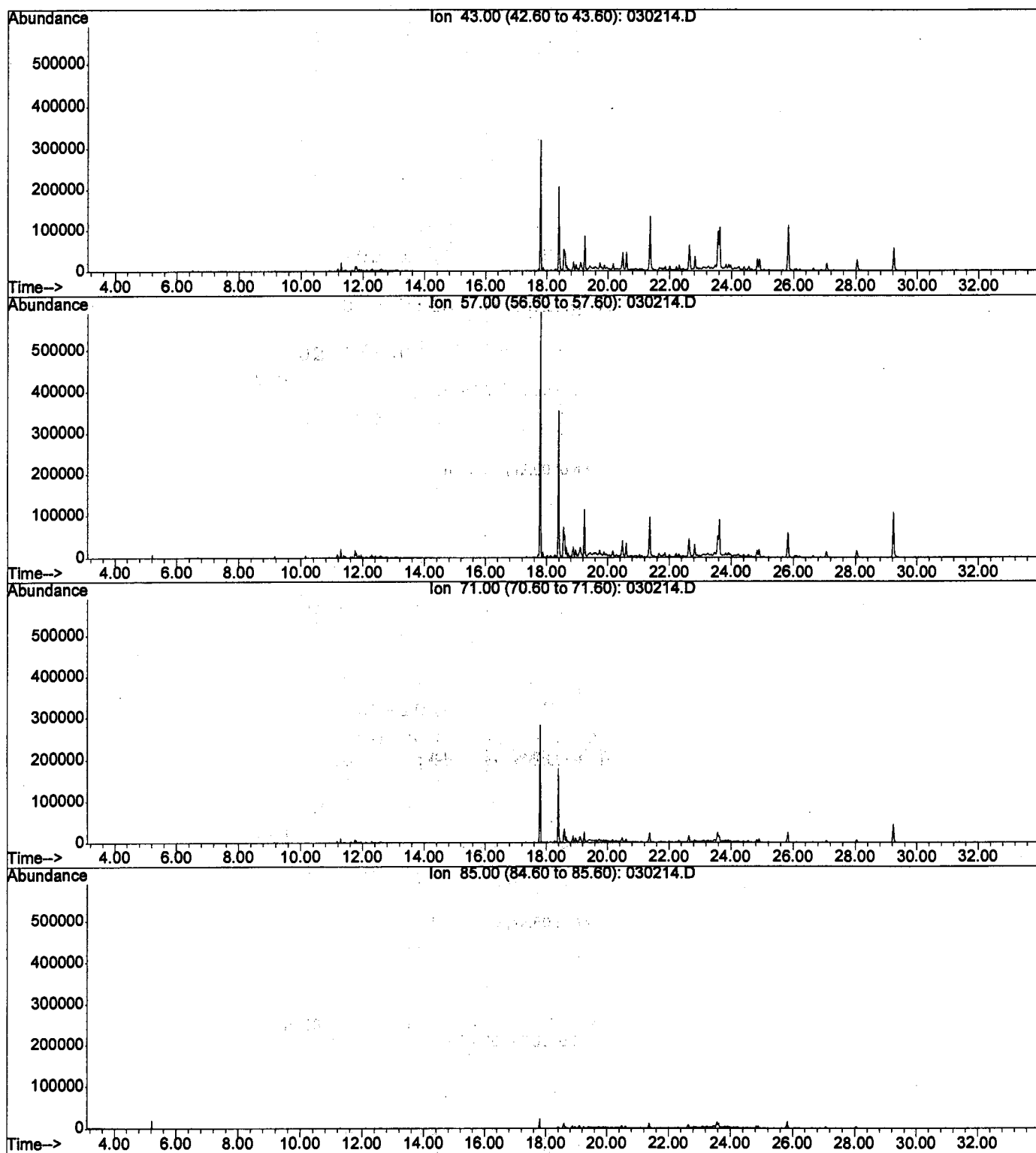




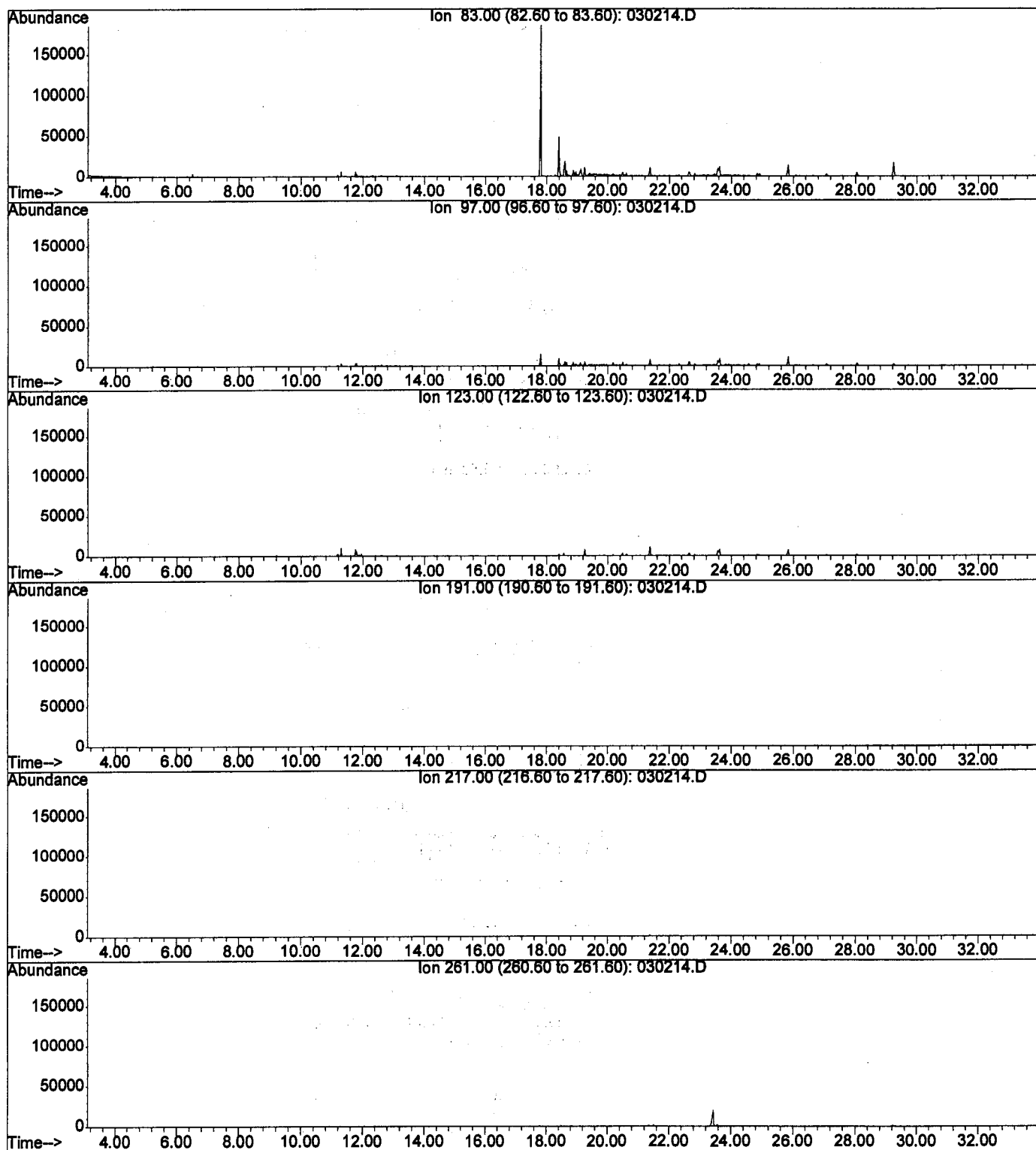
File : D:\DATA\03-02-10\030213.D  
Operator : YA  
Acquired : 2 Mar 2010 7:07 pm using AcqMethod 0222BNA  
Instrument : GCMS3  
Sample Name: 002242-01 1/100  
Misc Info : product  
Vial Number: 10



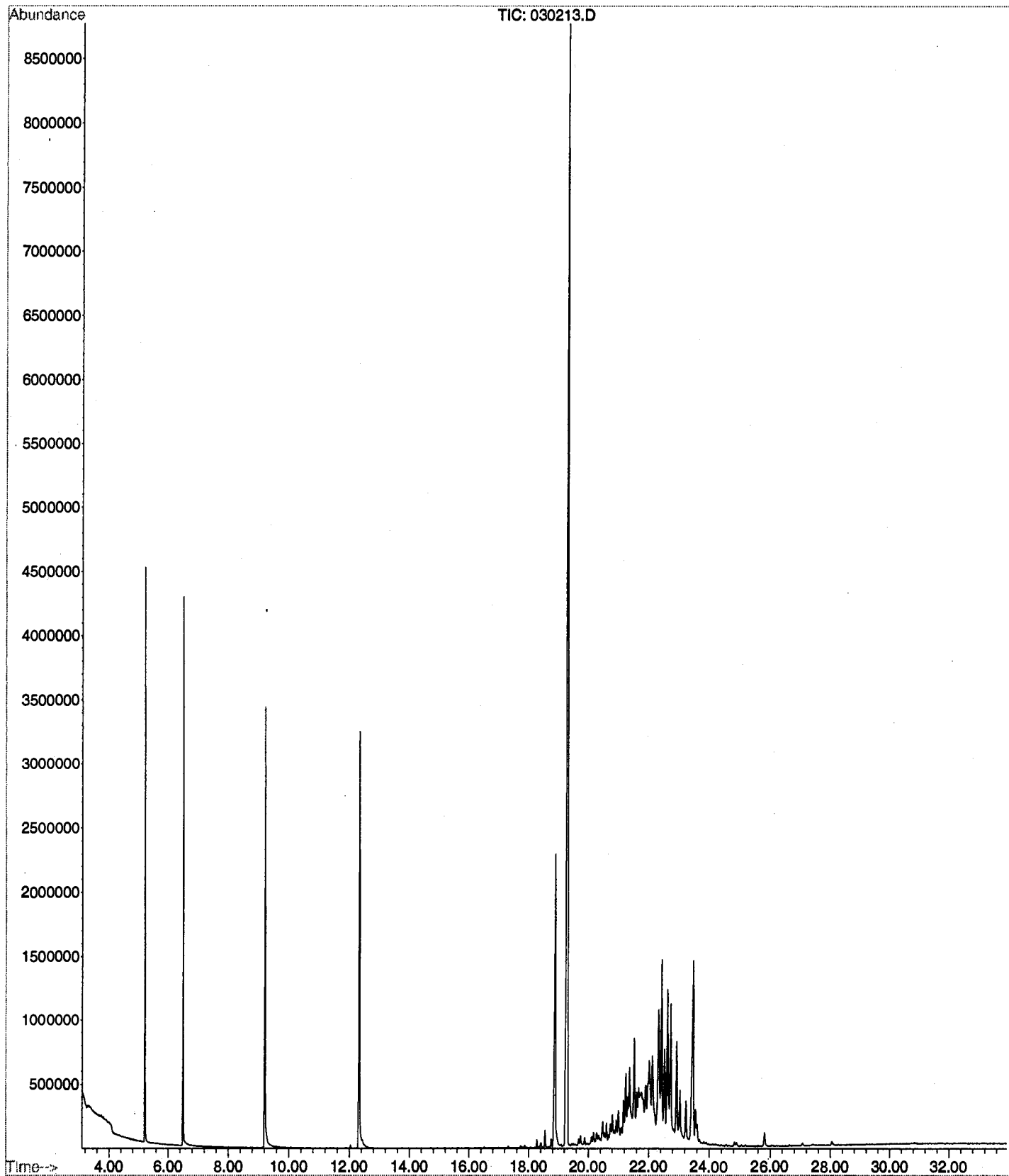
File : D:\DATA\03-02-10\030214.D  
Operator : YA  
Acquired : 2 Mar 2010 7:48 pm using AcqMethod 0222BNA  
Instrument : GCMS3  
Sample Name: 002242-02 1/100  
Misc Info : product  
Vial Number: 11



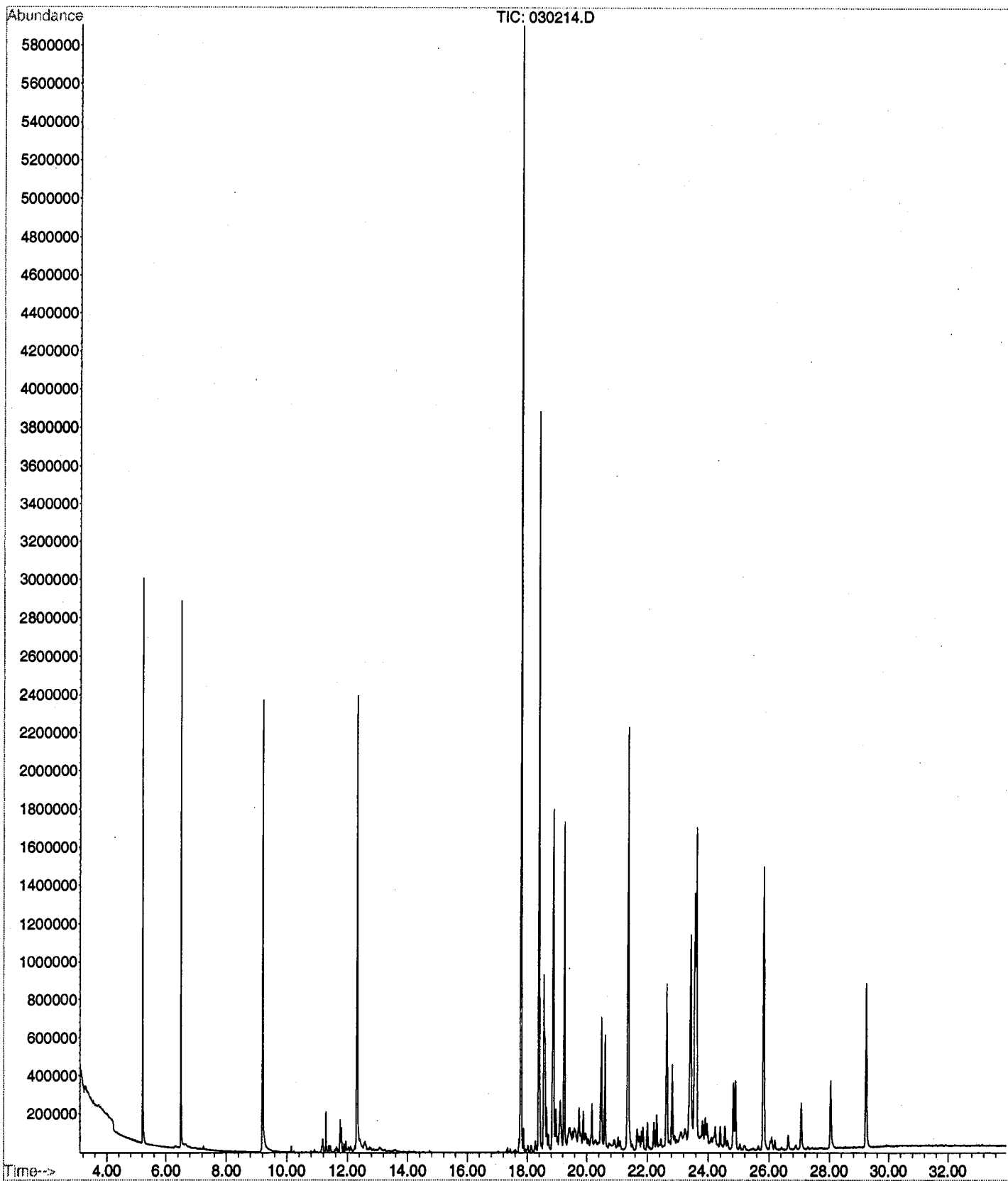
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Operator : YA  
Acquired : 2 Mar 2010 7:48 pm using AcqMethod 0222BNA  
Instrument : GCMS3  
Sample Name: 002242-02 1/100  
Misc Info : product  
Vial Number: 11



File : F:\DATA\03-02-10\030213.D  
Operator : YA  
Acquired : 2 Mar 2010 7:07 pm using AcqMethod 0222BNA  
Instrument : GCMS3  
Sample Name: 002242-01 1/100  
Misc Info : product  
Vial Number: 10



File : F:\DATA\03-02-10\030214.D  
Operator : YA  
Acquired : 2 Mar 2010 7:48 pm using AcqMethod 0222BNA  
Instrument : GCMS3  
Sample Name: 002242-02 1/100  
Misc Info : product  
Vial Number: 11



702

Phone # (845)452-1658Fax # (845)-485-7083

X Will call with instructions

[illegible]



## **APPENDIX F**

### ***Waste Disposal Documentation***

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number <b>NYD001466354</b>		2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>516-816-4795</b>		4. Manifest Tracking Number <b>006325619 JJK</b>					
		5. Generator's Name and Mailing Address <b>Dynalco Nobel-Harte, Inc. 48 Dupont Street Brooklyn, NY 11222</b>						Generator's Site Address (if different than mailing address)				
<b>GENERATOR</b>		6. Transporter 1 Company Name <b>Metro Environmental Contracting Corp.</b>						U.S. EPA ID Number <b>NYR000134967</b>				
		7. Transporter 2 Company Name						U.S. EPA ID Number				
<b>DESIGNATED FACILITY</b>		8. Designated Facility Name and Site Address <b>Norlite Corporation 828 South Saratoga Street Corvallis, NY 12047</b>						U.S. EPA ID Number <b>NYD000400936</b>				
		Facility's Phone: <b>518-235-0401</b>										
<b>TRANSPORTER</b>		9a. HM		9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) <b>1. Waste Toxic Liquids, Organic, N.O.S., 6.1, UN2810, POH, (L028) (Diis(2-Ethylhexyl)Phthalate) ERG#163</b>		10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
						No.	Type					
						<b>01</b>	<b>TT</b>	<b>2608</b>	<b>G</b>	<b>U028</b>		<b>B</b>
<b>INT'L</b>		14. Special Handling Instructions and Additional Information <b>Sub. 1) Job ID# J1124000107 75125 JKW NY</b>										
		15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.										
<b>TRANSPORTER</b>		Generator's/Officer's Printed/Typed Name <b>X</b>				Signature <b>X</b>				Month	Day	Year
<b>INT'L</b>		16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____										
		Transporter signature (for exports only): _____										
<b>TRANSPORTER</b>		17. Transporter Acknowledgment of Receipt of Materials										
		Transporter 1 Printed/Typed Name <b>Matthew S. Cape Paul</b>				Signature <b>Matthew S. Cape Paul</b>				Month	Day	Year
<b>TRANSPORTER</b>		Transporter 2 Printed/Typed Name				Signature				Month	Day	Year
<b>DESIGNATED FACILITY</b>		18. Discrepancy										
		18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection										
<b>DESIGNATED FACILITY</b>		Manifest Reference Number: _____										
		18b. Alternate Facility (or Generator) U.S. EPA ID Number										
<b>DESIGNATED FACILITY</b>		Facility's Phone: _____										
		18c. Signature of Alternate Facility (or Generator) Month Day Year										
<b>DESIGNATED FACILITY</b>		19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)										
		1.	2.	3.	4.							
<b>DESIGNATED FACILITY</b>		20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a										
		Printed/Typed Name				Signature				Month	Day	Year
<b>DESIGNATED FACILITY</b>												



<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number NYD001480251		2. Page 1 of 1		3. Emergency Response Phone 516-876-7940		4. Manifest Tracking Number <b>003404287 JJK</b>			
		5. Generator's Name and Mailing Address 48 Dupont Realty Corp P.O. Box 700 Oyster Park, NY 11720 Generator's Phone: 845-452-1858		Generator's Site Address (if different than mailing address) 48 Dupont St Brooklyn, NY 11220							
6. Transporter 1 Company Name Miller Environmental Group, Inc.		U.S. EPA ID Number NYT000000005									
7. Transporter 2 Company Name		U.S. EPA ID Number									
8. Designated Facility Name and Site Address 638 South Saratoga Street Corvallis, NY 12047 USA 518-234-0401-731 Facility's Phone:		U.S. EPA ID Number NYD000400935									
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) 1. Waste from Laundry, Organic, N.O.S., B.T. UN2810, PGII (UO20) (Risk 2-Exothermic/Flammable) ERG162				10. Containers No. Type 1 17		11. Total Quantity 13750	12. Unit WL/Vol. G	13. Waste Codes 1020	
	2.										
	3.										
	4.										
14. Special Handling Instructions and Additional Information NYD-1030 Work Order #1228100002-101  Truck #1407 TANKER 1066 H AC 82429											
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.											
Generator's/Offeror's Printed/Typed Name						Signature			Month Day Year 01 03 11		
TRANSPORTER INTL	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Transporter signature (for exports only): _____ Date leaving U.S.: _____										
	17. Transporter Acknowledgment of Receipt of Materials										
	Transporter 1 Printed/Typed Name FELIPE SANTOS						Signature Felipe Santos			Month Day Year 01 03 11	
DESIGNATED FACILITY	Transporter 2 Printed/Typed Name						Signature			Month Day Year	
	18. Discrepancy										
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection Manifest Reference Number: _____										
	18b. Alternate Facility (or Generator) U.S. EPA ID Number										
	Facility's Phone: _____										
18c. Signature of Alternate Facility (or Generator) Month Day Year											
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)											
1.		2.		3.		4.					
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a											
Printed/Typed Name						Signature			Month Day Year		

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number 003404236 JJK	
5. Generator's Name and Mailing Address 49 Dupont Plaza Corp PO Box 725 Queens, NY 11728 Generator's Phone: 516-234-1535		Generator's Site Address (if different than mailing address) 49 Dupont St Brooklyn, NY 11222				
6. Transporter 1 Company Name MWR Environmental Group, Inc.		U.S. EPA ID Number				
7. Transporter 2 Company Name		U.S. EPA ID Number				
8. Designated Facility Name and Site Address Nucle Corporation 625 South Carolina Street Gardens, NY 12047 USA Facility's Phone: 516-234-0401-291		U.S. EPA ID Number			11/000402935	
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. Waste Toxic Liquids, Organic, N.O.S., E.I. UN2810, POMUC205(Bis(2-Ethoxyethyl)phosphate) EPA2162	1	TT	1100	0	U025
	2.					
	3.					
	4.					
14. Special Handling Instructions and Additional Information M01-0404 Approval/Work Order# JC22110032-101						
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.						
Generator's/Offor's Printed/Typed Name		Signature			Month	Day Year
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit:			Date leaving U.S.:	
Transporter signature (for exports only):						
17. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name		Signature			Month	Day Year
Transporter 2 Printed/Typed Name		Signature			Month	Day Year
18. Discrepancy						
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
Manifest Reference Number:						
18b. Alternate Facility (or Generator) U.S. EPA ID Number						
Facility's Phone:						
18c. Signature of Alternate Facility (or Generator)					Month	Day Year
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)						
1.	2.	3.	4.			
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a						
Printed/Typed Name		Signature			Month	Day Year

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number <i>NYD00450354</i>		2. Page 1 of 1		3. Emergency Response Phone <i>212-775-7347</i>		4. Manifest Tracking Number <b>003404189 JJK</b>				
		5. Generator's Name and Mailing Address <i>48 Dupont Freely Corp PO Box 775 Brooklyn, NY 11228</i>						Generator's Site Address (if different than mailing address) <i>48 Dupont St Brooklyn, NY 11228</i>				
6. Transporter 1 Company Name <i>EMER Environmental Group, Inc.</i>								U.S. EPA ID Number <i>NYD00450355</i>				
7. Transporter 2 Company Name								U.S. EPA ID Number				
8. Designated Facility Name and Site Address <i>North Corporation 638 South Garolaga Street Cohoes, NY 12047 USA</i>								U.S. EPA ID Number <i>NYD00450356</i>				
Facility's Phone: <i>518-234-0401-231</i>												
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))				10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
						No.	Type					
	1.	<i>waste Toxic Liquids, Organic, N.O.S., 6.1, UN2810, PG2, UN2810, PG2, 2-Ethylhexylphosphate) EPC152</i>				1	TT	<i>251</i>	G	<i>U028</i>		
	2.											
	3.											
	4.											
14. Special Handling Instructions and Additional Information <i>UN14707 Approval Work order# JC202110130-101</i>												
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.												
Generator's/Offor's Printed/Typed Name <i>R. J. Moore</i>						Signature <i>R. J. Moore</i>		Month Day Year <i>10 5 11</i>				
INT'L	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Transporter signature (for exports only): _____ Date leaving U.S.: _____											
	17. Transporter Acknowledgment of Receipt of Materials											
TRANSPORTER	Transporter 1 Printed/Typed Name <i>Joel Coe</i>						Signature <i>Joel Coe</i>		Month Day Year <i>10 5 11</i>			
	Transporter 2 Printed/Typed Name						Signature		Month Day Year			
DESIGNATED FACILITY	18. Discrepancy											
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection											
	Manifest Reference Number: _____											
	18b. Alternate Facility (or Generator)						U.S. EPA ID Number					
	Facility's Phone: _____											
	18c. Signature of Alternate Facility (or Generator)						Signature		Month Day Year			
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)												
1.		2.		3.		4.						
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a												
Printed/Typed Name						Signature		Month Day Year				

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number	
					003404174 JJK	
5. Generator's Name and Mailing Address		Generator's Site Address (if different than mailing address)				
48 Dupont Realty Corp PO Box 785 Dover, PA 17229 Generator's Phone: 717-326-1555		48 Dupont St Brooklyn, NY 11222				
6. Transporter 1 Company Name		U.S. EPA ID Number				
Waste Environmental Group, Inc		NY000000000				
7. Transporter 2 Company Name		U.S. EPA ID Number				
8. Designated Facility Name and Site Address		U.S. EPA ID Number				
North Corporation 625 South Seneca Street Corning, NY 13827 USA Facility's Phone: 613-234-0401-231		NY000000000				
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
		No.	Type			
1.	Waste Toxic Liquids, Organic, N.O.S., 6.1, UN2810, PGII, 100kg/250L Ethylbenzene/Phenol, 6.1, UN2810	1	TT	579	0	U025
2.						
3.						
4.						
14. Special Handling Instructions and Additional Information						
481-1012 Approved Work Order# J120110063-101						
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.						
Generator's/Offoror's Printed/Typed Name		Signature		Month Day Year		
Waste Environmental Group, Inc		[Signature]		12 13 11		
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:						
17. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name		Signature		Month Day Year		
Waste Environmental Group, Inc		[Signature]		12 13 11		
Transporter 2 Printed/Typed Name		Signature		Month Day Year		
18. Discrepancy						
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
Manifest Reference Number:						
18b. Alternate Facility (or Generator)		U.S. EPA ID Number				
Facility's Phone:						
18c. Signature of Alternate Facility (or Generator)		Signature			Month Day Year	
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)						
1.		2.		3.		4.
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a						
Printed/Typed Name		Signature		Month Day Year		

630906

1472943

<b>NON-HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number NY0935306025	2. Page 1 of 2	3. Emergency Response Phone 915-875-7540	4. Waste Tracking Number <b>MW 0005069</b>
5. Generator's Name and Mailing Address 48 Dupont Realty Corp PO Box 755 Queer Park, NY 11729		Generator's Site Address (if different than mailing address) 48 Dupont St Brooklyn, NY 11228			
Generator's Phone: 645-452-1555		6. Transporter 1 Company Name Molar Environmental Group INC		U.S. EPA ID Number NY0935306025	
7. Transporter 2 Company Name <del>Chemical Pollution Control Corp of NY</del> Republic Env Sys (Trans Group) LLC		U.S. EPA ID Number PA0982661381		U.S. EPA ID Number NY0935306025	
8. Designated Facility Name and Site Address PSC - Northland Environmental, LLC 275 Aliens Avenue Providence, RI 02905 USA		U.S. EPA ID Number RI0040026362			
Facility's Phone: 401-781-5340					
9. Waste Shipping Name and Description		10. Containers		11. Total Quantity	12. Unit Wt./Vol.
		No.	Type		
1. NON RECYCLED Regulated Solid (oil cuttings), none, none		5	Oil	2000	2
2.					
3.					
4.					
13. Special Handling Instructions and Additional Information Drums delivered to 48 Dupont Drive, Bay Shore New York 11705 M42-0313 536108-00 Plate # 87694 JU					
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.					
Generator's/Offor's Printed/Typed Name Adam Curran		Signature <i>Adam Curran</i>		Month 4	Day 19
15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit: Date leaving U.S.:		Year 2012	
16. Transporter Acknowledgment of Receipt of Materials					
Transporter 1 Printed/Typed Name Tom Barrow		Signature <i>Tom Barrow</i>		Month 4	Day 19
Transporter 2 Printed/Typed Name Fred Miranda		Signature <i>Fred Miranda</i>		Year 2012	
17. Discrepancy					
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection		Manifest Reference Number: U.S. EPA ID Number			
17b. Alternate Facility (or Generator) Facility's Phone:					
17c. Signature of Alternate Facility (or Generator)		Month Day Year			
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a Printed/Typed Name Signature Month Day Year					

Form Approved. OMB No. 2050-0039

# GENERATOR



Form Approved. OMB No. 2050-0047

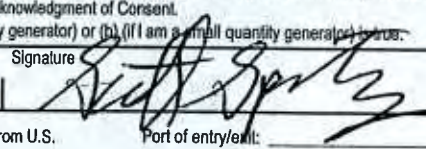
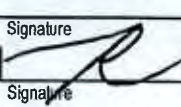
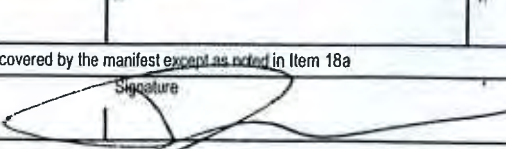
UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number	
		NY000148354	1	516-878-7000	003404073 JJK	
5. Generator's Name and Mailing Address		Generator's Site Address (if different than mailing address)				
49 DuPont Realty Corp. PO Box 785 Dover Park, NY 11720		49 DuPont St Brooklyn, NY 11222				
Generator's Phone: 516-432-1552						
6. Transporter 1 Company Name		U.S. EPA ID Number				
Waste Environmental Group INC		NY1200000000				
7. Transporter 2 Company Name		U.S. EPA ID Number				
8. Designated Facility Name and Site Address		U.S. EPA ID Number				
Nestle Corporation 620 South Seneca Street Cobleskill, NY 12042		NY13050452215				
Facility's Phone: 515-254-0401						
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
		No.	Type			
1	Waste Toxic Liquids, Organic N.O.S., 6.1, UN 2810, PG I (UN2810) (Dioxin, Polychlorinated Biphenyls) ERG162	1	TT	650	0	UG08
2						
3						
4						
14. Special Handling Instructions and Additional Information						
1412-0853 10711120004-101						
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.						
Generator's/Offor's Printed/Typed Name		Signature			Month	Day Year
Mam Comm...		[Signature]			8	5/3
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:						
Transporter signature (for exports only):						
17. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name		Signature			Month	Day Year
Joei Crisp		[Signature]			8	5/3
Transporter 2 Printed/Typed Name		Signature			Month	Day Year
18. Discrepancy						
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
18b. Alternate Facility (or Generator) Manifest Reference Number: U.S. EPA ID Number						
Facility's Phone:						
18c. Signature of Alternate Facility (or Generator)					Month	Day Year
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)						
1.	2.	3.	4.			
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a						
Printed/Typed Name		Signature			Month	Day Year

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number <b>NYDOR455254</b>		2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>518-875-7940</b>	4. Manifest Tracking Number <b>000346568 JJK</b>	
5. Generator's Name and Mailing Address <b>49 DuPont Realty Corp PO Box 728 Deerpark, NY 11709</b>				Generator's Site Address (if different than mailing address) <b>49 DuPont W Brooklyn, NY 11222</b>			
Generator's Phone: <b>518-452-1155</b>							
6. Transporter 1 Company Name <b>Miller Environmental Group INC</b>				U.S. EPA ID Number <b>NYDOR455254</b>			
7. Transporter 2 Company Name				U.S. EPA ID Number			
8. Designated Facility Name and Site Address <b>Monite, LLC 628 South Saratoga Street Cohoes, NY 12047</b>				U.S. EPA ID Number <b>NYDOR455254</b>			
Facility's Phone: <b>518-254-0401</b>							
<b>GENERATOR</b>	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))		10. Containers		11. Total Quantity	12. Unit Wt./Vol.
				No.	Type		
	1.	Waste Toxic Liquids, Organic, N.O.S., 6.1, UN 2810, PG I, UO25, (P12-Ethylene Glycol) EPC152			TL	1345	0
	2.						
	3.						
	4.						
14. Special Handling Instructions and Additional Information <b>Truck #552 - Plate 12498 PL</b>							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offeror's Printed/Typed Name				Signature		Month Day Year	
						1 16 13	
<b>TRANSPORTER INT'L</b>	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____						
	Transporter signature (for exports only): _____ Date leaving U.S.: _____						
	17. Transporter Acknowledgment of Receipt of Materials						
	Transporter 1 Printed/Typed Name				Signature		Month Day Year
						1 16 13	
Transporter 2 Printed/Typed Name				Signature		Month Day Year	
<b>DESIGNATED FACILITY</b>	18. Discrepancy						
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
	Manifest Reference Number: _____						
	18b. Alternate Facility (or Generator)				U.S. EPA ID Number		
	Facility's Phone: _____						
18c. Signature of Alternate Facility (or Generator)						Month Day Year	
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1.		2.		3.		4.	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name				Signature		Month Day Year	
						1 16 13	



<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number <b>NYD001468354</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>516-876-7940</b>	4. Manifest Tracking Number <b>000346674 JJK</b>		
5. Generator's Name and Mailing Address <b>49 Dupont Realty Corp PO Box 785 Deer Park, NY 11729</b>			Generator's Site Address (if different than mailing address) <b>49 Dupont St Brooklyn, NY 11222</b>				
Generator's Phone: <b>645-452-1655</b>							
6. Transporter 1 Company Name <b>Miller Environmental Group INC</b>			U.S. EPA ID Number <b>NYD986908085</b>				
7. Transporter 2 Company Name			U.S. EPA ID Number				
8. Designated Facility Name and Site Address <b>Norlite, LLC 628 South Saratoga Street Cohoes, NY 12047</b>			U.S. EPA ID Number				
Facility's Phone: <b>516-234-1401</b>							
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	
			No.	Type			
	1.	<b>Waste Toxic Liquids, Organic, N.O.S., 6.1, UN 2810, PG II (UO28) (Bis(2-Ethylhexyl)Phthalate) ERG162</b>	1	TT	1002	G	
	2.						
	3.						
13. Waste Codes <b>UO28</b>							
14. Special Handling Instructions and Additional Information  <b>M13-0779 J0816130069-101</b> <b>Truck #501 Plate # 12569 PC</b> <b>Rec'D 993gals/8000lbs</b> <b>sp. 0.966 g/ml</b>							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offoror's Printed/Typed Name <b>Scott Spitzer</b>			Signature 		Month Day Year <b>8 22 13</b>		
TRANSPORTER INTL	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____						
	17. Transporter Acknowledgment of Receipt of Materials						
	Transporter 1 Printed/Typed Name <b>Tommy Capella</b>			Signature 		Month Day Year <b>8 22 13</b>	
DESIGNATED FACILITY	Transporter 2 Printed/Typed Name			Signature		Month Day Year	
	18. Discrepancy						
	18e. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
	18b. Alternate Facility (or Generator)			Manifest Reference Number: _____ U.S. EPA ID Number			
	Facility's Phone: _____						
18c. Signature of Alternate Facility (or Generator)						Month Day Year	
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1. <b>H050</b> 2. 3. 4.							
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name <b>David Mendel</b>			Signature 		Month Day Year <b>08 22 13</b>		

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY



## **APPENDIX G**

### ***CAMP Results***



## **APPENDIX H**

### ***Product Identification Reports***

# Test 001

Instrument		Data Properties	
Model	DustTrak DRX	Start Date	09/22/2014
Instrument S/N	8533123101	Start Time	10:07:55
		Stop Date	09/22/2014
		Stop Time	15:07:55
		Total Time	0:05:00:00
		Logging Interval	900 seconds

Test Data							
Data Point	Date	Time	PM1 mg/m <sup>3</sup>	PM2.5 mg/m <sup>3</sup>	RESP mg/m <sup>3</sup>	PM10 mg/m <sup>3</sup>	TOTAL mg/m <sup>3</sup>
1	09/22/2014	10:22:55	0.003	0.004	0.004	0.005	0.005
2	09/22/2014	10:37:55	0.004	0.005	0.005	0.006	0.006
3	09/22/2014	10:52:55	0.025	0.027	0.028	0.031	0.031
4	09/22/2014	11:07:55	0.011	0.012	0.012	0.013	0.013
5	09/22/2014	11:22:55	0.037	0.039	0.041	0.045	0.046
6	09/22/2014	11:37:55	0.016	0.016	0.017	0.018	0.018
7	09/22/2014	11:52:55	0.007	0.007	0.007	0.008	0.008
8	09/22/2014	12:07:55	0.008	0.009	0.009	0.011	0.011
9	09/22/2014	12:22:55	0.040	0.041	0.042	0.044	0.045
10	09/22/2014	12:37:55	0.028	0.028	0.029	0.030	0.030
11	09/22/2014	12:52:55	0.068	0.070	0.071	0.073	0.073
12	09/22/2014	13:07:55	0.013	0.013	0.014	0.015	0.015
13	09/22/2014	13:22:55	0.000	0.000	0.000	0.000	0.000
14	09/22/2014	13:37:55	0.000	0.000	0.000	0.001	0.001
15	09/22/2014	13:52:55	0.000	0.001	0.001	0.001	0.002
16	09/22/2014	14:07:55	0.000	0.001	0.001	0.002	0.002
17	09/22/2014	14:22:55	0.023	0.024	0.025	0.027	0.027
18	09/22/2014	14:37:55	0.007	0.007	0.008	0.010	0.010
19	09/22/2014	14:52:55	0.003	0.004	0.004	0.004	0.004
20	09/22/2014	15:07:55	0.003	0.003	0.005	0.007	0.007

# Test 002

Instrument		Data Properties	
Model	DustTrak DRX	Start Date	09/23/2014
Instrument S/N	8533123101	Start Time	08:43:42
		Stop Date	09/23/2014
		Stop Time	10:13:42
		Total Time	0:01:30:00
		Logging Interval	900 seconds

Test Data							
Data Point	Date	Time	PM1 mg/m <sup>3</sup>	PM2.5 mg/m <sup>3</sup>	RESP mg/m <sup>3</sup>	PM10 mg/m <sup>3</sup>	TOTAL mg/m <sup>3</sup>
1	09/23/2014	08:58:42	0.030	0.031	0.031	0.033	0.033
2	09/23/2014	09:13:42	0.018	0.018	0.019	0.019	0.019
3	09/23/2014	09:28:42	0.015	0.016	0.016	0.017	0.017
4	09/23/2014	09:43:42	0.057	0.065	0.074	0.085	0.086
5	09/23/2014	09:58:42	0.022	0.022	0.023	0.024	0.024
6	09/23/2014	10:13:42	0.030	0.031	0.032	0.033	0.033



# Test 003

Instrument		Data Properties	
Model	DustTrak DRX	Start Date	09/23/2014
Instrument S/N	8533123101	Start Time	11:31:47
		Stop Date	09/23/2014
		Stop Time	12:31:47
		Total Time	0:01:00:00
		Logging Interval	900 seconds

Test Data							
Data Point	Date	Time	PM1 mg/m <sup>3</sup>	PM2.5 mg/m <sup>3</sup>	RESP mg/m <sup>3</sup>	PM10 mg/m <sup>3</sup>	TOTAL mg/m <sup>3</sup>
1	09/23/2014	11:46:47	0.015	0.016	0.016	0.017	0.017
2	09/23/2014	12:01:47	0.065	0.067	0.069	0.072	0.073
3	09/23/2014	12:16:47	0.038	0.039	0.040	0.041	0.041
4	09/23/2014	12:31:47	0.039	0.039	0.040	0.040	0.041

# Test 004

Instrument		Data Properties	
Model	DustTrak DRX	Start Date	09/23/2014
Instrument S/N	8533123101	Start Time	13:03:17
		Stop Date	09/23/2014
		Stop Time	14:18:17
		Total Time	0:01:15:00
		Logging Interval	900 seconds

Test Data							
Data Point	Date	Time	PM1 mg/m <sup>3</sup>	PM2.5 mg/m <sup>3</sup>	RESP mg/m <sup>3</sup>	PM10 mg/m <sup>3</sup>	TOTAL mg/m <sup>3</sup>
1	09/23/2014	13:18:17	0.520	0.609	0.701	0.834	0.843
2	09/23/2014	13:33:17	0.078	0.080	0.083	0.087	0.087
3	09/23/2014	13:48:17	0.058	0.060	0.061	0.063	0.064
4	09/23/2014	14:03:17	0.055	0.056	0.057	0.059	0.059
5	09/23/2014	14:18:17	0.039	0.041	0.042	0.045	0.045



# Test 005

Instrument		Data Properties	
Model	DustTrak II	Start Date	12/10/2014
Instrument S/N	8530121421	Start Time	09:59:01
		Stop Date	12/10/2014
		Stop Time	12:44:01
		Total Time	0:02:45:00
		Logging Interval	900 seconds

Test Data			
Data Point	Date	Time	AEROSOL mg/m <sup>3</sup>
1	12/10/2014	10:14:01	0.029
2	12/10/2014	10:29:01	0.009
3	12/10/2014	10:44:01	0.037
4	12/10/2014	10:59:01	0.006
5	12/10/2014	11:14:01	0.006
6	12/10/2014	11:29:01	0.004
7	12/10/2014	11:44:01	0.006
8	12/10/2014	11:59:01	0.006
9	12/10/2014	12:14:01	0.010
10	12/10/2014	12:29:01	0.007
11	12/10/2014	12:44:01	0.009

# Test 005

Instrument		Data Properties	
Model	DustTrak II	Start Date	12/10/2014
Instrument S/N	8530143310	Start Time	09:51:16
		Stop Date	12/10/2014
		Stop Time	12:51:16
		Total Time	0:03:00:00
		Logging Interval	900 seconds

Test Data			
Data Point	Date	Time	AEROSOL mg/m <sup>3</sup>
1	12/10/2014	10:06:16	0.011
2	12/10/2014	10:21:16	0.006
3	12/10/2014	10:36:16	0.016
4	12/10/2014	10:51:16	0.013
5	12/10/2014	11:06:16	0.005
6	12/10/2014	11:21:16	0.006
7	12/10/2014	11:36:16	0.008
8	12/10/2014	11:51:16	0.008
9	12/10/2014	12:06:16	0.008
10	12/10/2014	12:21:16	0.015
11	12/10/2014	12:36:16	0.010
12	12/10/2014	12:51:16	0.012

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Charlene Morrow, M.S.  
Yelena Aravkina, M.S.  
Bradley T. Benson, B.S.  
Kurt Johnson, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
TEL: (206) 285-8282  
FAX: (206) 283-5044  
e-mail: fbi@isomedia.com

March 31, 2010

Emery Lawson, Project Manager  
Ecosystems Strategies, Inc.  
24 Davis Avenue  
Poughkeepsie, NY 12603

Dear Ms. Lawson:

Included are the results from the testing of material submitted on February 25, 2010 from the 49 Dupont Street/SB09110, F&BI 002242 project. The product samples submitted for forensic evaluation arrived in good condition. Upon arrival, the samples RW-12 and MW-4 were placed in a refrigerator maintained at 4°C until removed for sample processing.

The samples RW-12 and MW-4 were diluted and analyzed for semivolatile organic compounds with library search using a gas chromatograph fitted with a mass spectrometer (GC/MS). The results of this testing are enclosed.

Review of the GC/MS results generated shows that the majority of material present in the samples RW-12 and MW-4 is consistent with carboxylic acid esters. Phthalates are in the class of compounds known as carboxylic acid esters.

In addition, review of the GC/MS results generated shows that the sample RW-12 also contains material which appears to be a high boiling petroleum based oil. Selective ion monitoring was performed on this sample to determine if this oil is paraffinic or naphthenic in nature. Review of the data generated shows that this sample contains a prominent pattern of material with a M/Z ratio of 43, 57, 71, and 85. These ions are consistent with paraffinic material.

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ENVIRONMENTAL CHEMISTS

Emery Lawson  
March 31, 2010  
Page 2

Please contact us if additional consultation is needed by our firm in the interpretation of the analytical results provided. We appreciate this opportunity to be of service to you and hope you will call if you should have any questions. We will hold your samples for 30 days before disposal unless directed otherwise.

Sincerely,

FRIEDMAN & BRUYA, INC.

A handwritten signature in black ink, reading "Bradley T. Benson". The signature is written in a cursive style with a large, stylized 'B' and 'T'.

Bradley T. Benson  
Chemist

Enclosures  
mcp/BTB  
NAA0331R.DOC

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### GC/MS Library Search Compound Report By EPA Method 8270D

Client Sample ID: RW-12	Client: Ecosystems Strategies, Inc.
Date Received: 02/25/10	Project: 49 Dupont Street, F&BI 002242
Date Extracted: 03/02/10	Lab ID: 002242-01 1/100
Date Analyzed: 03/02/10	Data File: 030213.D
Matrix: Product	Instrument: GCMS3
Units: mg/kg (ppm)	Operator: YA

Tentative ID	CAS #	Qual.	Conc.
1,2-Benzenedicarboxylic acid, decyl hexyl ester	025724-58-7	64	26,000
1,2-Benzenedicarboxylic acid, isodecyl octyl ester	001330-96-7	64	25,000
1,2-Benzenedicarboxylic acid, diisononyl ester	028553-12-0	64	24,000
1,2-Benzenedicarboxylic acid, bis(4-methylpentyl) ester	000146-50-9	64	20,000
Bis(2-ethylhexyl) phthalate	000117-81-7	53	15,000
1,2-Benzenedicarboxylic acid, butyl 8-methylnonyl ester	000089-18-9	64	14,000
Cyclopropanenonanoic acid, 2-[(2-butylcyclopropyl)methyl]-, methyl ester	010152-69-9	95	12,000
1,2-Benzenedicarboxylic acid, diisononyl ester	028553-12-0	72	11,000
1,2-Benzenedicarboxylic acid, isodecyl octyl ester	001330-96-7	59	7,900
1,2-Benzenedicarboxylic acid, bis(1-methylheptyl) ester	000131-15-7	59	6,300
1,2-Benzenedicarboxylic acid, isodecyl octyl ester	001330-96-7	72	5,700
1,2-Benzenedicarboxylic acid, isodecyl octyl ester	001330-96-7	64	5,000
1,2-Benzenedicarboxylic acid, diisooctyl ester	027554-26-3	50	4,700
1,2-Benzenedicarboxylic acid, bis(8-methylnonyl) ester	000089-16-7	59	4,300

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

GC/MS Library Search Compound Report By EPA Method 8270D

Client Sample ID:	MW-4	Client:	Ecosystems Strategies, Inc.
Date Received:	02/25/10	Project:	49 Dupont Street, F&BI 002242
Date Extracted:	03/02/10	Lab ID:	002242-02 1/100
Date Analyzed:	03/02/10	Data File:	030214.D
Matrix:	Product	Instrument:	GCMS3
Units:	mg/kg (ppm)	Operator:	YA

Tentative ID	CAS #	Qual.	Conc.
Hexanedioic acid, mono(2-ethylhexyl) ester	004337-65-9	64	96,000
Phosphoric acid, tris(2-ethylhexyl) ester	000078-42-2	72	63,000
1,2-Benzenedicarboxylic acid, bis(1-methylheptyl) ester	000131-15-7	80	43,000
Cyclopropanenonanoic acid, 2-[(2-butylcyclopropyl)methyl]-, methyl ester	010152-69-9	59	40,000
1,2-Benzenedicarboxylic acid, diheptyl ester	003648-21-3	78	37,000
1,2-Benzenedicarboxylic acid, bis(4-methylpentyl) ester	000146-50-9	50	26,000
1,2-Benzenedicarboxylic acid, isodecyl octyl ester	001330-96-7	72	25,000
1,2-Benzenedicarboxylic acid, diheptyl ester	003648-21-3	86	15,000
1,2-Benzenedicarboxylic acid, isodecyl octyl ester	001330-96-7	78	11,000
1,2-Benzenedicarboxylic acid, butyl octyl ester	000084-78-6	64	10,000
1,2-Benzenedicarboxylic acid, bis(4-methylpentyl) ester	000146-50-9	64	9,900
1,2-Benzenedicarboxylic acid, decyl octyl ester	000119-07-3	72	9,300
1,2-Benzenedicarboxylic acid, bis(1-methylheptyl) ester	000131-15-7	72	9,200
1,2-Benzenedicarboxylic acid, isodecyl octyl ester	001330-96-7	72	6,800
1,2-Benzenedicarboxylic acid, diheptyl ester	003648-21-3	78	4,400

FRIEDMAN & BRUYA, INC.

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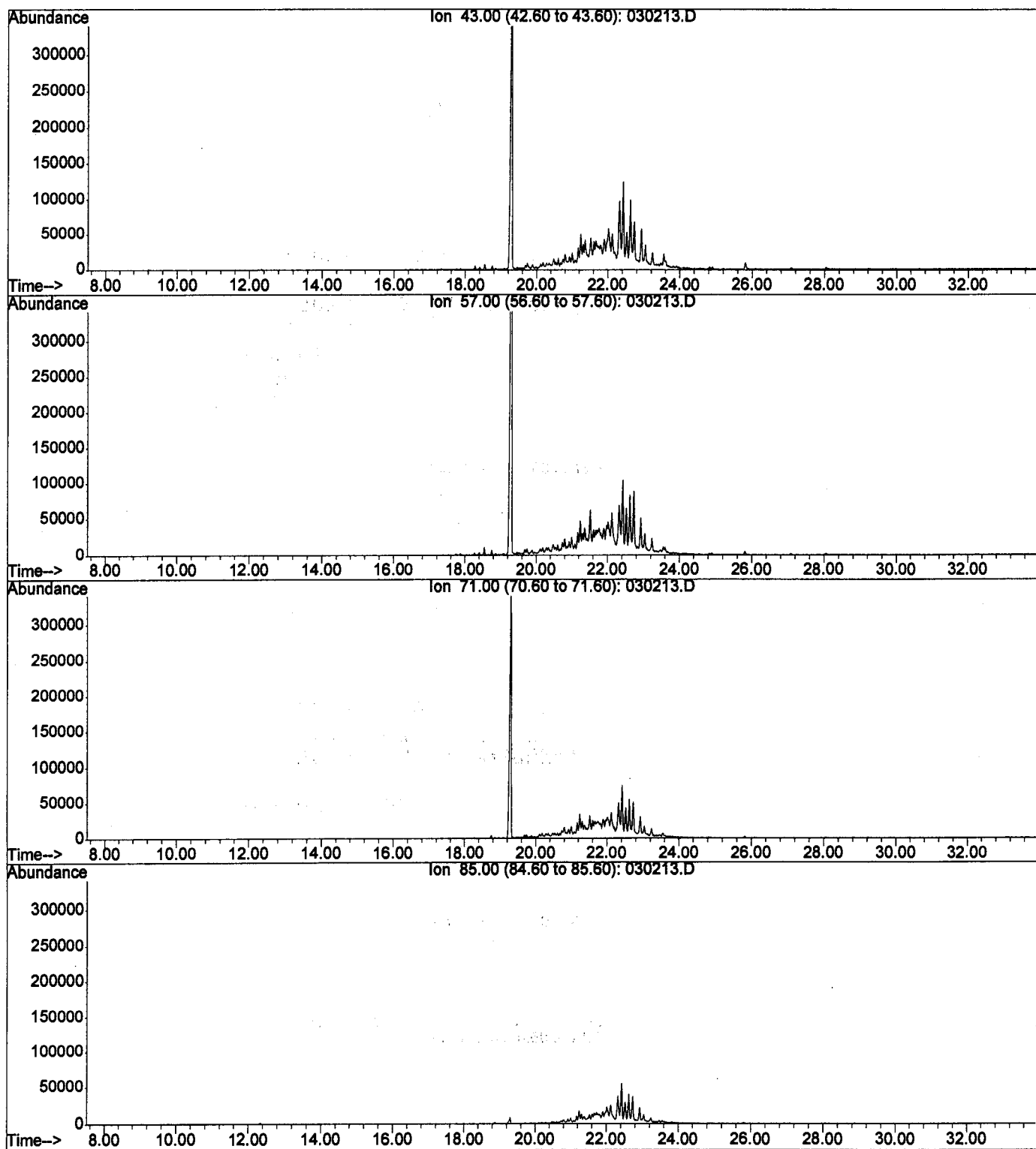
ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	Method Blank	Client:	Ecosystems Strategies, Inc.
Date Received:	Not Applicable	Project:	49 Dupont Street, F&BI 002242
Date Extracted:	03/02/10	Lab ID:	00293mb
Date Analyzed:	03/02/10	Data File:	030210.D
Matrix:	Product	Instrument:	GCMS3
Units:	mg/kg (ppm)	Operator:	YA

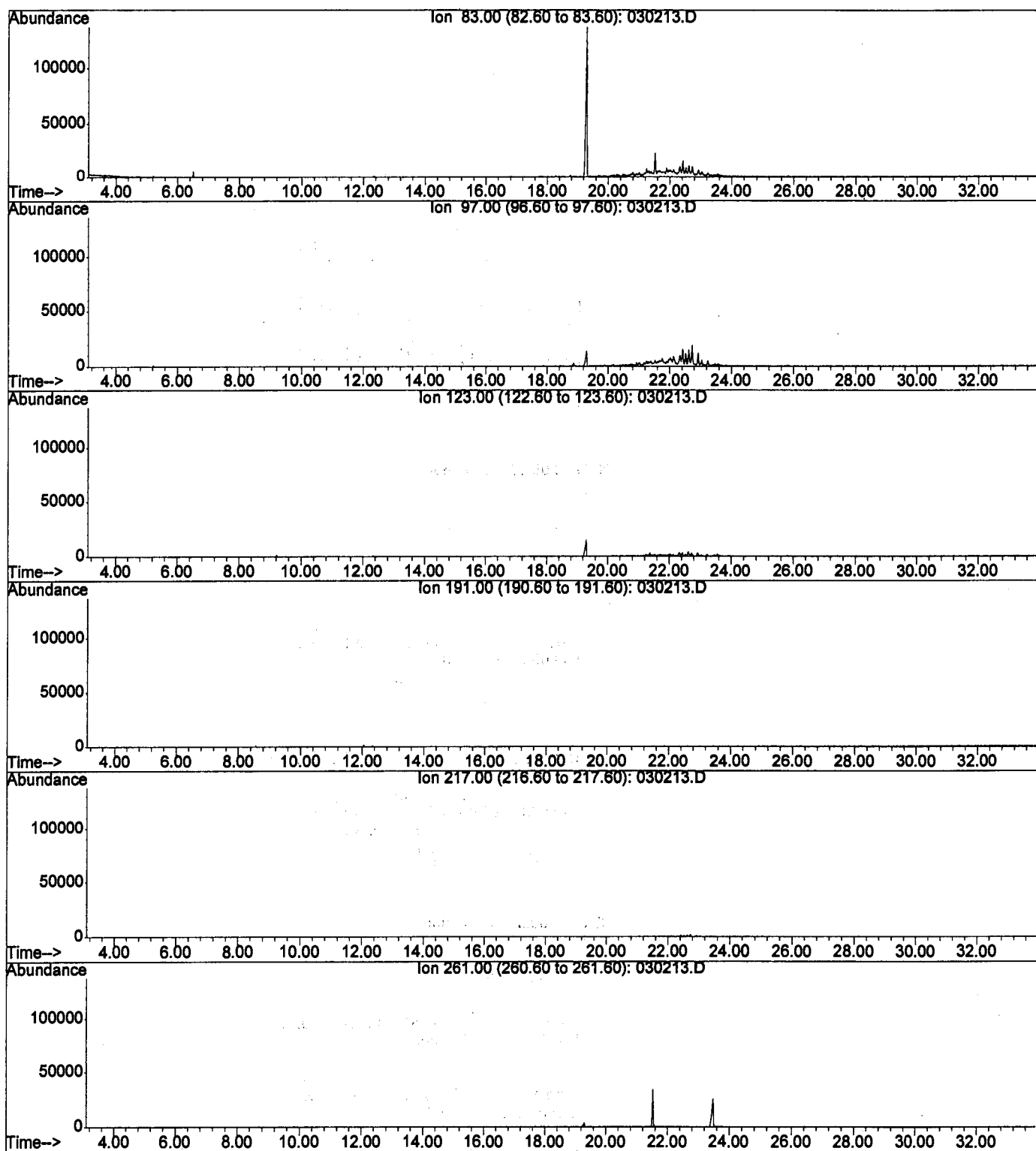
Note: There were no library search compounds detected.

File : D:\DATA\03-02-10\030213.D  
Operator : YA  
Acquired : 2 Mar 2010 7:07 pm using AcqMethod 0222BNA  
Instrument : GCMS3  
Sample Name: 002242-01 1/100  
Misc Info : product  
Vial Number: 10

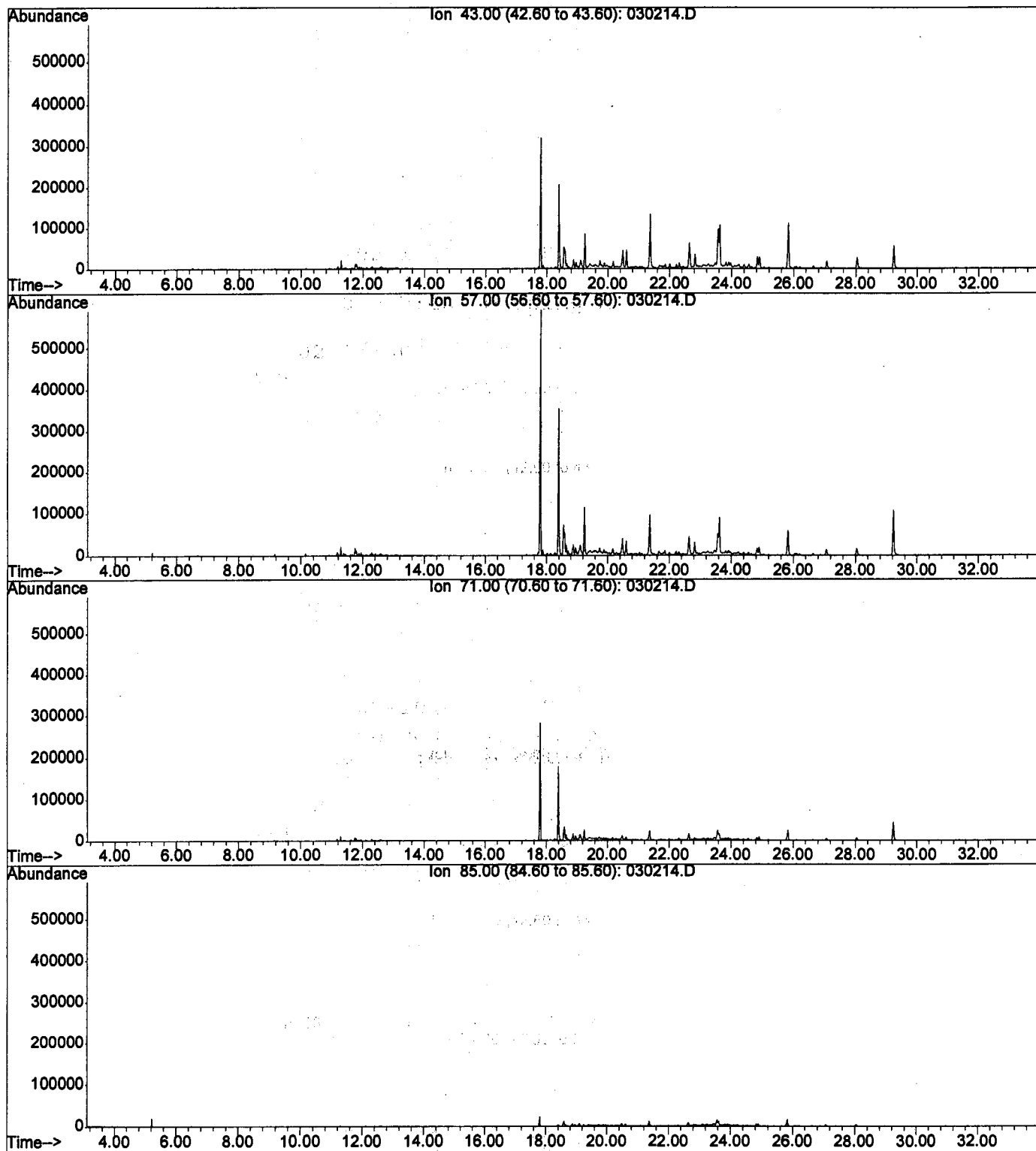




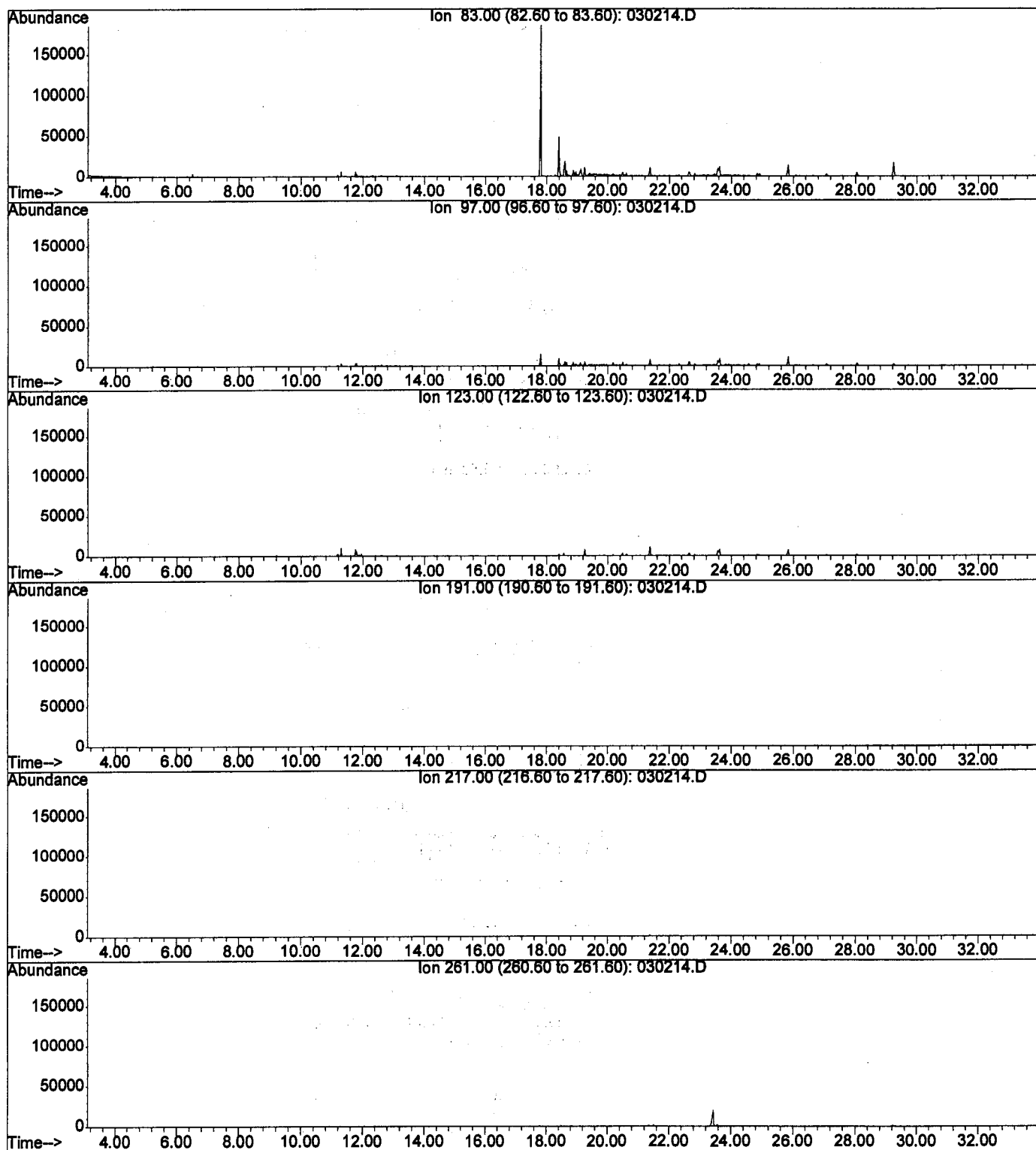
File : D:\DATA\03-02-10\030213.D  
Operator : YA  
Acquired : 2 Mar 2010 7:07 pm using AcqMethod 0222BNA  
Instrument : GCMS3  
Sample Name: 002242-01 1/100  
Misc Info : product  
Vial Number: 10



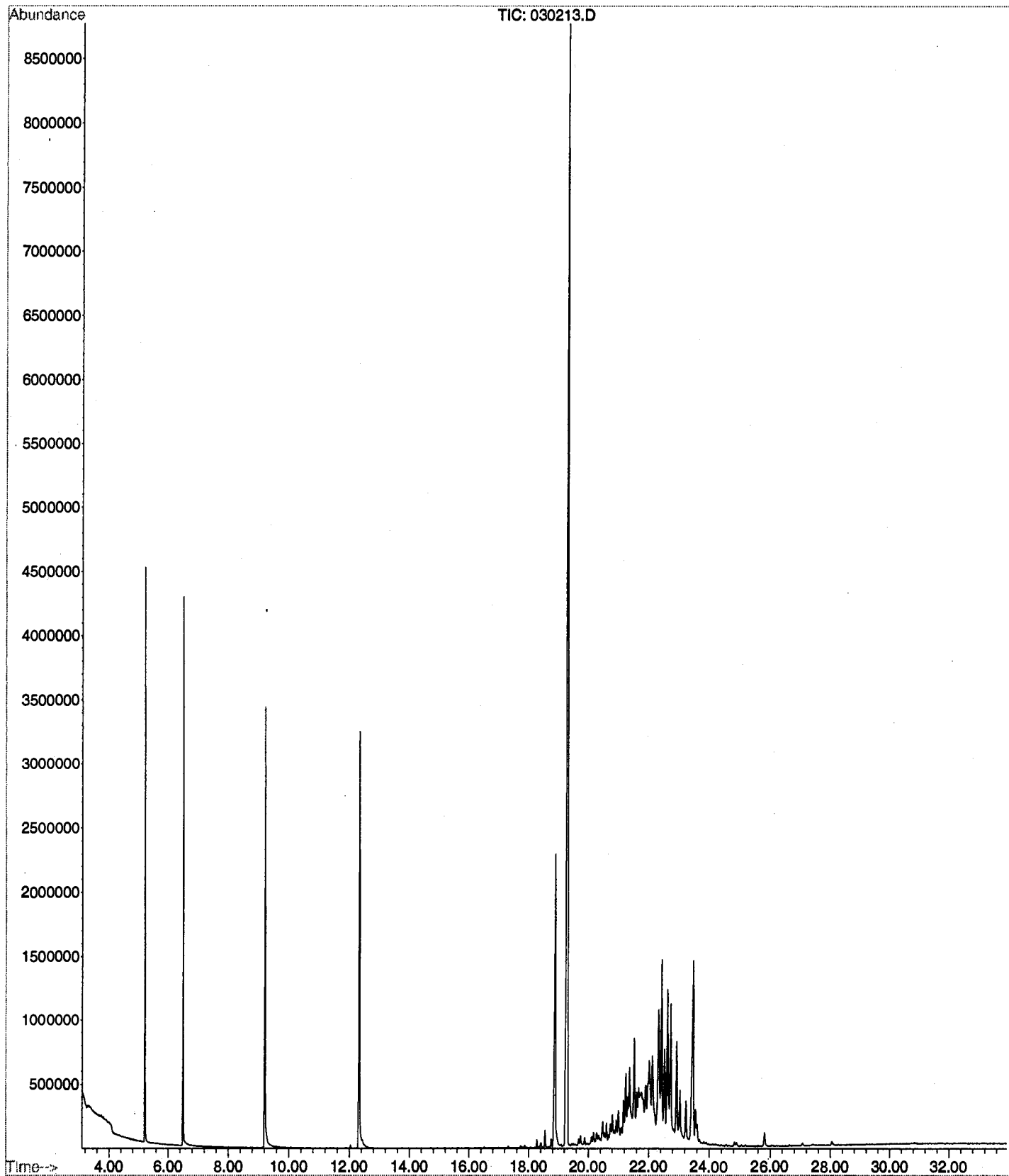
File : D:\DATA\03-02-10\030214.D  
Operator : YA  
Acquired : 2 Mar 2010 7:48 pm using AcqMethod 0222BNA  
Instrument : GCMS3  
Sample Name: 002242-02 1/100  
Misc Info : product  
Vial Number: 11



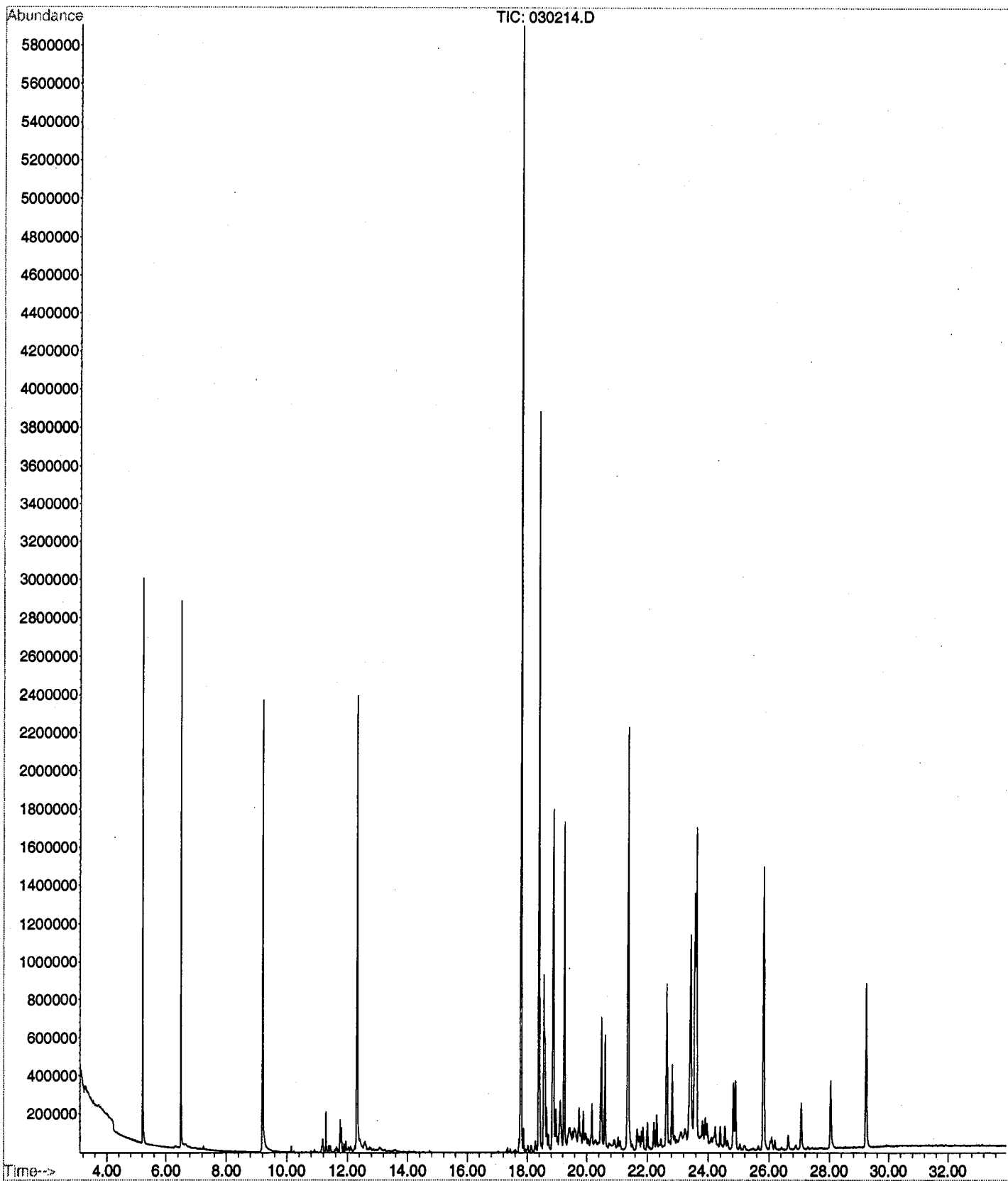
File : D:\DATA\03-02-10\030214.D  
Operator : YA  
Acquired : 2 Mar 2010 7:48 pm using AcqMethod 0222BNA  
Instrument : GCMS3  
Sample Name: 002242-02 1/100  
Misc Info : product  
Vial Number: 11



File : F:\DATA\03-02-10\030213.D  
Operator : YA  
Acquired : 2 Mar 2010 7:07 pm using AcqMethod 0222BNA  
Instrument : GCMS3  
Sample Name: 002242-01 1/100  
Misc Info : product  
Vial Number: 10



File : F:\DATA\03-02-10\030214.D  
Operator : YA  
Acquired : 2 Mar 2010 7:48 pm using AcqMethod 0222BNA  
Instrument : GCMS3  
Sample Name: 002242-02 1/100  
Misc Info : product  
Vial Number: 11



702

Phone # (845)452-1658 Fax # (845)-485-7083

**X Will call with instructions**

[illegible]

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Charlene Morrow, M.S.  
Yelena Aravkina, M.S.  
Bradley T. Benson, B.S.  
Kurt Johnson, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
TEL: (206) 285-8282  
FAX: (206) 283-5044  
e-mail: fbi@isomedia.com

April 22, 2010

Emery Lawson, Project Manager  
Ecosystems Strategies, Inc.  
24 Davis Avenue  
Poughkeepsie, NY 12603

Dear Ms. Lawson:

Included are the results from the additional testing of material submitted on February 25, 2010 from the 49 Dupont Street/SB09110, F&BI 002242 project. There are 3 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Bradley T. Benson  
Chemist

Enclosures  
es/BTB  
NAA0422R.DOC

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID: RW-12	Client: Ecosystems Strategies, Inc.
Date Received: 02/25/10	Project: 49 Dupont Street/SB09110
Date Extracted: 03/02/10	Lab ID: 002242-01 1/100
Date Analyzed: 03/02/10 19: 07	Data File: 030213.D
Matrix: Product	Instrument: GCMS3
Units: mg/kg (ppm)	Operator: YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	0 vo	27	76
Phenol-d6	0 vo	13	58
Nitrobenzene-d5	0 vo	55	115
2-Fluorobiphenyl	0 vo	51	113
2,4,6-Tribromophenol	0 vo	28	107
Terphenyl-d14	0 vo	45	119

Compounds:	Concentration mg/kg (ppm)
Dimethyl phthalate	<1,000
Di-n-butyl phthalate	<1,000
Benzyl butyl phthalate	<1,000
Bis(2-ethylhexyl) phthalate	160,000 ve
Di-n-octyl phthalate	7,800

Note: The surrogate compounds have not been added to the sample.



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	MW-4	Client:	Ecosystems Strategies, Inc.
Date Received:	02/25/10	Project:	49 Dupont Street/SB09110
Date Extracted:	03/02/10	Lab ID:	002242-02 1/100
Date Analyzed:	03/02/10 19: 48	Data File:	030214.D
Matrix:	Product	Instrument:	GCMS3
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	0 vo	27	76
Phenol-d6	0 vo	13	58
Nitrobenzene-d5	0 vo	55	115
2-Fluorobiphenyl	0 vo	51	113
2,4,6-Tribromophenol	0 vo	28	107
Terphenyl-d14	0 vo	45	119

Compounds:	Concentration mg/kg (ppm)
Dimethyl phthalate	<1,000
Di-n-butyl phthalate	<1,000
Benzyl butyl phthalate	<1,000
Bis(2-ethylhexyl) phthalate	48,000
Di-n-octyl phthalate	65,000

Note: The surrogate compounds have not been added to the sample.

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	Method Blank	Client:	Ecosystems Strategies, Inc.
Date Received:	Not Applicable	Project:	49 Dupont Street/SB09110
Date Extracted:	03/02/10	Lab ID:	00293mb
Date Analyzed:	03/02/10	Data File:	030210.D
Matrix:	Product	Instrument:	GCMS3
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	0 vo	27	76
Phenol-d6	0 vo	13	58
Nitrobenzene-d5	0 vo	55	115
2-Fluorobiphenyl	0 vo	51	113
2,4,6-Tribromophenol	0 vo	28	107
Terphenyl-d14	0 vo	45	119

Compounds:	Concentration mg/kg (ppm)
Dimethyl phthalate	<10
Di-n-butyl phthalate	<10
Benzyl butyl phthalate	<10
Bis(2-ethylhexyl) phthalate	<100
Di-n-octyl phthalate	<10

Note: The surrogate compounds have not been added to the sample.

202

Phone # (845) 452-1658 Fax # (845)-485-7083

X Will call with instructions

[illegible]

FORMS\COC\COC.DOC

## FRIEDMAN &amp; BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Bradley T. Benson, B.S.  
Kurt Johnson, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
TEL: (206) 285-8282  
e-mail: fbi@isomedia.com

May 10, 2012

Kim Punchar  
Ecosystems Strategies, Inc.  
24 Davis Ave.  
Poughkeepsie, NY 12603

Dear Ms. Punchar:

Included are the results from the testing of material submitted on April 30, 2012 from the 49-55 Dupont Street SB09110.50, F&BI 204418 project. The product sample submitted for forensic evaluation arrived in good condition. Upon arrival, the sample MW-20 was placed in a refrigerator maintained at 4°C until removed for sample processing.

The sample MW-20 was diluted and analyzed using a gas chromatograph with a flame ionization detector (GC/FID). The data generated yielded information on the boiling range and general chemical composition of the material present. The GC/FID traces are enclosed. A GC/FID trace of a standard consisting of normal alkanes is also provided for reference purposes. In addition, the sample MW-20 was analyzed using a GC fitted with a mass spectrometer (MS).

Based on the GC/FID trace, the sample MW-20 contains a single peak which is consistent with an individual compound and is not consistent with common petroleum products. Review of the GC/MS screen shows that the product present in the sample MW-20 contains primarily bis (2-ethylhexyl) phthalate.

Please contact us if additional consultation is needed by our firm in the interpretation of the analytical results provided. We appreciate this opportunity to be of service to you and hope you will call if you should have any questions. We will hold your samples for 30 days before disposal unless directed otherwise.

Sincerely,

FRIEDMAN & BRUYA, INC.



Bradley T. Benson, Chemist

Enclosures  
mcp/BTB  
NAA0510R.DOC

Date of Report: 05/10/12

Date Received: 04/30/12

Project: 49-55 Dupont Street SB09110.50, F&BI 204418

Date Extracted: 05/04/12

Date Analyzed: 05/04/12

**RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE  
FOR FORENSIC EVALUATION  
BY CAPILLARY GAS CHROMATOGRAPHY  
USING A FLAME IONIZATION DETECTOR (FID)**

Sample ID

GC Characterization

MW-20

The GC trace using the flame ionization detector (FID) showed the presence of medium boiling compound. The material present in this sample is consistent with an individual compound and is consistent with common petroleum products.

The medium boiling compounds appear as a single peak eluting near *n*-C<sub>25</sub>. This correlates with a temperature of approximately 400°C.

The large peak seen near 25 minutes on the GC/FID trace is pentacosane, added as a quality assurance check for this GC analysis.

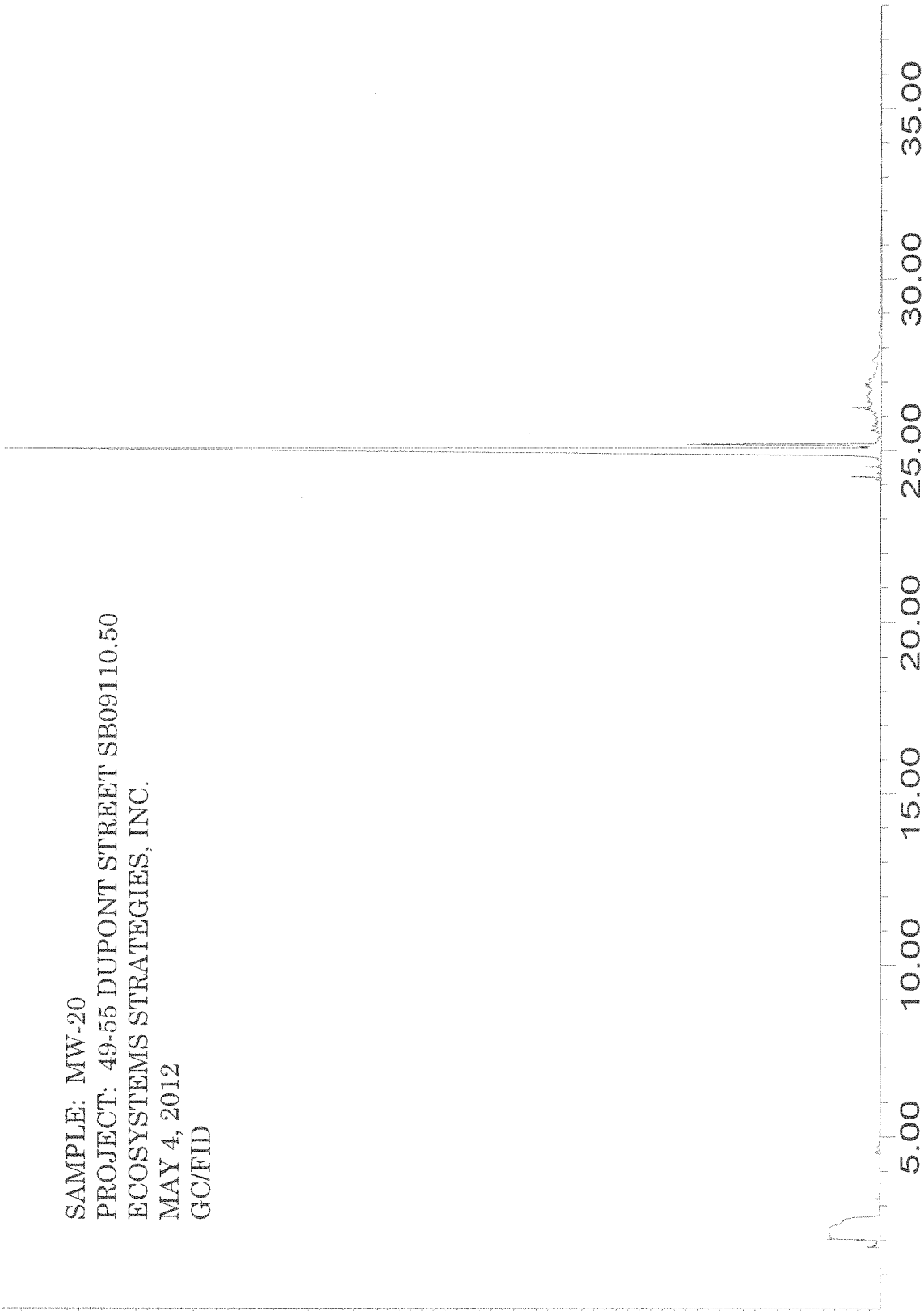
Response\_

050405.D\FID1A

SAMPLE: MW-20  
PROJECT: 49-55 DUPONT STREET SB09110.50  
ECOSYSTEMS STRATEGIES, INC.  
MAY 4, 2012  
GC/FID

3e+07  
2.8e+07  
2.6e+07  
2.4e+07  
2.2e+07  
2e+07  
1.8e+07  
1.6e+07  
1.4e+07  
1.2e+07  
1e+07  
8000000  
6000000  
4000000  
2000000

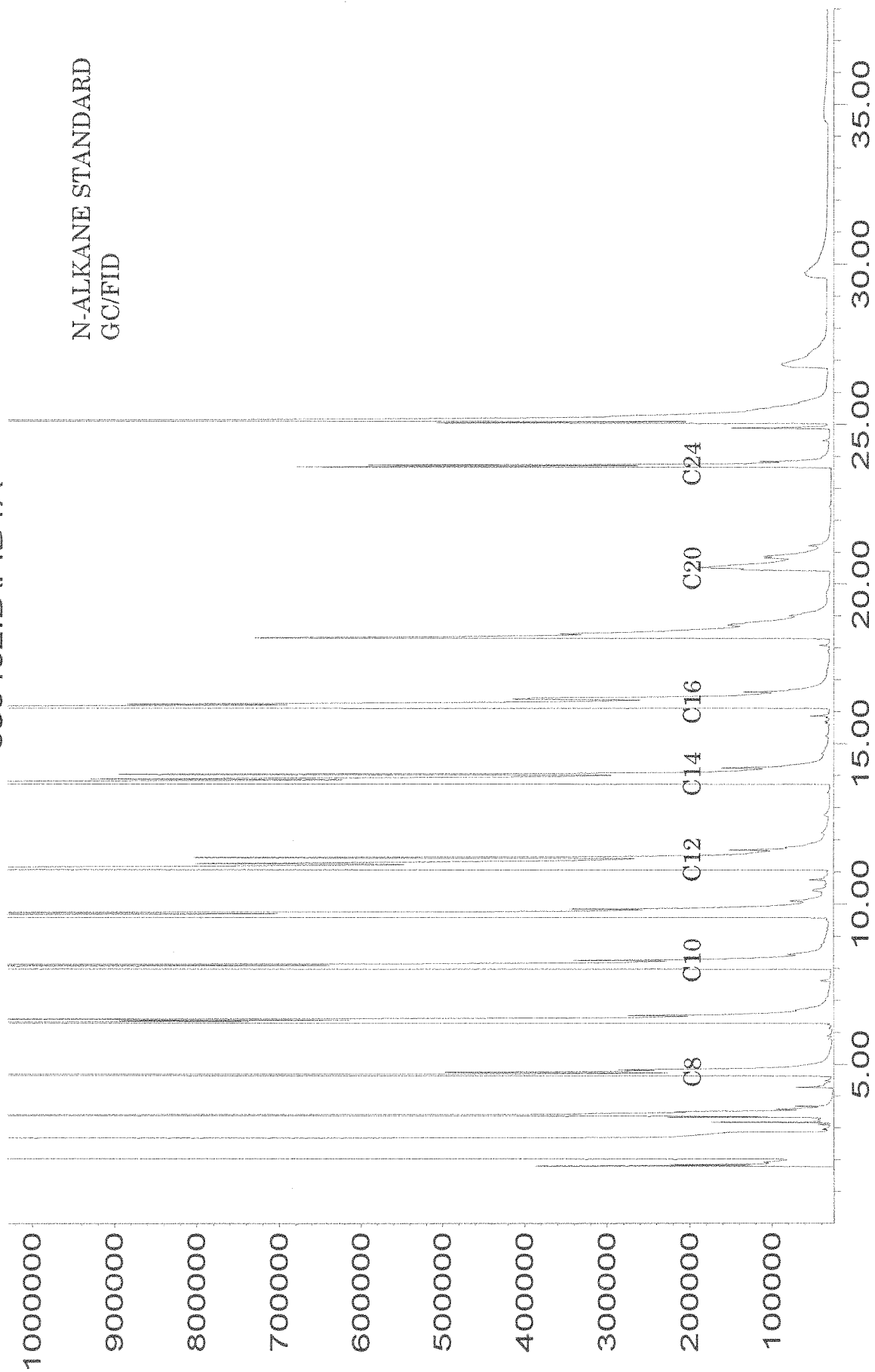
Time



Response\_

050402.D\FID1A

N-ALKANE STANDARD  
GC/FID



Time

Response\_

050404.D\FID1A

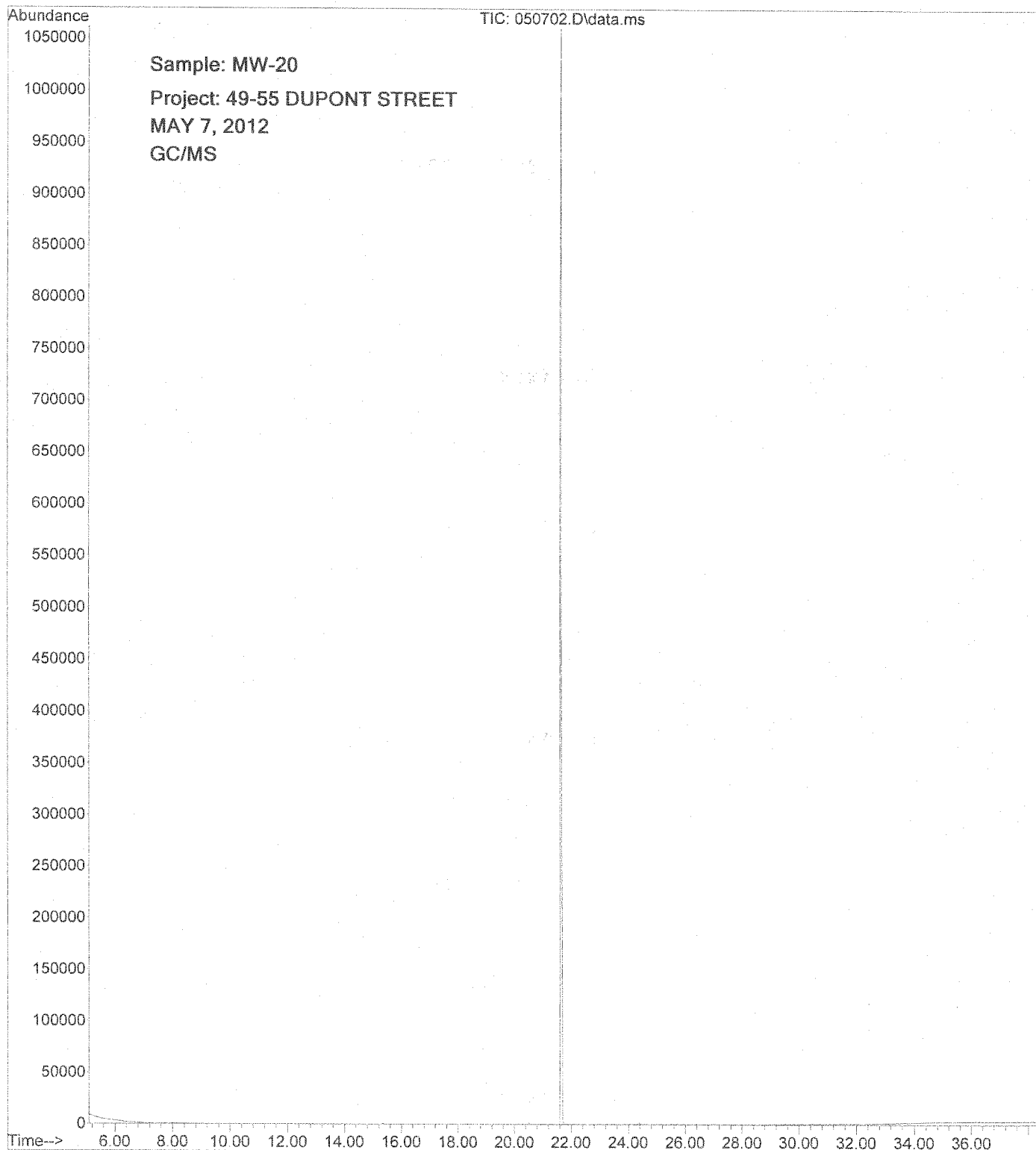
SAMPLE: METHOD BLANK  
PROJECT: 49-55 DUPONT STREET SB09110.50  
ECOSYSTEMS STRATEGIES, INC.  
MAY 4, 2012  
GC/FID



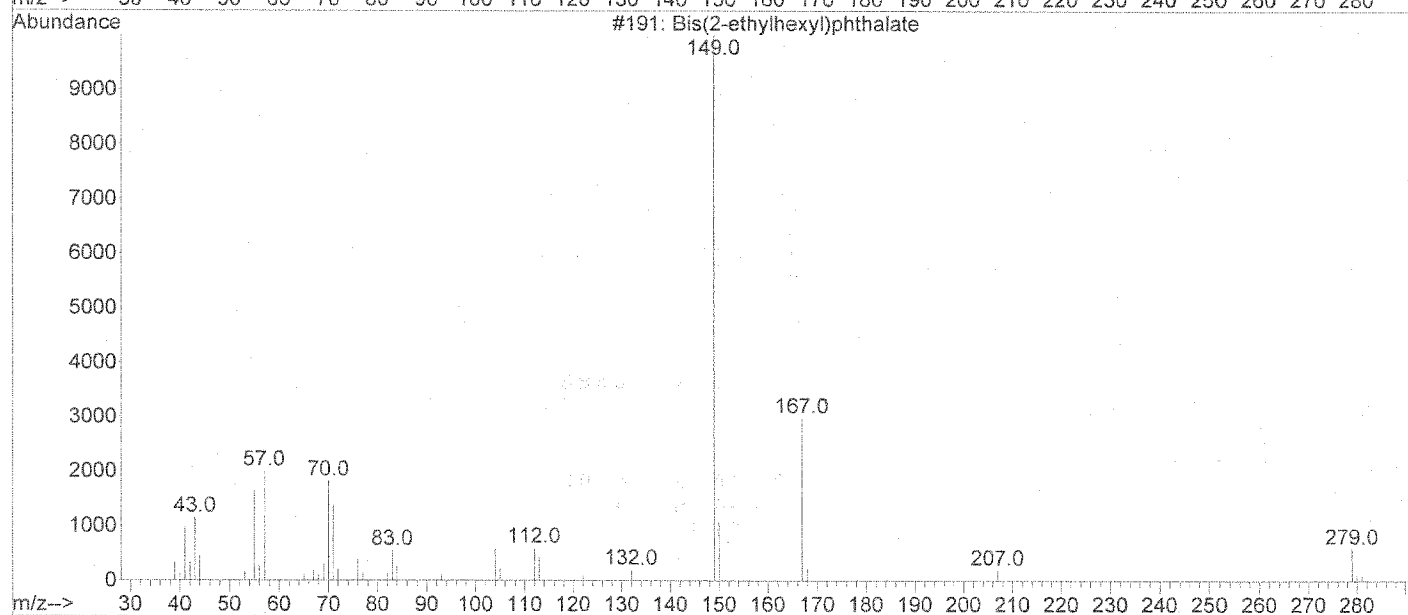
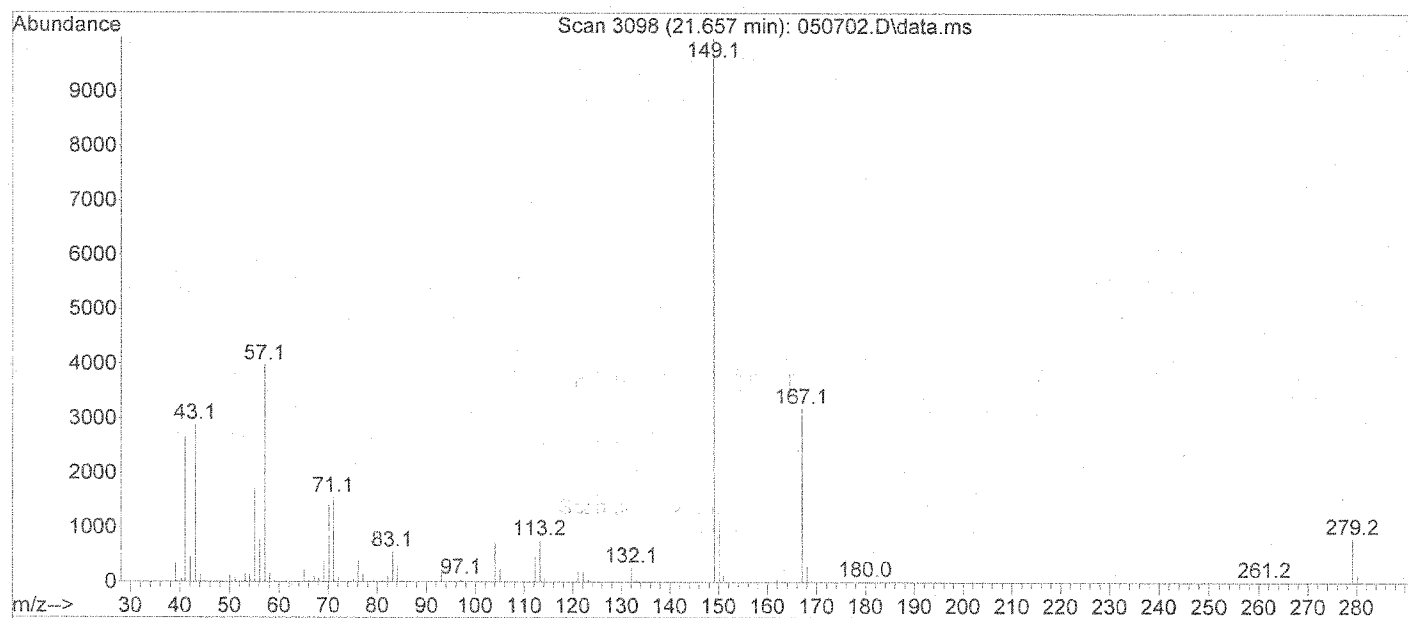
Time



File :D:\GCMS8\Data\05-07-12\050702.D  
Operator : YA  
Acquired : 7 May 2012 5:18 pm using AcqMethod BNAPSCAN.M  
Instrument : GCMS8  
Sample Name: 204418-01  
Misc Info :  
Vial Number: 2



Library Searched : C:\Database\8270\_DRS.L  
Quality : 91  
ID : Bis(2-ethylhexyl)phthalate



Name	Bis(2-ethylhexyl)phthalate
CAS Number	000117-81-7
Entry Number	191
Molecular Formula	C <sub>24</sub> H <sub>38</sub> O <sub>4</sub>
Misc Information	
Match Quality	91
Company ID	8270.msp
Retention Index	726.42
Melting Point	
Boiling Point	
Molecular Weight	390.00

**SAMPLE CHAIN OF CUSTODY**

402

MD 04/30/12

Send Report To

**SAMPLERS (signature)**

M. Party

Company EcoSystems Strategies, Inc.

Address 24 Davis Ave.

City, State, ZIP Poughkeepsie, NY 12603

Phone # 845-452-1658 Fax # 845-485-7083

PROJECT NAME/NO.

419-55 Dupont Street

5809110.50

REMARKS

## TURNAROUND TIME

Standard (2 Weeks)

**RUSH**

**Rush charges authorized by:**

## SAMPLE DISPOSAL

Dispose after 30 days

## Return samples

~~X Will call with instructions~~

[illegible]

**Friedman & Bruya, Inc.**  
3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS\COC\COC.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:				
Received by: <i>[Signature]</i>	Nhan Phan	FeBI	4/20/12	1310
Relinquished by:				
Received by:				

# Technical Report

prepared for:

**Ecosystems Strategies, Inc.**  
24 Davis Avenue  
Poughkeepsie NY, 12603  
**Attention: Emery Lawson**

Report Date: 03/23/2010  
**Client Project ID: SB09110**  
York Project (SDG) No.: 10B0508  
Revision No. 1.0

Report Date: 03/23/2010  
Client Project ID: SB09110  
York Project (SDG) No.: 10B0508

**Ecosystems Strategies, Inc.**  
24 Davis Avenue  
Poughkeepsie NY, 12603  
Attention: Emery Lawson

## 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 17, 2010 and listed below. The project was identified as your project: **SB09110**.

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>
10B0508-06	RW-7	Oil	02/16/2010	02/17/2010

## General Notes for York Project (SDG) No.: 10B0508

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.

Approved By:



Robert Q. Bradley  
Managing Director

Date: 03/23/2010

**YORK**

### Sample Information

**Client Sample ID:**    **RW-7**

**York Sample ID:**        **10B0508-06**

York Project (SDG) No.  
10B0508

Client Project ID  
SB09110

Matrix  
Oil

Collection Date/Time  
February 16, 2010    3:00 pm

Date Received  
02/17/2010

**Semi-Volatiles, Phthalate Target List**

**Sample Notes:**

Sample Prepared by Method: Waste Dilution

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
85-68-7	Benzyl butyl phthalate	ND		mg/kg	0.00695	50.0	1	EPA SW-846 8270C-SIM	03/11/2010 16:30	03/15/2010 20:44	TD
103-23-1	bis-(2-Ethylhexyl) adipate	ND		mg/kg	0.00714	50.0	1	"	03/11/2010 16:30	03/15/2010 20:44	TD
117-81-7	<b>Bis(2-ethylhexyl)phthalate</b>	<b>130</b>		mg/kg	0.00558	50.0	1	"	03/11/2010 16:30	03/15/2010 20:44	TD
84-66-2	Diethyl phthalate	ND		mg/kg	0.00875	50.0	1	"	03/11/2010 16:30	03/15/2010 20:44	TD
131-11-3	Dimethyl phthalate	ND		mg/kg	0.00480	50.0	1	"	03/11/2010 16:30	03/15/2010 20:44	TD
84-74-2	<b>Di-n-butyl phthalate</b>	<b>30.0</b>	J	mg/kg	0.00498	50.0	1	"	03/11/2010 16:30	03/15/2010 20:44	TD
117-84-0	Di-n-octyl phthalate	ND		mg/kg	0.00750	50.0	1	"	03/11/2010 16:30	03/15/2010 20:44	TD

## 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.
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.

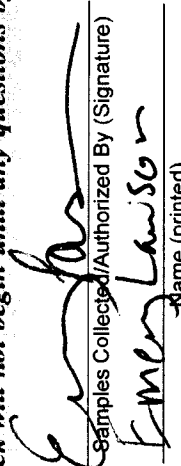


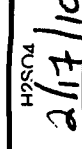



## Field Chain-of-Custody Record

Page \_\_\_\_ of \_\_\_\_

York Project No. 10 B0508

NOTE: York's Std. Terms & Conditions are listed on the back side of this document.  
This document serves as your written authorization to York to proceed with the analyses requested and your signature binds you to York's Std. Terms & Conditions unless superseded by written contract.

Client Information		Report to:		Invoice To:		Client Project ID		Turn-Around Time		Report Type/Deliverables	
Company: Ecosystems Strategies		SAME <input checked="" type="checkbox"/>		SAME <input type="checkbox"/>		SB09110		RUSH Same Day	Summary	X	
Address: 24 Davis Avenue		Name: Brenda Wells		Name: Brenda Wells				RUSH Next Day	QA/QC Summary		
Phone no.: (845)452-1658		Company: Poughkeepsie, NY 12603		Company: Ecosystems Strategies				RUSH Two Day	CT RCP Pkg		
Contact Person Emery Lawson		Address:		Address:				RUSH Three Day	ASP A Pkg		
E-mail Addr.:		E-mail:		E-mail:				RUSH Four Day	ASP B Pkg		
FAX No.: (845)-485-7083		Fax No.:		Fax No.:				Standard (5-7 days)	Excel	X	
						Samples from: CT_NY_NJ		OTHER		EDD	
<b>Print Clearly and Legibly. All Information must be complete. Samples will NOT be logged in and the turn-around time clock will not begin until any questions by York are resolved.</b>											
Samples Collected/Authorized By (Signature)  Name (printed) Emery Lawson						Matrix Codes S - soil Other - specify (oil, etc.) W/W - wastewater GW - groundwater DW - drinking water Air-A - ambient air Air-SV - soil vapor					
Sample Identification	Date Sampled	Sample Matrix	Choose Analyses Needed from the Menu Above and Enter Below								
MW-3	2/15/2010	GW	VOCs (8260 full), SVOCs (8270) 2, 40ml vials and Amber Liters								
MW-10	2/15/2010	GW	VOCs (8260 full), SVOCs (8270) 2, 40ml vials and Amber Liters								
MW-12	2/15/2010	GW	VOCs (8260 full), SVOCs (8270) 2, 40ml vials and Amber Liters								
MW-13	2/15/2010	GW	VOCs (8260 full), SVOCs (8270) 2, 40ml vials and Amber Liters								
MW-14	2/15/2010	GW	VOCs (8260 full), SVOCs (8270) 2, 40ml vials and Amber Liters								
RW-7	2/16/2010	Other - Free Product	SVOCs (Phthalates, USEPA 8270 Selected Ion Monitoring) 8 oz jar								
Comments			Preservation "X" those applicable H2SO4 HNO3 NaOH NONE FROZEN Samples Relinquished By  Date/Time 2/17/10 3:05 PM Samples Received By  Date/Time 2/17/10 1:50 PM Samples Relinquished By  Date/Time 2/17/10 1:50 PM Samples Received By  Date/Time 2/17/10 1:50 PM								
			Temperature on Receipt 3.6 °C								



Ecosystems Strategies, Inc.

---

## **APPENDIX I**

### ***Data Usability Summary Reports***

# **SUMMARY REVIEW OF DATA USABILITY SUMMARY REPORTS**

## **Former NuHart Plastic Manufacturing Site**

**280 Franklin Street  
Brooklyn, New York**

**NYSDEC Hazardous Waste Site: 224136**

**July 2015**

**ESI File: SB09110.55**

**Prepared By:**



**Ecosystems Strategies, Inc.**

24 Davis Avenue, Poughkeepsie, NY 12603

phone 845.452.1658 | fax 845.485.7083 | [ecosystemsstrategies.com](http://ecosystemsstrategies.com)



Ecosystems Strategies, Inc.

## **SUMMARY REVIEW OF DATA USABILITY SUMMARY REPORTS**

**Former NuHart Plastic  
Manufacturing Site  
280 Franklin Street  
Brooklyn, New York**

**NYSDEC Hazardous Waste Site: 224136**

**July 2015**

**ESI File: SB09110.55**

**Prepared By:**

**Ecosystems Strategies, Inc.  
24 Davis Avenue  
Poughkeepsie, New York 12603**

**Prepared For:**

**Dupont Street Developers LLC  
390 Berry Street, Suite 200  
Brooklyn, NY 11249**

I, Paul H. Ciminello, certify that I am currently a Qualified Environmental Professional as defined in 6NYCRR Part 375 and that this Summary Review of Data Usability Summary Reports was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).



Paul H. Ciminello  
President



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1.2	Site Location and Description	
2.0	SAMPLING ACTIVITIES.....	1
3.0	DATA VALIDATION SERVICES.....	2
3.1	Data Validators	
3.2	Data Qualifiers	
3.3	Review of Laboratory Data Packages	
4.0	CONCLUSIONS .....	6

### Attachments:

DUSRs Provided by Data Validators



## **1.0 INTRODUCTION**

This Summary Review of Data Usability Summary Reports (“Report”) provides data validation information for soil vapor, soil and groundwater sampling data collected during Remedial Investigation (RI) activities conducted at the Former NuHart Plastic Manufacturing Site, a NYSDEC IHWDS (No. 224136).

### **1.1 Background and Purpose**

The RI was performed to document the extent of known contamination resulting from former manufacturing and industrial uses of the property. All investigations were conducted consistent with the NYSDEC approved Remedial Investigation Work Plan (November 2011), directives from NYSDEC to conduct additional groundwater investigation, Supplemental Remedial Investigation Work Plan (July 2013), NYSDEC-approved Scope of Work for installation of monitoring wells at the adjoining Greenpoint Playground to the west (June 2014) and TCE Delineation Work Plan (September 2014), collectively referenced in this report as the “Work Plan”.

This Report describes data validation information for sampling activities conducted from February 2012 to December 2014 and documents whether there are any unreliable or unusable analytical data that would affect the findings presented in the Remedial Investigation Report (June 2015).

### **1.2 Site Location and Description**

The approximately 1-acre Site is identified on the city tax map as Block No. 2487, Lots No. 1, 10, 12, 72 and 78 (the dimensions of the Site are approximately 240 feet by 200 feet). The Site is comprised of the western portion of a vacant industrial building complex (the former NuHart Plastic Manufacturing facility) located in the Greenpoint section of Brooklyn, Kings County, New York.

Former industrial operations at the Site have impacted on-site and off-site soil and groundwater through releases of phthalates and lubricating oil from holding tanks and piping networks. Phthalates and a phthalate/oil mixture are present as widespread light non-aqueous phase liquid impacting soil and floating on the groundwater. Dissolved groundwater contamination is generally limited to phthalates and impacts from a former release of chlorinated solvents.

A NYSDEC spill event (file No. 0601852) has been reported for the NuHart property based on a release of petroleum from former underground storage tanks (USTs); the spill area, however, is located east of the Site at the northeastern portion of the building and is the subject of a separate remedial action. Data generated during the spill investigation has been incorporated into the RIR (as appropriate) to document environmental conditions outside the Site boundaries.

## **2.0 SAMPLING ACTIVITIES**

Soil vapor, soil and groundwater sampling was conducted according to protocols specified in the Work Plan, from February 2012 to December 2014. Samples were submitted to York Analytical Laboratories and Alpha Analytical (ELAP certified laboratories) using appropriate chain-of-custody procedures for laboratory analysis and generation of a standard laboratory report, a NYSDEC EDD format and a complete ASP-B laboratory data package.



Sample identification as reported in individual laboratory reports is summarized below.

Media	Laboratory Report ID	Sampling Date(s)	Sample ID(s)
<b>Soil Vapor</b>	12B0191	2/6/2012	SG-1, SG-2, SG-3, SG-4
	13H0112	7/31/2013	2SB-2, 2SB-3, 2SB-4, 2SB-6, 2SB-7, 2SB-8, 2SB-10
	13L0201	12/4/2013	2SB-16
	L1422298	9/22/2014	3SB-1, 3SB-2
<b>Soil</b>	12B0205	2/2/2012	MW-19(10-12')
	12B0207	2/01/2012 – 2/02/2012	SB-60, SB-61, SB-67, SB-69, SB-63, SB-68, SB-77A, SB-78A
	12B0504	2/10/2012 – 2/13/2012	SB-63(14'), SB-71(14'), SB-60B(6-8'), SB-60B(8-10'), SB-60B(10-12')
	12B0769	2/15/2012 – 2/16/2012	MW-17(14'), MW-18(15'), SB-74(13'), SB-72(9'), SB-72(13'), SB-73(13.5'), MW-22(10-11'), MW-22(12-14')
	12D0700	4/19/2012	SB-65(8-12'), SB-66(12-16')
	12G0884	7/25/2012	MW-23, MW-24, MW-25
	12I0856	9/24/2012	MW-26, MW-27
	13A0300	1/8/2013	MW-29
	13A0448	1/15/2013	MW-28
	13H0180	7/31/2013 – 8/01/2013	2SB-1/MW-34(10-15'), 2SB-1/MW-34(15-20'), 2SB-2(0-5'), 2SB-2(10-15'), 2SB-3(10-15'), 2SB-4(0-5'), 2SB-4(10-15'), 2SB-5(10-15'), 2SB-6(10-15'), 2SB-7(10-15'), 2SB-8(10-15'), 2SB-9/MW-35(0-5'), 2SB-9/MW-35(10-15'), 2SB-11(10-15'), MW-30(10-15'), MW-31(10-15'), MW-32(0-5'), MW-32(10-15'), 2SB-5A, 2SB-1(15-20')
	13K0968	11/25/2013	2SB-12, 2SB-13, 2SB-14, 2SB-15
	14H0096	7/30/2014	MW-36(11-12), MW-37(11-12), MW-DUP-01
	14I1048	9/22/2014-9/24/2014	3SB-3A(0-5), 3SB-3A(10-15), 3SB-3B(15-20), 3SB-4(0-5), SB-4(15-20), 3SB-4(20-25), 3SB-5(0-5), 3SB-5(10-15), 3SB-5(15-20), 3SB-6(20-25), 3SB-6(25-30), 3SB-7(0-5), 3SB-7(10-15), 3SB-8(0-5), 3SB-8(15-20), 3SB-9(0-5), 3SB-9(15-20), 3SB-9(20-25), MW-38(0-5), MW-38(10-15), MW-39(0-5), MW-39(10-11), MW-40(0-5), MW-40(15-20), 3SB-DUP
	14J0506	12/10/2014	MW-41 (8-10), MW-42 (8-10), MW-DUP-02
<b>Water</b>	12B0207	02/01/2012 – 02/02/2012	Trip Blank(02/01/2012) Trip Blank(02/02/2012) Rinse Blank
	12B0504	02/10/2012 – 02/13/2012	Trip Blank
	12B0769	02/15/2012 – 02/16/2012	Trip Blank
	12C0577	3/16/2012	MW-10, MW-13, MW-18, MW-19, MW-22, Trip Blank, Rinse Blank
	12D0913	4/25/2012	MW-22, MW-13, MW-13, TB-4/25/2012
	12I0856	9/24/2012	MW-23, MW-24, Trip Blank
	12J0086	9/28/2012	MW-27, Trip Blank
	13H0697	8/16/2013	MW-28, MW-29, MW-30, MW-31, MW-32, MW-34, MW-35, TB-1
	13K0968	11/25/2013	MW-3, MW-34
	14D0225	4/3/2014	MW-4, MW-8, MW-21, TB-020120403
	14H0096	7/30/2014	TB-20140730
	14I1048	09/22/2014-09/24/2014	TB-20140922, TB-20140923, TB-20140924
	14J0546	10/08/2014-10/09/2014	MW-7, MW-8, MW-12, MW-13, MW-14, MW-14A, MW-18, MW-22, MW-34, MW-38, MW-39, MW-40, TB-20141008, TB-20141009
	14J0506	12/10/2014	TB-20141210
	14L0993	12/23/2014	MW-36, MW-26A, MW-37, MW-41, MW-42, TB20141223



### 3.0 DATA VALIDATION SERVICES

#### 3.1 Data Validators

Complete ASP-B laboratory data packages for groundwater samples were provided to the following independent, third-party data validators:

Michael Fifield, EnviroAnalytics  
2638 Sunset Avenue, Utica, NY 13502  
Phone: (315) 507-4511

Tony Zoccolillo, ZDataReports  
Data Management and Validation Service  
118 Rose Lane Terrace  
Syracuse, New York 13219  
Phone: (716) 907-2341

Copies of the Data Usability Summary Reports (DUSRs) provided by the data validators are provided as an attachment.

#### 3.2 Data Qualifiers

The data validators reviewed the sampling data packages and qualified data using one or more of the following qualifiers:

- U Indicates that the compound was analyzed for, but was not detected. The sample quantification limit is presented and adjusted for dilution. This qualifier is also used to signify that the detection limit of an analyte was raised due to blank contamination.
- J Indicates that the result should be considered approximate. This qualifier is used when the data validation procedure identifies a deficiency in the data generation process.
- UJ Indicates that the detection limit for the analyte in this sample should be considered approximate. This qualifier is used when the data validation process identifies a deficiency in the data generation process.
- R Indicates that the previously reported detection limit or sample result has been rejected due to a major deficiency in the data generation procedure. The data are considered to be unusable for both qualitative and quantitative purposes.

### 3.3 Review of Laboratory Data Packages

The data validators' review of the ASP-B data packages are summarized in the following sub-sections.

#### 3.3.1 Inorganic Compounds

Data validation for total inorganic parameters was performed for 14 soil samples, 16 water samples, and 1 rinse blank sample. Data for inorganic compounds were determined to be usable for qualitative and quantitative purposes with the exception of silver for one soil sample that was rejected due to matrix spike recovery deviations. Sample results for several analytes were also qualified based on deviations from initial and continuing calibration, matrix spike, and ICP serial dilution analysis criteria.

##### Inorganic Compounds – Rejected Analytical Results

Analyte	Media	Sample ID(s)
silver	soil	MW-28





Rejected data for silver concentrations in soil sample MW-28 are considered to be inconsequential in relation to the sampling program as a whole, and silver is not an established contaminant of concern.

### 3.3.2 Volatile Organic Compounds (VOCs)

Data validation for total VOC parameters was performed for 14 soil vapor samples, 70 soil samples, 32 water samples, 2 rinse blanks and 16 trip blanks. All soil vapor data were determined to be usable for qualitative and quantitative purposes with additional qualification.

The VOC analyses data for soil and water were determined to be usable for qualitative and quantitative purposes with the exception of a low percentage of the non-detected sample results for several compounds, which were rejected due to deviations from continuing calibration, laboratory control sample, and/or internal standard recovery criteria. Sample results for several compounds were qualified based on deviations from blank analysis, initial calibration, continuing calibration, laboratory control sample, internal standard recovery, surrogate recovery, and/or matrix spike criteria.

Soil and water VOC data were determined to be usable for qualitative and quantitative purposes with the exception of the following analytes:

#### VOCs – Rejected Analytical Results

Analyte	Media	Sample ID(s)
1,1,2,2-tetrachloroethane	soil	MW-26
1,2,3-trichloropropane	soil	MW-26
1,2,4-trichlorobenzene	soil	MW-26
1,2,4-trimethylbenzene	soil	MW-26
1,2-dibromo-3-chloropropane	soil	MW-26
1,3,5-trimethylbenzene	soil	MW-26
1,3-dichlorobenzene	soil	MW-26
1,4-dioxane	soil	MW-19 (10-12), MW-29, MW-30 (10-15), MW-31 (10-15), MW-32 (0-5), MW-32 (10-15), SB-60, SB-60B (6-8), SB-61, SB-63 (14), SB-65 (8-12), SB-66 (12-16), SB-67, SB-69, SB-71 (14), 2SB-1 (15-20), 2SB-2 (10-15), 2SB-5A, 2SB-11 (10-15)
1,4-dioxane	water	MW-27, MW-28 through MW-32, MW-34, MW-35, Trip Blank (9/28/2012), TB-1 (8/16/2013)
2-chlorotoluene	soil	MW-26
4-chlorotoluene	soil	MW-26
bromobenzene	soil	MW-26
bromoform	soil	MW-26
bromomethane	soil	2SB-13 through 2SB-15
hexachloro-1,3-butadiene	soil	MW-26
tert-butylbenzene	soil	MW-26

Rejected data for specific VOC analytes are considered to be inconsequential in relation to the sampling program as a whole, and the specific rejected analytes do not include established contaminants of concern.



### 3.3.3 Semi-Volatile Organic Compounds (SVOCs)

Data validation for total SVOC parameters was performed for 58 soil samples, 22 water samples, and 2 rinse blank samples.

The SVOC analyses data for soil and water were determined to be usable for qualitative and quantitative purposes with the exception of non-detected sample results for several compounds, which were rejected due to deviations from calibration, laboratory control sample, matrix spike, and/or surrogate recovery criteria. Sample results for several compounds were qualified based on deviations from initial calibration, continuing calibration, laboratory control sample, surrogate recovery, and/or matrix spike criteria.

Insufficient matrix spike recovery in sample MW-17 (14) resulted in the rejection of non-detected SVOC sample results for all compounds in the following soil samples (accounting for the majority of all rejected SVOC data): MW-17 (14), MW-18 (15), SB-72 (9), SB-72 (13), SB-73 (13.5), SB-74 (13), MW-22 (10-11) and MW-22 (12-14).

All other soil and water SVOC data were determined to be usable for qualitative and quantitative purposes with the exception of the following analytes:

#### SVOCs – Rejected Analytical Results

Analyte	Media	Sample ID(s)
2,4,5-trichlorophenol	water	MW-30, MW-31, MW-32, MW-34, MW-35
2,4,6-trichlorophenol	water	MW-30, MW-31, MW-32, MW-34, MW-35
2,4-dichlorophenol	water	MW-30, MW-31, MW-32, MW-34, MW-35
2,4-dimethylphenol	water	MW-30, MW-31, MW-32, MW-34, MW-35
2,4-dinitrophenol	soil	MW-30 (10-15), MW-31 (10-15), MW-32 (0-5), MW-32 (10-15), 2SB-1/MW-34 (10-15), 2SB-1/MW-34 (15-20), 2SB-2 (0-5), 2SB-2 (10-15), 2SB-3 (10-15), 2SB-4 (0-5), 2SB-4 (10-15), 2SB-5 (10-15), 2SB-5A, 2SB-6 (10-15), 2SB-7 (10-15), 2SB-8 (10-15), 2SB-9/MW-35 (0-5), 2SB-9/MW-35 (10-15), 2SB-11 (10-15)
2,4-dinitrophenol	water	MW-27, MW-30, MW-31, MW-32, MW-34, MW-35
2-chlorophenol	water	MW-30, MW-31, MW-32, MW-34, MW-35
2-methylphenol	water	MW-30, MW-31, MW-32, MW-34, MW-35
2-nitrophenol	water	MW-30, MW-31, MW-32, MW-34, MW-35
3- & 4-methylphenols	water	MW-30, MW-31, MW-32, MW-34, MW-35
3-nitroaniline	soil	MW-29
4,6-dinitro-2-methylphenol	soil	SB-61, SB-63, SB-67, SB-68, SB-69, SB-77A, SB-77B
4,6-dinitro-2-methylphenol	water	MW-27, MW-30, MW-31, MW-32, MW-34, MW-35
4-chloro-3-methylphenol	water	MW-30, MW-31, MW-32, MW-34, MW-35
4-chloroaniline	soil	MW-29
4-nitrophenol	water	MW-3, MW-27, MW-30, MW-31, MW-32, MW-34, MW-35
aniline	soil	MW-29
benzyl alcohol	water	MW-30, MW-31, MW-32, MW-34, MW-35
hexachlorocyclopentadiene	soil	MW-28, 2SB-1 (15-20)
hexachlorocyclopentadiene	water	MW-3, MW-27, MW-34
n-nitrosodimethylamine	soil	MW-17 (14), MW-18 (15)
phenol	water	MW-30, MW-31, MW-32, MW-34, MW-35



Analyte	Media	Sample ID(s)
pyridine	soil	MW-18 (15), MW-19 (10-12), MW-30 (10-15), MW-31 (10-15), MW-32 (0-5), MW-32 (10-15), 2SB-1/MW-34 (10-15), 2SB-1/MW-34 (15-20), 2SB-2 (0-5), 2SB-2 (10-15), 2SB-3 (10-15), 2SB-4 (0-5), 2SB-4 (10-15), 2SB-5 (10-15), 2SB-5A, 2SB-6 (10-15), 2SB-7 (10-15), 2SB-8 (10-15), 2SB-9/MW-35 (0-5), 2SB-9/MW-35 (10-15), 2SB-11 (10-15)

In general, rejected data for specific SVOC analytes are considered to be inconsequential in relation to the sampling program as a whole, and the specific rejected analytes do not include established contaminants of concern. Rejection of all non-detected sample results, which includes phthalates, for soil samples originating in boring locations MW-17, MW-18, SB-72 to SB-74, and MW-22 is offset by the known extent of fieldwork observations in all borings, and acceptable analytical data from nearby locations.

#### 4.0 Conclusions

The RIR documents soil vapor, soil and groundwater sampling conducted at the Former NuHart Plastic Manufacturing Site (NYSDEC IHWDS No. 224136), and provides the following summary conclusions:

- On-site and off-site soil and groundwater are impacted by several different phthalate compounds, generally present as non-aqueous phase liquid
- Soil vapor, soil and groundwater are impacted by TCE, with lesser impacts from related chlorinated compounds and minimal impacts from petroleum compounds
- Groundwater contamination is generally limited to TCE, TCE breakdown products and phthalates (potentially due to suspension of soil particles)

Data Usability Summary Reports (DUSRs) have been reviewed and considered in light of the findings of the RIR. ESI makes the following conclusions in regards to the DUSR review:

1. Overall, data validation summary reports have determined inorganic and organic soil and water data to be usable for qualitative and quantitative purposes, and the findings and conclusions presented in the RIR are not substantially affected by any data qualifications.
2. A minimal number of analytical results have been rejected. Rejected results for specific analytes are considered to be inconsequential in relation to the sampling program as a whole, and the specific rejected analytes generally do not include established contaminants of concern (rejection of all non-detected SVOC sample results for soil samples originating in several boring locations, including phthalates, is not significant based on known fieldwork observations and the extent of acceptable analytical data from nearby locations).

# **Data Usability Summary Report**

**Former NuHart Plastic Manufacturing Site  
Brooklyn, New York**

**Soil Vapor Samples  
SDG # 12B0191**

**June 2014**

**Data Usability Summary Report**

**Soil Vapor Samples  
SDG # 12B0191**

**Former NuHart Plastic Manufacturing Site  
Brooklyn, New York**

**Prepared By:**

**EnviroAnalytics  
Data Management and Validation Service  
2638 Sunset Avenue  
Utica, New York 13502**

## **EXECUTIVE SUMMARY**

This report addresses data quality for air samples collected at the former NuHart Plastic Manufacturing Site located in Brooklyn, New York. The samples were analyzed for TO-15 volatile organics (VOCs) following New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) methodologies. Sample collection was performed by Ecosystems Strategies, Inc. of Poughkeepsie, New York. Analytical services were provided by York Analytical Laboratories, Inc. located in Stratford, Connecticut.

The TO-15 volatile organic analyses data were determined to be usable for qualitative and quantitative purposes with additional qualification. Qualification of sample data included blank analysis for four samples and the approximation of sample results for several compounds due to deviations from initial calibration, continuing calibration, and laboratory control sample criteria

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## **SECTION 1 - INTRODUCTION**

### **1.1 Introduction**

This report addresses data quality for air samples collected at the former NuHart Plastic Manufacturing Site located in Brooklyn, New York. The samples were analyzed for TO-15 volatile organics (VOCs) following New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) methodologies. Sample collection was performed by Ecosystems Strategies, Inc. of Poughkeepsie, New York. Analytical services were provided by York Analytical Laboratories, Inc. located in Stratford, Connecticut. The quantity and type of samples submitted for data validation are tabulated below.

**Table 1: Introduction - Sample Summary Table**

SDG#	Date Collected	Sample Matrix	Sample Identification	
			Client ID	Laboratory ID
12B0191	02/06/2012	Soil Vapor	SG-1	12B0191-01
			SG-2	12B0191-02
			SG-3	12B0191-03
			SG-4	12B0191-04

### **1.2 Analytical Methods**

The samples were analyzed for TO-15 volatile organics (VOCs) following New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) methodologies (2005 update). Laboratory analyses were provided by York Analytical Laboratories, Inc. located in Stratford, Connecticut.

### **1.3 Validation Protocols**

Data validation is a process that involves the evaluation of analytical data against prescribed quality control criteria to determine the usefulness of the data. The analytical data addressed in this report were evaluated utilizing the quality control criteria presented in the following documents:

- *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, EPA-540-R-08-01, June 2008.
- *CLP Organics Data Review and Preliminary Review*, SOP No. HW-6 Revision #14, USEPA Region II, September 2006.
- *Validating Air Samples Volatile Organic Analysis of Ambient Air in Canister by Method TO-15*, SOP No. HW-31 Revision #4, USEPA Hazardous Waste Support Branch, October 2006.
- *Exhibit E of New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP)*, NYSDEC June 2005.



### **1.3.1 Organic Parameters**

The validation of organic parameters for this project followed the requirements presented in the analytical methodology and the data validation guidelines presented above. The following QA/QC parameters were evaluated:

#### **TO-15 Volatile Organics Analysis**

1. Holding Times
2. GC/MS Instrument Tuning Criteria
3. Calibration
  - a. Initial Calibration
  - b. Continuing Calibration
4. Blank Analysis
5. Surrogate Recovery
6. Matrix Spike / Matrix Spike Duplicate Analysis
7. Reference Standard Analysis
8. Internal Standards Recovery
9. Compound Identification and Quantification
10. Field Duplicate Analysis
11. System Performance
12. Documentation Completeness
13. Overall Data Assessment

### **1.4 Data Qualifiers**

The following qualifiers as specified in the guidance documents presented in Section 1.3 of this report have been used for this data validation.

- |    |                                                                                                                                                                                                                                                                  |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| U  | Indicates that the compound was analyzed for, but was not detected. The sample quantification limit is presented and adjusted for dilution. This qualifier is also used to signify that the detection limit of an analyte was raised due to blank contamination. |
| J  | Indicates that the result should be considered approximate. This qualifier is used when the data validation procedure identifies a deficiency in the data generation process.                                                                                    |
| UJ | Indicates that the detection limit for the analyte in this sample should be considered approximate. This qualifier is used when the data validation process identifies a deficiency in the data generation process.                                              |
| R  | Indicates that the previously reported detection limit or sample result has been rejected due to a major deficiency in the data generation procedure. The data are considered to be unusable for both qualitative and quantitative purposes.                     |

The following sections of this document present a summary of the data validation process. Section 2 discusses data compliance with established QA/QC criteria and qualifications performed on the sample data. A discussion of the Precision, Accuracy, Representativeness, Comparability, and

Completeness (PARCC) of the data and data usability are discussed in Section 3. The USEPA Region II Data Validation Checklist is presented in Appendix A.

## **SECTION 2 - DATA VALIDATION SUMMARY**

This section presents a discussion of QA/QC parameter compliance with established criteria and the qualification of data performed when QA/QC parameter deviations were identified. When several deviations from established QA/QC criteria were observed, the final qualifier assigned to the data was based on the cumulative effect of the deviations.

### **2.1 Volatile Organics Analysis**

Data validation was performed for four soil vapor samples. The QA/QC parameters presented in Section 1.3.1 of this report were found to be within specified limits. The overall data assessment is presented below.

#### **Blank Analysis**

The method blanks contained detectable concentrations of several target compounds. Blank action levels were calculated at ten times the blank concentrations for the common laboratory contaminants and five times for other target compounds. Detected sample results, which were less than the blank action levels were qualified with a "U" in the associated samples. Results that were detected below the contract required detection limit (CRDL) were raised to the CRDL and qualified with a "U" qualifier. The "U" qualifier indicates that the volatile organic was analyzed for but was not detected above the CRDL. Samples qualified for blank contamination are tabulated below.

**Table 2: Volatile Organics Analysis - Blank Analysis Deviations**

<b>Blank Matrix</b>	<b>Date Analyzed</b>	<b>Compound</b>	<b>Blank Action Level</b>	<b>Associated Samples</b>	<b>Qualified Sample Result</b>
Soil Vapor	02/10/2012 (10:48)	Methylene Chloride	11.0 <sup>1</sup> µg/M <sup>3</sup>	SG-1 SG-2 SG-3 SG-4	7.1 U µg/M <sup>3</sup> 3.6 U µg/M <sup>3</sup> 17 U µg/M <sup>3</sup> 4.2 U µg/M <sup>3</sup>

1. Blank action level corrected for sample dilution

#### **Initial Calibration**

The initial calibration percent relative standard deviation (%RSD) limit, which requires the %RSD to be less than 40 percent, was exceeded for several compounds. Sample qualification included the approximation (J, UJ) of results when %RSD criteria were exceeded, but were less than 90 percent. Samples requiring qualification due to these deviations are tabulated below.

**Table 3: Volatile Organics Analysis - Initial Calibration Deviations**

<b>Date Analyzed</b>	<b>Compound</b>	<b>%D</b>	<b>Result Qualifier</b>	<b>Affected Samples</b>
01/05/2012 (16:29)	1,2,4-Trichlorobenzene	40.05 %	UJ	SG-1 SG-2 SG-3 SG-4

### **Continuing Calibration**

The continuing calibration percent difference (%D) limit, which requires the %D to be less than 30 percent, was exceeded for several compounds. Sample qualification included the approximation (J, UJ) of results when %D criteria were exceeded, but were less than 90 percent. Samples requiring qualification due to these deviations are tabulated below.

**Table 4: Volatile Organics Analysis - Continuing Calibration Deviations**

Date Analyzed	Compound	%D	Result Qualifier	Affected Samples
02/10/2012 (08:59)	Isopropanol	36.8 %	J, UJ	SG-1
	Hexachlorobutadiene	32.5 %	UJ	SG-2 SG-3 SG-4

### **Laboratory Control Sample Analysis**

Laboratory control sample (LCS) recovery criteria requiring compound recoveries to be within laboratory generated control limits were exceeded for several compounds. Qualification of sample results included the approximation of results when spike recoveries were greater than the upper limit, but less than 200 percent or less than the lower limit, but greater than 10 percent. Non-detected sample results were rejected (R) for compounds with recoveries that were less than 10 percent. Samples qualified due to LCS recovery deviations are tabulated below.

**Table 5: Volatile Organics Analysis - Laboratory Control Sample Deviations**

Matrix	Compound	Percent Recovery	Control Limits	Qualifier	Affected Samples
Soil Vapor	Carbon Disulfide	117 %	61.8 % to 111 %	J	SG-1 SG-2 SG-4

### **Overall Data Assessment**

Overall, the laboratory performed TO-15 volatile organic analyses in accordance with the requirements specified in the methods listed in Section 1.2. These data were determined to be usable for qualitative and quantitative purposes with additional qualification. Qualification of sample data included blank analysis for four samples and the approximation of sample results for several compounds due to deviations from initial calibration, continuing calibration, and laboratory control sample criteria.

## **SECTION 3 - DATA USABILITY and PARCC EVALUATION**

### **3.1 Data Usability**

This section presents a summary of the usability of the analytical data and an evaluation of the PARCC parameters. Data usability was calculated as the percentage of data that was not qualified as rejected based on a significant deviation from established QA/QC criteria. Data usability which was calculated separately for each type of analysis is tabulated below.

**Table 6: Data Usability and PARCC Evaluation - Data Usability**

<b>Parameter</b>	<b>Usability</b>	<b>Deviations</b>
TO-15 Volatile Organics	100 %	None resulting in the rejection of data.

### **3.2 PARCC Evaluation**

The following sections provide an evaluation of the analytical data with respect to the precision, accuracy, representativeness, comparability, and completeness (PARCC) parameters.

#### **3.2.1 Precision**

Precision is measured through field duplicate samples, split samples, and laboratory duplicate samples. For this sampling program, none of the data were qualified for laboratory duplicate criteria deviations and none of the data were qualified for field duplicate criteria deviations.

#### **3.2.2 Accuracy**

Matrix spike sample, surrogate recovery, internal standard recovery, laboratory control samples, and calibration criteria indicate the accuracy of the data. For this sampling program, none of the analytical data were qualified for deviations from matrix spike recovery criteria; none of the data were qualified for surrogate recovery criteria deviations; none of the data were qualified for internal standard recovery criteria deviations; 1.23 percent of the data were qualified for laboratory control sample deviations; and 4.92 percent of the data were qualified for calibration criteria deviations.

#### **3.2.3 Representativeness**

Holding times, sample preservation, and blank analysis are indicators of the representativeness of the analytical data. For this investigation, none of the analytical data required qualification for holding time deviations and 1.64 percent of the analytical data required qualification for blank analysis deviations.

#### **3.2.4 Comparability**

Comparability is not compromised provided that the analytical methods did not change over time. A major component of comparability is the use of standard reference materials for calibration and QC. These standards are compared to other unknowns to verify their

concentrations. Since standard analytical methods and reporting procedures were consistently used by the laboratory, the comparability criteria for the analytical data were met.

### **3.2.5 Completeness**

The percent usability or completeness of the data was determined to be 100 percent.

# **APPENDIX A**

## **DATA VALIDATION CHECKLISTS**

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## Data Validation Checklist - Part A: TO-15 VOA Analyses

No:	Parameter	YES	NO	N/A
<b>1.0</b>	<b><u>Data Completeness and Deliverables</u></b>			
1.1	Have any missing deliverables been received and added to the data package?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>2.0</b>	<b><u>Cover Letter, Narrative, and Data Reporting Forms</u></b>			
2.1	Is the Lab. Narrative and Cover Page Present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.2	Is Case Number contained in the Narrative?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.3	Are the following Data Reporting Forms present?			
	Analysis Data Sheet [Form I/Equivalent]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Tentatively Identified Compounds [Form I-TIC]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Blank Summary [Form IV/Equivalent]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Laboratory Control Sample Data Sheet [Form III/Equivalent]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	GC/MS Instrument Performance Check and Mass Calibration [Form V/Equivalent]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Initial Calibration [Form VI/Equivalent]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Continuing Calibration [Form VII/Equivalent]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Internal Standard Area and RT Summary [Form VIII/Equivalent]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Canister Certification [Form IX/Equivalent]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3.0</b>	<b><u>Canister Receipt/Log-in Sheet</u></b>			
3.1	Do all info items agree with each sample?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4.0</b>	<b><u>Traffic Reports and Laboratory Narrative</u></b>			
4.1	Are the Traffic Report Forms present for all samples?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5.0</b>	<b><u>Holding Times</u></b>			
5.1	Have any VOA technical holding times of 30 days, determined from the date of sample collection to the date of analysis, been exceeded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6.0</b>	<b><u>Leak Test Evaluation</u></b>			
6.1	Did the pressure test not vary by more than $\pm 13.8$ kPa ( $\pm 2$ psi) over the 24 hours period?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>7.0</b>	<b><u>Canister Certification Form IX/Equivalent</u></b>			
7.1	Blank Analysis			
	Were the <u>target</u> analytes < the required detection limits specified in the task order?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.2	Is the canister certification form provided, and the associated canister sample identification included? When contamination, included contamination detected (all raw data), analyte and reference mass spectra.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Data Validation Checklist - Part A: TO-15 VOA Analyses

No:	Parameter	YES	NO	N/A
<b>8.0</b>	<b><u>Laboratory Control Samples</u></b>			
8.1	Is an LCS Data Sheet [Form III/Equivalent] present and complete for each LCS?	X		
8.2	Was an LCS prepared (10 ppbv total scan, 0.1 ppbv SIM) and analyzed at the required frequency (once per 24 hour analytical sequence, and concurrently with the samples in the SDG)?	X		
8.3	Are there any transcription/calculation errors between the raw data and Form III/Equivalent?		X	
8.4	Is the % recovery within 70 – 130 % for each LCS <u>target compound</u> reported on Form III/Equivalent?		X	
8.5	Is the RT of <u>each reported LCS compound</u> within the windows established during the most recent valid calibration?	X		
8.6	Do the Internal Standards meet the requirements specified in Sections 18.1 and 18.2?	X		
<b>9.0</b>	<b><u>GC/MS Instrument Performance Check</u></b>			
9.1	Are the GC/MS Instrument Performance Check Forms [Form V/Equivalent] present for Bromofluorobenzene (BFB)?	X		
9.2	Are the enhanced bar graph spectrum and mass/charge (m/z) listing for the 50 ng BFB provided for each twenty-four hour shift?	X		
9.3	Has the instrument performance compound been analyzed for every twenty-four hours of sample analysis per instrument?	X		
9.4	Have the ion abundances been normalized to m/z 95?	X		
9.5	Have the ion abundance criteria been met for each instrument used?	X		
9.6	Are there any transcription/calculation errors between mass lists and Form Vs?		X	
9.7	Have the appropriate number of significant figures (two) been reported?	X		
9.8	Are the spectra of the mass calibration compound acceptable?	X		
<b>10.0</b>	<b><u>Performance Evaluation Sample (Optional)</u></b>			
10.1	Was a PE sample submitted from the Agency with each SDG?			X
10.2	Do the Internal Standards meet the requirements specified in Section 18.1 and 18.2?			X
<b>11.0</b>	<b><u>Laboratory Method Blanks</u></b>			
11.1	Is an Analysis Data Sheet [Form IV/Equivalent] present and complete for each method blank?	X		
11.2	Frequency of Analysis:			
	Has a method blank analysis been reported per instrument for each 24-hour analytical sequence?	X		
	Has a method blank been analyzed after the initial calibration or a valid calibration check standard, and before the LCS, prior to sample analysis?	X		
11.3	Is the chromatographic performance (baseline stability) for each instrument acceptable?	X		
11.4	Was the area response of each Internal Standard (IS) in the blank within $\pm 40$ % of the mean area response of the IS of the most recent valid calibration?	X		

## Data Validation Checklist - Part A: TO-15 VOA Analyses

No:	Parameter	YES	NO	N/A
11.5	Were the RTs of each IS within $\pm 0.33$ min (20 sec.) between blanks and most recent valid calibration?	<u>  X  </u>	<u>      </u>	<u>      </u>
<b>12.0</b>	<b><u>Blank Contamination</u></b>			
12.1	Do any method blanks have positive target and non-target VOA results?	<u>  X  </u>	<u>      </u>	<u>      </u>
<b>13.0</b>	<b><u>Target Compound Analytes</u></b>			
13.1	Are the Organic Analysis Data Sheets [Form I/Equivalent], VOA chromatograms, and data system printouts present and complete with required header information for each of the following:			
	a. Samples?	<u>  X  </u>	<u>      </u>	<u>      </u>
	b. Method blanks?	<u>  X  </u>	<u>      </u>	<u>      </u>
	c. Laboratory Control Sample (LCS)?	<u>  X  </u>	<u>      </u>	<u>      </u>
	d. Performance Evaluation Sample (PES)?	<u>  X  </u>	<u>      </u>	<u>      </u>
13.2	Is the chromatographic performance acceptable with respect to:			
	a. Baseline stability?	<u>  X  </u>	<u>      </u>	<u>      </u>
	b. Resolution?	<u>  X  </u>	<u>      </u>	<u>      </u>
	c. Peak shape?	<u>  X  </u>	<u>      </u>	<u>      </u>
	d. Full-scale graph (attenuation)?	<u>  X  </u>	<u>      </u>	<u>      </u>
	e. Other?	<u>      </u>	<u>      </u>	<u>  X  </u>
13.3	Were any electropositive displacement (negative peaks) or unusual peaks seen?	<u>      </u>	<u>  X  </u>	<u>      </u>
13.4	Is the sample component relative retention time (RRT) within $\pm 0.06$ RRT units of the RRT of the standard component from the most recent continuing calibration?	<u>  X  </u>	<u>      </u>	<u>      </u>
13.5	Was Nafion dryer used?	<u>      </u>	<u>      </u>	<u>  X  </u>
<b>14.0</b>	<b><u>Tentatively Identified Compounds (TIC)</u></b>			
14.1	Are all Tentatively Identified Compound Forms [Form I-TIC] present and are retention time, estimated concentration and "JN" qualifier listed corresponding to each TIC?	<u>      </u>	<u>      </u>	<u>  X  </u>
14.2	Are the mass spectra for the tentatively identified compounds and associated "best match" spectra included in the sample package for each of the following?			
	a. Samples	<u>      </u>	<u>      </u>	<u>  X  </u>
	b. Blanks	<u>      </u>	<u>      </u>	<u>  X  </u>
14.3	Are all ions present in the reference mass spectrum with a relative intensity greater than 10 % also present in the sample mass spectrum?	<u>      </u>	<u>      </u>	<u>  X  </u>
14.4	Do TIC and "best match" standard relative ion intensities agree within 20 %?	<u>      </u>	<u>      </u>	<u>  X  </u>
<b>15.0</b>	<b><u>Initial Calibration and System Performance [Form VI/Equivalent]</u></b>			
15.1	Were each GC/MS system calibrated at 5 concentrations that span the monitoring range of the interest in an initial calibration sequence to determine the sensitivity and the linearity of the GC/MS response for the target compounds?	<u>  X  </u>	<u>      </u>	<u>      </u>
15.2	Was the same volume introduced into the trap consistently for all field and QC-sample analyses?	<u>  X  </u>	<u>      </u>	<u>      </u>

## Data Validation Checklist - Part A: TO-15 VOA Analyses

No:	Parameter	YES	NO	N/A
15.3	Was the area response (Y) at each calibration level within $\pm 40\%$ of the mean area response (mean Y) over the initial calibration range for each Internal Standard?	X		
	Did the laboratory tabulate the area response (Y) of the primary ions and the corresponding concentration for each compound and Internal Standard?	X		
15.4	Are the relative retention times (RRTs) for each of the target compounds at each calibration level within $\pm 0.06$ RRT units of the mean relative retention time for the compound?	X		
15.5	Are all individual RRF and average RRFs $\geq 0.050$ ?	X		
15.6	Are the response factors (RF) stable i.e., % Relative Standard Deviation (%RSD) $\leq 40.0\%$ ?		X	
15.7	Are there any transcription/calculation errors in the reporting of average response factors (RRFs) or %RSDs?		X	
15.8	Are the RT shift for each Internal Standard (IS) at each calibration level within 20 seconds of the mean RT over the initial calibration range of each IS?	X		
<b>16.0</b>	<b><u>Daily Calibration (Form VII/Equivalent)</u></b>			
16.1	Are the daily Calibration Forms [Form VII/Equivalent] present and complete for the volatile fraction?	X		
16.2	Has the daily calibration standard (20 ppbv total scan, 0.1 ppbv SIM) been analyzed for every twenty-four hours of sample analysis per instrument after the BFB tuning analysis?	X		
16.3	Do any volatile compounds have a % Difference (%D) between the initial and daily RRFs which exceed the $\pm 30\%$ criteria?	X		
16.4	Are there any transcription/calculation errors in the reporting of the average response factors (RRF) or % difference (%D) between initial and daily RRFs?		X	
<b>17.0</b>	<b><u>Compound Quantitation and Reported Detection Limits</u></b>			
17.1	Are there any transcription/calculations errors in Form I results?		X	
17.2	Are the reported detection limits adjusted to reflect sample dilutions?	X		
17.3	Have any target compound concentrations exceeded the calibration range of the GC?		X	
17.4	Was more than one method of quantitation used to calculate sample results within a batch or 24-hour analytical sequence?		X	
17.5	Did the lab report the target compounds below CRQLs with the suffix "J"?			X
<b>18.0</b>	<b><u>Internal Standards (Form VIII/Equivalent)</u></b>			
18.1	Are the 3 internal standard areas [Form VIII] of every sample, LCS, PE, and blank within the upper and lower limits ( $+40\%$ to $-40\%$ ) for each continuing calibration or 10 ppbv level of initial calibration?	X		
18.2	Are the internal standard retention times in each sample, LCS, PE, and blank within 20 seconds of the corresponding retention times in the associated calibration standard?	X		
<b>19.0</b>	<b><u>Mass Spectral Interpretation/Identification</u></b>			
19.1	Are the Organic Analysis Data Sheets present with required header information on each page, for each of the following:			
	a. Samples and/or fractions as appropriate?	X		

### Data Validation Checklist - Part A: TO-15 VOA Analyses

No:	Parameter	YES	NO	N/A
	b. Laboratory Control Samples?	<u>  X  </u>	<u>      </u>	<u>      </u>
	c. Blanks?	<u>  X  </u>	<u>      </u>	<u>      </u>
19.2	Are the VOA Reconstructed Ion Chromatograms, the mass spectra for the identified compounds, and the data system printouts (quant reports) included in the sample package for each of the following:			
	a. Samples and/or fractions as appropriate?	<u>  X  </u>	<u>      </u>	<u>      </u>
	b. Laboratory Control Samples?	<u>  X  </u>	<u>      </u>	<u>      </u>
	c. Blanks?	<u>  X  </u>	<u>      </u>	<u>      </u>
19.3	Is chromatographic performance acceptable with respect to:			
	a. Baseline stability?	<u>  X  </u>	<u>      </u>	<u>      </u>
	b. Resolution?	<u>  X  </u>	<u>      </u>	<u>      </u>
	c. Peak shape?	<u>  X  </u>	<u>      </u>	<u>      </u>
	d. Full-scale graph (attenuation)?	<u>  X  </u>	<u>      </u>	<u>      </u>
	e. Other:	<u>      </u>	<u>      </u>	<u>  X  </u>
19.4	Are the lab-generated standard mass spectra of the identified compounds present for each sample?	<u>  X  </u>	<u>      </u>	<u>      </u>
19.5	Is the RRT of each reported compound within 0.06 RRT units of the standard RRT in the continuing calibration?	<u>  X  </u>	<u>      </u>	<u>      </u>
19.6	Are all ions present in the reference standard mass spectrum at a relative intensity greater than 10 % also present in the sample mass spectrum?	<u>  X  </u>	<u>      </u>	<u>      </u>
19.7	Do sample and reference standard relative ion intensities agree within $\pm 20$ %?	<u>  X  </u>	<u>      </u>	<u>      </u>
<b>20.0</b>	<b><u>Field Duplicates</u></b>			
15.1	Were any field duplicates submitted for VOA analysis?	<u>      </u>	<u>  X  </u>	<u>      </u>

# **Data Usability Summary Report**

**Former NuHart Plastic Manufacturing Site  
Brooklyn, New York**

**Samples Collected  
February 2012 – November 2013**

**February 2014**

**Data Usability Summary Report**

**Samples Collected  
February 2012 – November 2013**

**Former NuHart Plastic Manufacturing Site  
Brooklyn, New York**

**Prepared By:**

**EnviroAnalytics  
Data Management and Validation Service  
2638 Sunset Avenue  
Utica, New York 13502**

## **EXECUTIVE SUMMARY**

This report addresses data quality for soil and water samples collected at the NuHart Plastic Manufacturing Site located in Brooklyn, New York. The samples were analyzed for volatile organics (VOCs), semivolatile organics (SVOCs), and inorganics (Metals) following New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) methodologies. Sample collection was performed by Ecosystems Strategies, Inc. of Poughkeepsie, New York. Analytical services were provided by York Analytical Laboratories, Inc. located in Stratford, Connecticut.

The inorganics analyses data have been determined to be usable for qualitative and quantitative purposes with the exception of Silver for one sample that was rejected due to matrix spike recovery deviations. Sample results for several analytes were also qualified based on deviations from initial and continuing calibration, matrix spike, and ICP serial dilution analysis criteria.

The volatile organics analyses data were determined to be usable for qualitative and quantitative purposes with the exception of 1.02 percent of the non-detected sample results for several compounds which were rejected due to deviations from continuing calibration, laboratory control sample, and internal standard recovery criteria. Sample results for several compounds were qualified based on deviations from blank analysis, initial calibration, continuing calibration, laboratory control sample, internal standard recovery, surrogate recovery, and matrix spike criteria.

The semivolatile organics analyses data were determined to be usable for qualitative and quantitative purposes with the exception of 13.39 percent of the non-detected sample results for several compounds which were rejected due to deviations from calibration, laboratory control sample, matrix spike, and surrogate recovery criteria. Sample results for several compounds were qualified based on deviations from initial calibration, continuing calibration, laboratory control sample, surrogate recovery, and matrix spike criteria.



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Appendix A - Data Validation Checklists

## **SECTION 1 - INTRODUCTION**

### **1.1 Introduction**

This report addresses data quality for soil and water samples collected at the NuHart Plastic Manufacturing Site located in Brooklyn, New York. The samples were analyzed for volatile organics (VOCs), semivolatile organics (SVOCs), and inorganics (Metals) following New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) methodologies. Sample collection was performed by Ecosystems Strategies, Inc. of Poughkeepsie, New York. Analytical services were provided by York Analytical Laboratories, Inc. located in Stratford, Connecticut. The quantity and types of samples submitted for data validation are tabulated below.

**Table 1: Introduction - Sample Summary Table**

SDG#	Date Collected	Sample Matrix	Sample Identification	
			Client ID	Laboratory ID
12B0205	02/02/2012	Soil	MW-19 (10-12')	12B0205-01
12B0207	02/01/2012 – 02/02/2012	Soil/Water	SB-60 SB-61 SB-63 SB-67 SB-68 SB-69 SB-77A SB-78A Trip Blank (02/01/2012) Trip Blank (02/02/2012) Rinse Blank	12B0207-01 12B0207-02 12B0207-03 12B0207-04 12B0207-05 12B0207-06 12B0207-07 12B0207-08 12B0207-09 12B0207-10 12B0207-11
12B0504	02/10/2012 – 02/13/2012	Soil/Water	SB-63 14' SB-71 14' SB-60B 6-8' SB-60B 8-10' SB-60B 10-12' Trip Blank	12B0504-01 12B0504-02 12B0504-03 12B0504-04 12B0504-05 12B0504-06
12B0769	02/15/2012 – 02/16/2012	Soil/Water	MW-17 14' MW-18 15' SB-74 13' SB-72 9' SB-72 13' SB-73 13.5' MW-22 10-11 MW-22 12-14 Trip Blank	12B0769-01 12B0769-02 12B0769-03 12B0769-04 12B0769-05 12B0769-06 12B0769-07 12B0769-08 12B0769-09
12C0577	03/16/2012	Water	MW-10 MW-13 MW-18 MW-19 MW-22 Trip Blank Rinse Blank	12C0577-01 12C0577-02 12C0577-03 12C0577-04 12C0577-05 12C0577-06 12C0577-07
12G0884	07/25/2012	Soil	MW-23 MW-24 MW-25	12G0884-01 12G0884-02 12G0884-03

SDG#	Date Collected	Sample Matrix	Sample Identification	
			Client ID	Laboratory ID
12I0856	09/24/2012	Soil/Water	MW-23	12I0856-01
			MW-24	12I0856-02
			Trip Blank	12I0856-03
			MW-26	12I0856-04
			MW-27	12I0856-05
12J0086	09/28/2012	Water	MW-27	12J0086-01
			Trip Blank	12J0086-02
13A0300	01/08/2013	Soil	MW-29	13A0300-01
13A0448	01/15/2013	Soil	MW-28	13A0448-01
13H0180	07/31/2013 – 08/01/2013	Soil	2SB-1/MW-34 (10-15')	13H0180-01
			2SB-1/MW-34 (15-20')	13H0180-02
			2SB-2 (0-5')	13H0180-03
			2SB-2 (10-15')	13H0180-04
			2SB-3 (10-15')	13H0180-05
			2SB-4 (0-5')	13H0180-06
			2SB-4 (10-15')	13H0180-07
			2SB-5 (10-15')	13H0180-08
			2SB-6 (10-15')	13H0180-09
			2SB-7 (10-15')	13H0180-10
			2SB-8 (10-15')	13H0180-11
			2SB-9/MW-35 (0-5')	13H0180-12
			2SB-9/MW-35 (10-15')	13H0180-13
			2SB-11 (10-15')	13H0180-14
			MW-30 (10-15')	13H0180-15
			MW-31 (10-15')	13H0180-16
			MW-32 (0-5')	13H0180-17
			MW-32 (10-15')	13H0180-18
			2SB-5A	13H0180-19
			2SB-1 (15-20')	13H0180-20
13H0697	08/16/2013	Water	MW-28	13H0697-01
			MW-29	13H0697-02
			MW-30	13H0697-03
			MW-31	13H0697-04
			MW-32	13H0697-05
			MW-34	13H0697-06
			MW-35	13H0697-07
			TB-1	13H0697-08
13K0968	11/25/2013	Soil/Water	2SB-12	13K0968-01
			2SB-13	13K0968-02
			2SB-14	13K0968-03
			2SB-15	13K0968-04
			MW-3	13K0968-05
			MW-34	13K0968-06

## **1.2 Analytical Methods**

The samples were analyzed for volatile organics (VOCs), semivolatile organics (SVOCs), and inorganics (Metals) following New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) methodologies (2005 update). Laboratory analyses were provided by York Analytical Laboratories, Inc. located in Stratford, Connecticut.

### **1.3 Validation Protocols**

Data validation is a process that involves the evaluation of analytical data against prescribed quality control criteria to determine the usefulness of the data. The analytical data addressed in this report were evaluated utilizing the quality control criteria presented in the following documents:

- *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, USEPA-540-R-08-01, June 2008.
- *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review*, USEPA-540-R-10-011, January 2010.
- *CLP Organics Data Review and Preliminary Review*, SOP No. HW-6 Revision #14, USEPA Region II, September 2006.
- *Validation of Metals for the Contract Laboratory Program (CLP) based on SOW ILMO5.3*, SOP No. HW-2, Revision #13, USEPA Region II, September 2006.
- *Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8260B*, SOP No. HW-24 Revision #2, USEPA Hazardous Waste Support Branch, August 2008.
- *Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D*, SOP No. HW-22 Revision #4, USEPA Hazardous Waste Support Branch, August 2008.
- *Exhibit E of New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP)*, NYSDEC June 2005.

#### **1.3.1 Inorganic Parameters**

The validation of inorganics for this project followed the requirements presented in the analytical methodology and the data validation guidelines presented above. The following QA/QC parameters were evaluated:

1. Holding Times
2. Calibration
  - a. Initial Calibration Verification
  - b. Continuing Calibration Verification
3. Blank Analysis
4. ICP Interference Check Sample Analysis (ICP only)
5. Matrix Spike Analysis
6. Laboratory Duplicate Analysis
7. Laboratory Control Sample Analysis
8. ICP Serial Dilution Analysis (ICP only)
9. Furnace Atomic Absorption Analysis
10. Method of Standard Addition Results
11. Field Blanks

12. Element Quantification and Reported Detection Limits
13. Document Completeness
14. Overall Data Assessment

### **1.3.2 Organic Parameters**

The validation of organic parameters for this project followed the requirements presented in the analytical methodology and the data validation guidelines presented above. The following QA/QC parameters were evaluated:

#### **Volatile and Semivolatile Organics Analyses**

1. Holding Times
2. GC/MS Instrument Tuning Criteria
3. Calibration
  - a. Initial Calibration
  - b. Continuing Calibration
4. Blank Analysis
5. Surrogate Recovery
6. Matrix Spike / Matrix Spike Duplicate Analysis
7. Reference Standard Analysis
8. Internal Standards Recovery
9. Compound Identification and Quantification
10. Field Duplicate Analysis
11. System Performance
12. Documentation Completeness
13. Overall Data Assessment

### **1.4 Data Qualifiers**

The following qualifiers as specified in the guidance documents presented in Section 1.3 of this report have been used for this data validation.

- |    |                                                                                                                                                                                                                                                                  |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| U  | Indicates that the compound was analyzed for, but was not detected. The sample quantification limit is presented and adjusted for dilution. This qualifier is also used to signify that the detection limit of an analyte was raised due to blank contamination. |
| J  | Indicates that the result should be considered approximate. This qualifier is used when the data validation procedure identifies a deficiency in the data generation process.                                                                                    |
| UJ | Indicates that the detection limit for the analyte in this sample should be considered approximate. This qualifier is used when the data validation process identifies a deficiency in the data generation process.                                              |
| R  | Indicates that the previously reported detection limit or sample result has been rejected due to a major deficiency in the data generation procedure. The data are considered to be unusable for both qualitative and quantitative purposes.                     |

The following sections of this document present a summary of the data validation process. Section 2 discusses data compliance with established QA/QC criteria and qualifications performed on the sample data. A discussion of the Precision, Accuracy, Representativeness, Comparability, and Completeness (PARCC) of the data and data usability are discussed in Section 3. The USEPA Region II Data Validation Checklists are presented in Appendix A.

## **SECTION 2 - DATA VALIDATION SUMMARY**

This section presents a discussion of QA/QC parameter compliance with established criteria and the qualification of data performed when QA/QC parameter deviations were identified. When several deviations from established QA/QC criteria were observed, the final qualifier assigned to the data was based on the cumulative effect of the deviations.

### **2.1 Inorganics Analysis**

Data validation was performed for fourteen soil samples, fourteen water samples, and one rinse blank sample for total inorganic parameters. The QA/QC parameters presented in Section 1.3.1 of this report were found to be within specified limits with the exception of the following:

#### **Initial and Continuing Calibration Verification**

The initial (ICV) and continuing (CCV) calibration standards are required to have recoveries between 90 and 110 percent. Analytes that exceeded these control limits required qualification. Detected and non-detected sample results were qualified as approximated (J, UJ) when recoveries were less than 90 percent, but were greater than 30 percent. Detected sample results were qualified as approximated (J) when recoveries were greater than 110 percent, but less than 200 percent. The analytes that exceeded the recovery limits and the samples that required qualification are tabulated below.

**Table 2: Inorganics Analysis - Initial and Continuing Calibration Deviations**

<b>Inorganic</b>	<b>ICV/CCV</b>	<b>Percent Recovery</b>	<b>Qualifier</b>	<b>Affected Samples</b>
Potassium	ICV1	89.7 %	J	MW-29
	CCV1	89.5 %		
	CCV2	89.5 %		
	CCV3	89.4 %		
	CCV4	88.8 %		
	CCV5	87.8 %		

#### **Matrix Spike Analysis**

Matrix spike (MS) recovery criteria requiring spike recoveries to be between 75 and 125 percent were exceeded for several analytes. Qualification of sample results included the approximation of results when spike recoveries were greater than the upper limit, but less than 200 percent or less than the lower limit, but greater than 10 percent. Detected results were rejected for analytes with spike recoveries greater than 200 percent. Qualification of sample data was not required when the non-spiked sample concentration was greater than four-times the spike solution concentration. Samples qualified due to MS recovery deviations are tabulated below.

**Table 3: Inorganics Analysis - Matrix Spike Deviations**

<b>MS Sample ID</b>	<b>Inorganic</b>	<b>Percent Recovery</b>	<b>Qualifier</b>	<b>Affected Samples</b>
SB-71 14'	Silver	38.8 %	UJ	SB-63 14' SB-71 14' SB-60B 6-8'

MS Sample ID	Inorganic	Percent Recovery	Qualifier	Affected Samples
MW-23	Silver	56.8 %	UJ	MW-23 MW-24 MW-25
MW-27	Silver	51.4 %	UJ	MW-26 MW-27
MW-29	Beryllium Silver	59.1 % 29.0 %	UJ UJ	MW-29
MW-28	Beryllium Manganese Silver	28.6 % 73.5 % 0 %	UJ J R	MW-28

### **ICP Serial Dilution Analysis**

ICP serial dilution criteria require the percent difference (%D) between results of a non-diluted analysis and a four-fold dilution analysis to be less than 10 percent for analytes with a non-diluted concentration greater than 50 times the instrument detection limit (IDL). Analytes with %D values greater than 10 percent are qualified as approximated for samples with concentrations greater than 50 times the IDL. Analytes that exceeded ICP serial dilution criteria and the samples that required qualification are presented below.

**Table 4: Inorganics Analysis - ICP Serial Dilution Deviations**

Serial Dilution Sample ID	Inorganic	%D	Qualifier	Affected Samples
MW-13	Sodium	14.6 %	J	MW-13
MW-25	Iron	10.8 %	J	MW-23 MW-24 MW-25

The laboratory flagged the detected Iron results for samples SB-60, SB-61, SB-67, SB-69, SB-63 14', SB-71 14', SB-60B 6-8', MW-26, and MW-28 with an "E" qualifier which is normally used to indicate an ICP serial dilution deviation. The serial dilution sample associated with these samples was within control limits for Iron. The "E" qualifier for Iron for these samples was removed due to these deviations.

### **Overall Data Assessment**

Overall, the laboratory performed inorganics analyses in accordance with the requirements specified in the methods listed in Section 1.2 of this report. These data have been determined to be usable for qualitative and quantitative purposes with the exception of Silver for one sample that was rejected due to matrix spike recovery deviations. Sample results for several analytes were also qualified based on deviations from initial and continuing calibration, matrix spike, and ICP serial dilution analysis criteria.



## 2.2 Volatiles Analysis

Data validation was performed for thirty-nine soil samples, fifteen water samples, two rinse blank samples, and eight trip blank samples. The QA/QC parameters presented in Section 1.3.2 of this report were found to be within specified limits with the exception of the following:

### Blank Analysis

The method blanks contained detectable concentrations of several target compounds. Blank action levels were calculated at ten times the blank concentrations for the common laboratory contaminants and five times for other target compounds. Detected sample results, which were less than the blank action levels were qualified with a "U" in the associated samples. Results that were detected below the contract required detection limit (CRDL) were raised to the CRDL and qualified with a "U" qualifier. The "U" qualifier indicates that the volatile organic was analyzed for but was not detected above the CRDL. Samples qualified for blank contamination are tabulated below.

**Table 5: Volatile Organics Analysis - Blank Analysis Deviations**

Blank Matrix	Date Analyzed	Compound	Blank Action Level <sup>1</sup>	Associated Samples	Qualified Sample Result
Soil	02/11/2012	Methylene Chloride	61 µg/Kg	MW-19 (10-12')	1200 U µg/Kg
Water	02/08/2012	Naphthalene	1.6 µg/L	Trip Blank (02/01/2012)	10 U µg/L
Soil	02/13/2012	Methylene Chloride	34 µg/Kg	SB-60 SB-61 SB-69	220 U µg/Kg 120 U µg/Kg 12 U µg/Kg
Water BB20785	02/21/2012	Acetone Methylene Chloride	180 µg/L 110 µg/L	Trip Blank	10 U µg/L 10 U µg/L
Soil BB20827	02/24/2012	Acetone	52 µg/Kg	SB-60B 6-8'	2400 U µg/Kg
Soil BB20827	02/24/2012	Methylene Chloride	42 µg/Kg	SB-63 14' SB-60B 14'	25 U µg/Kg 1100 U µg/Kg
Water BB21128	02/29/2012	Acetone Methylene Chloride	110 µg/L 130 µg/L	Trip Blank	10 U µg/L 26 U µg/L
Water BC20720	03/19/2012	Acetone	41 µg/L	MW-22 Trip Blank Rinse Blank	10 U µg/L 10 U µg/L 10 U µg/L
Water BC20720	03/19/2012	Methylene Chloride	60 µg/L	MW-10 MW-18 MW-22 Trip Blank Rinse Blank	10 U µg/L 10 U µg/L 10 U µg/L 10 U µg/L 10 U µg/L
Soil BG21224	07/31/2012	Methylene Chloride	33 µg/Kg	MW-23 MW-24 MW-25	12 U µg/Kg 13 U µg/Kg 1100 U µg/Kg
Soil BI21179	09/28/2012	Acetone	98 µg/Kg	MW-26 MW-27	19 U µg/Kg 46 U µg/Kg
Soil BI21179	09/28/2012	Methylene Chloride	58 µg/Kg	MW-26 MW-27	13 U µg/Kg 13 U µg/Kg
Soil BH30460	08/09/2013	Acetone	45 µg/Kg	2SB-2 (0-5') 2SB-4 (10-15') 2SB-6 (10-15') 2SB-7 (10-15')	4.9 U µg/Kg 3.4 U µg/Kg 16 U µg/Kg 5.0 U µg/Kg

Blank Matrix	Date Analyzed	Compound	Blank Action Level <sup>1</sup>	Associated Samples	Qualified Sample Result
Soil BH30478	08/11/2013	Acetone	34 µg/Kg	MW-31 (10-15') MW-32 (0-5') MW-32 (10-15')	5.5 U µg/Kg 5.0 U µg/Kg 15 U µg/Kg
Water BH31119	08/23/2013	Acetone	60 µg/L	MW-32	5.0 U µg/L
Soil BL30451	12/07/2013	Methylene Chloride	26 µg/Kg	2SB-13 2SB-14 2SB-15	10 U µg/Kg 10 U µg/Kg 10 U µg/Kg

1. Blank action level corrected for sample dilution and percent solids for each sample.

### **Initial Calibration**

The initial calibration relative standard deviation (%RSD) limit, which requires the %RSD to be less than 30 percent, was exceeded for several compounds. Sample qualification included the approximation (J, UJ) of results when %RSD criteria were exceeded. Samples requiring qualification due to these deviations are tabulated below.

**Table 6: Volatile Organics Analysis - Initial Calibration Deviations**

Date Analyzed	Compound	%RSD	Result Qualifier	Affected Samples
02/03/2012 VOA No. 3	Acetone	37.13 %	UJ	Trip Blank (02/01/2012) Trip Blank (02/02/2012) Rinse Blank
02/17/2012 GCMS-VOA4	Bromobenzene	40.09 %	UJ	Trip Blank
03/14/2012 VOA No. 1	Acetone	37.06 %	UJ	MW-10 MW-18 MW-22 Trip Blank Rinse Blank
09/20/2012 MSVOA 6	1,4-Dioxane Naphthalene	64.56 % 42.33 %	UJ J, UJ	MW-23 MW-24 Trip Blank MW-26 MW-27 Trip Blank
01/18/2013 VOA No. 1	Methyl tert-Butyl Ether	38.31 %	UJ	MW-28
08/06/2013 VOA No. 1	Methylene Chloride Acetone	42.00 % 43.87 %	UJ UJ	2SB-2 (10-15') 2SB-11 (10-15') MW-30 (10-15') MW-31 (10-15') MW-32 (0-5') MW-32 (10-15') 2SB-5A 2SB-1 (15-20')

Date Analyzed	Compound	%RSD	Result Qualifier	Affected Samples
08/13/2013 VOA No. 5	Methylene Chloride Acetone	30.75 % 39.66 %	UJ UJ	MW-28 MW-29 MW-30 MW-31 MW-32 MW-34 MW-35 TB-1
11/26/2013 GCMS-VOA4	Bromomethane Acetone	34.47 % 46.22 %	UJ J, UJ	2SB-12 MW-3 MW-34

### **Continuing Calibration**

The continuing calibration percent difference (%D) limit, which requires the %D to be less than 25 percent, was exceeded for several compounds. Sample qualification included the approximation (J, UJ) of results when %D criteria were exceeded, but were less than 90 percent. Non-detected results were rejected (R) for compounds with %D values greater than 90 percent. Samples requiring qualification due to these deviations are tabulated below.

**Table 7: Volatile Organics Analysis - Continuing Calibration Deviations**

Date Analyzed	Compound	%D	Result Qualifier	Affected Samples
02/11/2012 (02:39) VOA No. 5	Dichlorodifluoromethane Chloromethane	42.5 % 30.8 %	UJ UJ	MW-19 (10-12')
02/08/2012 (10:40) MS VOA 3	Methylene Chloride Acetone 2-Butanone 2,2-Dichloropropane	32.8 % 43.0 % 26.9 % 26.2 %	UJ UJ UJ UJ	Trip Blank (02/01/2012) Trip Blank (02/02/2012) Rinse Blank
02/13/2012 (11:18) MS VOA No. 5	Methylene Chloride Acetone	31.0 % 25.6 %	J, UJ J, UJ	SB-60 SB-61 SB-67 SB-69
02/24/2012 (11:21) MS VOA 2	1,3,5-Trimethylbenzene	36.9 %	J, UJ	SB-63 14' SB-71 14' SB-60B 6-8'
02/29/2012 (10:39) MS VOA No. 5	Dichlorodifluoromethane Chloromethane	25.4 % 42.8 %	UJ UJ	Trip Blank
03/19/2012 (10:05) VOA No. 1	Acetone	39.3 %	UJ	MW-10 MW-18 MW-22 Trip Blank Rinse Blank
07/31/2012 (08:51) MS VOA 2	Acetone 2-Butanone	29.2 % 35.2 %	J, UJ UJ	MW-23 MW-24 MW-25

Date Analyzed	Compound	%D	Result Qualifier	Affected Samples
09/29/2012 (01:04) VOA No. 6	Dichlorodifluoromethane Freon-113 Acetone 1,4-Dioxane	25.8 % 26.7 % 25.4 % 50.0 %	UJ UJ UJ UJ	MW-26 MW-27
10/01/2012 (11:27) VOA No. 6	Freon-113	25.6 %	UJ	MW-23 MW-24 Trip Blank
10/05/2012 (09:12) VOA No. 6	Dichlorodifluoromethane 1,4-Dioxane	25.7 % 100.0 %	UJ R	MW-27 Trip Blank
01/23/2013 (12:37) VOA No. 1	Chloroethane Methyl tert-Butyl Ether	37.3 % 40.3 %	UJ UJ	MW-28
08/11/2013 (11:23) VOA No. 1	Chloromethane Methylene Chloride Methyl tert-Butyl Ether 1,1,1-Trichloroethane Carbon Tetrachloride	35.4 % 45.3 % 27.3 % 26.0 % 27.6 %	UJ UJ UJ UJ UJ	2SB-2 (10-15') 2SB-11 (10-15') MW-30 (10-15') MW-31 (10-15') MW-32 (0-5') MW-32 (10-15') 2SB-5A 2SB-1 (15-20')
08/23/2013 (07:46) VOA No. 5	Bromomethane Acetone Vinyl Acetate 2-Butanone 1,4-Dioxane	26.1 % 38.2 % 33.2 % 60.0 % 91.3 %	UJ UJ UJ UJ R	MW-28 MW-29 MW-30 MW-31 MW-32 MW-34
08/26/2013 (09:04) VOA No. 5	Trichlorofluoromethane Methylene Chloride 2-Butanone 1,4-Dioxane	27.1 % 25.4 % 38.5 % 91.3 %	UJ UJ UJ R	MW-35 TB-1
12/06/2013 (02:35) VOA No. 4	Acetone	33.3 %	UJ	MW-3 MW-34
12/09/2013 (10:33) VOA No. 4	Acetone	45.1 %	J	2SB-12
12/07/2013 (12:06) VOA No. 5	Chloromethane Vinyl Chloride Bromomethane Chloroethane Freon-113 1,1-Dichloroethylene	30.4 % 37.1 % 114.6 % 67.2 % 64.2 % 41.9 %	UJ UJ R UJ UJ UJ	2SB-13 2SB-14 2SB-15

### **Laboratory Control Sample Analysis**

Laboratory control sample (LCS) recovery criteria requiring recoveries to be within laboratory generated control limits were exceeded for several compounds. Qualification of sample data included the approximation of results when spike recoveries were greater than the upper limit, but less than 200 percent or less than the lower limit, but greater than 10 percent. Non-detected sample results were rejected (R) for compounds with recoveries that were less than 10 percent. Samples qualified due to LCS recovery deviations are tabulated below.

**Table 8: Volatile Organics Analysis - Laboratory Control Sample Deviations**

Matrix	Compound	Percent Recovery	Control Limits	Qualifier	Affected Samples
Soil	1,4-Dioxane	0 %	70 % to 130 %	R	MW-19 (10-12')
Soil BB20511	1,4 Dioxane Acetone	0 %/0 % 62.4 %/71.1 %	70 % to 130 % 70 % to 130 %	R J	SB-60 SB-61 SB-67 SB-69
Soil BB20952	1,3,5-Trimethylbenzene 1,4-Dioxane	53.6 %/50.6 % 0 %/0 %	69.7 % to 127 % 70 % to 130 %	J, UJ R	SB-63 14' SB-71 14' SB-60B 6-8'
Water BC20720	Acetone	46.4 %/49.6 %	70 % to 130 %	J, UJ	MW-10 MW-18 MW-22 Trip Blank Rinse Blank
Soil BG21224	Acetone Vinyl Acetate	61.2 %/62.1 % 52.9 %/56.4 %	70 % to 130 % 70 % to 130 %	J, UJ UJ	MW-23 MW-24 MW-25
Soil BI21179	Vinyl Acetate	22.9 %/22.9 %	70 % to 130 %	UJ	MW-26 MW-27
Water BJ20076	Vinyl Acetate	44.8 %/47.9 %	70 % to 130 %	UJ	MW-23 MW-24 Trip Blank
Water BJ20317	Vinyl Acetate	46.2 %/42.7 %	70 % to 130 %	UJ	MW-27 Trip Blank
Soil BA30782	1,4-Dioxane	63 %/0 %	10 % to 265 %	R	MW-29
Soil BH30478	1,4-Dioxane Methylene Chloride	7.72 %/9.26 % 51.1 %/54.0 %	10 % to 265 % 55 % to 143 %	R UJ	2SB-2 (10-15') 2SB-11 (10-15') MW-30 (10-15') MW-31 (10-15') MW-32 (0-5') MW-32 (10-15') 2SB-5A 2SB-1 (15-20')
Water BH31199	2-Chlorotoluene 4-Chlorotoluene Bromobenzene Toluene	78.6 %/83.6 % 82.0 %/85.2 % 82.1 %/86.9 % 87.8 %/92.8 %	82 % to 117 % 84 % to 118 % 85 % to 117 % 88 % to 113 %	UJ UJ UJ UJ	MW-35 TB-1

### **Matrix Spike Recovery**

Matrix spike/matrix spike duplicate (MS/MSD) recovery criteria requiring compound recoveries to be within laboratory generated control limits were exceeded for several compounds. Qualification of sample results included the approximation of results when spike recoveries were greater than the upper limit, but less than 200 percent or less than the lower limit, but greater than 10 percent. Non-detected sample results were rejected (R) for compounds with recoveries less than 10 percent. Samples qualified due to MS/MSD recovery deviations are tabulated below.

**Table 9: Volatile Organics Analysis - MS/MSD Analysis Deviations**

MS/MSD Sample ID	Compound	Percent Recovery (MS/MSD)	Control Limits	Qualifier	Affected Samples
MW-22	Acetone Chloromethane	39.4 %/46.3 % 56.6 %/64.3 %	70 % to 130 % 64 % to 111 %	UJ UJ	MW-10 MW-18 MW-22
MW-24	Acetone trans-1,3-Dichloropropylene Vinyl Acetate	68.4 %/71.7 % 74.7 %/76.2 % 32.5 %/31.7 %	70 % to 130 % 74.9 % to 136 % 70 % to 130 %	UJ UJ UJ	MW-23 MW-24
2SB-1/MW-34 (10-15')	cis-1,2-Dichloroethylene n-Propylbenzene p-Isopropyltoluene Vinyl Acetate	26.1 % 65.3 % 65.4 % 3.46 %	51 % to 128 % 70 % to 130 % 70 % to 130 % 10 % to 62 %	J, UJ UJ UJ UJ	2SB-1/MW-34 (10-15') 2SB-1/MW-34 (15-20') 2SB-2 (0-5') 2SB-3 (10-15') 2SB-4 (0-5') 2SB-4 (10-15') 2SB-5 (10-15') 2SB-6 (10-15') 2SB-7 (10-15') 2SB-8 (10-15') 2SB-9/MW-35 (0-5') 2SB-9/MW-35 (10-15')
2SB-1 (15-20')	1,1-Dichloroethylene 1,2-Dichloropropane 1,4-Dioxane cis-1,2-Dichloroethylene n-Propylbenzene o-Xylene p- & m- Xylenes p-Isopropyltoluene	48.5 % 57.0 % 7.50 % 0 % 46.0 % 64.3 % 58.9 % 50.5 %	50 % to 138 % 58 % to 126 % 10 % to 249 % 51 % to 128 % 70 % to 130 % 70 % to 130 % 70 % to 130 % 70 % to 130 %	UJ UJ UJ J, UJ UJ UJ UJ UJ	2SB-2 (10-15') 2SB-11 (10-15') MW-30 (10-15') MW-31 (10-15') MW-32 (0-5') MW-32 (10-15') 2SB-5A 2SB-1 (15-20')

### Surrogate Recovery

Surrogate compounds are added to the samples prior to sample preparation to evaluate the efficiency of the sample preparation procedures. The data validation guidelines require the surrogate compounds to have percent recovery values within the prescribed control limits. When one or more of the surrogate compounds exceed the recovery limits the associated sample data require qualification. Samples that required qualification for surrogate compound deficiencies are tabulated below.

**Table 10: Volatile Organics Analysis - Surrogate Compound Deviations**

Sample ID	Surrogate Compound	Surrogate Recovery	Control Limits	Qualifier	Affected Compounds
SB-67	p-Bromofluorobenzene Toluene-d8	163 % 160 %	63.5 % to 145 % 86.6 % to 116 %	J	All Detected Compounds
SB-61	p-Bromofluorobenzene Toluene-d8	161 % 117 %	63.5 % to 145 % 86.6 % to 116 %	J	All Detected Compounds
SB-60	p-Bromofluorobenzene Toluene-d8	167 % 136 %	63.5 % to 145 % 86.6 % to 116 %	J	All Detected Compounds
SB-71 14'	p-Bromofluorobenzene Toluene-d8	309 % 158 %	63.5 % to 145 % 86.6 % to 116 %	J	All Detected Compounds

### **Internal Standards Recovery**

The internal standard areas exceeded recovery limits for several samples. Qualification of sample results included the approximation of results when recoveries were greater than the upper limit, but less than 200 percent or less than the lower limit, but greater than 25 percent. Samples qualified due to internal standard recovery deviations are tabulated below.

**Table 11: Volatile Organics Analysis - Internal Standard Deviations**

<b>Sample ID</b>	<b>Internal Standard</b>	<b>Percent Recovery</b>	<b>Affected Compounds</b>	<b>Qualifier</b>
MW-26	1,2-Dichlorobenzene-d4	16.3 %	Bromoform	R
			1,1,2,2-Tetrachloroethane	R
			1,2,3-Trichloropropane	R
			Isopropylbenzene	J
			Bromobenzene	R
			n-Propylbenzene	J
			2-Chlorotoluene	R
			4-Chlorotoluene	R
			tert-Butylbenzene	R
			1,3,5-Trimethylbenzene	R
			1,2,4-Trimethylbenzene	R
			sec-Butylbenzene	J
			1,3-Dichlorobenzene	R
			1,4-Dichlorobenzene	J
			1,2-Dichlorobenzene	J
			p-Isopropyltoluene	J
			n-Butylbenzene	J
			1,2-Dibromo-3-chloropropane	R
			1,2,4-Trichlorobenzene	R
			Naphthalene	J
			Hexachloro-1,3-Butadiene	R
			1,2,3-Trichlorobenzene	J

### **Sample Reporting Limits**

The reporting limit for Acetone for sample MW-25 was misreported without correcting the quantification limit for the sample dilution. The laboratory reported a non-detected result with a quantification limit of 11 µg/Kg. The correct quantification limit for this sample is 1100 µg/Kg.

### **Sample Dilution**

The Trichloroethylene concentration for 2SB-1 (15-20') exceeded the linear concentration range of the instrumentation with a result of 450 E µg/Kg. The sample was not reanalyzed at a secondary dilution to properly quantify the Trichloroethylene concentration. Due to this deviation the reported Trichloroethylene concentration for sample 2SB-1 (15-20') has been qualified as approximated (J).

The Acetone concentration for 2SB-14 exceeded the linear concentration range of the instrumentation with a result of 650 E µg/Kg. The sample was not reanalyzed at a

secondary dilution to properly quantify the Acetone concentration. Due to this deviation the reported Acetone concentration for sample 2SB-14 has been qualified as approximated (J).

### **Overall Data Assessment**

Overall, the laboratory performed volatile organics analyses in accordance with the requirements specified in the method listed in Section 1.2. These data were determined to be usable for qualitative and quantitative purposes with the exception of 1.02 percent of the non-detected sample results for several compounds which were rejected due to deviations from continuing calibration, laboratory control sample, and internal standard recovery criteria. Sample results for several compounds were qualified based on deviations from blank analysis, initial calibration, continuing calibration, laboratory control sample, internal standard recovery, surrogate recovery, and matrix spike criteria.

### **2.3 Semivolatiles Analysis**

Data validation was performed for forty-nine soil samples, seventeen water samples, and two rinse blank samples. The QA/QC parameters presented in Section 1.3.2 of this report were found to be within specified limits with the exception of the following:

#### **Initial Calibration**

The initial calibration relative standard deviation (%RSD) limit, which requires the %RSD to be less than 30 percent, was exceeded for several compounds. Sample qualification included the approximation (J, UJ) of results when %RSD criteria were exceeded. Samples requiring qualification due to these deviations are tabulated below.

**Table 12: Semivolatile Organics Analysis - Initial Calibration Deviations**

<b>Date Analyzed</b>	<b>Compound</b>	<b>%RSD</b>	<b>Result Qualifier</b>	<b>Affected Samples</b>
02/08/2012 GC MS BNA 3	Hexachlorocyclopentadiene	46.74 %	UJ	MW-19 (10-12')
	2,4-Dinitrophenol	31.01 %	UJ	SB-60 SB-61 SB-63 SB-67 SB-68 SB-69 SB-77A SB-78A Rinse Blank
02/15/2012 GC MS BNA #3	Hexachlorocyclopentadiene	46.19 %	UJ	SB-63 14'
	Fluorene	34.86 %	UJ	SB-60B 6-8'
	Chrysene	32.41 %	UJ	SB-60B 8-10' SB-60B 10-12' SB-71 14'



Date Analyzed	Compound	%RSD	Result Qualifier	Affected Samples
02/24/2012 BNA #1	Indeno(1,2,3-cd)pyrene Benzo(g,h,i)perylene	31.0 % 46.79 %	UJ UJ	MW-18 15' SB-74 13' SB-72 13' MW-17 14' SB-72 9' SB-73 13.5' MW-22 10-11 MW-22 12-14 MW-10 MW-13 MW-18 MW-19 MW-22 Rinse Blank
10/02/2012 BNA #1	Hexachlorocyclopentadiene 2,4-Dinitrophenol	64.14 % 30.97 %	UJ UJ	MW-23 MW-24 MW-26 MW-27
09/27/2012 BNA #4	Hexachlorocyclopentadiene 2,4-Dinitrophenol 4-Nitrophenol 4-Nitroaniline 4,6-Dinitro-2-methylphenol	76.61 % 45.54 % 26.83 % 42.38 % 48.78 %	UJ UJ UJ UJ UJ	MW-27
01/04/2013 BNA #5	2,4-Dinitrophenol	33.01 %	UJ	MW-29
07/03/2013 BNA #1	Hexachlorocyclopentadiene 2,4-Dinitrophenol	37.37 % 40.58 %	UJ UJ	2SB-1/MW-34 (10-15') 2SB-1/MW-34 (15-20') 2SB-2 (0-5') 2SB-2 (10-15') 2SB-3 (10-15') 2SB-4 (0-5') 2SB-4 (10-15') 2SB-5 (10-15') 2SB-6 (10-15') 2SB-7 (10-15') 2SB-8 (10-15') 2SB-9/MW-35 (0-5') 2SB-9/MW-35 (10-15') 2SB-11 (10-15') MW-30 (10-15') MW-31 (10-15') MW-32 (0-5') MW-32 (10-15') 2SB-5A 2SB-1 (15-20')
08/20/2013 BNA #2	Hexachlorocyclopentadiene	49.33 %	UJ	MW-28 MW-29 MW-30 MW-31 MW-32 MW-34 MW-35
11/17/2013 BNA #2	Hexachlorocyclopentadiene 2,4-Dinitrophenol	43.44 % 48.90 %	UJ UJ	MW-3 MW-34

### Continuing Calibration

The continuing calibration percent difference (%D) limit, which requires the %D to be less than 25 percent, was exceeded for several compounds. Sample qualification included the approximation (J, UJ) of results when %D criteria were exceeded, but were less than 90 percent. Samples requiring qualification due to these deviations are tabulated below.

**Table 13: Semivolatile Organics Analysis - Continuing Calibration Deviations**

Date Analyzed	Compound	%D	Result Qualifier	Affected Samples
02/10/2012 (10:19) GC MS BNA #3	Pyridine	704.2 %	R	MW-19 (10-12') SB-67 SB-68 SB-69
02/09/2012 (10:20) GC MS BNA #3	Pyridine 4-Chloroaniline	43.2 % 30.3 %	UJ UJ	SB-60 SB-61 SB-63 SB-77A SB-78A
02/29/2012 (10:13) GC MS BNA #3	2,4-Dinitrophenol	34.8 %	UJ	SB-71 14'
03/05/2012 (9:57) BNA #1	4-Chloroaniline Benzo(g,h,i)perylene	30.5 % 34.4 %	UJ UJ	MW-18 15' SB-74 13' SB-72 13'
03/06/2012 (10:23) BNA #1	4-Chloroaniline 3,3'-Dichlorobenzidine Chrysene	26.7 % 34.1 % 25.8 %	UJ UJ UJ	MW-17 14' SB-72 9' SB-73 13.5' MW-22 10-11 MW-22 12-14
03/20/2012 (09:28) BNA #1	Bis(2-ethylhexyl)phthalate Benzo(a)anthracene Chrysene Benzo(g,h,i)perylene	27.9 % 29.7 % 33.5 % 51.6 %	J, UJ UJ UJ UJ	MW-10 MW-13 MW-18 MW-19 MW-22 Rinse Blank
10/02/2012 (06:55) BNA #1	Pentachlorophenol	33.0 %	UJ	MW-23 MW-24 MW-27
10/03/2012 (10:24) BNA #1	4-Chloroaniline Hexachlorocyclopentadiene 3,3'-Dichlorobenzidine	40.9 % 43.6 % 27.0 %	UJ UJ UJ	MW-26
10/04/2012 (08:18) BNA #4	4-Chloroaniline Hexachlorocyclopentadiene 2,4-Dinitrophenol 4,6-Dinitro-2-methylphenol Dibenz(a,h)anthracene Benzo(g,h,i)perylene	42.0 % 288.9 % 348.0 % 283.3 % 64.0 % 85.1 %	UJ R R R UJ UJ	MW-27
01/15/2013 (10:28) BNA #5	Aniline 4-Chloroaniline 3-Nitroaniline 2,4-Dinitrophenol 4,6-Dinitro-2-methylphenol	114.4 % 109.6 % 123.5 % 71.6 % 38.5 %	R R R UJ UJ	MW-29

Date Analyzed	Compound	%D	Result Qualifier	Affected Samples
01/22/2013 (10:43) BNA #1	N-Nitrosodimethylamine Pyridine Hexachlorocyclopentadiene 2,4-Dinitrophenol 4,6-Dinitro-2-methylphenol	25.2 % 40.3 % 44.6 % 52.4 % 38.9 %	UJ UJ UJ UJ UJ	MW-28
08/08/2013 (09:14) BNA #1	Pyridine 4-Chloroaniline Hexachlorocyclopentadiene 3-Nitroaniline 4-Nitroaniline 4,6-Dinitro-2-methylphenol	52.9 % 34.2 % 56.7 % 33.2 % 29.3 % 31.0 %	UJ UJ UJ UJ UJ UJ	2SB-1/MW-34 (15-20')
08/08/2013 (04:16) BNA #1	Pyridine Isophorone 4-Chloroaniline Hexachlorocyclopentadiene 3-Nitroaniline 4-Nitrophenol 4-Nitroaniline 4,6-Dinitro-2-methylphenol Benzyl butyl phthalate Indeno(1,2,3-cd)pyrene Dibenz(a,h)anthracene Benzo(g,h,i)perylene	66.9 % 30.4 % 50.4 % 25.2 % 50.5 % 48.3 % 49.5 % 44.8 % 28.5 % 30.2 % 29.1 % 27.8 %	UJ UJ UJ UJ UJ UJ UJ UJ UJ J, UJ UJ J, UJ	2SB-2 (0-5') 2SB-2 (10-15') 2SB-3 (10-15') 2SB-4 (0-5') 2SB-4 (10-15') 2SB-5 (10-15') 2SB-6 (10-15') 2SB-7 (10-15') 2SB-8 (10-15') 2SB-9/MW-35 (0-5') 2SB-9/MW-35 (10-15') 2SB-11 (10-15') MW-30 (10-15') MW-31 (10-15') MW-32 (0-5') MW-32 (10-15') 2SB-5A 2SB-1 (15-20')
08/09/2013 (09:51) BNA #1	Hexachlorocyclopentadiene 3-Nitroaniline	55.9 % 27.1 %	UJ UJ	2SB-1/MW-34 (10-15')
08/20/2013 (03:10) BNA #2	Hexachlorocyclopentadiene	30.0 %	UJ	MW-28 MW-29 MW-30 MW-31 MW-32 MW-34 MW-35
12/02/2013 (09:00) BNA #2	Bis(2-chloroethyl) ether Bis(2-chloroisopropyl) ether N-Nitroso-di-n-propylamine Nitrobenzene Hexachlorocyclopentadiene 4-Chlorophenyl phenyl ether	34.6 % 70.7 % 60.1 % 46.8 % 27.6 % 28.4 %	UJ UJ UJ UJ UJ UJ	MW-3
12/04/2013 (09:06) BNA #2	Bis(2-chloroisopropyl) ether N-Nitroso-di-n-propylamine Nitrobenzene 4-Chloroaniline Hexachlorocyclopentadiene Pentachlorophenol	52.0 % 55.6 % 40.2 % 71.6 % 35.1 % 25.2 %	UJ UJ UJ UJ UJ UJ	MW-34

### **Laboratory Control Sample Analysis**

Laboratory control sample (LCS) recovery criteria requiring compound recoveries to be within laboratory generated control limits were exceeded for several compounds.

Qualification of sample results included the approximation of results when spike recoveries were greater than the upper limit, but less than 200 percent or less than the lower limit, but greater than 10 percent. Non-detected sample results were rejected (R) for compounds with recoveries that were less than 10 percent. Samples qualified due to LCS recovery deviations are tabulated below.

**Table 14: Semivolatile Organics Analysis - Laboratory Control Sample Deviations**

Matrix	Compound	Percent Recovery	Control Limits	Qualifier	Affected Samples
Soil BC20056	N-Nitrosodimethylamine Pyridine	8.84 % 6.72 %	10 % to 142 % 10 % to 122 %	R R	MW-17 14' MW-18 15'
Water BJ20230	Hexachlorocyclopentadiene	0 %/13.8 %	30 % to 140 %	R	MW-27
Soil BH30274	2,4-Dinitrophenol	9.98 %/23.2 %	10 % to 151 %	R	2SB-1/MW-34 (10-15') 2SB-1/MW-34 (15-20') 2SB-2 (0-5') 2SB-2 (10-15') 2SB-3 (10-15') 2SB-4 (0-5') 2SB-4 (10-15') 2SB-5 (10-15') 2SB-6 (10-15') 2SB-7 (10-15') 2SB-8 (10-15') 2SB-9/MW-35 (0-5') 2SB-9/MW-35 (10-15') 2SB-11 (10-15') MW-30 (10-15') MW-31 (10-15') MW-32 (0-5') MW-32 (10-15') 2SB-5A
Soil BH30341	Hexachlorocyclopentadiene	9.86 %	10 % to 122 %	UJ	2SB-1 (15-20')
Soil BL30013	Hexachlorocyclopentadiene 4-Nitrophenol	10.4 %/9.90 % 30.3 %/8.46 %	10 % to 101 % 10 % to 55 %	R R	MW-3 MW-34

### **Matrix Spike Recovery**

Matrix spike/matrix spike duplicate (MS/MSD) recovery criteria requiring compound recoveries to be within laboratory generated control limits were exceeded for several compounds. Qualification of sample results included the approximation of results when spike recoveries were greater than the upper limit, but less than 200 percent or less than the lower limit, but greater than 10 percent. Non-detected sample results were rejected (R) for compounds with recoveries less than 10 percent. Samples qualified due to MS/MSD recovery deviations are tabulated below.

**Table 15: Semivolatile Organics Analysis - MS/MSD Analysis Deviations**

MS/MSD Sample ID	Compound	Percent Recovery (MS/MSD)	Control Limits	Qualifier	Affected Samples
SB-69	4,6-Dinitro-2-methylphenol	0 %/45.5 %	10 % to 122 %	R	SB-68 SB-61 SB-63 SB-67 SB-68 SB-69 SB-77A SB-78A
MW-17 14'	All Compounds	Less than 10 %	10 % to 180 %	J, R	MW-17 14' MW-18 15' SB-74 13' SB-72 9' SB-72 13' SB-73 13.5' MW-22 10-11 MW-22 12-14
MW-28	1,2-Dichlorobenzene 1,4-Dichlorobenzene 1,3-Dichlorobenzene Hexachlorocyclopentadiene Hexachloroethane	19.4 %/18.5 % 17.6 %/17.6 % 16.5 %/15.4 % 7.98 %/0 % 13.2 %/12.6 %	22.8 % to 114 % 19.8 % to 121 % 20.6 % to 119 % 10 % to 122 % 20.2 % to 114 %	UJ UJ UJ R UJ	MW-28
2SB-1/MW-34 (10-15')	Pyridine	19/0 %	21 % to 140 %	R	2SB-1/MW-34 (10-15') 2SB-1/MW-34 (15-20') 2SB-2 (0-5') 2SB-2 (10-15') 2SB-3 (10-15') 2SB-4 (0-5') 2SB-4 (10-15') 2SB-5 (10-15') 2SB-6 (10-15') 2SB-7 (10-15') 2SB-8 (10-15') 2SB-9/MW-35 (0-5') 2SB-9/MW-35 (10-15') 2SB-11 (10-15') MW-30 (10-15') MW-31 (10-15') MW-32 (0-5') MW-32 (10-15') 2SB-5A
2SB-1 (15-20')	Hexachlorocyclopentadiene	0 %/11.4 %	10 % to 122 %	R	2SB-1 (15-20')

The MS/MSD analysis of sample MW-19 (10-12') exhibited recoveries that were outside of prescribed limits for a majority of the compounds due to the sample dilution required to properly quantify the detected concentrations of Benzyl butyl phthalate and 2-Methylnaphthalene. Sample qualification was not required due to this deviation because the matrix spike concentrations were diluted below the linear calibration range of the instrumentation.

The MS/MSD analysis of sample MW-23 exhibited recoveries that were outside of prescribed limits for a majority of the compounds due to the sample dilution required to

properly quantify the detected concentrations of bis(2-ethylhexyl)phthalate. Sample qualification was not required due to this deviation because the matrix spike concentrations were diluted below the linear calibration range of the instrumentation.

### **Sample Dilution**

The diluted sample analysis of MW-25 exceeded the linear calibration range of the instrumentation for bis(2-ethylhexyl)phthalate with a sample concentration of 14,000,000 DE µg/Kg. The bis(2-ethylhexyl)phthalate result for sample MW-25 was qualified as approximated (J) because the sample was not re-analyzed with sufficient dilution to properly quantify the bis(2-ethylhexyl)phthalate concentration.

The initial analysis of MW-27 exceeded the linear calibration range of the instrument for bis(2-ethylhexyl)phthalate with a concentration of 14,600 E µg/Kg. The laboratory re-analyzed the sample with a higher dilution factor, but diluted the bis(2-ethylhexyl)phthalate concentration below the level of detection. Based on this deviation, the bis(2-ethylhexyl)phthalate result should be reported at 14,600 J µg/Kg for sample MW-27.

### **Surrogate Recovery**

Surrogate compounds are added to the samples prior to sample preparation to evaluate the efficiency of the sample preparation procedures. The data validation guidelines require the surrogate compounds to have percent recovery values within the prescribed control limits. When one or more of the surrogate compounds exceed the recovery limits the associated sample data require qualification. Samples that required qualification for surrogate compound deficiencies are tabulated below.

**Table 16: Semivolatile Organics Analysis - Surrogate Compound Deviations**

Sample ID	Surrogate Compound	Surrogate Recovery	Control Limits	Qualifier	Affected Compounds
MW-30	Phenol-d5	7.92 %	10 % to 117 %	R	Benzyl Alcohol
MW-31	Phenol-d5	9.35 %	10 % to 117 %	R	4-Chloro-3-methylphenol
MW-32	Phenol-d5	5.05 %	10 % to 117 %	R	2-Chlorophenol
MW-32	2-Fluorophenol	9.93 %	10 % to 52 %	R	2,4-Dichlorophenol
MW-34	Phenol-d5	9.08 %	10 % to 117 %	R	2,4-Dimethylphenol
MW-35	Phenol-d5	9.48 %	10 % to 117 %	R	4,6-Dinitro-2-methylphenol
				R	2,4-Dinitrophenol
				R	2-Methylphenol
				R	3- & 4-Methylphenols
				R	4-Nitrophenol
				R	2-Nitrophenol
				R	Phenol
				R	2,4,5-Trichlorophenol
				R	2,4,6-Trichlorophenol

The surrogate recoveries for several of the soil samples were outside of prescribed limits due to the sample dilution required to properly quantify the detected concentrations of target compounds. Sample qualification was not required due to these deviations because the surrogate compound concentrations were diluted below the linear calibration range of the instrumentation.

### **Overall Data Assessment**

Overall, the laboratory performed semivolatile organics analyses in accordance with the requirements specified in the method listed in Section 1.2. These data were determined to be usable for qualitative and quantitative purposes with the exception of 13.39 percent of the non-detected sample results for several compounds which were rejected due to deviations from calibration, laboratory control sample, matrix spike, and surrogate recovery criteria. Sample results for several compounds were qualified based on deviations from initial calibration, continuing calibration, laboratory control sample, surrogate recovery, and matrix spike criteria.

## **SECTION 3 - DATA USABILITY and PARCC EVALUATION**

### **3.1 Data Usability**

This section presents a summary of the usability of the analytical data and an evaluation of the PARCC parameters. Data usability was calculated as the percentage of data that was not qualified as rejected based on a significant deviation from established QA/QC criteria. Data usability, which was calculated separately for each type of analysis, is tabulated below.

**Table 17: Data Usability and PARCC Evaluation - Data Usability**

<b>Parameter</b>	<b>Usability</b>	<b>Deviations</b>
Inorganic Parameters	99.85 %	Silver for one sample was rejected due to matrix spike recovery deviations
Volatile Organics	98.98 %	1.02 percent of the non-detected sample results for several compounds were rejected due to deviations from continuing calibration, laboratory control sample, and internal standard recovery criteria
Semivolatile Organics	86.61 %	13.39 percent of the non-detected sample results for several compounds were rejected due to deviations from calibration, laboratory control sample, matrix spike, and surrogate recovery criteria

### **3.2 PARCC Evaluation**

The following sections provide an evaluation of the analytical data with respect to the precision, accuracy, representativeness, comparability, and completeness (PARCC) parameters.

#### **3.2.1 Precision**

Precision is measured through field duplicate samples, split samples, and laboratory duplicate samples. For this sampling program, none of the data were qualified for field duplicate criteria deviations and none of the data were qualified for laboratory duplicate criteria deviations.

#### **3.2.2 Accuracy**

Matrix spike sample, surrogate recovery, internal standard recovery, laboratory control samples, and calibration criteria indicate the accuracy of the data. For this sampling program, 1.90 percent of the analytical data were qualified for deviations from matrix spike recovery criteria; 1.65 percent of the data were qualified for surrogate recovery criteria deviations; 0.23 percent of the data were qualified for internal standard recovery criteria deviations; 0.93 percent of the data were qualified for laboratory control sample deviations; and 7.12 percent of the data were qualified for calibration criteria deviations.

#### **3.2.3 Representativeness**

Holding times, sample preservation, and blank analysis are indicators of the representativeness of the analytical data. For this investigation, none of the analytical



data required qualification for holding time deviations and 0.41 percent of the analytical data required qualification for blank analysis deviations.

#### **3.2.4 Comparability**

Comparability is not compromised provided that the analytical methods did not change over time. A major component of comparability is the use of standard reference materials for calibration and QC. These standards are compared to other unknowns to verify their concentrations. Since standard analytical methods and reporting procedures were consistently used by the laboratory, the comparability criteria for the analytical data were met.

#### **3.2.5 Completeness**

The overall percent usability or completeness of the data was 93.12 percent.

## **APPENDIX A**

### **DATA VALIDATION CHECKLISTS**

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## Data Validation Checklist - Part A: VOA Analysis

No:	Parameter	YES	NO	N/A
<b>1.0</b>	<b><u>Traffic Reports and Laboratory Narrative</u></b>			
1.1	Are the traffic Report Forms present for all samples?	X		
1.2	Do the Traffic Reports or Lab Narrative indicate any problems with sample receipt, condition of samples, analytical problems or special circumstances affecting the quality of the data?		X	
<b>2.0</b>	<b><u>Holding Times</u></b>			
2.1	Have any VOA technical holding times, determined from date of collection to date of analysis, been exceeded?		X	
<b>3.0</b>	<b><u>System Monitoring Compound (SMC) Recovery (Form II)</u></b>			
3.1	Are the VOA SMC Recovery Summaries (FORM II) present for each of the following matrices:			
a.	Low Water	X		
b.	Low Soil	X		
c.	Air			X
3.2	Are all the VOA samples listed on the appropriate System Monitoring Compound Recovery Summary for each of the following matrices:			
a.	Low Water	X		
b.	Low Soil	X		
c.	Air			X
3.3	Were outliers marked correctly with an asterisk?	X		
3.4	Was one or more VOA system monitoring compound recovery outside of contract specifications for any sample or method blank?	X		
	If yes, were samples re-analyzed?		X	
	Were method blanks re-analyzed?			X
3.5	Are there any transcription/calculation errors between raw data and Form II?		X	
<b>4.0</b>	<b><u>Matrix Spikes (Form III)</u></b>			
4.1	Is the Matrix Spike/Matrix Spike Duplicate Recovery Form (Form III) present?		X	
4.2	Were matrix spikes analyzed at the required frequency for each of the following matrices?			
a.	Low Water	X		
b.	Low Soil	X		
c.	Air			X
4.3	How many VOA spike recoveries are outside QC limits?			
	Water <u>  3  </u> out of 66      Soils <u>  8  </u> out of 66			
4.4	How many RPD's for matrix spike and matrix spike duplicate recoveries are outside QC limits?			
	Water <u>  0  </u> out of 66      Soils <u>  0  </u> out of 66			

### Data Validation Checklist - Part A: VOA Analysis

No:	Parameter	YES	NO	N/A
<b>5.0</b>	<b><u>Blanks (Form IV)</u></b>			
5.1	Is the Method Blank Summary (Form IV) present?	X		
5.2	Frequency of Analysis: for the analysis of VOA TCL compounds, has a reagent/method blank been analyzed for each SDG or every 20 samples of similar matrix (low water, low soil, medium soil), whichever is more frequent?	X		
5.3	Has a VOA method/instrument blank been analyzed at least once every twelve hours for each concentration level and GC/MS system used?	X		
5.4	Is the chromatographic performance (baseline stability) for each instrument acceptable for VOAs?	X		
<b>6.0</b>	<b><u>Contamination</u></b>			
6.1	Do any method/instrument/reagent blanks have positive results (TCL and/or TIC) for VOAs?	X		
6.2	Do any field/trip/rinse blanks have positive VOA results (TCL and/or TIC)?	X		
6.3	Are there field/rinse/equipment blanks associated with every sample?	X		
<b>7.0</b>	<b><u>GC/MS Instrument Performance Check (Form V)</u></b>			
7.1	Are the GC/MS Instrument Performance Check Forms (Form V) present for Bromofluorobenzene (BFB)?	X		
7.2	Are the enhanced bar graph spectrum and mass/charge (m/z) listing for the BFB provided for each twelve hour shift?	X		
7.3	Has an instrument performance compound been analyzed for every twelve hours of sample analysis per instrument?	X		
7.4	Have the ion abundances been normalized to m/z 95?	X		
7.5	Have the ion abundance criteria been met for each instrument used?	X		
7.6	Are there any transcription/calculation errors between mass lists and Form V's?		X	
7.7	Have the appropriate number of significant figures (two) been reported?	X		
7.8	Are the spectra of the mass calibration compound acceptable?	X		
<b>8.0</b>	<b><u>Target Compound List (TCL) Analytes</u></b>			
8.1	Are the Organic Analysis Data Sheets (Form I VOA) present with required header information on each page, for each of the following:			
	a. Sample and/or fractions as appropriate?	X		
	b. Matrix spikes and matrix spike duplicates?	X		
	c. Blanks?	X		
8.2	Are the VOA Reconstructed Ion Chromatograms, the mass spectra for the identified compounds, and the data system printouts (Quant Reports) included in the sample package for each of the following?			
	a. Samples and/or fractions as appropriate?	X		
	b. Matrix spikes and matrix spike duplicates (Mass spectra not required)?	X		
	c. Blanks?	X		
8.3	Are the response factors shown in the Quant Report?	X		

## Data Validation Checklist - Part A: VOA Analysis

No:	Parameter	YES	NO	N/A
8.4	Is the chromatographic performance acceptable with respect to:			
	Baseline stability?	X		
	Resolution?	X		
	Peak shape?	X		
	Full-scale graph (attenuation)?	X		
	Other:			
8.5	Are the lab-generated standard mass spectra of the identified VOA compounds present for each sample?	X		
8.6	Is the RRT of each reported compound within 0.06 RRT units of the standard RRT in the continuing calibration?	X		
8.7	Are all ions in the standard mass spectrum at a relative intensity greater than 10% also present in the sample mass spectrum?	X		
8.8	Do sample and standard relative ion intensities agree within 20%?	X		
<b>9.0</b>	<b><u>Tentatively Identified Compounds (TIC)</u></b>			
9.1	Are all Tentatively Identified Compound Forms (Form I Part B) present; and do listed TICs include scan number or retention time, estimated concentration and "JN" qualifier?	X		
9.2	Are the mass spectra for the tentatively identified compounds and associated "best match" spectra included in the sample package for each of the following:			
	a. Samples and/or fractions as appropriate?	X		
	b. Blanks?	X		
9.3	Are any TCL compounds (from any fraction) listed as TIC compounds?		X	
9.4	Are all ions present in the reference mass spectrum with a relative intensity greater than 10% also present in the sample mass spectrum?	X		
9.5	Do TIC and "best match" standard relative ion intensities agree within 20%?	X		
<b>10.0</b>	<b><u>Compound Quantitation and Reported Detection Limits</u></b>			
10.1	Are there any transcription/calculation errors in Form I results?		X	
10.2	Are the CRQLs adjusted to reflect sample dilutions and, for soils, sample moisture?	X		
<b>11.0</b>	<b><u>Standards Data (GC/MS)</u></b>			
11.1	Are the Reconstructed Ion Chromatograms, and data system printouts present for initial and continuing calibration?	X		
<b>12.0</b>	<b><u>GC/MS Initial Calibration (Form VI)</u></b>			
12.1	Are the Initial Calibration Forms (Form VI) present and complete for the volatile fraction at concentrations of 10, 20, 50, 100, 200 ug/L? Are there separate calibrations for low/med soils and low soil samples?	X		
12.2	Were all low level soil standards, blanks, and samples analyzed by heated purge?	X		
12.3	Are the response factors stable for VOA's over the concentration range of the calibration (%Relative Standard Deviation (%RSD) <30%)		X	
12.4	Are the RRFs above 0.01?	X		
12.5	Are there any transcription/calculation errors in the reporting of average response factors (RRF) or %RSD?		X	

## Data Validation Checklist - Part A: VOA Analysis

No:	Parameter	YES	NO	N/A
<b>13.0</b>	<b><u>GC/MS Continuing Calibration (Form VII)</u></b>			
13.1	Are the Continuing Calibration Forms (Form VII) present and complete for the volatile fraction?	X		
13.2	Has a continuing calibration standard been analyzed for every twelve hours of sample analysis per instrument?	X		
13.3	Do any volatile compounds have a %Difference (%D) between the initial and continuing RRF which exceeds the +/- 25% criteria?	X		
13.4	Do any volatile compounds have a RRF <0.01?		X	
13.5	Are there any transcription/calculation errors in the reporting of average response factor (RRF) or %difference (%D) between initial and continuing RRFs?		X	
<b>14.0</b>	<b><u>Internal Standard (Form VIII)</u></b>			
14.1	Are the internal standard areas (Form VIII) of every sample and blank within the upper and lower limits (-50% to +100%) for each continuing calibration?		X	
14.2	Are the retention times of the internal standards within 30 seconds of the associated calibration standard?	X		
<b>15.0</b>	<b><u>Field Duplicates</u></b>			
15.1	Were any field duplicates submitted for VOA analysis?		X	

## Data Validation Checklist - Part B: SVOC Analysis

No:	Parameter	YES	NO	N/A
<b>1.0</b>	<b><u>Traffic Reports and Laboratory Narrative</u></b>			
1.1	Are the traffic Report Forms present for all samples?	X		
1.2	Do the Traffic Reports or Lab Narrative indicate any problems with sample receipt, condition of samples, analytical problems or special circumstances affecting the quality of the data?		X	
<b>2.0</b>	<b><u>Holding Times</u></b>			
2.1	Have any BNA technical holding times, determined from date of collection to date of extraction, been exceeded?		X	
<b>3.0</b>	<b><u>System Monitoring Compound (SMC) Recovery (Form II)</u></b>			
3.1	Are the BNA Surrogate Recovery Summaries (FORM II) present for each of the following matrices:			
	a. Low Water	X		
	b. Low Soil	X		
	c. Med Soil			X
3.2	Are all the BNA samples listed on the appropriate System Monitoring Compound Recovery Summary for each of the following matrices:			
	a. Low Water	X		
	b. Low Soil	X		
	c. Med Soil			X
3.3	Were outliers marked correctly with an asterisk?	X		
3.4	Were two or more base neutral or acid surrogate compound recoveries out of specification for any sample or method blank?	X		
	If yes, were samples re-analyzed?		X	
	Were method blanks re-analyzed?			X
3.5	Are there any transcription/calculation errors between raw data and Form II?		X	
<b>4.0</b>	<b><u>Matrix Spikes (Form III)</u></b>			
4.1	Is the Matrix Spike/Matrix Spike Duplicate Recovery Form (Form III) present?	X		
4.2	Were matrix spikes analyzed at the required frequency for each of the following matrices?	X		
	a. Low Water	X		
	b. Low Soil	X		
	c. Med Soil			X
4.3	How many BNA spike recoveries are outside QC limits?			
	Water <u>5</u> out of 66      Soils <u>66</u> out of 66			



### Data Validation Checklist - Part B: SVOC Analysis

No:	Parameter	YES	NO	N/A
4.4	How many RPD's for matrix spike and matrix spike duplicate recoveries are outside QC limits?  Water <u>  0  </u> out of 66      Soils <u>  0  </u> out of 66			
<b>5.0</b>	<b><u>Blanks (Form IV)</u></b>			
5.1	Is the Method Blank Summary (Form IV) present?	<u>  X  </u>	<u>          </u>	<u>          </u>
5.2	Frequency of Analysis: Has a reagent/method blank analysis been reported per 20 samples of a similar matrix, or concentration level, for each extraction batch?	<u>  X  </u>	<u>          </u>	<u>          </u>
5.3	Has a BNA method blank been analyzed for each GC/MS system used?	<u>  X  </u>	<u>          </u>	<u>          </u>
5.4	Is the chromatographic performance (baseline stability) for each instrument acceptable for BNAs?	<u>  X  </u>	<u>          </u>	<u>          </u>
<b>6.0</b>	<b><u>Contamination</u></b>			
6.1	Do any method/instrument/reagent blanks have positive results (TCL and/or TIC) for BNAs?	<u>          </u>	<u>  X  </u>	<u>          </u>
6.2	Do any field/rinse blanks have positive BNA results (TCL and/or TIC)?	<u>          </u>	<u>  X  </u>	<u>          </u>
6.3	Are there field/rinse/equipment blanks associated with every sample?	<u>  X  </u>	<u>          </u>	<u>          </u>
<b>7.0</b>	<b><u>GC/MS Instrument Performance Check (Form V)</u></b>			
7.1	Are the GC/MS Instrument Performance Check Forms (Form V) present for Decafluorotriphenylphosphine (DFTPP)?	<u>  X  </u>	<u>          </u>	<u>          </u>
7.2	Are the enhanced bar graph spectrum and mass/charge (m/z) listing for the DFTPP provided for each twelve-hour shift?	<u>  X  </u>	<u>          </u>	<u>          </u>
7.3	Has an instrument performance check solution been analyzed for every twelve hours of sample analysis per instrument?	<u>  X  </u>	<u>          </u>	<u>          </u>
7.4	Have the ion abundances been normalized to m/z 198?	<u>  X  </u>	<u>          </u>	<u>          </u>
7.5	Have the ion abundance criteria been met for each instrument used?	<u>  X  </u>	<u>          </u>	<u>          </u>
7.6	Are there any transcription/calculation errors between mass lists and Form V's?	<u>          </u>	<u>  X  </u>	<u>          </u>
7.7	Have the appropriate number of significant figures (two) been reported?	<u>  X  </u>	<u>          </u>	<u>          </u>
7.8	Are the spectra of the mass calibration compound acceptable?	<u>  X  </u>	<u>          </u>	<u>          </u>
<b>8.0</b>	<b><u>Target Compound List (TCL) Analytes</u></b>			
8.1	Are the Organic Analysis Data Sheets (Form I BNA) present with required header information on each page, for each of the following: a. Sample and/or fractions as appropriate? b. Matrix spikes and matrix spike duplicates? c. Blanks?	<u>  X  </u> <u>  X  </u> <u>  X  </u>	<u>          </u> <u>          </u> <u>          </u>	<u>          </u> <u>          </u> <u>          </u>
8.2	Has GPC cleanup been performed on all soil/sediment sample extracts?	<u>          </u>	<u>          </u>	<u>  X  </u>
8.3	Are the BNA Reconstructed Ion Chromatograms, the mass spectra for the identified compounds, and the data system printouts (Quant Reports) included in the sample package for each of the following?			

### Data Validation Checklist - Part B: SVOC Analysis

No:	Parameter	YES	NO	N/A
	a. Samples and/or fractions as appropriate?	<u>X</u>	<u>      </u>	<u>      </u>
	b. Matrix spikes and matrix spike duplicates (Mass spectra not required)?	<u>X</u>	<u>      </u>	<u>      </u>
	c. Blanks?	<u>X</u>	<u>      </u>	<u>      </u>
8.4	Are the response factors shown in the Quant Report?	<u>X</u>	<u>      </u>	<u>      </u>
8.5	Is the chromatographic performance acceptable with respect to:			
	Baseline stability?	<u>X</u>	<u>      </u>	<u>      </u>
	Resolution	<u>X</u>	<u>      </u>	<u>      </u>
	Peak shape?	<u>X</u>	<u>      </u>	<u>      </u>
	Full-scale graph (attenuation)?	<u>X</u>	<u>      </u>	<u>      </u>
	Other:			
8.6	Are the lab-generated standard mass spectra of identified BNA compounds present for each sample?	<u>X</u>	<u>      </u>	<u>      </u>
8.7	Is the RRT of each reported compound within 0.06 RRT units of the standard RRT in the continuing calibration?	<u>X</u>	<u>      </u>	<u>      </u>
8.8	Are all ions in the standard mass spectrum at a relative intensity greater than 10% also present in the sample mass spectrum?	<u>X</u>	<u>      </u>	<u>      </u>
8.9	Do sample and standard relative ion intensities agree within 20%?	<u>X</u>	<u>      </u>	<u>      </u>
<b>9.0</b>	<b><u>Tentatively Identified Compounds (TIC)</u></b>			
9.1	Are all Tentatively Identified Compound Forms (Form I, Part B) present; and do listed TICs include scan number or retention time, estimated concentration and "JN" qualifier?	<u>X</u>	<u>      </u>	<u>      </u>
9.2	Are the mass spectra for the tentatively identified compounds and associated "best match" spectra included in the sample package for each of the following:			
	a. Samples and/or fractions as appropriate?	<u>X</u>	<u>      </u>	<u>      </u>
	b. Blanks?	<u>X</u>	<u>      </u>	<u>      </u>
9.3	Are any TCL compounds (from any fraction) listed as TIC compounds?	<u>      </u>	<u>X</u>	<u>      </u>
9.4	Are all ions present in the reference mass spectrum with a relative intensity greater than 10% also present in the sample mass spectrum?	<u>X</u>	<u>      </u>	<u>      </u>
9.5	Do TIC and "best match" standard relative ion intensities agree within 20%?	<u>X</u>	<u>      </u>	<u>      </u>
<b>10.0</b>	<b><u>Compound Quantitation and Reported Detection Limits</u></b>			
10.1	Are there any transcription/calculation errors in Form I results?	<u>      </u>	<u>X</u>	<u>      </u>
10.2	Are the CRQLs adjusted to reflect sample dilutions and, for soils, sample moisture?	<u>X</u>	<u>      </u>	<u>      </u>
<b>11.0</b>	<b><u>Standards Data (GC/MS)</u></b>			
11.1	Are the Reconstructed Ion Chromatograms, and data system printouts present for initial and continuing calibration?	<u>X</u>	<u>      </u>	<u>      </u>
<b>12.0</b>	<b><u>GC/MS Initial Calibration (Form VI)</u></b>			

### Data Validation Checklist - Part B: SVOC Analysis

No:	Parameter	YES	NO	N/A
12.1	Are the Initial Calibration Forms (Form VI) present and complete for the BNA fraction ?	X		
12.2	Are response factors stable for BNA's over the concentration range of the calibration (%Relative Standard Deviation (%RSD) <30%)		X	
12.3	Are all BNA compound RRFs > 0.01?	X		
12.4	Are there any transcription/calculation errors in the reporting of average response factors (RRF) or %RSD?	X		
<b>13.0</b>	<b><u>GC/MS Continuing Calibration (Form VII)</u></b>			
13.1	Are the Continuing Calibration Forms (Form VII) present and complete for the BNA fraction?	X		
13.2	Has a continuing calibration standard been analyzed for every twelve hours of sample analysis per instrument?	X		
13.3	Do any semivolatile compounds have a %Difference (%D) between the initial and continuing RRF which exceeds the +/- 25% criteria?	X		
13.4	Do any semivolatile compounds have a RRF <0.01?		X	
13.5	Are there any transcription/calculation errors in the reporting of average response factor (RRF) or %difference (%D) between initial and continuing RRFs?	X		
<b>14.0</b>	<b><u>Internal Standard (Form VIII)</u></b>			
14.1	Are the internal standard areas (Form VIII) of every sample and blank within the upper and lower limits (-50% to +100%) for each continuing calibration?	X		
14.2	Are the retention times of the internal standards within 30 seconds of the associated calibration standard?	X		
<b>15.0</b>	<b><u>Field Duplicates</u></b>			
15.1	Were any field duplicates submitted for BNA analysis?		X	

### Data Validation Checklist - Part C: Metals Analysis

No:	Parameter	YES	NO	N/A
<b>1.0</b>	<b><u>Form I to IX</u></b>			
1.1	Are all the Form I through Form IX labeled with:			
	Laboratory Name?	<u>  X  </u>	<u>      </u>	<u>      </u>
	Case/SAS No.?	<u>      </u>	<u>  X  </u>	<u>      </u>
	EPA sample No.?	<u>      </u>	<u>  X  </u>	<u>      </u>
	SDG No.?	<u>  X  </u>	<u>      </u>	<u>      </u>
	Contract No.?	<u>  X  </u>	<u>      </u>	<u>      </u>
	Correct units?	<u>  X  </u>	<u>      </u>	<u>      </u>
	Matrix?	<u>  X  </u>	<u>      </u>	<u>      </u>
1.2	Do any computer/transcription errors exceed 10% of reported values on Forms I-IX for:			
	A. All analytes analyzed by ICP?	<u>      </u>	<u>  X  </u>	<u>      </u>
	B. All analytes analyzed by GFAA?	<u>      </u>	<u>      </u>	<u>  X  </u>
	C. All analytes analyzed by AA Flame?	<u>      </u>	<u>      </u>	<u>  X  </u>
	D. Mercury?	<u>      </u>	<u>  X  </u>	<u>      </u>
	E. Cyanide?	<u>      </u>	<u>      </u>	<u>  X  </u>
<b>2.0</b>	<b><u>Raw Data</u></b>			
2.1	Digestion Log for flame AA/ICP (Form XIII) present?	<u>  X  </u>	<u>      </u>	<u>      </u>
2.2	Digestion Log for furnace AA (Form XIII) present?	<u>      </u>	<u>      </u>	<u>  X  </u>
2.3	Distillation Log for mercury (Form XIII) present?	<u>  X  </u>	<u>      </u>	<u>      </u>
2.4	Distillation Log for cyanides (Form XIII) present?	<u>      </u>	<u>      </u>	<u>  X  </u>
2.5	Are pH values (pH<2 for all metals, pH>12 for cyanide) present?	<u>  X  </u>	<u>      </u>	<u>      </u>
2.6	Percent solids calculation dates present on sample preparation logs/bench sheets?	<u>  X  </u>	<u>      </u>	<u>      </u>
2.7	Are preparation dates present on sample preparation logs/bench sheets?	<u>  X  </u>	<u>      </u>	<u>      </u>
2.8	Measurement read out record present?			
	A. ICP	<u>  X  </u>	<u>      </u>	<u>      </u>
	B. Flame AA	<u>      </u>	<u>      </u>	<u>  X  </u>
	C. Furnace AA	<u>      </u>	<u>      </u>	<u>  X  </u>
	D. Mercury	<u>  X  </u>	<u>      </u>	<u>      </u>
	E. Cyanides	<u>      </u>	<u>      </u>	<u>  X  </u>
2.9	Are all raw data to support all sample analyses and QC operations present?	<u>      </u>	<u>      </u>	<u>  X  </u>
<b>3.0</b>	<b><u>Holding Times</u></b>			
3.1	A. Mercury analysis (28 days) .....exceeded?	<u>      </u>	<u>  X  </u>	<u>      </u>
	B. Cyanide distillation (14 days) .....exceeded?	<u>      </u>	<u>      </u>	<u>  X  </u>
	C. Other Metals analysis (6 months) .....exceeded?	<u>      </u>	<u>  X  </u>	<u>      </u>
3.2	Is pH of aqueous samples for:			
	A. Metals Analysis >2?	<u>      </u>	<u>  X  </u>	<u>      </u>

### Data Validation Checklist - Part C: Metals Analysis

No:	Parameter	YES	NO	N/A
	B. Cyanides Analysis <12?			X
<b>4.0</b>	<b><u>Form I (Final Data)</u></b>			
4.1	Are all Forms I's present and complete?	X		
4.2	Are correct units (ug/l for waters and mg/kg for soils) indicated on Form I's?	X		
4.3	Are soil sample results for each parameter corrected for percent solids?	X		
4.4	Are all "less than IDL" values properly coded with "U"?	X		
4.5	Are the correct concentration qualifiers used with final data?	X		
4.6	Are EPA sample #s and corresponding laboratory sample ID #s the same as on the Cover Page, Form I's and in the raw data?	X		
4.7	Was a brief physical description of samples given on Form I's?	X		
4.8	Was the dilution of any sample diluted beyond the requirements of the contract noted on Form I or Form XIV?		X	
<b>5.0</b>	<b><u>Calibration</u></b>			
5.1	Is record of at least 2 point calibration present for ICP analysis?	X		
5.2	Is record of 5 point calibration present for Hg analysis?	X		
5.3	Is record of 4 point calibration present for:			X
	Flame AA?			X
	Furnace AA?			X
	Cyanides?			X
5.4	Is one calibration standard at the CRDL level for all AA (except Hg) and cyanides analyses?	X		
5.5	Is correlation coefficient less than 0.995 for:			
	Mercury Analysis?	X		
	Cyanide Analysis?			X
	Atomic Absorption Analysis?			X
5.6	In the instance where less than 4 standards are measured in absorbance (or peak area, peak height, etc.) Mode, are remaining standards analyzed in concentration mode immediately after calibration within +/- 10% of the true values?			X
<b>6.0</b>	<b><u>Form II A (Initial and Continuing Calibration Verification)</u></b>			
6.1	Present and complete for every metal and cyanide?	X		
6.2	Present and complete for AA ICP when both are used for the same analyte?			X
6.3	Are all calibration standards (initial and continuing) within control limits:			
	Metals - 90 - 110 %R		X	
	Hg - 80 - 120 %R	X		
	Cyanides - 85 - 115 %R			X
6.4	Was continuing calibration performed every 10 samples or every 2 hours?	X		
6.5	Was ICV for cyanides distilled?			X

## Data Validation Checklist - Part C: Metals Analysis

No:	Parameter	YES	NO	N/A
<b>7.0</b>	<b><u>Form II B (CRDL Standards for AA and ICP)</u></b>			
7.1	Was a CRDL standard (CRA) analyzed after initial calibration for all AA metals (except Hg)?	X		
7.2	Was a mid range calibration verification standard distilled and analyzed for cyanide analysis?	X		
7.3	Was a 2xCRDL (or 2xIDL when IDL>CRDL) analyzed (CRI) for each ICP run?	X		
7.4	Was CRI analyzed after ICV/ICB and before the final CCV/CCB, and twice every eight hours of ICP run?	X		
7.5	Are CRA and CRI standards within control limits: Metals 70 – 130 %R?	X		
7.6	Is mid-range standard within control limits: Cyanide 70 - 130 %R?			X
<b>8.0</b>	<b><u>Form III (Initial and Continuing Calibration Blanks)</u></b>			
8.1	Present and complete?	X		
8.2	For both AA and ICP when both are used for the same analyte?			X
8.3	Was an initial calibration blank analyzed?	X		
8.4	Was a continuing calibration blank analyzed after every 10 samples or every 2 hours (which ever is more frequent)?	X		
8.5	Are all calibration blanks (when IDL<CRDL) less than or equal to the Contract Required Detection Limits (CRDLs)?	X		
8.6	Are all calibration blanks less than two times Instrument Detection Limit (when IDL>CRDL)?			X
<b>9.0</b>	<b><u>Form III (Preparation Blank)</u></b>			
9.1	Was one preparation blank analyzed for: each Sample Delivery Group?	X		
9.2	Is concentration of preparation blank value greater than the CRDL when IDL is less than or equal to CRDL?		X	
9.3	If yes, is the concentration of the sample with the least concentrated analyte less than 10 times the preparation blank?			X
9.4	Is concentration of preparation blank value (Form III) less than two times IDL, when IDL is greater than CRDL?			X
9.5	Is concentration of preparation blank below the negative CRDL?		X	
<b>10.0</b>	<b><u>Form IV (Interference Check Sample)</u></b>			
10.1	Present and Complete?	X		
10.2	Are all Interference Check Sample results inside the control limits (+/- 20%)?	X		
10.3	If no, is concentration of Al, Ca, Fe, or Mg lower than the respective concentration in ICS?			X
<b>11.0</b>	<b><u>Form V A (Spiked Sample recovery - Pre-Digestion/Pre-Distillation)</u></b>			
11.1	Present and complete for:			
	each SDG?	X		
	each matrix type?	X		
	each concentration range (i.e., low, medium, high)?	X		

### Data Validation Checklist - Part C: Metals Analysis

No:	Parameter	YES	NO	N/A
	For both AA and ICP when both are used for the same analyte?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11.2	Was field blank used for spiked sample?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11.3	Are all recoveries within control limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11.4	If no, is sample concentration greater than or equal to four times spike concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>12.0</b>	<b><u>Form VI (Lab Duplicates)</u></b>			
12.1	Present and complete for :			
	each SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	each matrix type?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	each concentration range (i.e., low, medium, high)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	both AA and ICP when both are used for the same analyte?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12.2	Was field blank used for duplicate analysis?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12.3	Are all values within control limits (RPD 35% or difference $\leq \pm$ CRDL)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.4	If no, are all results outside the control limits flagged with an * on Form I's and VI?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>13.0</b>	<b><u>Field Duplicates</u></b>			
13.1	Were field duplicates analyzed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13.2	<b><u>Aqueous</u></b>			
	Is any RPD greater than 50% where sample and duplicate are both greater than or equal to 5 times CRDL?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Is any difference between sample and duplicate greater than CRDL where sample and/or duplicate is less than 5 times CRDL?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13.3	<b><u>Soil/Sediment</u></b>			
	Is any RPD (where sample and duplicate are both greater than 5 times CRDL); $>100\%$ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Is any difference between sample and duplicate (where sample and/or duplicate is less than 5x CRDL); $>2x$ CRDL?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>14.0</b>	<b><u>Form VII (Laboratory Control Sample)</u></b>			
14.1	Was one LCS prepared and analyzed for:			
	each SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	each batch samples digested/distilled?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	both AA and ICP when both are used for the same analyte?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14.2	<b><u>Aqueous LCS</u></b>			
	Is any LCS recovery:			
	less than 50%?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	between 50% and 79%?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	between 121% and 150%?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	greater than 150%?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14.3	<b><u>Solid LCS</u></b>			
	Is LCS "Found" value higher than the control limits on Form VII?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Data Validation Checklist - Part C: Metals Analysis

No:	Parameter	YES	NO	N/A
	Is LCS "Found" value lower than the control limits on Form VII?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>15.0</b>	<b><u>Form IX (ICP Serial Dilution)</u></b>			
15.1	Was serial dilution analysis performed for:			
	each SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	each matrix type?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	each concentration range (i.e., low, medium, high)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.2	Was field blank(s) used for Serial Dilution Analysis?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
15.3	Are results outside control limit flagged with an "E" on Form I's and Form IX when initial concentration on Form IX is equal to 50 times IDL or greater?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.4	Are any %difference values:			
	>10%	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	>=100%	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>16.0</b>	<b><u>Furnace Atomic Absorption (AA) QC Analysis</u></b>			
16.1	Are duplicate injections present in furnace raw data for each sample analyzed by GFAA?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16.2	Do the duplicate injection readings agree within 20% Relative Standard Deviation (RSD) or Coefficient of Variation (CV) for concentration greater than CRDL?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16.3	Was a dilution analyzed for sample with analytical spike recovery less than 40%?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16.4	Is analytical spike recovery outside the control limits (85 - 115%) for any sample?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>17.0</b>	<b><u>Form VIII (Method of Standard Addition Results)</u></b>			
17.1	Present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17.2	If no, is any Form I result coded with "S" or a "+"?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17.3	Is coefficient of correlation for MSA less than 0.990 for any sample?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17.4	Was MSA required for any sample but not performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17.5	Is coefficient of correlation for MSA less than 0.995?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17.6	Are MSA calculations outside the linear range of the calibration curve generated at the beginning of the analytical run?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17.7	Was proper Quantitation procedure followed correctly as outlined in the SOW on page E-23?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>18.0</b>	<b><u>Dissolved/Total or Inorganic/Total Analytes</u></b>			
18.1	Were any analyses performed for dissolved as well as total analytes on the same sample(s)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
18.2	Were any analyses performed for inorganic as well as total (organic and inorganic) analytes on the same sample(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.3	Is the concentration of any dissolved (or inorganic) analyte greater than its total concentration by more than 10%?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
18.4	Is the concentration of any dissolved (or inorganic) analyte greater than its total concentration by more than 50%?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



### Data Validation Checklist - Part C: Metals Analysis

No:	Parameter	YES	NO	N/A
<b>19.0</b>	<b><u>Form I (Field Blank)</u></b>			
19.1	Is field blank concentration less than CRDL (or 2 x IDL when IDL>CRDL) for all parameters of associated aqueous and soil samples?	X		
19.2	If no, was field blank value already rejected due to other QC criteria?			X
<b>20.0</b>	<b><u>Form X, XI, XII (Verification of Instrumental Parameters)</u></b>			
20.1	Is verification report present for:			
	Instrument Detection Limits (quarterly)?	X		
	ICP Interelement Correction Factors (annually)?	X		
	ICP Linear Ranges (quarterly)?	X		
<b>21.0</b>	<b><u>Form X (Instrument Detection Limits)</u></b>			
21.1	Are IDLs present for:			
	all the analytes?	X		
	all the instruments used?	X		
	For both AA and ICP when both are used for the same analyte?			X
21.2	Is IDL greater than CRDL for any analytes?		X	
21.3	If yes, is the concentration on Form I of the sample analyzed on the instrument whose IDL exceeds CRDL, greater than 5 x IDL?			X
<b>22.0</b>	<b><u>Form XI (Linear Ranges)</u></b>			
22.1	Was any sample result higher than the high linear range of ICP?		X	
22.2	Was any sample result higher than the highest calibration standard for non-ICP parameters?		X	
22.3	If yes for any of the above, was the sample diluted to obtain the result on Form I?			X
<b>23.0</b>	<b><u>Percent Solids of Sediments</u></b>			
23.1	Are percent solids in sediment(s):			
	<50%?		X	
	<10%?		X	

# **Data Usability Summary Report**

**Former NuHart Plastic Manufacturing Site  
Brooklyn, New York**

**Soil Vapor Samples  
SDG # 13H0112  
SDG # 13L0201**

**February 2014**

## **Data Usability Summary Report**

**Soil Vapor Samples  
SDG # 13H0112  
SDG # 13L0201**

**Former NuHart Plastic Manufacturing Site  
Brooklyn, New York**

**Prepared By:**

**EnviroAnalytics  
Data Management and Validation Service  
2638 Sunset Avenue  
Utica, New York 13502**

## **EXECUTIVE SUMMARY**

This report addresses data quality for air samples collected at the former NuHart Plastic Manufacturing Site located in Brooklyn, New York. The samples were analyzed for TO-15 volatile organics (VOCs) following New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) methodologies. Sample collection was performed by Ecosystems Strategies, Inc. of Poughkeepsie, New York. Analytical services were provided by York Analytical Laboratories, Inc. located in Stratford, Connecticut.

The TO-15 volatile organic analyses data were determined to be usable for qualitative and quantitative purposes with additional qualification. Qualification of sample data included blank analysis for one sample and the approximation of sample results for several compounds due to deviations from continuing calibration and laboratory control sample criteria.

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## **SECTION 1 - INTRODUCTION**

### **1.1 Introduction**

This report addresses data quality for air samples collected at the former NuHart Plastic Manufacturing Site located in Brooklyn, New York. The samples were analyzed for TO-15 volatile organics (VOCs) following New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) methodologies. Sample collection was performed by Ecosystems Strategies, Inc. of Poughkeepsie, New York. Analytical services were provided by York Analytical Laboratories, Inc. located in Stratford, Connecticut. The quantity and type of samples submitted for data validation are tabulated below.

**Table 1: Introduction - Sample Summary Table**

SDG#	Date Collected	Sample Matrix	Sample Identification	
			Client ID	Laboratory ID
13H0112	07/31/2013	Soil Vapor	2SB-2	13H0112-01
			2SB-3	13H0112-02
			2SB-4	13H0112-03
			2SB-6	13H0112-04
			2SB-7	13H0112-05
			2SB-8	13H0112-06
			2SB-10	13H0112-07
13I0201	12/04/2013	Soil Vapor	2SB-16	13L0201-01

### **1.2 Analytical Methods**

The samples were analyzed for TO-15 volatile organics (VOCs) following New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) methodologies (2005 update). Laboratory analyses were provided by York Analytical Laboratories, Inc. located in Stratford, Connecticut.

### **1.3 Validation Protocols**

Data validation is a process that involves the evaluation of analytical data against prescribed quality control criteria to determine the usefulness of the data. The analytical data addressed in this report were evaluated utilizing the quality control criteria presented in the following documents:

- *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, EPA-540-R-08-01, June 2008.
- *CLP Organics Data Review and Preliminary Review*, SOP No. HW-6 Revision #14, USEPA Region II, September 2006.
- *Validating Air Samples Volatile Organic Analysis of Ambient Air in Canister by Method TO-15*, SOP No. HW-31 Revision #4, USEPA Hazardous Waste Support Branch, October 2006.

- *Exhibit E of New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP), NYSDEC June 2005.*

### **1.3.1 Organic Parameters**

The validation of organic parameters for this project followed the requirements presented in the analytical methodology and the data validation guidelines presented above. The following QA/QC parameters were evaluated:

#### **TO-15 Volatile Organics Analysis**

1. Holding Times
2. GC/MS Instrument Tuning Criteria
3. Calibration
  - a. Initial Calibration
  - b. Continuing Calibration
4. Blank Analysis
5. Surrogate Recovery
6. Matrix Spike / Matrix Spike Duplicate Analysis
7. Reference Standard Analysis
8. Internal Standards Recovery
9. Compound Identification and Quantification
10. Field Duplicate Analysis
11. System Performance
12. Documentation Completeness
13. Overall Data Assessment

### **1.4 Data Qualifiers**

The following qualifiers as specified in the guidance documents presented in Section 1.3 of this report have been used for this data validation.

- |    |                                                                                                                                                                                                                                                                  |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| U  | Indicates that the compound was analyzed for, but was not detected. The sample quantification limit is presented and adjusted for dilution. This qualifier is also used to signify that the detection limit of an analyte was raised due to blank contamination. |
| J  | Indicates that the result should be considered approximate. This qualifier is used when the data validation procedure identifies a deficiency in the data generation process.                                                                                    |
| UJ | Indicates that the detection limit for the analyte in this sample should be considered approximate. This qualifier is used when the data validation process identifies a deficiency in the data generation process.                                              |
| R  | Indicates that the previously reported detection limit or sample result has been rejected due to a major deficiency in the data generation procedure. The data are considered to be unusable for both qualitative and quantitative purposes.                     |

The following sections of this document present a summary of the data validation process. Section 2 discusses data compliance with established QA/QC criteria and qualifications performed on the sample data. A discussion of the Precision, Accuracy, Representativeness, Comparability, and Completeness (PARCC) of the data and data usability are discussed in Section 3. The USEPA Region II Data Validation Checklist is presented in Appendix A.



## **SECTION 2 - DATA VALIDATION SUMMARY**

This section presents a discussion of QA/QC parameter compliance with established criteria and the qualification of data performed when QA/QC parameter deviations were identified. When several deviations from established QA/QC criteria were observed, the final qualifier assigned to the data was based on the cumulative effect of the deviations.

### **2.1 Volatile Organics Analysis**

Data validation was performed for eight soil vapor samples. The QA/QC parameters presented in Section 1.3.1 of this report were found to be within specified limits. The overall data assessment is presented below.

#### **Blank Analysis**

The method blanks contained detectable concentrations of several target compounds. Blank action levels were calculated at ten times the blank concentrations for the common laboratory contaminants and five times for other target compounds. Detected sample results, which were less than the blank action levels were qualified with a "U" in the associated samples. Results that were detected below the contract required detection limit (CRDL) were raised to the CRDL and qualified with a "U" qualifier. The "U" qualifier indicates that the volatile organic was analyzed for but was not detected above the CRDL. Samples qualified for blank contamination are tabulated below.

**Table 2: Volatile Organics Analysis - Blank Analysis Deviations**

<b>Blank Matrix</b>	<b>Date Analyzed</b>	<b>Compound</b>	<b>Blank Action Level</b>	<b>Associated Samples</b>	<b>Qualified Sample Result</b>
Soil Vapor	12/09/2013 (14:11)	Methylene Chloride	75.6 <sup>1</sup> µg/M <sup>3</sup>	2SB-16	21 U µg/M <sup>3</sup>

1. Blank action level corrected for sample dilution

#### **Continuing Calibration**

The continuing calibration percent difference (%D) limit, which requires the %D to be less than 30 percent, was exceeded for several compounds. Sample qualification included the approximation (J, UJ) of results when %D criteria were exceeded, but were less than 90 percent. Samples requiring qualification due to these deviations are tabulated below.

**Table 3: Volatile Organics Analysis - Continuing Calibration Deviations**

<b>Date Analyzed</b>	<b>Compound</b>	<b>%D</b>	<b>Result Qualifier</b>	<b>Affected Samples</b>
08/08/2013 (21:04) 5975C	Isopropanol	54.3 %	J, UJ	2SB-2 2SB-3 2SB-4 2SB-6 2SB-7 2SB-8 2SB-10

Date Analyzed	Compound	%D	Result Qualifier	Affected Samples
12/09/2013 (12:46) 5975C	4-Methyl-2-pentanone	56.9 %	UJ	2SB-16
	Isopropanol	74.1 %	UJ	
	Hexachlorobutadiene	54.3 %	UJ	
	2-Hexanone	80.5 %	UJ	
	1,4-Dioxane	48.0 %	UJ	
	1,2,4-Trichlorobenzene	54.0 %	UJ	

### **Laboratory Control Sample Analysis**

Laboratory control sample (LCS) recovery criteria requiring compound recoveries to be within laboratory generated control limits were exceeded for several compounds. Qualification of sample results included the approximation of results when spike recoveries were greater than the upper limit, but less than 200 percent or less than the lower limit, but greater than 10 percent. Non-detected sample results were rejected (R) for compounds with recoveries that were less than 10 percent. Samples qualified due to LCS recovery deviations are tabulated below.

**Table 4: Volatile Organics Analysis - Laboratory Control Sample Deviations**

Matrix	Compound	Percent Recovery	Control Limits	Qualifier	Affected Samples
Soil Vapor	Isopropanol	176 %	60 % to 150 %	J	2SB-3
Soil Vapor	Carbon Disulfide	118 %	61.8 % to 111 %	J	2SB-3 2SB-10
Soil Vapor	4-Methyl-2-pentanone	63.6 %/54.8 %	64.4 % to 158 %	UJ	2SB-16
	2-Hexanone	52.3 %/44.5 %	52 % to 150 %	UJ	
	Methyl Methacrylate	65.9 %/58.1 %	70 % to 130 %	UJ	

### **Sample Dilution**

Compound concentrations for several samples exceeded the linear calibration range of the analytical system when analyzed with an un-diluted sample aliquot. The laboratory re-analyzed these samples with a diluted sample aliquot to properly quantify the compound concentration within the range of the analytical system. When the secondary dilution analysis exceeded the linear calibration range the laboratory reported the detected result with a “DE” qualifier. The “DE” qualified sample results should be considered approximate (J) sample concentrations. Samples qualified due to sample dilution deviations are presented below.

**Table 5: Volatile Organics Analysis - Sample Dilution Table**

Sample ID	Compound	Sample Results (µg/M <sup>3</sup> )	
		Laboratory Reported Result	Qualified Sample Result
2SB-3	Trichloroethylene	43000 DE	43000 J

### **Overall Data Assessment**

Overall, the laboratory performed TO-15 volatile organic analyses in accordance with the requirements specified in the methods listed in Section 1.2. These data were determined to be usable for qualitative and quantitative purposes with additional qualification. Qualification of sample data included blank analysis for one sample and the approximation of sample results for several compounds due to deviations from continuing calibration and laboratory control sample criteria.

## **SECTION 3 - DATA USABILITY and PARCC EVALUATION**

### **3.1 Data Usability**

This section presents a summary of the usability of the analytical data and an evaluation of the PARCC parameters. Data usability was calculated as the percentage of data that was not qualified as rejected based on a significant deviation from established QA/QC criteria. Data usability which was calculated separately for each type of analysis is tabulated below.

**Table 6: Data Usability and PARCC Evaluation - Data Usability**

<b>Parameter</b>	<b>Usability</b>	<b>Deviations</b>
TO-15 Volatile Organics	100 %	None resulting in the rejection of data.

### **3.2 PARCC Evaluation**

The following sections provide an evaluation of the analytical data with respect to the precision, accuracy, representativeness, comparability, and completeness (PARCC) parameters.

#### **3.2.1 Precision**

Precision is measured through field duplicate samples, split samples, and laboratory duplicate samples. For this sampling program, none of the data were qualified for laboratory duplicate criteria deviations and none of the data were qualified for field duplicate criteria deviations.

#### **3.2.2 Accuracy**

Matrix spike sample, surrogate recovery, internal standard recovery, laboratory control samples, and calibration criteria indicate the accuracy of the data. For this sampling program, none of the analytical data were qualified for deviations from matrix spike recovery criteria; none of the data were qualified for surrogate recovery criteria deviations; none of the data were qualified for internal standard recovery criteria deviations; 1.23 percent of the data were qualified for laboratory control sample deviations; and 2.66 percent of the data were qualified for calibration criteria deviations.

#### **3.2.3 Representativeness**

Holding times, sample preservation, and blank analysis are indicators of the representativeness of the analytical data. For this investigation, none of the analytical data required qualification for holding time deviations and 0.20 percent of the analytical data required qualification for blank analysis deviations.

#### **3.2.4 Comparability**

Comparability is not compromised provided that the analytical methods did not change over time. A major component of comparability is the use of standard reference materials for calibration and QC. These standards are compared to other unknowns to verify their

concentrations. Since standard analytical methods and reporting procedures were consistently used by the laboratory, the comparability criteria for the analytical data were met.

### **3.2.5 Completeness**

The percent usability or completeness of the data was determined to be 100 percent.

# **APPENDIX A**

## **DATA VALIDATION CHECKLISTS**

## **Table of Contents**

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I.      Part A: TO-15 VOA Analyses	2

## Data Validation Checklist - Part A: TO-15 VOA Analyses

No:	Parameter	YES	NO	N/A
<b>1.0</b>	<b><u>Data Completeness and Deliverables</u></b>			
1.1	Have any missing deliverables been received and added to the data package?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>2.0</b>	<b><u>Cover Letter, Narrative, and Data Reporting Forms</u></b>			
2.1	Is the Lab. Narrative and Cover Page Present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.2	Is Case Number contained in the Narrative?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.3	Are the following Data Reporting Forms present?			
	Analysis Data Sheet [Form I/Equivalent]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Tentatively Identified Compounds [Form I-TIC]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Blank Summary [Form IV/Equivalent]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Laboratory Control Sample Data Sheet [Form III/Equivalent]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	GC/MS Instrument Performance Check and Mass Calibration [Form V/Equivalent]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Initial Calibration [Form VI/Equivalent]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Continuing Calibration [Form VII/Equivalent]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Internal Standard Area and RT Summary [Form VIII/Equivalent]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Canister Certification [Form IX/Equivalent]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3.0</b>	<b><u>Canister Receipt/Log-in Sheet</u></b>			
3.1	Do all info items agree with each sample?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4.0</b>	<b><u>Traffic Reports and Laboratory Narrative</u></b>			
4.1	Are the Traffic Report Forms present for all samples?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5.0</b>	<b><u>Holding Times</u></b>			
5.1	Have any VOA technical holding times of 30 days, determined from the date of sample collection to the date of analysis, been exceeded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6.0</b>	<b><u>Leak Test Evaluation</u></b>			
6.1	Did the pressure test not vary by more than $\pm 13.8$ kPa ( $\pm 2$ psi) over the 24 hours period?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>7.0</b>	<b><u>Canister Certification Form IX/Equivalent</u></b>			
7.1	Blank Analysis			
	Were the <u>target</u> analytes < the required detection limits specified in the task order?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.2	Is the canister certification form provided, and the associated canister sample identification included? When contamination, included contamination detected (all raw data), analyte and reference mass spectra.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



### Data Validation Checklist - Part A: TO-15 VOA Analyses

No:	Parameter	YES	NO	N/A
<b>8.0</b>	<b><u>Laboratory Control Samples</u></b>			
8.1	Is an LCS Data Sheet [Form III/Equivalent] present and complete for each LCS?	X		
8.2	Was an LCS prepared (10 ppbv total scan, 0.1 ppbv SIM) and analyzed at the required frequency (once per 24 hour analytical sequence, and concurrently with the samples in the SDG)?	X		
8.3	Are there any transcription/calculation errors between the raw data and Form III/Equivalent?		X	
8.4	Is the % recovery within 70 – 130 % for each LCS <u>target compound</u> reported on Form III/Equivalent?		X	
8.5	Is the RT of <u>each reported LCS compound</u> within the windows established during the most recent valid calibration?	X		
8.6	Do the Internal Standards meet the requirements specified in Sections 18.1 and 18.2?	X		
<b>9.0</b>	<b><u>GC/MS Instrument Performance Check</u></b>			
9.1	Are the GC/MS Instrument Performance Check Forms [Form V/Equivalent] present for Bromofluorobenzene (BFB)?	X		
9.2	Are the enhanced bar graph spectrum and mass/charge (m/z) listing for the 50 ng BFB provided for each twenty-four hour shift?	X		
9.3	Has the instrument performance compound been analyzed for every twenty-four hours of sample analysis per instrument?	X		
9.4	Have the ion abundances been normalized to m/z 95?	X		
9.5	Have the ion abundance criteria been met for each instrument used?	X		
9.6	Are there any transcription/calculation errors between mass lists and Form Vs?		X	
9.7	Have the appropriate number of significant figures (two) been reported?	X		
9.8	Are the spectra of the mass calibration compound acceptable?	X		
<b>10.0</b>	<b><u>Performance Evaluation Sample (Optional)</u></b>			
10.1	Was a PE sample submitted from the Agency with each SDG?			X
10.2	Do the Internal Standards meet the requirements specified in Section 18.1 and 18.2?			X
<b>11.0</b>	<b><u>Laboratory Method Blanks</u></b>			
11.1	Is an Analysis Data Sheet [Form IV/Equivalent] present and complete for each method blank?	X		
11.2	Frequency of Analysis:			
	Has a method blank analysis been reported per instrument for each 24-hour analytical sequence?	X		
	Has a method blank been analyzed after the initial calibration or a valid calibration check standard, and before the LCS, prior to sample analysis?	X		
11.3	Is the chromatographic performance (baseline stability) for each instrument acceptable?	X		
11.4	Was the area response of each Internal Standard (IS) in the blank within $\pm 40$ % of the mean area response of the IS of the most recent valid calibration?	X		

## Data Validation Checklist - Part A: TO-15 VOA Analyses

No:	Parameter	YES	NO	N/A
11.5	Were the RTs of each IS within $\pm 0.33$ min (20 sec.) between blanks and most recent valid calibration?	<u>  X  </u>	<u>          </u>	<u>          </u>
<b>12.0</b>	<b><u>Blank Contamination</u></b>			
12.1	Do any method blanks have positive target and non-target VOA results?	<u>  X  </u>	<u>          </u>	<u>          </u>
<b>13.0</b>	<b><u>Target Compound Analytes</u></b>			
13.1	Are the Organic Analysis Data Sheets [Form I/Equivalent], VOA chromatograms, and data system printouts present and complete with required header information for each of the following:			
	a. Samples?	<u>  X  </u>	<u>          </u>	<u>          </u>
	b. Method blanks?	<u>  X  </u>	<u>          </u>	<u>          </u>
	c. Laboratory Control Sample (LCS)?	<u>  X  </u>	<u>          </u>	<u>          </u>
	d. Performance Evaluation Sample (PES)?	<u>  X  </u>	<u>          </u>	<u>          </u>
13.2	Is the chromatographic performance acceptable with respect to:			
	a. Baseline stability?	<u>  X  </u>	<u>          </u>	<u>          </u>
	b. Resolution?	<u>  X  </u>	<u>          </u>	<u>          </u>
	c. Peak shape?	<u>  X  </u>	<u>          </u>	<u>          </u>
	d. Full-scale graph (attenuation)?	<u>  X  </u>	<u>          </u>	<u>          </u>
	e. Other?	<u>          </u>	<u>          </u>	<u>  X  </u>
13.3	Were any electropositive displacement (negative peaks) or unusual peaks seen?	<u>          </u>	<u>  X  </u>	<u>          </u>
13.4	Is the sample component relative retention time (RRT) within $\pm 0.06$ RRT units of the RRT of the standard component from the most recent continuing calibration?	<u>  X  </u>	<u>          </u>	<u>          </u>
13.5	Was Nafion dryer used?	<u>          </u>	<u>          </u>	<u>  X  </u>
<b>14.0</b>	<b><u>Tentatively Identified Compounds (TIC)</u></b>			
14.1	Are all Tentatively Identified Compound Forms [Form I-TIC] present and are retention time, estimated concentration and "JN" qualifier listed corresponding to each TIC?	<u>          </u>	<u>          </u>	<u>  X  </u>
14.2	Are the mass spectra for the tentatively identified compounds and associated "best match" spectra included in the sample package for each of the following?			
	a. Samples	<u>          </u>	<u>          </u>	<u>  X  </u>
	b. Blanks	<u>          </u>	<u>          </u>	<u>  X  </u>
14.3	Are all ions present in the reference mass spectrum with a relative intensity greater than 10 % also present in the sample mass spectrum?	<u>          </u>	<u>          </u>	<u>  X  </u>
14.4	Do TIC and "best match" standard relative ion intensities agree within 20 %?	<u>          </u>	<u>          </u>	<u>  X  </u>
<b>15.0</b>	<b><u>Initial Calibration and System Performance [Form VI/Equivalent]</u></b>			
15.1	Were each GC/MS system calibrated at 5 concentrations that span the monitoring range of the interest in an initial calibration sequence to determine the sensitivity and the linearity of the GC/MS response for the target compounds?	<u>  X  </u>	<u>          </u>	<u>          </u>
15.2	Was the same volume introduced into the trap consistently for all field and QC-sample analyses?	<u>  X  </u>	<u>          </u>	<u>          </u>

## Data Validation Checklist - Part A: TO-15 VOA Analyses

No:	Parameter	YES	NO	N/A
15.3	Was the area response (Y) at each calibration level within $\pm 40\%$ of the mean area response (mean Y) over the initial calibration range for each Internal Standard?	X		
	Did the laboratory tabulate the area response (Y) of the primary ions and the corresponding concentration for each compound and Internal Standard?	X		
15.4	Are the relative retention times (RRTs) for each of the target compounds at each calibration level within $\pm 0.06$ RRT units of the mean relative retention time for the compound?	X		
15.5	Are all individual RRF and average RRFs $\geq 0.050$ ?	X		
15.6	Are the response factors (RF) stable i.e., % Relative Standard Deviation (%RSD) $\leq 40.0\%$ ?	X		
15.7	Are there any transcription/calculation errors in the reporting of average response factors (RRFs) or %RSDs?		X	
15.8	Are the RT shift for each Internal Standard (IS) at each calibration level within 20 seconds of the mean RT over the initial calibration range of each IS?	X		
<b>16.0</b>	<b><u>Daily Calibration (Form VII/Equivalent)</u></b>			
16.1	Are the daily Calibration Forms [Form VII/Equivalent] present and complete for the volatile fraction?	X		
16.2	Has the daily calibration standard (20 ppbv total scan, 0.1 ppbv SIM) been analyzed for every twenty-four hours of sample analysis per instrument after the BFB tuning analysis?	X		
16.3	Do any volatile compounds have a % Difference (%D) between the initial and daily RRFs which exceed the $\pm 30\%$ criteria?	X		
16.4	Are there any transcription/calculation errors in the reporting of the average response factors (RRF) or % difference (%D) between initial and daily RRFs?		X	
<b>17.0</b>	<b><u>Compound Quantitation and Reported Detection Limits</u></b>			
17.1	Are there any transcription/calculations errors in Form I results?		X	
17.2	Are the reported detection limits adjusted to reflect sample dilutions?	X		
17.3	Have any target compound concentrations exceeded the calibration range of the GC?		X	
17.4	Was more than one method of quantitation used to calculate sample results within a batch or 24-hour analytical sequence?		X	
17.5	Did the lab report the target compounds below CRQLs with the suffix "J"?			X
<b>18.0</b>	<b><u>Internal Standards (Form VIII/Equivalent)</u></b>			
18.1	Are the 3 internal standard areas [Form VIII] of every sample, LCS, PE, and blank within the upper and lower limits ( $+40\%$ to $-40\%$ ) for each continuing calibration or 10 ppbv level of initial calibration?	X		
18.2	Are the internal standard retention times in each sample, LCS, PE, and blank within 20 seconds of the corresponding retention times in the associated calibration standard?	X		
<b>19.0</b>	<b><u>Mass Spectral Interpretation/Identification</u></b>			
19.1	Are the Organic Analysis Data Sheets present with required header information on each page, for each of the following:			
	a. Samples and/or fractions as appropriate?	X		

### Data Validation Checklist - Part A: TO-15 VOA Analyses

No:	Parameter	YES	NO	N/A
	b. Laboratory Control Samples?	<u>  X  </u>	<u>      </u>	<u>      </u>
	c. Blanks?	<u>  X  </u>	<u>      </u>	<u>      </u>
19.2	Are the VOA Reconstructed Ion Chromatograms, the mass spectra for the identified compounds, and the data system printouts (quant reports) included in the sample package for each of the following:			
	a. Samples and/or fractions as appropriate?	<u>  X  </u>	<u>      </u>	<u>      </u>
	b. Laboratory Control Samples?	<u>  X  </u>	<u>      </u>	<u>      </u>
	c. Blanks?	<u>  X  </u>	<u>      </u>	<u>      </u>
19.3	Is chromatographic performance acceptable with respect to:			
	a. Baseline stability?	<u>  X  </u>	<u>      </u>	<u>      </u>
	b. Resolution?	<u>  X  </u>	<u>      </u>	<u>      </u>
	c. Peak shape?	<u>  X  </u>	<u>      </u>	<u>      </u>
	d. Full-scale graph (attenuation)?	<u>  X  </u>	<u>      </u>	<u>      </u>
	e. Other:	<u>      </u>	<u>      </u>	<u>  X  </u>
19.4	Are the lab-generated standard mass spectra of the identified compounds present for each sample?	<u>  X  </u>	<u>      </u>	<u>      </u>
19.5	Is the RRT of each reported compound within 0.06 RRT units of the standard RRT in the continuing calibration?	<u>  X  </u>	<u>      </u>	<u>      </u>
19.6	Are all ions present in the reference standard mass spectrum at a relative intensity greater than 10 % also present in the sample mass spectrum?	<u>  X  </u>	<u>      </u>	<u>      </u>
19.7	Do sample and reference standard relative ion intensities agree within $\pm 20$ %?	<u>  X  </u>	<u>      </u>	<u>      </u>
<b>20.0</b>	<b><u>Field Duplicates</u></b>			
15.1	Were any field duplicates submitted for VOA analysis?	<u>      </u>	<u>  X  </u>	<u>      </u>

# **Data Usability Summary Report**

**Former NuHart Plastic Manufacturing Site  
Brooklyn, New York**

**Samples Collected  
April 2012 – April 2014**

**June 2014**

**Data Usability Summary Report**

**Samples Collected  
April 2012 – April 2014**

**Former NuHart Plastic Manufacturing Site  
Brooklyn, New York**

**Prepared By:**

**EnviroAnalytics  
Data Management and Validation Service  
2638 Sunset Avenue  
Utica, New York 13502**

## **EXECUTIVE SUMMARY**

This report addresses data quality for soil and water samples collected at the NuHart Plastic Manufacturing Site located in Brooklyn, New York. The samples were analyzed for volatile organics (VOCs), semivolatile organics (SVOCs), and inorganics (Metals) following New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) methodologies. Sample collection was performed by Ecosystems Strategies, Inc. of Poughkeepsie, New York. Analytical services were provided by York Analytical Laboratories, Inc. located in Stratford, Connecticut.

The inorganics analyses data have been determined to be usable for qualitative and quantitative purposes with additional qualification. Sample results for several analytes were qualified based on deviations from laboratory duplicate and ICP serial dilution analysis criteria.

The volatile organics analyses data were determined to be usable for qualitative and quantitative purposes with the exception of non-detected sample results for 1,4-Dioxane for two samples which were rejected due to deviations from laboratory control sample criteria. Sample results for several compounds were qualified based on deviations from blank analysis, initial calibration, continuing calibration, laboratory control sample, internal standard recovery, and surrogate recovery criteria.

The semivolatile organics analyses data were determined to be usable for qualitative and quantitative purposes with additional qualification. Sample results for several compounds were qualified based on deviations continuing calibration criteria.

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### Appendices

Appendix A - Data Validation Checklists



## **SECTION 1 - INTRODUCTION**

### **1.1 Introduction**

This report addresses data quality for soil and water samples collected at the NuHart Plastic Manufacturing Site located in Brooklyn, New York. The samples were analyzed for volatile organics (VOCs), semivolatile organics (SVOCs), and inorganics (Metals) following New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) methodologies. Sample collection was performed by Ecosystems Strategies, Inc. of Poughkeepsie, New York. Analytical services were provided by York Analytical Laboratories, Inc. located in Stratford, Connecticut. The quantity and types of samples submitted for data validation are tabulated below.

**Table 1: Introduction - Sample Summary Table**

SDG#	Date Collected	Sample Matrix	Sample Identification	
			Client ID	Laboratory ID
12D0700	04/19/2012	Soil	SB-65 (8-12') SB-66 (12-16')	12D0700-01 12D0700-03
12D0913	04/25/2012	Water	MW-22 MW-13 MW-13 TB-4/25/2012	12D0913-01 12D0913-02 12D0913-03 12D0913-04
14D0225	04/03/2014	Water	MW-4 MW-8 MW-21 TB-020120403	14D0225-01 14D0225-02 14D0225-03 14D0225-04

### **1.2 Analytical Methods**

The samples were analyzed for volatile organics (VOCs), semivolatile organics (SVOCs), and inorganics (Metals) following New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) methodologies (2005 update). Laboratory analyses were provided by York Analytical Laboratories, Inc. located in Stratford, Connecticut.

### **1.3 Validation Protocols**

Data validation is a process that involves the evaluation of analytical data against prescribed quality control criteria to determine the usefulness of the data. The analytical data addressed in this report were evaluated utilizing the quality control criteria presented in the following documents:

- *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, USEPA-540-R-08-01, June 2008.
- *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review*, USEPA-540-R-10-011, January 2010.

- *CLP Organics Data Review and Preliminary Review*, SOP No. HW-6 Revision #14, USEPA Region II, September 2006.
- *Validation of Metals for the Contract Laboratory Program (CLP) based on SOW ILM05.3*, SOP No. HW-2, Revision #13, USEPA Region II, September 2006.
- *Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8260B*, SOP No. HW-24 Revision #2, USEPA Hazardous Waste Support Branch, August 2008.
- *Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D*, SOP No. HW-22 Revision #4, USEPA Hazardous Waste Support Branch, August 2008.
- *Exhibit E of New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP)*, NYSDEC June 2005.

### **1.3.1 Inorganic Parameters**

The validation of inorganics for this project followed the requirements presented in the analytical methodology and the data validation guidelines presented above. The following QA/QC parameters were evaluated:

1. Holding Times
2. Calibration
  - a. Initial Calibration Verification
  - b. Continuing Calibration Verification
3. Blank Analysis
4. ICP Interference Check Sample Analysis (ICP only)
5. Matrix Spike Analysis
6. Laboratory Duplicate Analysis
7. Laboratory Control Sample Analysis
8. ICP Serial Dilution Analysis (ICP only)
9. Furnace Atomic Absorption Analysis
10. Method of Standard Addition Results
11. Field Blanks
12. Element Quantification and Reported Detection Limits
13. Document Completeness
14. Overall Data Assessment

### **1.3.2 Organic Parameters**

The validation of organic parameters for this project followed the requirements presented in the analytical methodology and the data validation guidelines presented above. The following QA/QC parameters were evaluated:

## **Volatile and Semivolatile Organics Analyses**

1. Holding Times
2. GC/MS Instrument Tuning Criteria
3. Calibration
  - a. Initial Calibration
  - b. Continuing Calibration
4. Blank Analysis
5. Surrogate Recovery
6. Matrix Spike / Matrix Spike Duplicate Analysis
7. Reference Standard Analysis
8. Internal Standards Recovery
9. Compound Identification and Quantification
10. Field Duplicate Analysis
11. System Performance
12. Documentation Completeness
13. Overall Data Assessment

### **1.4 Data Qualifiers**

The following qualifiers as specified in the guidance documents presented in Section 1.3 of this report have been used for this data validation.

- |    |                                                                                                                                                                                                                                                                  |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| U  | Indicates that the compound was analyzed for, but was not detected. The sample quantification limit is presented and adjusted for dilution. This qualifier is also used to signify that the detection limit of an analyte was raised due to blank contamination. |
| J  | Indicates that the result should be considered approximate. This qualifier is used when the data validation procedure identifies a deficiency in the data generation process.                                                                                    |
| UJ | Indicates that the detection limit for the analyte in this sample should be considered approximate. This qualifier is used when the data validation process identifies a deficiency in the data generation process.                                              |
| R  | Indicates that the previously reported detection limit or sample result has been rejected due to a major deficiency in the data generation procedure. The data are considered to be unusable for both qualitative and quantitative purposes.                     |

The following sections of this document present a summary of the data validation process. Section 2 discusses data compliance with established QA/QC criteria and qualifications performed on the sample data. A discussion of the Precision, Accuracy, Representativeness, Comparability, and Completeness (PARCC) of the data and data usability are discussed in Section 3. The USEPA Region II Data Validation Checklists are presented in Appendix A.

## **SECTION 2 - DATA VALIDATION SUMMARY**

This section presents a discussion of QA/QC parameter compliance with established criteria and the qualification of data performed when QA/QC parameter deviations were identified. When several deviations from established QA/QC criteria were observed, the final qualifier assigned to the data was based on the cumulative effect of the deviations.

### **2.1 Inorganics Analysis**

Data validation was performed for two water samples for total inorganic parameters. The QA/QC parameters presented in Section 1.3.1 of this report were found to be within specified limits with the exception of the following:

#### **Laboratory Duplicate Analysis**

Laboratory duplicate criterion requires the relative percent difference (RPD) between duplicate analyses to be less than 35 percent (50 percent for soil samples). Qualification of sample results included the approximation of data for analytes with RPD values greater than 35 percent. Samples qualified due to laboratory duplicate analysis deviations are tabulated below.

**Table 2: Inorganics Analysis - Laboratory Duplicate Deviations**

<b>Duplicate Sample ID</b>	<b>Inorganic</b>	<b>Relative Percent Difference</b>	<b>Qualifier</b>	<b>Affected Samples</b>
MW-22	Selenium	57.6 %	UJ	MW-22 MW-13

#### **ICP Serial Dilution Analysis**

ICP serial dilution criteria require the percent difference (%D) between results of a non-diluted analysis and a four-fold dilution analysis to be less than 10 percent for analytes with a non-diluted concentration greater than 50 times the instrument detection limit (IDL). Analytes with %D values greater than 10 percent are qualified as approximated for samples with concentrations greater than 50 times the IDL. Analytes that exceeded ICP serial dilution criteria and the samples that required qualification are presented below.

**Table 3: Inorganics Analysis - ICP Serial Dilution Deviations**

<b>Serial Dilution Sample ID</b>	<b>Inorganic</b>	<b>%D</b>	<b>Qualifier</b>	<b>Affected Samples</b>
12D0913-04	Sodium	12.5 %	J	MW-22 MW-13

#### **Overall Data Assessment**

Overall, the laboratory performed inorganics analyses in accordance with the requirements specified in the methods listed in Section 1.2 of this report. These data have been determined to be usable for qualitative and quantitative purposes with

additional qualification. Sample results for several analytes were qualified based on deviations from laboratory duplicate and ICP serial dilution analysis criteria.

## **2.2 Volatiles Analysis**

Data validation was performed for two soil samples, four water samples, and two trip blank samples for volatile organic parameters. The QA/QC parameters presented in Section 1.3.2 of this report were found to be within specified limits with the exception of the following:

### **Blank Analysis**

The method blanks contained detectable concentrations of several target compounds. Blank action levels were calculated at ten times the blank concentrations for the common laboratory contaminants and five times for other target compounds. Detected sample results, which were less than the blank action levels were qualified with a "U" in the associated samples. Results that were detected below the contract required detection limit (CRDL) were raised to the CRDL and qualified with a "U" qualifier. The "U" qualifier indicates that the volatile organic was analyzed for but was not detected above the CRDL. Samples qualified for blank contamination are tabulated below.

**Table 4: Volatile Organics Analysis - Blank Analysis Deviations**

<b>Blank Matrix</b>	<b>Date Analyzed</b>	<b>Compound</b>	<b>Blank Action Level<sup>1</sup></b>	<b>Associated Samples</b>	<b>Qualified Sample Result</b>
Soil	04/25/2012	Acetone	38 µg/Kg	SB-65 (8-12') SB-66 (12-16')	110 U µg/Kg 31 U µg/Kg
Soil	04/25/2012	Methylene Chloride	49 µg/Kg	SB-65 (8-12') SB-66 (12-16')	110 U µg/Kg 13 U µg/Kg
Water	05/01/2012	Methylene Chloride	65 µg/L	MW-13 TB-4/25/2012	10 U µg/L 10 U µg/L
Water BD40307	04/07/2014	Acetone	21 µg/L	MW-4	18 U µg/L
Water BD40342	04/08/2014	Methylene Chloride	11 µg/L	MW-21 TB-020120403	12 U µg/L 4.4 U µg/L
Water BD40392	04/08/2014	Acetone	14 µg/L	MW-8	500 U µg/L

1. Blank action level corrected for sample dilution and percent solids for each sample.

### **Initial Calibration**

The initial calibration relative standard deviation (%RSD) limit, which requires the %RSD to be less than 30 percent, was exceeded for several compounds. Sample qualification included the approximation (J, UJ) of results when %RSD criteria were exceeded. Samples requiring qualification due to these deviations are tabulated below.

**Table 5: Volatile Organics Analysis - Initial Calibration Deviations**

Date Analyzed	Compound	%RSD	Result Qualifier	Affected Samples
04/17/2012 (09:30)	Methylene Chloride Acetone 1,4-Dioxane	36.35 % 36.78 % 45.26 %	UJ UJ UJ	SB-65 (8-12') SB-66 (12-16')
04/02/2014 (16:55)	Acetone 2-Butanone 1,2-Dibromo-3-chloropropane	43.23 % 37.24 % 33.19 %	J, UJ J, UJ UJ	MW-4 MW-8 MW-21 TB-020120403

**Continuing Calibration**

The continuing calibration percent difference (%D) limit, which requires the %D to be less than 25 percent, was exceeded for several compounds. Sample qualification included the approximation (J, UJ) of results when %D criteria were exceeded, but were less than 90 percent. Non-detected results were rejected (R) for compounds with %D values greater than 90 percent. Samples requiring qualification due to these deviations are tabulated below.

**Table 6: Volatile Organics Analysis - Continuing Calibration Deviations**

Date Analyzed	Compound	%D	Result Qualifier	Affected Samples
04/25/2012 (11:00)	Dichlorodifluoromethane Acetone	45.4 % 56.6 %	UJ UJ	SB-65 (8-12') SB-66 (12-16')
04/07/2014 (08:52)	Bromomethane Acetone	38.8 % 37.8 %	UJ UJ	MW-4
04/08/2014 (12:02)	Bromomethane 2-Butanone	41.2 % 28.4 %	UJ J, UJ	MW-21 TB-020140403
04/08/2014 (22:51)	Bromomethane Acetone	43.3 % 30.1 %	UJ UJ	MW-8

**Laboratory Control Sample Analysis**

Laboratory control sample (LCS) recovery criteria requiring recoveries to be within laboratory generated control limits were exceeded for several compounds. Qualification of sample data included the approximation of results when spike recoveries were greater than the upper limit, but less than 200 percent or less than the lower limit, but greater than 10 percent. Non-detected sample results were rejected (R) for compounds with recoveries that were less than 10 percent. Samples qualified due to LCS recovery deviations are tabulated below.

**Table 7: Volatile Organics Analysis - Laboratory Control Sample Deviations**

Matrix	Compound	Percent Recovery	Control Limits	Qualifier	Affected Samples
Soil	1,4-Dioxane Acetone	3.37 %/3.65 % 47.7 %/43.3 %	70 % to 130 % 70 % to 130 %	R J, UJ	SB-65 (8-12') SB-66 (12-16')

Matrix	Compound	Percent Recovery	Control Limits	Qualifier	Affected Samples
Water	Acetone	59.2 %/46.2 %	70 % to 130 %	UJ	MW-13 TB-4/25/2012
Water	Bromodichloromethane Trichloroethylene	82.8 %/81.3 % 82.5 %/88.6 %	84 % to 117 % 85 % to 115 %	UJ UJ	MW-4

### **Surrogate Recovery**

Surrogate compounds are added to the samples prior to sample preparation to evaluate the efficiency of the sample preparation procedures. The data validation guidelines require the surrogate compounds to have percent recovery values within the prescribed control limits. When one or more of the surrogate compounds exceed the recovery limits the associated sample data require qualification. Samples that required qualification for surrogate compound deficiencies are tabulated below.

**Table 8: Volatile Organics Analysis - Surrogate Compound Deviations**

Sample ID	Surrogate Compound	Surrogate Recovery	Control Limits	Qualifier	Affected Compounds
SB-65 (8-12')	p-Bromofluorobenzene	173 %	63.5 % to 145 %	J	All detected compounds

### **Internal Standards Recovery**

The internal standard areas exceeded recovery limits for several samples. Qualification of sample results included the approximation of results when recoveries were greater than the upper limit, but less than 200 percent or less than the lower limit, but greater than 25 percent. Samples qualified due to internal standard recovery deviations are tabulated below.

**Table 9: Volatile Organics Analysis - Internal Standard Deviations**

Sample ID	Internal Standard	Percent Recovery	Affected Compounds	Qualifier
SB-65 (8-12')	1,2-Dichlorobenzene-d4	37.6 %	Bromoform	UJ
			1,1,2,2-Tetrachloroethane	UJ
			1,2,3-Trichloropropane	UJ
			Bromobenzene	UJ
			n-Propylbenzene	J
			2-Chlorotoluene	UJ
			4-Chlorotoluene	UJ
			tert-Butylbenzene	UJ
			1,3,5-Trimethylbenzene	J
			1,2,4-Trimethylbenzene	J
			sec-Butylbenzene	UJ
			1,3-Dichlorobenzene	UJ
			1,4-Dichlorobenzene	UJ
			1,2-Dichlorobenzene	UJ
			p-Isopropyltoluene	UJ
			n-Butylbenzene	UJ
			1,2-Dibromo-3-chloropropane	UJ
			1,2,4-Trichlorobenzene	UJ
			Naphthalene	UJ
			Hexachlorobutadiene	UJ
			1,2,3-Trichlorobenzene	UJ

**Overall Data Assessment**

Overall, the laboratory performed volatile organics analyses in accordance with the requirements specified in the method listed in Section 1.2. These data were determined to be usable for qualitative and quantitative purposes with the exception of non-detected sample results for 1,4-Dioxane for two samples which were rejected due to deviations from laboratory control sample criteria. Sample results for several compounds were qualified based on deviations from blank analysis, initial calibration, continuing calibration, laboratory control sample, internal standard recovery, and surrogate recovery criteria.

**2.3 Semivolatiles Analysis**

Data validation was performed for two soil samples for semivolatile organic parameters. The QA/QC parameters presented in Section 1.3.2 of this report were found to be within specified limits with the exception of the following:

**Continuing Calibration**

The continuing calibration percent difference (%D) limit, which requires the %D to be less than 25 percent, was exceeded for several compounds. Sample qualification included the approximation (J, UJ) of results when %D criteria were exceeded, but were less than 90 percent. Samples requiring qualification due to these deviations are tabulated below.



**Table 10: Semivolatile Organics Analysis - Continuing Calibration Deviations**

<b>Date Analyzed</b>	<b>Compound</b>	<b>%D</b>	<b>Result Qualifier</b>	<b>Affected Samples</b>
04/26/2012 (10:17)	N-Nitrosodimethylamine	38.4 %	UJ	SB-65 (8-12')
	Benzyl Alcohol	41.5 %	UJ	
	4-Chloroaniline	43.7 %	UJ	

#### **Matrix Spike Recovery**

The MS/MSD analysis of sample SB-65 (8-12') exhibited recoveries that were outside of prescribed limits for a majority of the compounds due to the sample dilution required to properly quantify the detected concentration of bis(2-ethylhexyl). Sample qualification was not required due to this deviation because the matrix spike concentrations were diluted below the linear calibration range of the instrumentation.

#### **Sample Dilution**

The diluted sample analysis of SB-65 (8-12') exceeded the linear calibration range of the instrumentation for bis(2-ethylhexyl)phthalate with a sample concentration of 49,400,000 DE µg/Kg. The bis(2-ethylhexyl)phthalate result for sample SB-65 (8-12') was qualified as approximated (J) because the sample was not re-analyzed with sufficient dilution to properly quantify the bis(2-ethylhexyl)phthalate concentration.

#### **Surrogate Recovery**

The surrogate recoveries for several of the soil samples were outside of prescribed limits due to the sample dilution required to properly quantify the detected concentrations of target compounds. Sample qualification was not required due to these deviations because the surrogate compound concentrations were diluted below the linear calibration range of the instrumentation.

#### **Overall Data Assessment**

Overall, the laboratory performed semivolatile organics analyses in accordance with the requirements specified in the method listed in Section 1.2. These data were determined to be usable for qualitative and quantitative purposes with additional qualification. Sample results for several compounds were qualified based on deviations continuing calibration criteria.

## **SECTION 3 - DATA USABILITY and PARCC EVALUATION**

### **3.1 Data Usability**

This section presents a summary of the usability of the analytical data and an evaluation of the PARCC parameters. Data usability was calculated as the percentage of data that was not qualified as rejected based on a significant deviation from established QA/QC criteria. Data usability, which was calculated separately for each type of analysis, is tabulated below.

**Table 11: Data Usability and PARCC Evaluation - Data Usability**

<b>Parameter</b>	<b>Usability</b>	<b>Deviations</b>
Inorganic Parameters	100 %	None resulting in the rejection of data
Volatile Organics	99.61 %	1,4-Dioxane results for two samples were rejected due to deviations from laboratory control sample criteria
Semivolatile Organics	100 %	None resulting in the rejection of data

### **3.2 PARCC Evaluation**

The following sections provide an evaluation of the analytical data with respect to the precision, accuracy, representativeness, comparability, and completeness (PARCC) parameters.

#### **3.2.1 Precision**

Precision is measured through field duplicate samples, split samples, and laboratory duplicate samples. For this sampling program, none of the data were qualified for field duplicate criteria deviations and 0.29 percent of the data were qualified for laboratory duplicate criteria deviations.

#### **3.2.2 Accuracy**

Matrix spike sample, surrogate recovery, internal standard recovery, laboratory control samples, and calibration criteria indicate the accuracy of the data. For this sampling program, none of the analytical data were qualified for deviations from matrix spike recovery criteria; 1.59 percent of the data were qualified for surrogate recovery criteria deviations; 3.04 percent of the data were qualified for internal standard recovery criteria deviations; 1.74 percent of the data were qualified for laboratory control sample deviations; and 4.78 percent of the data were qualified for calibration criteria deviations.

#### **3.2.3 Representativeness**

Holding times, sample preservation, and blank analysis are indicators of the representativeness of the analytical data. For this investigation, none of the analytical data required qualification for holding time deviations and 1.45 percent of the analytical data required qualification for blank analysis deviations.

#### **3.2.4 Comparability**

Comparability is not compromised provided that the analytical methods did not change over time. A major component of comparability is the use of standard reference materials for calibration and QC. These standards are compared to other unknowns to verify their concentrations. Since standard analytical methods and reporting procedures were consistently used by the laboratory, the comparability criteria for the analytical data were met.

#### **3.2.5 Completeness**

The overall percent usability or completeness of the data was 99.71 percent.

## **APPENDIX A**

### **DATA VALIDATION CHECKLISTS**

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## Data Validation Checklist - Part A: VOA Analysis

No:	Parameter	YES	NO	N/A
<b>1.0</b>	<b><u>Traffic Reports and Laboratory Narrative</u></b>			
1.1	Are the traffic Report Forms present for all samples?	<u>  X  </u>	<u>          </u>	<u>          </u>
1.2	Do the Traffic Reports or Lab Narrative indicate any problems with sample receipt, condition of samples, analytical problems or special circumstances affecting the quality of the data?	<u>          </u>	<u>    X    </u>	<u>          </u>
<b>2.0</b>	<b><u>Holding Times</u></b>			
2.1	Have any VOA technical holding times, determined from date of collection to date of analysis, been exceeded?	<u>          </u>	<u>    X    </u>	<u>          </u>
<b>3.0</b>	<b><u>System Monitoring Compound (SMC) Recovery (Form II)</u></b>			
3.1	Are the VOA SMC Recovery Summaries (FORM II) present for each of the following matrices:			
	a. Low Water	<u>    X    </u>	<u>          </u>	<u>          </u>
	b. Low Soil	<u>    X    </u>	<u>          </u>	<u>          </u>
	c. Air	<u>          </u>	<u>          </u>	<u>    X    </u>
3.2	Are all the VOA samples listed on the appropriate System Monitoring Compound Recovery Summary for each of the following matrices:			
	a. Low Water	<u>    X    </u>	<u>          </u>	<u>          </u>
	b. Low Soil	<u>    X    </u>	<u>          </u>	<u>          </u>
	c. Air	<u>          </u>	<u>          </u>	<u>    X    </u>
3.3	Were outliers marked correctly with an asterisk?	<u>    X    </u>	<u>          </u>	<u>          </u>
3.4	Was one or more VOA system monitoring compound recovery outside of contract specifications for any sample or method blank?	<u>    X    </u>	<u>          </u>	<u>          </u>
	If yes, were samples re-analyzed?	<u>          </u>	<u>    X    </u>	<u>          </u>
	Were method blanks re-analyzed?	<u>          </u>	<u>          </u>	<u>    X    </u>
3.5	Are there any transcription/calculation errors between raw data and Form II?	<u>          </u>	<u>    X    </u>	<u>          </u>
<b>4.0</b>	<b><u>Matrix Spikes (Form III)</u></b>			
4.1	Is the Matrix Spike/Matrix Spike Duplicate Recovery Form (Form III) present?	<u>          </u>	<u>    X    </u>	<u>          </u>
4.2	Were matrix spikes analyzed at the required frequency for each of the following matrices?			
	a. Low Water	<u>    X    </u>	<u>          </u>	<u>          </u>
	b. Low Soil	<u>    X    </u>	<u>          </u>	<u>          </u>
	c. Air	<u>          </u>	<u>          </u>	<u>    X    </u>
4.3	How many VOA spike recoveries are outside QC limits?			
	Water <u>    0    </u> out of 64      Soils <u>    0    </u> out of 64			
4.4	How many RPD's for matrix spike and matrix spike duplicate recoveries are outside QC limits?			
	Water <u>    0    </u> out of 64      Soils <u>    0    </u> out of 64			

### Data Validation Checklist - Part A: VOA Analysis

No:	Parameter	YES	NO	N/A
<b>5.0</b>	<b><u>Blanks (Form IV)</u></b>			
5.1	Is the Method Blank Summary (Form IV) present?	X		
5.2	Frequency of Analysis: for the analysis of VOA TCL compounds, has a reagent/method blank been analyzed for each SDG or every 20 samples of similar matrix (low water, low soil, medium soil), whichever is more frequent?	X		
5.3	Has a VOA method/instrument blank been analyzed at least once every twelve hours for each concentration level and GC/MS system used?	X		
5.4	Is the chromatographic performance (baseline stability) for each instrument acceptable for VOAs?	X		
<b>6.0</b>	<b><u>Contamination</u></b>			
6.1	Do any method/instrument/reagent blanks have positive results (TCL and/or TIC) for VOAs?	X		
6.2	Do any field/trip/rinse blanks have positive VOA results (TCL and/or TIC)?	X		
6.3	Are there field/rinse/equipment blanks associated with every sample?	X		
<b>7.0</b>	<b><u>GC/MS Instrument Performance Check (Form V)</u></b>			
7.1	Are the GC/MS Instrument Performance Check Forms (Form V) present for Bromofluorobenzene (BFB)?	X		
7.2	Are the enhanced bar graph spectrum and mass/charge (m/z) listing for the BFB provided for each twelve hour shift?	X		
7.3	Has an instrument performance compound been analyzed for every twelve hours of sample analysis per instrument?	X		
7.4	Have the ion abundances been normalized to m/z 95?	X		
7.5	Have the ion abundance criteria been met for each instrument used?	X		
7.6	Are there any transcription/calculation errors between mass lists and Form V's?		X	
7.7	Have the appropriate number of significant figures (two) been reported?	X		
7.8	Are the spectra of the mass calibration compound acceptable?	X		
<b>8.0</b>	<b><u>Target Compound List (TCL) Analytes</u></b>			
8.1	Are the Organic Analysis Data Sheets (Form I VOA) present with required header information on each page, for each of the following:			
	a. Sample and/or fractions as appropriate?	X		
	b. Matrix spikes and matrix spike duplicates?	X		
	c. Blanks?	X		
8.2	Are the VOA Reconstructed Ion Chromatograms, the mass spectra for the identified compounds, and the data system printouts (Quant Reports) included in the sample package for each of the following?			
	a. Samples and/or fractions as appropriate?	X		
	b. Matrix spikes and matrix spike duplicates (Mass spectra not required)?	X		
	c. Blanks?	X		
8.3	Are the response factors shown in the Quant Report?	X		

### Data Validation Checklist - Part A: VOA Analysis

No:	Parameter	YES	NO	N/A
8.4	Is the chromatographic performance acceptable with respect to:			
	Baseline stability?	X		
	Resolution?	X		
	Peak shape?	X		
	Full-scale graph (attenuation)?	X		
	Other:			
8.5	Are the lab-generated standard mass spectra of the identified VOA compounds present for each sample?	X		
8.6	Is the RRT of each reported compound within 0.06 RRT units of the standard RRT in the continuing calibration?	X		
8.7	Are all ions in the standard mass spectrum at a relative intensity greater than 10% also present in the sample mass spectrum?	X		
8.8	Do sample and standard relative ion intensities agree within 20%?	X		
<b>9.0</b>	<b><u>Tentatively Identified Compounds (TIC)</u></b>			
9.1	Are all Tentatively Identified Compound Forms (Form I Part B) present; and do listed TICs include scan number or retention time, estimated concentration and "JN" qualifier?	X		
9.2	Are the mass spectra for the tentatively identified compounds and associated "best match" spectra included in the sample package for each of the following:			
	a. Samples and/or fractions as appropriate?	X		
	b. Blanks?	X		
9.3	Are any TCL compounds (from any fraction) listed as TIC compounds?		X	
9.4	Are all ions present in the reference mass spectrum with a relative intensity greater than 10% also present in the sample mass spectrum?	X		
9.5	Do TIC and "best match" standard relative ion intensities agree within 20%?	X		
<b>10.0</b>	<b><u>Compound Quantitation and Reported Detection Limits</u></b>			
10.1	Are there any transcription/calculation errors in Form I results?		X	
10.2	Are the CRQLs adjusted to reflect sample dilutions and, for soils, sample moisture?	X		
<b>11.0</b>	<b><u>Standards Data (GC/MS)</u></b>			
11.1	Are the Reconstructed Ion Chromatograms, and data system printouts present for initial and continuing calibration?	X		
<b>12.0</b>	<b><u>GC/MS Initial Calibration (Form VI)</u></b>			
12.1	Are the Initial Calibration Forms (Form VI) present and complete for the volatile fraction at concentrations of 10, 20, 50, 100, 200 ug/L? Are there separate calibrations for low/med soils and low soil samples?	X		
12.2	Were all low level soil standards, blanks, and samples analyzed by heated purge?	X		
12.3	Are the response factors stable for VOA's over the concentration range of the calibration (%Relative Standard Deviation (%RSD) <30%)		X	
12.4	Are the RRFs above 0.01?	X		
12.5	Are there any transcription/calculation errors in the reporting of average response factors (RRF) or %RSD?		X	



## Data Validation Checklist - Part A: VOA Analysis

No:	Parameter	YES	NO	N/A
<b>13.0</b>	<b><u>GC/MS Continuing Calibration (Form VII)</u></b>			
13.1	Are the Continuing Calibration Forms (Form VII) present and complete for the volatile fraction?	X		
13.2	Has a continuing calibration standard been analyzed for every twelve hours of sample analysis per instrument?	X		
13.3	Do any volatile compounds have a %Difference (%D) between the initial and continuing RRF which exceeds the +/- 25% criteria?	X		
13.4	Do any volatile compounds have a RRF <0.01?		X	
13.5	Are there any transcription/calculation errors in the reporting of average response factor (RRF) or %difference (%D) between initial and continuing RRFs?		X	
<b>14.0</b>	<b><u>Internal Standard (Form VIII)</u></b>			
14.1	Are the internal standard areas (Form VIII) of every sample and blank within the upper and lower limits (-50% to +100%) for each continuing calibration?		X	
14.2	Are the retention times of the internal standards within 30 seconds of the associated calibration standard?	X		
<b>15.0</b>	<b><u>Field Duplicates</u></b>			
15.1	Were any field duplicates submitted for VOA analysis?		X	

### Data Validation Checklist - Part B: SVOC Analysis

No:	Parameter	YES	NO	N/A
<b>1.0</b>	<b><u>Traffic Reports and Laboratory Narrative</u></b>			
1.1	Are the traffic Report Forms present for all samples?	<u>  X  </u>	<u>      </u>	<u>      </u>
1.2	Do the Traffic Reports or Lab Narrative indicate any problems with sample receipt, condition of samples, analytical problems or special circumstances affecting the quality of the data?	<u>      </u>	<u>  X  </u>	<u>      </u>
<b>2.0</b>	<b><u>Holding Times</u></b>			
2.1	Have any BNA technical holding times, determined from date of collection to date of extraction, been exceeded?	<u>      </u>	<u>  X  </u>	<u>      </u>
<b>3.0</b>	<b><u>System Monitoring Compound (SMC) Recovery (Form II)</u></b>			
3.1	Are the BNA Surrogate Recovery Summaries (FORM II) present for each of the following matrices:			
	a. Low Water	<u>      </u>	<u>      </u>	<u>  X  </u>
	b. Low Soil	<u>  X  </u>	<u>      </u>	<u>      </u>
	c. Med Soil	<u>      </u>	<u>      </u>	<u>  X  </u>
3.2	Are all the BNA samples listed on the appropriate System Monitoring Compound Recovery Summary for each of the following matrices:			
	a. Low Water	<u>      </u>	<u>      </u>	<u>  X  </u>
	b. Low Soil	<u>  X  </u>	<u>      </u>	<u>      </u>
	c. Med Soil	<u>      </u>	<u>      </u>	<u>  X  </u>
3.3	Were outliers marked correctly with an asterisk?	<u>  X  </u>	<u>      </u>	<u>      </u>
3.4	Were two or more base neutral or acid surrogate compound recoveries out of specification for any sample or method blank?	<u>      </u>	<u>  X  </u>	<u>      </u>
	If yes, were samples re-analyzed?	<u>      </u>	<u>  X  </u>	<u>      </u>
	Were method blanks re-analyzed?	<u>      </u>	<u>      </u>	<u>  X  </u>
3.5	Are there any transcription/calculation errors between raw data and Form II?	<u>      </u>	<u>  X  </u>	<u>      </u>
<b>4.0</b>	<b><u>Matrix Spikes (Form III)</u></b>			
4.1	Is the Matrix Spike/Matrix Spike Duplicate Recovery Form (Form III) present?	<u>  X  </u>	<u>      </u>	<u>      </u>
4.2	Were matrix spikes analyzed at the required frequency for each of the following matrices?	<u>      </u>	<u>      </u>	<u>  X  </u>
	a. Low Water	<u>  X  </u>	<u>      </u>	<u>      </u>
	b. Low Soil	<u>  X  </u>	<u>      </u>	<u>      </u>
	c. Med Soil	<u>      </u>	<u>      </u>	<u>  X  </u>
4.3	How many BNA spike recoveries are outside QC limits?			
	Water <u>  0  </u> out of 66      Soils <u>  0  </u> out of 66			

### Data Validation Checklist - Part B: SVOC Analysis

No:	Parameter	YES	NO	N/A
4.4	How many RPD's for matrix spike and matrix spike duplicate recoveries are outside QC limits?  Water <u>  0  </u> out of 66      Soils <u>  0  </u> out of 66			
<b>5.0</b>	<b><u>Blanks (Form IV)</u></b>			
5.1	Is the Method Blank Summary (Form IV) present?	<u>  X  </u>	<u>          </u>	<u>          </u>
5.2	Frequency of Analysis: Has a reagent/method blank analysis been reported per 20 samples of a similar matrix, or concentration level, for each extraction batch?	<u>  X  </u>	<u>          </u>	<u>          </u>
5.3	Has a BNA method blank been analyzed for each GC/MS system used?	<u>  X  </u>	<u>          </u>	<u>          </u>
5.4	Is the chromatographic performance (baseline stability) for each instrument acceptable for BNAs?	<u>  X  </u>	<u>          </u>	<u>          </u>
<b>6.0</b>	<b><u>Contamination</u></b>			
6.1	Do any method/instrument/reagent blanks have positive results (TCL and/or TIC) for BNAs?	<u>          </u>	<u>  X  </u>	<u>          </u>
6.2	Do any field/rinse blanks have positive BNA results (TCL and/or TIC)?	<u>          </u>	<u>  X  </u>	<u>          </u>
6.3	Are there field/rinse/equipment blanks associated with every sample?	<u>          </u>	<u>  X  </u>	<u>          </u>
<b>7.0</b>	<b><u>GC/MS Instrument Performance Check (Form V)</u></b>			
7.1	Are the GC/MS Instrument Performance Check Forms (Form V) present for Decafluorotriphenylphosphine (DFTPP)?	<u>  X  </u>	<u>          </u>	<u>          </u>
7.2	Are the enhanced bar graph spectrum and mass/charge (m/z) listing for the DFTPP provided for each twelve-hour shift?	<u>  X  </u>	<u>          </u>	<u>          </u>
7.3	Has an instrument performance check solution been analyzed for every twelve hours of sample analysis per instrument?	<u>  X  </u>	<u>          </u>	<u>          </u>
7.4	Have the ion abundances been normalized to m/z 198?	<u>  X  </u>	<u>          </u>	<u>          </u>
7.5	Have the ion abundance criteria been met for each instrument used?	<u>  X  </u>	<u>          </u>	<u>          </u>
7.6	Are there any transcription/calculation errors between mass lists and Form V's?	<u>          </u>	<u>  X  </u>	<u>          </u>
7.7	Have the appropriate number of significant figures (two) been reported?	<u>  X  </u>	<u>          </u>	<u>          </u>
7.8	Are the spectra of the mass calibration compound acceptable?	<u>  X  </u>	<u>          </u>	<u>          </u>
<b>8.0</b>	<b><u>Target Compound List (TCL) Analytes</u></b>			
8.1	Are the Organic Analysis Data Sheets (Form I BNA) present with required header information on each page, for each of the following: a. Sample and/or fractions as appropriate? b. Matrix spikes and matrix spike duplicates? c. Blanks?	<u>  X  </u> <u>  X  </u> <u>  X  </u>	<u>          </u> <u>          </u> <u>          </u>	<u>          </u> <u>          </u> <u>          </u>
8.2	Has GPC cleanup been performed on all soil/sediment sample extracts?	<u>          </u>	<u>          </u>	<u>  X  </u>
8.3	Are the BNA Reconstructed Ion Chromatograms, the mass spectra for the identified compounds, and the data system printouts (Quant Reports) included in the sample package for each of the following?			

### Data Validation Checklist - Part B: SVOC Analysis

No:	Parameter	YES	NO	N/A
	a. Samples and/or fractions as appropriate?	<u>X</u>	<u>      </u>	<u>      </u>
	b. Matrix spikes and matrix spike duplicates (Mass spectra not required)?	<u>X</u>	<u>      </u>	<u>      </u>
	c. Blanks?	<u>X</u>	<u>      </u>	<u>      </u>
8.4	Are the response factors shown in the Quant Report?	<u>X</u>	<u>      </u>	<u>      </u>
8.5	Is the chromatographic performance acceptable with respect to:			
	Baseline stability?	<u>X</u>	<u>      </u>	<u>      </u>
	Resolution	<u>X</u>	<u>      </u>	<u>      </u>
	Peak shape?	<u>X</u>	<u>      </u>	<u>      </u>
	Full-scale graph (attenuation)?	<u>X</u>	<u>      </u>	<u>      </u>
	Other:			
8.6	Are the lab-generated standard mass spectra of identified BNA compounds present for each sample?	<u>X</u>	<u>      </u>	<u>      </u>
8.7	Is the RRT of each reported compound within 0.06 RRT units of the standard RRT in the continuing calibration?	<u>X</u>	<u>      </u>	<u>      </u>
8.8	Are all ions in the standard mass spectrum at a relative intensity greater than 10% also present in the sample mass spectrum?	<u>X</u>	<u>      </u>	<u>      </u>
8.9	Do sample and standard relative ion intensities agree within 20%?	<u>X</u>	<u>      </u>	<u>      </u>
<b>9.0</b>	<b><u>Tentatively Identified Compounds (TIC)</u></b>			
9.1	Are all Tentatively Identified Compound Forms (Form I, Part B) present; and do listed TICs include scan number or retention time, estimated concentration and "JN" qualifier?	<u>X</u>	<u>      </u>	<u>      </u>
9.2	Are the mass spectra for the tentatively identified compounds and associated "best match" spectra included in the sample package for each of the following:			
	a. Samples and/or fractions as appropriate?	<u>X</u>	<u>      </u>	<u>      </u>
	b. Blanks?	<u>X</u>	<u>      </u>	<u>      </u>
9.3	Are any TCL compounds (from any fraction) listed as TIC compounds?	<u>      </u>	<u>X</u>	<u>      </u>
9.4	Are all ions present in the reference mass spectrum with a relative intensity greater than 10% also present in the sample mass spectrum?	<u>X</u>	<u>      </u>	<u>      </u>
9.5	Do TIC and "best match" standard relative ion intensities agree within 20%?	<u>X</u>	<u>      </u>	<u>      </u>
<b>10.0</b>	<b><u>Compound Quantitation and Reported Detection Limits</u></b>			
10.1	Are there any transcription/calculation errors in Form I results?	<u>      </u>	<u>X</u>	<u>      </u>
10.2	Are the CRQLs adjusted to reflect sample dilutions and, for soils, sample moisture?	<u>X</u>	<u>      </u>	<u>      </u>
<b>11.0</b>	<b><u>Standards Data (GC/MS)</u></b>			
11.1	Are the Reconstructed Ion Chromatograms, and data system printouts present for initial and continuing calibration?	<u>X</u>	<u>      </u>	<u>      </u>
<b>12.0</b>	<b><u>GC/MS Initial Calibration (Form VI)</u></b>			

### Data Validation Checklist - Part B: SVOC Analysis

No:	Parameter	YES	NO	N/A
12.1	Are the Initial Calibration Forms (Form VI) present and complete for the BNA fraction ?	<u>X</u>	<u>          </u>	<u>          </u>
12.2	Are response factors stable for BNA's over the concentration range of the calibration (%Relative Standard Deviation (%RSD) <30%)	<u>X</u>	<u>          </u>	<u>          </u>
12.3	Are all BNA compound RRFs > 0.01?	<u>X</u>	<u>          </u>	<u>          </u>
12.4	Are there any transcription/calculation errors in the reporting of average response factors (RRF) or %RSD?	<u>X</u>	<u>          </u>	<u>          </u>
<b>13.0</b>	<b><u>GC/MS Continuing Calibration (Form VII)</u></b>			
13.1	Are the Continuing Calibration Forms (Form VII) present and complete for the BNA fraction?	<u>X</u>	<u>          </u>	<u>          </u>
13.2	Has a continuing calibration standard been analyzed for every twelve hours of sample analysis per instrument?	<u>X</u>	<u>          </u>	<u>          </u>
13.3	Do any semivolatile compounds have a %Difference (%D) between the initial and continuing RRF which exceeds the +/- 25% criteria?	<u>X</u>	<u>          </u>	<u>          </u>
13.4	Do any semivolatile compounds have a RRF <0.01?	<u>          </u>	<u>X</u>	<u>          </u>
13.5	Are there any transcription/calculation errors in the reporting of average response factor (RRF) or %difference (%D) between initial and continuing RRFs?	<u>X</u>	<u>          </u>	<u>          </u>
<b>14.0</b>	<b><u>Internal Standard (Form VIII)</u></b>			
14.1	Are the internal standard areas (Form VIII) of every sample and blank within the upper and lower limits (-50% to +100%) for each continuing calibration?	<u>X</u>	<u>          </u>	<u>          </u>
14.2	Are the retention times of the internal standards within 30 seconds of the associated calibration standard?	<u>X</u>	<u>          </u>	<u>          </u>
<b>15.0</b>	<b><u>Field Duplicates</u></b>			
15.1	Were any field duplicates submitted for BNA analysis?	<u>          </u>	<u>X</u>	<u>          </u>

### Data Validation Checklist - Part C: Metals Analysis

No:	Parameter	YES	NO	N/A
<b>1.0</b>	<b><u>Form I to IX</u></b>			
1.1	Are all the Form I through Form IX labeled with:			
	Laboratory Name?	<u>X</u>	<u>      </u>	<u>      </u>
	Case/SAS No.?	<u>      </u>	<u>X</u>	<u>      </u>
	EPA sample No.?	<u>      </u>	<u>X</u>	<u>      </u>
	SDG No.?	<u>X</u>	<u>      </u>	<u>      </u>
	Contract No.?	<u>X</u>	<u>      </u>	<u>      </u>
	Correct units?	<u>X</u>	<u>      </u>	<u>      </u>
	Matrix?	<u>X</u>	<u>      </u>	<u>      </u>
1.2	Do any computer/transcription errors exceed 10% of reported values on Forms I-IX for:			
	A. All analytes analyzed by ICP?	<u>      </u>	<u>X</u>	<u>      </u>
	B. All analytes analyzed by GFAA?	<u>      </u>	<u>      </u>	<u>X</u>
	C. All analytes analyzed by AA Flame?	<u>      </u>	<u>      </u>	<u>X</u>
	D. Mercury?	<u>      </u>	<u>X</u>	<u>      </u>
	E. Cyanide?	<u>      </u>	<u>      </u>	<u>X</u>
<b>2.0</b>	<b><u>Raw Data</u></b>			
2.1	Digestion Log for flame AA/ICP (Form XIII) present?	<u>X</u>	<u>      </u>	<u>      </u>
2.2	Digestion Log for furnace AA (Form XIII) present?	<u>      </u>	<u>      </u>	<u>X</u>
2.3	Distillation Log for mercury (Form XIII) present?	<u>X</u>	<u>      </u>	<u>      </u>
2.4	Distillation Log for cyanides (Form XIII) present?	<u>      </u>	<u>      </u>	<u>X</u>
2.5	Are pH values (pH<2 for all metals, pH>12 for cyanide) present?	<u>X</u>	<u>      </u>	<u>      </u>
2.6	Percent solids calculation dates present on sample preparation logs/bench sheets?	<u>X</u>	<u>      </u>	<u>      </u>
2.7	Are preparation dates present on sample preparation logs/bench sheets?	<u>X</u>	<u>      </u>	<u>      </u>
2.8	Measurement read out record present?			
	A. ICP	<u>X</u>	<u>      </u>	<u>      </u>
	B. Flame AA	<u>      </u>	<u>      </u>	<u>X</u>
	C. Furnace AA	<u>      </u>	<u>      </u>	<u>X</u>
	D. Mercury	<u>X</u>	<u>      </u>	<u>      </u>
	E. Cyanides	<u>      </u>	<u>      </u>	<u>X</u>
2.9	Are all raw data to support all sample analyses and QC operations present?	<u>      </u>	<u>      </u>	<u>X</u>
<b>3.0</b>	<b><u>Holding Times</u></b>			
3.1	A. Mercury analysis (28 days) .....exceeded?	<u>      </u>	<u>X</u>	<u>      </u>
	B. Cyanide distillation (14 days) .....exceeded?	<u>      </u>	<u>      </u>	<u>X</u>
	C. Other Metals analysis (6 months) .....exceeded?	<u>      </u>	<u>X</u>	<u>      </u>
3.2	Is pH of aqueous samples for:			
	A. Metals Analysis >2?	<u>      </u>	<u>X</u>	<u>      </u>

### Data Validation Checklist - Part C: Metals Analysis

No:	Parameter	YES	NO	N/A
	B. Cyanides Analysis <12?			X
<b>4.0</b>	<b><u>Form I (Final Data)</u></b>			
4.1	Are all Forms I's present and complete?	X		
4.2	Are correct units (ug/l for waters and mg/kg for soils) indicated on Form I's?	X		
4.3	Are soil sample results for each parameter corrected for percent solids?	X		
4.4	Are all "less than IDL" values properly coded with "U"?	X		
4.5	Are the correct concentration qualifiers used with final data?	X		
4.6	Are EPA sample #s and corresponding laboratory sample ID #s the same as on the Cover Page, Form I's and in the raw data?	X		
4.7	Was a brief physical description of samples given on Form I's?	X		
4.8	Was the dilution of any sample diluted beyond the requirements of the contract noted on Form I or Form XIV?		X	
<b>5.0</b>	<b><u>Calibration</u></b>			
5.1	Is record of at least 2 point calibration present for ICP analysis?	X		
5.2	Is record of 5 point calibration present for Hg analysis?	X		
5.3	Is record of 4 point calibration present for:			X
	Flame AA?			X
	Furnace AA?			X
	Cyanides?			X
5.4	Is one calibration standard at the CRDL level for all AA (except Hg) and cyanides analyses?	X		
5.5	Is correlation coefficient less than 0.995 for:			
	Mercury Analysis?	X		
	Cyanide Analysis?			X
	Atomic Absorption Analysis?			X
5.6	In the instance where less than 4 standards are measured in absorbance (or peak area, peak height, etc.) Mode, are remaining standards analyzed in concentration mode immediately after calibration within +/- 10% of the true values?			X
<b>6.0</b>	<b><u>Form II A (Initial and Continuing Calibration Verification)</u></b>			
6.1	Present and complete for every metal and cyanide?	X		
6.2	Present and complete for AA ICP when both are used for the same analyte?			X
6.3	Are all calibration standards (initial and continuing) within control limits:			
	Metals - 90 - 110 %R		X	
	Hg - 80 - 120 %R	X		
	Cyanides - 85 - 115 %R			X
6.4	Was continuing calibration performed every 10 samples or every 2 hours?	X		
6.5	Was ICV for cyanides distilled?			X

## Data Validation Checklist - Part C: Metals Analysis

No:	Parameter	YES	NO	N/A
<b>7.0</b>	<b><u>Form II B (CRDL Standards for AA and ICP)</u></b>			
7.1	Was a CRDL standard (CRA) analyzed after initial calibration for all AA metals (except Hg)?	X		
7.2	Was a mid range calibration verification standard distilled and analyzed for cyanide analysis?	X		
7.3	Was a 2xCRDL (or 2xIDL when IDL>CRDL) analyzed (CRI) for each ICP run?	X		
7.4	Was CRI analyzed after ICV/ICB and before the final CCV/CCB, and twice every eight hours of ICP run?	X		
7.5	Are CRA and CRI standards within control limits: Metals 70 – 130 %R?	X		
7.6	Is mid-range standard within control limits: Cyanide 70 - 130 %R?			X
<b>8.0</b>	<b><u>Form III (Initial and Continuing Calibration Blanks)</u></b>			
8.1	Present and complete?	X		
8.2	For both AA and ICP when both are used for the same analyte?			X
8.3	Was an initial calibration blank analyzed?	X		
8.4	Was a continuing calibration blank analyzed after every 10 samples or every 2 hours (which ever is more frequent)?	X		
8.5	Are all calibration blanks (when IDL<CRDL) less than or equal to the Contract Required Detection Limits (CRDLs)?	X		
8.6	Are all calibration blanks less than two times Instrument Detection Limit (when IDL>CRDL)?			X
<b>9.0</b>	<b><u>Form III (Preparation Blank)</u></b>			
9.1	Was one preparation blank analyzed for: each Sample Delivery Group?	X		
9.2	Is concentration of preparation blank value greater than the CRDL when IDL is less than or equal to CRDL?		X	
9.3	If yes, is the concentration of the sample with the least concentrated analyte less than 10 times the preparation blank?			X
9.4	Is concentration of preparation blank value (Form III) less than two times IDL, when IDL is greater than CRDL?			X
9.5	Is concentration of preparation blank below the negative CRDL?		X	
<b>10.0</b>	<b><u>Form IV (Interference Check Sample)</u></b>			
10.1	Present and Complete?	X		
10.2	Are all Interference Check Sample results inside the control limits (+/- 20%)?	X		
10.3	If no, is concentration of Al, Ca, Fe, or Mg lower than the respective concentration in ICS?			X
<b>11.0</b>	<b><u>Form V A (Spiked Sample recovery - Pre-Digestion/Pre-Distillation)</u></b>			
11.1	Present and complete for:			
	each SDG?	X		
	each matrix type?	X		
	each concentration range (i.e., low, medium, high)?	X		



### Data Validation Checklist - Part C: Metals Analysis

No:	Parameter	YES	NO	N/A
	For both AA and ICP when both are used for the same analyte?	<input type="text"/>	<input type="text"/>	X
11.2	Was field blank used for spiked sample?	<input type="text"/>	X	<input type="text"/>
11.3	Are all recoveries within control limits?	<input type="text"/>	X	<input type="text"/>
11.4	If no, is sample concentration greater than or equal to four times spike concentration?	X	<input type="text"/>	<input type="text"/>
<b>12.0</b>	<b><u>Form VI (Lab Duplicates)</u></b>			
12.1	Present and complete for :			
	each SDG?	X	<input type="text"/>	<input type="text"/>
	each matrix type?	X	<input type="text"/>	<input type="text"/>
	each concentration range (i.e., low, medium, high)?	X	<input type="text"/>	<input type="text"/>
	both AA and ICP when both are used for the same analyte?	<input type="text"/>	<input type="text"/>	X
12.2	Was field blank used for duplicate analysis?	<input type="text"/>	X	<input type="text"/>
12.3	Are all values within control limits (RPD 35% or difference $\leq$ +/-CRDL)?	X	<input type="text"/>	<input type="text"/>
12.4	If no, are all results outside the control limits flagged with an * on Form I's and VI?	<input type="text"/>	<input type="text"/>	X
<b>13.0</b>	<b><u>Field Duplicates</u></b>			
13.1	Were field duplicates analyzed?	<input type="text"/>	X	<input type="text"/>
13.2	<b><u>Aqueous</u></b>			
	Is any RPD greater than 50% where sample and duplicate are both greater than or equal to 5 times CRDL?	<input type="text"/>	<input type="text"/>	X
	Is any difference between sample and duplicate greater than CRDL where sample and/or duplicate is less than 5 times CRDL?	<input type="text"/>	<input type="text"/>	X
13.3	<b><u>Soil/Sediment</u></b>			
	Is any RPD (where sample and duplicate are both greater than 5 times CRDL); >100%?	<input type="text"/>	<input type="text"/>	X
	Is any difference between sample and duplicate (where sample and/or duplicate is less than 5x CRDL); >2x CRDL?	<input type="text"/>	<input type="text"/>	X
<b>14.0</b>	<b><u>Form VII (Laboratory Control Sample)</u></b>			
14.1	Was one LCS prepared and analyzed for:			
	each SDG?	X	<input type="text"/>	<input type="text"/>
	each batch samples digested/distilled?	X	<input type="text"/>	<input type="text"/>
	both AA and ICP when both are used for the same analyte?	<input type="text"/>	<input type="text"/>	X
14.2	<b><u>Aqueous LCS</u></b>			
	Is any LCS recovery:			
	less than 50%?	<input type="text"/>	X	<input type="text"/>
	between 50% and 79%?	<input type="text"/>	X	<input type="text"/>
	between 121% and 150%?	<input type="text"/>	X	<input type="text"/>
	greater than 150%?	<input type="text"/>	X	<input type="text"/>
14.3	<b><u>Solid LCS</u></b>			
	Is LCS "Found" value higher than the control limits on Form VII?	<input type="text"/>	X	<input type="text"/>

### Data Validation Checklist - Part C: Metals Analysis

No:	Parameter	YES	NO	N/A
	Is LCS "Found" value lower than the control limits on Form VII?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>15.0</b>	<b><u>Form IX (ICP Serial Dilution)</u></b>			
15.1	Was serial dilution analysis performed for:			
	each SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	each matrix type?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	each concentration range (i.e., low, medium, high)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.2	Was field blank(s) used for Serial Dilution Analysis?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
15.3	Are results outside control limit flagged with an "E" on Form I's and Form IX when initial concentration on Form IX is equal to 50 times IDL or greater?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.4	Are any %difference values:			
	>10%	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	>=100%	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>16.0</b>	<b><u>Furnace Atomic Absorption (AA) QC Analysis</u></b>			
16.1	Are duplicate injections present in furnace raw data for each sample analyzed by GFAA?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16.2	Do the duplicate injection readings agree within 20% Relative Standard Deviation (RSD) or Coefficient of Variation (CV) for concentration greater than CRDL?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16.3	Was a dilution analyzed for sample with analytical spike recovery less than 40%?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16.4	Is analytical spike recovery outside the control limits (85 - 115%) for any sample?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>17.0</b>	<b><u>Form VIII (Method of Standard Addition Results)</u></b>			
17.1	Present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17.2	If no, is any Form I result coded with "S" or a "+"?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17.3	Is coefficient of correlation for MSA less than 0.990 for any sample?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17.4	Was MSA required for any sample but not performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17.5	Is coefficient of correlation for MSA less than 0.995?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17.6	Are MSA calculations outside the linear range of the calibration curve generated at the beginning of the analytical run?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17.7	Was proper Quantitation procedure followed correctly as outlined in the SOW on page E-23?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>18.0</b>	<b><u>Dissolved/Total or Inorganic/Total Analytes</u></b>			
18.1	Were any analyses performed for dissolved as well as total analytes on the same sample(s)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
18.2	Were any analyses performed for inorganic as well as total (organic and inorganic) analytes on the same sample(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.3	Is the concentration of any dissolved (or inorganic) analyte greater than its total concentration by more than 10%?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
18.4	Is the concentration of any dissolved (or inorganic) analyte greater than its total concentration by more than 50%?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Data Validation Checklist - Part C: Metals Analysis

No:	Parameter	YES	NO	N/A
<b>19.0</b>	<b><u>Form I (Field Blank)</u></b>			
19.1	Is field blank concentration less than CRDL (or 2 x IDL when IDL>CRDL) for all parameters of associated aqueous and soil samples?	X		
19.2	If no, was field blank value already rejected due to other QC criteria?			X
<b>20.0</b>	<b><u>Form X, XI, XII (Verification of Instrumental Parameters)</u></b>			
20.1	Is verification report present for:			
	Instrument Detection Limits (quarterly)?	X		
	ICP Interelement Correction Factors (annually)?	X		
	ICP Linear Ranges (quarterly)?	X		
<b>21.0</b>	<b><u>Form X (Instrument Detection Limits)</u></b>			
21.1	Are IDLs present for:			
	all the analytes?	X		
	all the instruments used?	X		
	For both AA and ICP when both are used for the same analyte?			X
21.2	Is IDL greater than CRDL for any analytes?		X	
21.3	If yes, is the concentration on Form I of the sample analyzed on the instrument whose IDL exceeds CRDL, greater than 5 x IDL?			X
<b>22.0</b>	<b><u>Form XI (Linear Ranges)</u></b>			
22.1	Was any sample result higher than the high linear range of ICP?		X	
22.2	Was any sample result higher than the highest calibration standard for non-ICP parameters?		X	
22.3	If yes for any of the above, was the sample diluted to obtain the result on Form I?			X
<b>23.0</b>	<b><u>Percent Solids of Sediments</u></b>			
23.1	Are percent solids in sediment(s):			
	<50%?		X	
	<10%?		X	

# **Data Usability Summary Report**

**FORMER NUHART PLASTICS SITE  
280 FRANKLIN STREET, BROOKLYN, NY  
NYSDEC SITE #224136**

**Samples Collected  
July 2014 to December 2014**

**May 2015**

**ZDATA REPORTS**  
**Data Management and Validation Services**  
118 Rose Lane Terrace, Syracuse, NY 13219, (716) 907-2341

**Data Usability Summary Report**

**Samples Collected  
July 2014 to December 2014**

**Former NuHart Plastics Site  
Brooklyn, New York  
NYSDEC SITE #224136**

**Prepared By:**

**ZDataReports  
Data Management and Validation Service  
118 Rose Lane Terrace  
Syracuse, New York 13219**

## **EXECUTIVE SUMMARY**

This report addresses data quality for soil, water and air samples collected at the Former NuHart Plastics Site - NYSDEC SITE #224136. The samples were analyzed for volatile organics (VOCs) and semivolatile organics (SVOCs) following New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) methodologies. Sample collection was performed by Ecosystems Strategies, Inc. of Poughkeepsie, New York. Analytical services were provided by York Analytical Laboratories, Inc. located in Stratford, Connecticut and Alpha Analytical, Inc. in Westborough, Massachusetts.

The data were determined to be usable for qualitative and quantitative purposes with no exceptions. Sample results for several compounds were also qualified based on deviations from method blank, initial calibration criteria, continuing calibration criteria and laboratory control sample criteria.

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### Appendices

Appendix A - Data Validation Checklists

## **SECTION 1 - INTRODUCTION**

### **1.1 Introduction**

This report addresses data quality for soil, water and air samples collected at Former NuHart Plastics Site - NYSDEC SITE #224136 located in Brooklyn, New York. The samples were analyzed for volatile organics (VOCs) and semivolatile organics (SVOCs) following New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) methodologies. Sample collection was performed by Ecosystems Strategies, Inc. of Poughkeepsie, New York. Analytical services for water and soil samples were provided by York Analytical Laboratories, Inc. located in Stratford, Connecticut. Air samples were analyzed by Alpha Analytical, Inc. located in Westborough, Massachusetts. The quantity and types of samples submitted for data validation are tabulated below.

**Table 1: Introduction - Sample Summary Table**

SDG#	Date Collected	Matrix	Sample Identification	
			Client ID	Laboratory ID
14H0096	7/30/2014	Soil	MW-36 (11-12)	14H0096-01
			MW-37 (11-12)	14H0096-02
			MW-DUP-01	14H0096-03
		Water	TB-20140730	14H0096-04
14I1048	09/22/2014 to 09/24/2014	Soil	3SB-3A (0-5)	14T1048-01
			3SB-3A (10-15)	14T1048-02
			3SB-3B (15-20)	14T1048-03
			3SB-4 (0-5)	14T1048-04
			3SB-4 (15-20)	14T1048-05
			3SB-4 (20-25)	14T1048-06
			3SB-5 (0-5)	14T1048-07
			3SB-5 (10-15)	14T1048-08
			3SB-5 (15-20)	14T1048-09
			3SB-6 (20-25)	14T1048-10
			3SB-6 (25-30)	14T1048-11
			3SB-7 (0-5)	14T1048-12
			3SB-7 (10-15)	14T1048-13
			3SB-8 (0-5)	14T1048-14
			3SB-8 (15-20)	14T1048-15
			3SB-9 (0-5)	14T1048-16
			3SB-9 (15-20)	14T1048-17
			3SB-9 (20-25)	14T1048-18
			MW-38 (0-5)	14T1048-19
			MW-38 (10-15)	14T1048-20
			MW-39 (0-5)	14T1048-21
			MW-39 (10-11)	14T1048-22
			MW-40 (0-5)	14T1048-23
			MW-40 (15-20)	14T1048-24
			3SB-DUP	14T1048-25
	9/22/2014 to 09/24/2014	Water	TB-20140922	14T1048-26
			TB-20140923	14T1048-27
			TB-20140924	14T1048-28



SDG#	Date Collected	Matrix	Sample Identification	
			Client ID	Laboratory ID
14J0546	10/08/2014 and 10/09/2014	Water	MW-7	14J0546-01
			MW-8	14J0546-02
			MW-12	14J0546-03
			MW-13	14J0546-04
			MW-14	14J0546-05
			MW-14A	14J0546-06
			MW-18	14J0546-07
			MW-22	14J0546-08
			MW-34	14J0546-09
			MW-38	14J0546-10
			MW-39	14J0546-11
			MW-40	14J0546-12
			TB-20141008	14J0546-13
			TB-20141009	14J0546-14
14J0506	12/10/2014	Soil	MW-41 (8-10)	14J0506-01
			MW-42 (8-10)	14J0506-02
			MW-DUP-02	14J0506-03
		Water	TB-20141210	14J0506-04
14L0993	12/23/2014	Water	MW-36	14L0993-01
			MW-36A	14L0993-02
			MW-37	14L0993-03
			MW-41	14L0993-04
			MW-42	14L0993-05
			TB20141223	14L0993-06
L1422298	9/22/2014	Air	3SB-1	L1422298-01
			3SB-2	L1422298-02

## **1.2 Analytical Methods**

The samples were analyzed for VOCs and SVOCs following NYSDEC Analytical Services Protocol (ASP) methodologies (2005 update). Laboratory analyses were provided by York Analytical Laboratories, Inc. located in Stratford, Connecticut.

## **1.3 Validation Protocols**

Data validation is a process that involves the evaluation of analytical data against prescribed quality control criteria to determine the usefulness of the data. The analytical data addressed in this report were evaluated utilizing the quality control criteria presented in the following documents:

- *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, USEPA-540-R-08-01, June 2008.
- *CLP Organics Data Review and Preliminary Review*, SOP No. HW-6 Revision #14, USEPA Region II, September 2006.
- *Validation of Metals for the Contract Laboratory Program (CLP) based on SOW ILM05.3*, SOP No. HW-2, Revision #13, USEPA Region II, September 2006.
- *Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8260B*, SOP No. HW-24 Revision #2, USEPA Hazardous Waste Support Branch, August 2008.
- *Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D*, SOP No. HW-22 Revision #4, USEPA Hazardous Waste Support Branch, August 2008.
- *Validating Air Samples Volatile Organic Analysis of Ambient Air in Canister by Method TO-15*, SOP No. HW-31 Revision #4, USEPA Hazardous Waste Support Branch, October 2006.
- *Exhibit E of New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP)*, NYSDEC June 2005.

### **1.3.1 Organic Parameters**

The validation of organic parameters for this project followed the requirements presented in the analytical methodology and the data validation guidelines presented above. The following QA/QC parameters were evaluated:

#### **Volatile and Semivolatile Organics Analyses**

1. Holding Times
2. GC/MS Instrument Tuning Criteria
3. Calibration
  - a. Initial Calibration
  - b. Continuing Calibration
4. Blank Analysis
5. Surrogate Recovery
6. Matrix Spike / Matrix Spike Duplicate Analysis
7. Reference Standard Analysis
8. Internal Standards Recovery
9. Compound Identification and Quantification
10. Field Duplicate Analysis
11. System Performance
12. Documentation Completeness
13. Overall Data Assessment

### **1.4 Data Qualifiers**

The following qualifiers as specified in the guidance documents presented in Section 1.3 of this report have been used for this data validation.

- |    |                                                                                                                                                                                                                                                                  |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| U  | Indicates that the compound was analyzed for, but was not detected. The sample quantification limit is presented and adjusted for dilution. This qualifier is also used to signify that the detection limit of an analyte was raised due to blank contamination. |
| J  | Indicates that the result should be considered approximate. This qualifier is used when the data validation procedure identifies a deficiency in the data generation process.                                                                                    |
| UJ | Indicates that the detection limit for the analyte in this sample should be considered approximate. This qualifier is used when the data validation process identifies a deficiency in the data generation process.                                              |
| R  | Indicates that the previously reported detection limit or sample result has been rejected due to a major deficiency in the data generation procedure. The data are considered to be unusable for both qualitative and quantitative purposes.                     |

The following sections of this document present a summary of the data validation process. Section 2 discusses data compliance with established QA/QC criteria and qualifications performed on the sample data. A discussion of the Precision, Accuracy, Representativeness, Comparability, and Completeness (PARCC) of the data and data usability are discussed in Section 3. The USEPA Region II Data Validation Checklists are presented in Appendix A.

## **SECTION 2 - DATA VALIDATION SUMMARY**

This section presents a discussion of QA/QC parameter compliance with established criteria and the qualification of data performed when QA/QC parameter deviations were identified. When several deviations from established QA/QC criteria were observed, the final qualifier assigned to the data was based on the cumulative effect of the deviations.

### **2.1 Volatiles Analysis**

Data validation was performed for 2 groundwater samples including a trip blank sample. The QA/QC parameters presented in Section 1.3.2 of this report were found to be within specified limits with the exception of the following:

#### **Blank Analysis**

The method blanks contained detectable concentrations of several target compounds. Blank action levels were calculated at ten times the blank concentrations for the common laboratory contaminants and five times for other target compounds. Detected sample results, which were less than the blank action levels were qualified with a "U" in the associated samples. Results that were detected below the contract required detection limit (CRDL) were raised to the CRDL and qualified with a "U" qualifier. The "U" qualifier indicates that the volatile organic was analyzed for but was not detected above the CRDL. Samples qualified for blank contamination are tabulated below.

**Table 2: Volatile Organics Analysis - Blank Analysis Deviations**

<b>Blank Matrix</b>	<b>Date Analyzed</b>	<b>Compound</b>	<b>Blank Action Level</b>	<b>Associated Samples</b>	<b>Qualified Sample Result</b>
TB-20140730 Water	08/07/2014	Acetone	47 µg/L	MW-36 (11-12) MW-37 (11-12) MW-DUP-01	20 U µg/Kg 12 U µg/Kg 38 U µg/Kg
BJ40969	10/18/2014	Trichloroethylene	1.5 µg/L	MW-38	47 J µg/L

#### **Initial Calibration**

The initial calibration relative standard deviation (%RSD) limit, which requires the %RSD to be less than 30 percent, was exceeded for several compounds. Sample qualification included the approximation (J, UJ) of results when %RSD criteria were exceeded. Samples requiring qualification due to these deviations are tabulated below.

**Table 3: Volatiles Organics Analyses – Initial Calibration Deviations**

<b>Date Analyzed</b>	<b>Compound</b>	<b>%RSD</b>	<b>Result Qualifier</b>	<b>Affected Samples</b>
MSVOA6 09/29/2014	Acetone	39.4 %	UJ	TB-20140922
	Methylene Chloride	37.5 %	UJ	TB-20140923
	2-Butanone	31.1 %	UJ	TB-20140924

Date Analyzed	Compound	%RSD	Result Qualifier	Affected Samples
MSVOA2 10/01/2014	Acetone	32.7 %	J,UJ	3SB-5 (0-5) 3SB-5 (10-15) 3SB-5 (15-20) 3SB-6 (20-25) 3SB-6 (25-30) 3SB-7 (0-5) 3SB-7 (10-15) 3SB-8 (0-5) 3SB-8 (15-20) 3SB-9 (0-5) 3SB-9 (15-20) 3SB-9 (20-25) MW-38 (0-5) MW-38 (10-15) MW-39 (0-5) MW-39 (10-11) MW-40 (0-5) MW-40 (15-20) 3SB-DUP
MSVOA6 10/15/2014	Acetone	34.5 %	UJ	MW-7 MW-8

### **Continuing Calibration**

The continuing calibration percent difference (%D) limit, which requires the %D to be less than 25 percent, was exceeded for several compounds. Sample qualification included the approximation (J, UJ) of results when %D criteria were exceeded, but were less than 90 percent. Non-detected results were rejected (R) for compounds with %D values greater than 90 percent. Samples requiring qualification due to these deviations are tabulated below.

**Table 4: Volatile Organics Analysis - Continuing Calibration Deviations**

Date Analyzed	Compound	%D	Result Qualifier	Affected Samples
AIRPIANO2 09/26/2014 14:02	Heptane 1,2,4-Trichlorobenzene Hexachlorobutadiene	25.7 % -25.1 % 027.9 %	J,UJ J,UJ UJ	3SB-1 3SB-2
MSVOA2 10/02/2014 08:33	Acetone 2-Butanone	-43.6 % -25.9 %	J,UJ UJ	3SB-9 (20-25)
MSVOA4 10/01/2014 21:43	1,2,3-Trichlorobenzene	-31.0 %	UJ	3SB-3A (0-5) 3SB-3A (10-15)
VOA No.1 12/16/2014 11:03	Dichlorodifluoromethane 2-Chloroethylvinyl ether	27.8 % 46.3 %	UJ UJ	MW-41 (8-10) MW-42 (8-10) MW-DUP-2
VOA No.1 12/18/2014 11:51	Acetone 2-Chloroethylvinyl ether Naphthalene	30.9 % 25.9 % -27.2 %	UJ UJ UJ	TB-20151210
VOA #3 01/02/2015 (10:02)	Bromomethane Acetone 4-Methyl-2-pentanone	-25.2 % 38.5 % 25.8 %	UJ UJ UJ	MW-36 MW-26A MW-37 MW-41 MW-42 TB20141223

### **Laboratory Control Sample Analysis**

Laboratory control sample (LCS) recovery criteria requiring recoveries to be within laboratory generated control limits were exceeded for several compounds. Qualification of sample data included the approximation of results when spike recoveries were greater than the upper limit, but less than 200 percent or less than the lower limit, but greater than 10 percent. Non-detected sample results were rejected (R) for compounds with recoveries that were less than 10 percent. Samples qualified due to LCS recovery deviations are tabulated below.

**Table 3: Volatile Organics Analysis - Laboratory Control Sample Deviations**

<b>Matrix</b>	<b>Compound</b>	<b>Percent Recovery</b>	<b>Control Limits</b>	<b>Qualifier</b>	<b>Affected Samples</b>
Water BJ40062	Tetrachloroethylene	149 % / 106 %	80 % to 129 %	UJ	3SB-3A (0-5)
Water BJ41033	4-Methyl-2-pentanone	48.1 % / 115 %	57 % to 145 %	UJ	TB-20141008 TB-20141009
Water BL40832	1,1,2,2-Tetrachloroethane	70.8 % / 97.9 %	79 % to 129 %	UJ	MW-41 (8-10) MW-42 (8-10) MW-DUP-2
	1,1,2-Trichloroethane	73.0 % / 89.0 %	83 % to 123 %	UJ	
	1,2,4-Trimethylbenzene	74.5 % / 93.3 %	84 % to 125 %	UJ	
	1,2-Dibromo-3-chloropropane	64.5 % / 84.7 %	74 % to 142 %	UJ	
	1,2-Dibromoethane	76.4 % / 91.0 %	86 % to 123 %	UJ	
	1,2-Dichloropropane	74.0 % / 89.8 %	81 % to 122 %	UJ	
	1,3,5-Trimethylbenzene	73.1 % / 95.9 %	82 % to 126 %	UJ	
	2-Hexanone	64.4 % / 82.3 %	70 % to 139 %	UJ	
	4-Methyl-2-pentanone	71.5 % / 91.3 %	72 % to 132 %	UJ	
	Bromodichloromethane	72.7 % / 86.9 %	84 % to 124 %	UJ	
	Chlorobenzene	79.8 % / 95.2 %	86 % to 120 %	UJ	
	cis-1,3-Dichloropropylene	72.7 % / 86.8 %	81 % to 129 %	UJ	
	Ethylbenzene	73.3 % / 87.7 %	84 % to 125 %	UJ	
	n-Butylbenzene	71.7 % / 88.6 %	80 % to 130 %	UJ	
	n-Propylbenzene	73.1 % / 91.6 %	80 % to 130 %	UJ	
	o-Xylene	72.6 % / 87.1 %	83 % to 123 %	UJ	
	m,p-Xylene	73.8 % / 87.5 %	82 % to 128 %	UJ	
	sec-Butylbenzene	74.5 % / 96.0 %	83 % to 125 %	UJ	
	Styrene	78.6 % / 95.0 %	86 % to 125 %	UJ	
	Tetrachloroethylene	72.3 % / 86.9 %	80 % to 129 %	UJ	
	Toluene	75.9 % / 91.8 %	85 % to 121 %	UJ	
	trans-1,3-Dichloropropylene	72.7 % / 93.6 %	78 % to 132 %	UJ	
	Trichloroethylene	67.7 % / 83.2 %	84 % to 123 %	UJ	
Water BL40984	1,1,2,2-Tetrachloroethane	92.8 % / 61.6 %	73 % to 132 %	UJ	TB20141210
	1,3,5-Trimethylbenzene	94.4 % / 67.0 %	78 % to 128 %	UJ	
	Bromoform	102 % / 74.6 %	77 % to 137 %	UJ	
	Isopropylbenzene	96.0 % / 63.0 %	76 % to 128 %	UJ	
	n-Propylbenzene	93.5 % / 63.4 %	72 % to 135 %	UJ	

### **Overall Data Assessment**

Overall, the laboratory performed volatile organics analyses in accordance with the requirements specified in the method listed in Section 1.2. These data were determined to be usable for qualitative and quantitative purposes with the no exceptions. Sample results for several compounds were qualified based on deviations from initial calibration, continuing calibration and laboratory control sample criteria.

## **2.2 Semivolatiles Analysis**

Data validation was performed for one groundwater sample. The QA/QC parameters presented in Section 1.3.2 of this report were found to be within specified limits with the exception of the following:

### **Initial Calibration**

The initial calibration relative standard deviation (%RSD) limit, which requires the %RSD to be less than 30 percent, was exceeded for several compounds. Sample qualification included the approximation (J, UJ) of results when %RSD criteria were exceeded. Samples requiring qualification due to these deviations are tabulated below.

**Table 6: Volatiles Organics Analyses – Initial Calibration Deviations**

<b>Date Analyzed</b>	<b>Compound</b>	<b>%RSD</b>	<b>Result Qualifier</b>	<b>Affected Samples</b>
BNA#3 06/20/2014	Benzoic Acid	73.8 %	UJ	MW-36 (11-12)
	2,4-Dinitrophenol	90.2 %	UJ	MW-37 (11-12)
	4,6-Dinitro-2-methylphenol	45.4 %	UJ	MW-DUP-01
	Pentachlorophenol	59.6 %	UJ	
	2,4-Dinitrophenol	34.3 %	UJ	
BNA#3 09/09/2014	2,4-Dinitrophenol	34.3 %	UJ	MW-39 (10-11)

### **Continuing Calibration**

The continuing calibration percent difference (%D) limit, which requires the %D to be less than 25 percent, was exceeded for several compounds. Sample qualification included the approximation (J, UJ) of results when %D criteria were exceeded, but were less than 90 percent. Samples requiring qualification due to these deviations are tabulated below.

**Table 7: Semivolatile Organics Analysis - Continuing Calibration Deviations**

<b>Date Analyzed</b>	<b>Compound</b>	<b>%D</b>	<b>Result Qualifier</b>	<b>Affected Samples</b>
BNA#3 08/07/2014 (08:39)	Bis(2-chloroisopropyl)ether	29.3 %	UJ	MW-36 (11-12)
	N-nitroso-di-n-propylamine	29.5 %	UJ	MW-37 (11-12)
	Nitrobenzene	35.6 %	UJ	MW-DUP-01
	Hexachlorocyclopentadiene	54.8 %	UJ	
	2,4-Dinitrophenol	40.0 %	UJ	
	3,3-Diclorobenzidine	46.1 %	UJ	
	Benzo(ghi)perylene	32.2 %	UJ	
BNA#3 10/02/2014 (08:43)	Hexachlorocyclopentadiene	30.4 %	UJ	MW-39 (10-11)
	2,4-Dinitrophenol	-40.0 %	UJ	
	3,3-Diclorobenzidine	27.2 %	UJ	
	Indeno(1,2,3-cd)pyrene	34.4 %	UJ	
	Dibenzo(a,h)anthracene	28.2 %	UJ	
	Benzo(ghi)perylene	40.0 %	UJ	
BNA #1 12/15/2014 (15:55)	2,4-Dinitrophenol	-41.9 %	UJ	MW-41 (8-10) MW-42 (8-10) MW-DUP-2

Date Analyzed	Compound	%D	Result Qualifier	Affected Samples
GC/MS BNA 12/30/2014 (17:48)	4-Chloroaniline	58.7 %	UJ	MW-36
	4-Nitrophenol	-31.7 %	UJ	MW-26A
	3,3'-Dichlorobenzidine	28.7 %	UJ	MW-37
				MW-41
				MW-42
				TB20141223

### **Overall Data Assessment**

Overall, the laboratory performed semivolatile organics analyses in accordance with the requirements specified in the method listed in Section 1.2. These data were determined to be usable for all qualitative and quantitative purposes with the no exceptions. Sample results for several compounds were also qualified based on deviations from continuing calibration criteria.



## **SECTION 3 - DATA USABILITY and PARCC EVALUATION**

### **3.1 Data Usability**

This section presents a summary of the usability of the analytical data and an evaluation of the PARCC parameters. Data usability was calculated as the percentage of data that was not qualified as rejected based on a significant deviation from established QA/QC criteria. Data usability, which was calculated separately for each type of analysis, is tabulated below.

**Table 10: Data Usability and PARCC Evaluation - Data Usability**

<b>Parameter</b>	<b>Usability</b>	<b>Deviations</b>
Volatile Parameters	100 %	None resulting in the rejection of data
Semivolatile Parameters	100 %	None resulting in the rejection of data

### **3.2 PARCC Evaluation**

The following sections provide an evaluation of the analytical data with respect to the precision, accuracy, representativeness, comparability, and completeness (PARCC) parameters.

#### **3.2.1 Precision**

Precision is measured through field duplicate samples, split samples, and laboratory duplicate samples. For this sampling program, none of the analytical data required qualification from field duplicate criteria deviations.

#### **3.2.2 Accuracy**

Matrix spike sample, surrogate recovery, internal standard recovery, laboratory control samples, and calibration criteria indicate the accuracy of the data. For this sampling program, 5.25 percent of the data were qualified for calibration criteria deviations.

#### **3.2.3 Representativeness**

Holding times, sample preservation, and blank analysis are indicators of the representativeness of the analytical data. For this investigation, none of the analytical data required qualification for holding time or blank analysis deviations.

#### **3.2.4 Comparability**

Comparability is not compromised provided that the analytical methods did not change over time. A major component of comparability is the use of standard reference materials for calibration and QC. These standards are compared to other unknowns to verify their concentrations. Since standard analytical methods and reporting procedures were consistently used by the laboratory, the comparability criteria for the analytical data were met.

#### **3.2.5 Completeness**

The overall percent usability or completeness of the data was 100 percent.

## **APPENDIX A**

### **DATA VALIDATION CHECKLISTS**

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## Data Validation Checklist - Part A: VOA Analyses

No:	Parameter	YES	NO	N/A
<b>1.0</b>	<b><u>Traffic Reports and Laboratory Narrative</u></b>			
1.1	Are the traffic Report Forms present for all samples?	<u>  X  </u>	<u>          </u>	<u>          </u>
1.2	Do the Traffic Reports or Lab Narrative indicate any problems with sample receipt, condition of samples, analytical problems or special circumstances affecting the quality of the data?	<u>          </u>	<u>    X    </u>	<u>          </u>
<b>2.0</b>	<b><u>Holding Times</u></b>			
2.1	Have any VOA technical holding times, determined from date of collection to date of analysis, been exceeded?	<u>          </u>	<u>    X    </u>	<u>          </u>
<b>3.0</b>	<b><u>System Monitoring Compound (SMC) Recovery (Form II)</u></b>			
3.1	Are the VOA SMC Recovery Summaries (FORM II) present for each of the following matrices:			
	a. Low Water	<u>    X    </u>	<u>          </u>	<u>          </u>
	b. Low Soil	<u>    X    </u>	<u>          </u>	<u>          </u>
	c. Air	<u>    X    </u>	<u>          </u>	<u>          </u>
3.2	Are all the VOA samples listed on the appropriate System Monitoring Compound Recovery Summary for each of the following matrices:			
	a. Low Water	<u>    X    </u>	<u>          </u>	<u>          </u>
	b. Low Soil	<u>    X    </u>	<u>          </u>	<u>          </u>
	c. Air	<u>    X    </u>	<u>          </u>	<u>          </u>
3.3	Were outliers marked correctly with an asterisk?	<u>          </u>	<u>          </u>	<u>    X    </u>
3.4	Was one or more VOA system monitoring compound recovery outside of contract specifications for any sample or method blank?	<u>          </u>	<u>    X    </u>	<u>          </u>
	If yes, were samples re-analyzed?	<u>          </u>	<u>          </u>	<u>    X    </u>
	Were method blanks re-analyzed?	<u>          </u>	<u>          </u>	<u>    X    </u>
3.5	Are there any transcription/calculation errors between raw data and Form II?	<u>          </u>	<u>    X    </u>	<u>          </u>
<b>4.0</b>	<b><u>Matrix Spikes (Form III)</u></b>			
4.1	Is the Matrix Spike/Matrix Spike Duplicate Recovery Form (Form III) present?	<u>    X    </u>	<u>          </u>	<u>          </u>
4.2	Were matrix spikes analyzed at the required frequency for each of the following matrices?			
	a. Low Water	<u>    X    </u>	<u>          </u>	<u>          </u>
	b. Low Soil	<u>    X    </u>	<u>          </u>	<u>          </u>
	c. Air	<u>          </u>	<u>          </u>	<u>    X    </u>
4.3	How many VOA spike recoveries are outside QC limits?			
	Water <u>    0    </u> out of 67      Soils <u>    0    </u> out of 54			
4.4	How many RPD's for matrix spike and matrix spike duplicate recoveries are outside QC limits?			
	Water <u>    0    </u> out of 67      Soils <u>    0    </u> out of 54			

### Data Validation Checklist - Part A: VOA Analyses

No:	Parameter	YES	NO	N/A
<b>5.0</b>	<b><u>Blanks (Form IV)</u></b>			
5.1	Is the Method Blank Summary (Form IV) present?	X		
5.2	Frequency of Analysis: for the analysis of VOA TCL compounds, has a reagent/method blank been analyzed for each SDG or every 20 samples of similar matrix (low water, low soil, medium soil), whichever is more frequent?	X		
5.3	Has a VOA method/instrument blank been analyzed at least once every twelve hours for each concentration level and GC/MS system used?	X		
5.4	Is the chromatographic performance (baseline stability) for each instrument acceptable for VOAs?	X		
<b>6.0</b>	<b><u>Contamination</u></b>			
6.1	Do any method/instrument/reagent blanks have positive results (TCL and/or TIC) for VOAs?	X		
6.2	Do any field/trip/rinse blanks have positive VOA results (TCL and/or TIC)?	X		
6.3	Are there field/rinse/equipment blanks associated with every sample?	X		
<b>7.0</b>	<b><u>GC/MS Instrument Performance Check (Form V)</u></b>			
7.1	Are the GC/MS Instrument Performance Check Forms (Form V) present for Bromofluorobenzene (BFB)?	X		
7.2	Are the enhanced bar graph spectrum and mass/charge (m/z) listing for the BFB provided for each twelve hour shift?	X		
7.3	Has an instrument performance compound been analyzed for every twelve hours of sample analysis per instrument?	X		
7.4	Have the ion abundances been normalized to m/z 95?	X		
7.5	Have the ion abundance criteria been met for each instrument used?	X		
7.6	Are there any transcription/calculation errors between mass lists and Form V's?		X	
7.7	Have the appropriate number of significant figures (two) been reported?	X		
7.8	Are the spectra of the mass calibration compound acceptable?	X		
<b>8.0</b>	<b><u>Target Compound List (TCL) Analyses</u></b>			
8.1	Are the Organic Analysis Data Sheets (Form I VOA) present with required header information on each page, for each of the following:			
	a. Sample and/or fractions as appropriate?	X		
	b. Matrix spikes and matrix spike duplicates?	X		
	c. Blanks?	X		
8.2	Are the VOA Reconstructed Ion Chromatograms, the mass spectra for the identified compounds, and the data system printouts (Quant Reports) included in the sample package for each of the following?			
	a. Samples and/or fractions as appropriate?	X		
	b. Matrix spikes and matrix spike duplicates (Mass spectra not required)?	X		
	c. Blanks?	X		
8.3	Are the response factors shown in the Quant Report?	X		

## Data Validation Checklist - Part A: VOA Analyses

No:	Parameter	YES	NO	N/A
8.4	Is the chromatographic performance acceptable with respect to:			
	Baseline stability?	X		
	Resolution?	X		
	Peak shape?	X		
	Full-scale graph (attenuation)?	X		
	Other:			
8.5	Are the lab-generated standard mass spectra of the identified VOA compounds present for each sample?	X		
8.6	Is the RRT of each reported compound within 0.06 RRT units of the standard RRT in the continuing calibration?	X		
8.7	Are all ions in the standard mass spectrum at a relative intensity greater than 10% also present in the sample mass spectrum?	X		
8.8	Do sample and standard relative ion intensities agree within 20%?	X		
<b>9.0</b>	<b><u>Tentatively Identified Compounds (TIC)</u></b>			
9.1	Are all Tentatively Identified Compound Forms (Form I Part B) present; and do listed TICs include scan number or retention time, estimated concentration and "JN" qualifier?			X
9.2	Are the mass spectra for the tentatively identified compounds and associated "best match" spectra included in the sample package for each of the following:			
	a. Samples and/or fractions as appropriate?			X
	b. Blanks?			X
9.3	Are any TCL compounds (from any fraction) listed as TIC compounds?			X
9.4	Are all ions present in the reference mass spectrum with a relative intensity greater than 10% also present in the sample mass spectrum?			X
9.5	Do TIC and "best match" standard relative ion intensities agree within 20%?			X
<b>10.0</b>	<b><u>Compound Quantitation and Reported Detection Limits</u></b>			
10.1	Are there any transcription/calculation errors in Form I results?		X	
10.2	Are the CRQLs adjusted to reflect sample dilutions and, for soils, sample moisture?	X		
<b>11.0</b>	<b><u>Standards Data (GC/MS)</u></b>			
11.1	Are the Reconstructed Ion Chromatograms, and data system printouts present for initial and continuing calibration?	X		
<b>12.0</b>	<b><u>GC/MS Initial Calibration (Form VI)</u></b>			
12.1	Are the Initial Calibration Forms (Form VI) present and complete for the volatile fraction at concentrations of 10, 20, 50, 100, 200 ug/L? Are there separate calibrations for low/med soils and low soil samples?	X		
12.2	Were all low level soil standards, blanks, and samples analyzed by heated purge?	X		
12.3	Are the response factors stable for VOA's over the concentration range of the calibration (%Relative Standard Deviation (%RSD) <30%)		X	
12.4	Are the RRFs above 0.01?	X		
12.5	Are there any transcription/calculation errors in the reporting of average response factors (RRF) or %RSD?		X	

### Data Validation Checklist - Part A: VOA Analyses

No:	Parameter	YES	NO	N/A
<b>13.0</b>	<b><u>GC/MS Continuing Calibration (Form VII)</u></b>			
13.1	Are the Continuing Calibration Forms (Form VII) present and complete for the volatile fraction?	X		
13.2	Has a continuing calibration standard been analyzed for every twelve hours of sample analysis per instrument?	X		
13.3	Do any volatile compounds have a percent difference (%D) between the initial and continuing RRF which exceeds the +/- 25% criteria?		X	
13.4	Do any volatile compounds have a RRF <0.01?		X	
13.5	Are there any transcription/calculation errors in the reporting of average response factor (RRF) or %difference (%D) between initial and continuing RRFs?		X	
<b>14.0</b>	<b><u>Internal Standard (Form VIII)</u></b>			
14.1	Are the internal standard areas (Form VIII) of every sample and blank within the upper and lower limits (-50% to +100%) for each continuing calibration?	X		
14.2	Are the retention times of the internal standards within 30 seconds of the associated calibration standard?	X		
<b>15.0</b>	<b><u>Field Duplicates</u></b>			
15.1	Were any field duplicates submitted for VOA analysis?	X		

### Data Validation Checklist - Part B: BNA Analyses

No:	Parameter	YES	NO	N/A
<b>1.0</b>	<b><u>Traffic Reports and Laboratory Narrative</u></b>			
1.1	Are the traffic Report Forms present for all samples?	<u>  X  </u>	<u>          </u>	<u>          </u>
1.2	Do the Traffic Reports or Lab Narrative indicate any problems with sample receipt, condition of samples, analytical problems or special circumstances affecting the quality of the data?	<u>          </u>	<u>    X    </u>	<u>          </u>
<b>2.0</b>	<b><u>Holding Times</u></b>			
2.1	Have any BNA technical holding times, determined from date of collection to date of extraction, been exceeded?	<u>          </u>	<u>    X    </u>	<u>          </u>
<b>3.0</b>	<b><u>System Monitoring Compound (SMC) Recovery (Form II)</u></b>			
3.1	Are the BNA Surrogate Recovery Summaries (FORM II) present for each of the following matrices:			
	a. Low Water	<u>    X    </u>	<u>          </u>	<u>          </u>
	b. Low Soil	<u>    X    </u>	<u>          </u>	<u>          </u>
	c. Med Soil	<u>          </u>	<u>          </u>	<u>    X    </u>
3.2	Are all the BNA samples listed on the appropriate System Monitoring Compound Recovery Summary for each of the following matrices:			
	a. Low Water	<u>    X    </u>	<u>          </u>	<u>          </u>
	b. Low Soil	<u>    X    </u>	<u>          </u>	<u>          </u>
	c. Med Soil	<u>          </u>	<u>          </u>	<u>    X    </u>
3.3	Were outliers marked correctly with an asterisk?	<u>    X    </u>	<u>          </u>	<u>          </u>
3.4	Were two or more base neutral or acid surrogate compound recoveries out of specification for any sample or method blank?	<u>          </u>	<u>    X    </u>	<u>          </u>
	If yes, were samples re-analyzed?	<u>          </u>	<u>          </u>	<u>    X    </u>
	Were method blanks re-analyzed?	<u>          </u>	<u>          </u>	<u>    X    </u>
3.5	Are there any transcription/calculation errors between raw data and Form II?	<u>          </u>	<u>    X    </u>	<u>          </u>
<b>4.0</b>	<b><u>Matrix Spikes (Form III)</u></b>			
4.1	Is the Matrix Spike/Matrix Spike Duplicate Recovery Form (Form III) present?	<u>          </u>	<u>          </u>	<u>    X    </u>
4.2	Were matrix spikes analyzed at the required frequency for each of the following matrices?	<u>          </u>	<u>          </u>	<u>    X    </u>
	a. Low Water	<u>          </u>	<u>          </u>	<u>    X    </u>
	b. Low Soil	<u>          </u>	<u>          </u>	<u>    X    </u>
	c. Med Soil	<u>          </u>	<u>          </u>	<u>    X    </u>
4.3	How many BNA spike recoveries are outside QC limits?			
	Water <u>    0    </u> out of 66      Soils <u>    0    </u> out of 66			
4.4	How many RPD's for matrix spike and matrix spike duplicate recoveries are outside QC limits?			



### Data Validation Checklist - Part B: BNA Analyses

No:	Parameter	YES	NO	N/A
	Water <u>  0  </u> out of 66      Soils <u>  0  </u> out of 66			
<b>5.0</b>	<b><u>Blanks (Form IV)</u></b>			
5.1	Is the Method Blank Summary (Form IV) present?	<u>  X  </u>	<u>          </u>	<u>          </u>
5.2	Frequency of Analysis: Has a reagent/method blank analysis been reported per 20 samples of a similar matrix, or concentration level, for each extraction batch?	<u>  X  </u>	<u>          </u>	<u>          </u>
5.3	Has a BNA method blank been analyzed for each GC/MS system used?	<u>  X  </u>	<u>          </u>	<u>          </u>
5.4	Is the chromatographic performance (baseline stability) for each instrument acceptable for BNAs?	<u>  X  </u>	<u>          </u>	<u>          </u>
<b>6.0</b>	<b><u>Contamination</u></b>			
6.1	Do any method/instrument/reagent blanks have positive results (TCL and/or TIC) for BNAs?	<u>          </u>	<u>  X  </u>	<u>          </u>
6.2	Do any field/rinse blanks have positive BNA results (TCL and/or TIC)?	<u>          </u>	<u>          </u>	<u>  X  </u>
6.3	Are there field/rinse/equipment blanks associated with every sample?	<u>          </u>	<u>  X  </u>	<u>          </u>
<b>7.0</b>	<b><u>GC/MS Instrument Performance Check (Form V)</u></b>			
7.1	Are the GC/MS Instrument Performance Check Forms (Form V) present for Decafluorotriphenylphosphine (DFTPP)?	<u>  X  </u>	<u>          </u>	<u>          </u>
7.2	Are the enhanced bar graph spectrum and mass/charge (m/z) listing for the DFTPP provided for each twelve-hour shift?	<u>  X  </u>	<u>          </u>	<u>          </u>
7.3	Has an instrument performance check solution been analyzed for every twelve hours of sample analysis per instrument?	<u>  X  </u>	<u>          </u>	<u>          </u>
7.4	Have the ion abundances been normalized to m/z 198?	<u>  X  </u>	<u>          </u>	<u>          </u>
7.5	Have the ion abundance criteria been met for each instrument used?	<u>  X  </u>	<u>          </u>	<u>          </u>
7.6	Are there any transcription/calculation errors between mass lists and Form V's?	<u>          </u>	<u>  X  </u>	<u>          </u>
7.7	Have the appropriate number of significant figures (two) been reported?	<u>  X  </u>	<u>          </u>	<u>          </u>
7.8	Are the spectra of the mass calibration compound acceptable?	<u>  X  </u>	<u>          </u>	<u>          </u>
<b>8.0</b>	<b><u>Target Compound List (TCL) Analytes</u></b>			
8.1	Are the Organic Analysis Data Sheets (Form I BNA) present with required header information on each page, for each of the following:			
	a. Sample and/or fractions as appropriate?	<u>  X  </u>	<u>          </u>	<u>          </u>
	b. Matrix spikes and matrix spike duplicates?	<u>  X  </u>	<u>          </u>	<u>          </u>
	c. Blanks?	<u>  X  </u>	<u>          </u>	<u>          </u>
8.2	Has GPC cleanup been performed on all soil/sediment sample extracts?	<u>          </u>	<u>          </u>	<u>  X  </u>
8.3	Are the BNA Reconstructed Ion Chromatograms, the mass spectra for the identified compounds, and the data system printouts (Quant Reports) included in the sample package for each of the following?			
	a. Samples and/or fractions as appropriate?	<u>  X  </u>	<u>          </u>	<u>          </u>
	b. Matrix spikes and matrix spike duplicates (Mass spectra not required)?	<u>  X  </u>	<u>          </u>	<u>          </u>

### Data Validation Checklist - Part B: BNA Analyses

No:	Parameter	YES	NO	N/A
	c. Blanks?	<u>X</u>	<u>          </u>	<u>          </u>
8.4	Are the response factors shown in the Quant Report?	<u>X</u>	<u>          </u>	<u>          </u>
8.5	Is the chromatographic performance acceptable with respect to:			
	Baseline stability?	<u>X</u>	<u>          </u>	<u>          </u>
	Resolution	<u>X</u>	<u>          </u>	<u>          </u>
	Peak shape?	<u>X</u>	<u>          </u>	<u>          </u>
	Full-scale graph (attenuation)?	<u>X</u>	<u>          </u>	<u>          </u>
	Other:			
8.6	Are the lab-generated standard mass spectra of identified BNA compounds present for each sample?	<u>X</u>	<u>          </u>	<u>          </u>
8.7	Is the RRT of each reported compound within 0.06 RRT units of the standard RRT in the continuing calibration?	<u>X</u>	<u>          </u>	<u>          </u>
8.8	Are all ions in the standard mass spectrum at a relative intensity greater than 10% also present in the sample mass spectrum?	<u>X</u>	<u>          </u>	<u>          </u>
8.9	Do sample and standard relative ion intensities agree within 20%?	<u>X</u>	<u>          </u>	<u>          </u>
<b>9.0</b>	<b><u>Tentatively Identified Compounds (TIC)</u></b>			
9.1	Are all Tentatively Identified Compound Forms (Form I, Part B) present; and do listed TICs include scan number or retention time, estimated concentration and "JN" qualifier?	<u>          </u>	<u>          </u>	<u>X</u>
9.2	Are the mass spectra for the tentatively identified compounds and associated "best match" spectra included in the sample package for each of the following:			
	a. Samples and/or fractions as appropriate?	<u>          </u>	<u>          </u>	<u>X</u>
	b. Blanks?	<u>          </u>	<u>          </u>	<u>X</u>
9.3	Are any TCL compounds (from any fraction) listed as TIC compounds?	<u>          </u>	<u>          </u>	<u>X</u>
9.4	Are all ions present in the reference mass spectrum with a relative intensity greater than 10% also present in the sample mass spectrum?	<u>          </u>	<u>          </u>	<u>X</u>
9.5	Do TIC and "best match" standard relative ion intensities agree within 20%?	<u>          </u>	<u>          </u>	<u>X</u>
<b>10.0</b>	<b><u>Compound Quantitation and Reported Detection Limits</u></b>			
10.1	Are there any transcription/calculation errors in Form I results?	<u>          </u>	<u>X</u>	<u>          </u>
10.2	Are the CRQLs adjusted to reflect sample dilutions and, for soils, sample moisture?	<u>X</u>	<u>          </u>	<u>          </u>
<b>11.0</b>	<b><u>Standards Data (GC/MS)</u></b>			
11.1	Are the Reconstructed Ion Chromatograms, and data system printouts present for initial and continuing calibration?	<u>X</u>	<u>          </u>	<u>          </u>
<b>12.0</b>	<b><u>GC/MS Initial Calibration (Form VI)</u></b>			
12.1	Are the Initial Calibration Forms (Form VI) present and complete for the BNA fraction?	<u>X</u>	<u>          </u>	<u>          </u>

### Data Validation Checklist - Part B: BNA Analyses

No:	Parameter	YES	NO	N/A
12.2	Are response factors stable for BNA's over the concentration range of the calibration (%Relative Standard Deviation (%RSD) <30%)	<u>          </u>	<u>     X     </u>	<u>          </u>
12.3	Are all BNA compound RRFs > 0.01?	<u>     X     </u>	<u>          </u>	<u>          </u>
12.4	Are there any transcription/calculation errors in the reporting of average response factors (RRF) or %RSD?	<u>     X     </u>	<u>          </u>	<u>          </u>
<b>13.0</b>	<b><u>GC/MS Continuing Calibration (Form VII)</u></b>			
13.1	Are the Continuing Calibration Forms (Form VII) present and complete for the BNA fraction?	<u>     X     </u>	<u>          </u>	<u>          </u>
13.2	Has a continuing calibration standard been analyzed for every twelve hours of sample analysis per instrument?	<u>     X     </u>	<u>          </u>	<u>          </u>
13.3	Do any semivolatile compounds have a percent difference (%D) between the initial and continuing RRF which exceeds the +/- 25% criteria?	<u>          </u>	<u>     X     </u>	<u>          </u>
13.4	Do any semivolatile compounds have a RRF <0.01?	<u>          </u>	<u>     X     </u>	<u>          </u>
13.5	Are there any transcription/calculation errors in the reporting of average response factor (RRF) or percent difference (%D) between initial and continuing RRFs?	<u>     X     </u>	<u>          </u>	<u>          </u>
<b>14.0</b>	<b><u>Internal Standard (Form VIII)</u></b>			
14.1	Are the internal standard areas (Form VIII) of every sample and blank within the upper and lower limits (-50% to +100%) for each continuing calibration?	<u>     X     </u>	<u>          </u>	<u>          </u>
14.2	Are the retention times of the internal standards within 30 seconds of the associated calibration standard?	<u>     X     </u>	<u>          </u>	<u>          </u>
<b>15.0</b>	<b><u>Field Duplicates</u></b>			
15.1	Were any field duplicates submitted for BNA analysis?	<u>     X     </u>	<u>          </u>	<u>          </u>



## **APPENDIX J**

***Laboratory Reports  
(provided in digital format on CD)***

## **APPENDIX D**

### **2022 Supplemental Remedial Investigation Report (pending approval)**

## **Appendix E**

### **Construction Health and Safety Plan**



**HALEY & ALDRICH, INC.**

**CONSTRUCTION HEALTH AND SAFETY PLAN**

**FOR**

**22-32 Clay Street & 67-93 Dupont Street  
Brooklyn, NY**

**Project/File No. 0201891-002**



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**Prepared By: Commisso, Sarah**

**Date: 03-02-2022**

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**Revised By:**

**Date:**

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# EMERGENCY INFORMATION

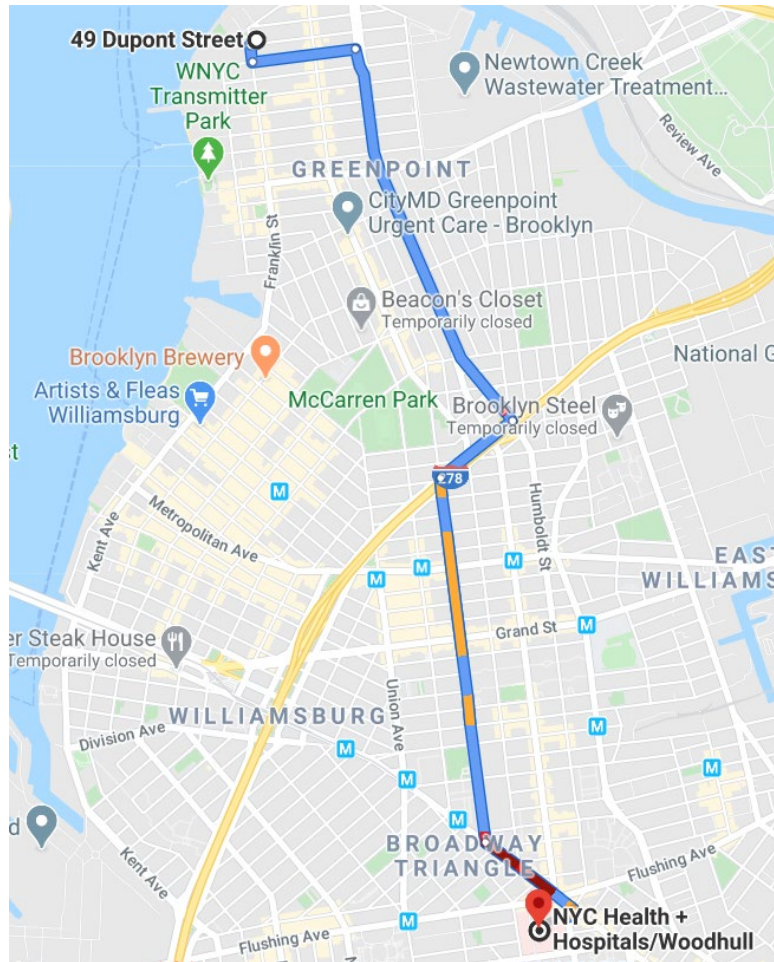
<b>Project Name:</b> Former NuHart East Site		<b>H&amp;A File No:</b> 0201891-002
<b>Location:</b> 22-32 Clay Street & 67-93 Dupont Street, Brooklyn, NY		
<b>Client/Site Contact:</b>  Phone Number:	Dupont Street 1 LLC Zach Kadden 646-747-2232	
<b>H&amp;A Project Manager:</b> Office Phone Number: Cell Phone Number:	Mari Cate Colon, P.G. (646) 277-5688 (347) 271-1521	
<b>Regional Health &amp; Safety Manager:</b> Office Phone Number: Cell Phone Number:	Brian Ferguson (617) 886.7439 (617) 908.2761	
<b>Nearest Hospital:</b> Address: (see map on next page) Phone Number:	Woodhull Hospital 760 Broadway Brooklyn, New York 11206 (718) 963-8000	
<b>Nearest Occ. Health Clinic:</b> Address: (see map on next page) Phone Number:	City MD Greenpoint Urgent Care - Brooklyn 795 Manhattan Avenue Brooklyn, NY 718-489-3549	
<b>Liberty Mutual Claim Policy</b>	<b>WC6-Z11-254100-032</b>	
<b>Other Local Emergency Response Number:</b>	911	
<b>Other Ambulance, Fire, Police, or Environmental Emergency Resources:</b>	911	



## Emergency Hospital

### Woodhull Hospital

760 Broadway  
Brooklyn, New York 11206  
(718) 963-8000



### 49 Dupont St

Brooklyn, NY 11222

- Take Eagle St to McGuinness Blvd  
2 min (0.4 mi)
- Continue on McGuinness Blvd to Leonard St  
7 min (1.4 mi)
- ↶ Use any lane to turn left onto Leonard St  
8 min (1.0 mi)
- Follow Broadway to Marcus Garvey Blvd  
3 min (0.3 mi)

### NYC Health + Hospitals/Woodhull

760 Broadway, Brooklyn, NY 11206

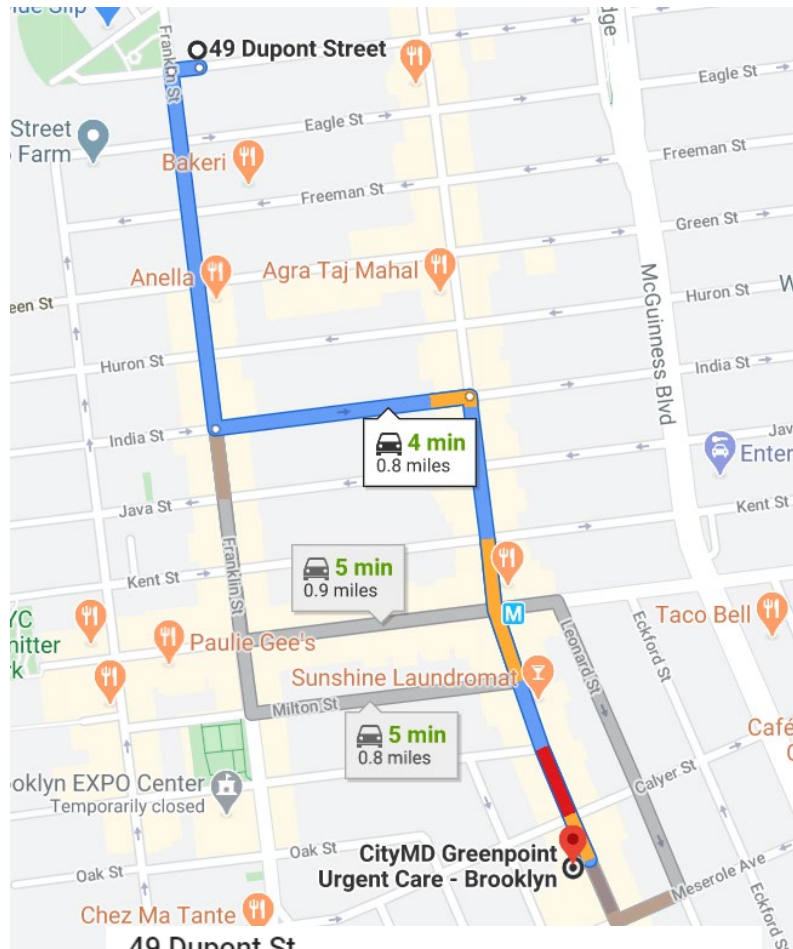
## Clinic

### City MD Greenpoint Urgent Care – Brooklyn

795 Manhattan Avenue

Brooklyn, NY

718.489.3549



49 Dupont St

Brooklyn, NY 11222

- ↑ Head west on Dupont St toward Franklin St  
102 ft
- ↩ Turn left at the 1st cross street onto Franklin St  
0.2 mi
- ↩ Turn left onto India St  
0.2 mi
- ↪ Turn right at the 1st cross street onto Manhattan Ave/Sgt. Nicholas Aleman Way
  - 📍 Continue to follow Manhattan Ave
  - 📍 Pass by CTown Supermarkets (on the right)
  - 📍 Destination will be on the right0.3 mi

**CityMD Greenpoint Urgent Care - Brooklyn**

795 Manhattan Ave, Brooklyn, NY 11222

# STOP WORK

In accordance with H&A Stop Work Policy (OP1035), any individual has the right to refuse to do work that they believe to be unsafe, and they have the obligation and responsibility to stop others from working in an unsafe manner without fear of retaliation. STOP Work Policy is the stop work policy for all personnel and subcontractors on the Site. When work has been stopped due to an unsafe condition, H&A site management (e.g., Project Manager, Site Safety Manager) and the H&A Senior Project Manager will be notified immediately. Reasons for issuing a stop work order include, but are not limited to:

- The belief/perception that injury to personnel or accident-causing significant damage to property or equipment is imminent.
- A H&A subcontractor is in breach of site safety requirements and / or their own site HASP.
- Identifying a sub-standard condition (e.g., severe weather) or activity that creates an unacceptable safety risk as determined by a qualified person.

Work will not resume until the unsafe act has been stopped OR sufficient safety precautions have been taken to remove or mitigate the risk to an acceptable degree. Stop work orders will be documented as part of an on-site stop work log, on daily field reports to include the activity(ies) stopped, the duration, person stopping work, person in-charge of stopped activity(ies), and the corrective action agreed to and/or taken. Once work has been stopped, only the H&A SM or SSO can give the order to resume work. H&A senior management is committed to support anyone who exercises his or her “Stop Work” authority.

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# ADMINISTRATIVE INFORMATION

<b>Project Name</b>	Former NuHart East Site	<b>Project Number</b>	0201891
<b>Project Start Date</b>	4/1/2022	<b>Project End Date</b>	4/1/2023
<b>Client Site/Contact:</b> Office Phone Number:	Zach Kadden 646-747-2232		
<b>H&amp;A Project Manager:</b> Office Phone Number: Cell Phone Number:	Mari Cate Conlon 646.277.5688 347.271.1521		
<b>H&amp;A Site Safety Officer:</b> Office Phone Number: Cell Phone Number:	Sarah Comisso 646.277.5693 516.317.9861		
<b>APPROVALS:</b> The following signatures constitute approval of this Health & Safety Plan			
<p>Electronic Signatures</p> <p style="text-align: right;">Date</p> <p>Project Manager – Mari Cate Conlon</p> <p style="text-align: right;">Date</p> <p>Field Health &amp; Safety Manager – East – Brian Ferguson</p>			
<p><b>This document is valid for a maximum time period of one year after completion. The document must be reviewed if the scope of work or nature of site hazards changes and must be updated as warranted.</b></p>			

# PROJECT INFORMATION

## Site Overview/History

<b>Site Classification</b>	Vacant	<b>Site Status</b>	Vacant warehouse	<b>Regulatory Authority</b>	OSHA
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## Project Summary

The approximately 49,000 square-foot property located in the Greenpoint neighborhood of Brooklyn, New York is identified as Block 2487, Lots 17, 18, 20, 21, and 57 on the New York City Tax Map. Currently the Site is vacant. The project is currently enrolled in the Brownfield Cleanup Program (BCP) as Site C224287. The proposed development will include the construction of a 5-story residential building with a one-story cellar encompassing the entire Site footprint.

The Site was developed since at least 1887 and was used for metalworking, manufacturing of light fixtures, soaps, and water proofing materials through 1950. From 1950 until 2004, the Site and associated manufacturing buildings to the west were used by the NuHart company for the production, storage, and shipping of plastic and vinyl products. Operations ceased in 2004 and the Site buildings have been vacant since that time.

Scope of Work: Remedial Oversight

## Project Tasks

<b>Task:</b>	<b>Remedial Oversight</b>
Perform remedial oversight during implementation of the approved remedy including community air monitoring.	
Start Date: 4/1/2022	End Date: 4/1/2022
H&A Site Supervisor: Conlon, Mari Cate	Subcontractor: N/A

## INTRODUCTION

This project specific Construction Health and Safety Plan (CHASP) has been developed by Haley & Aldrich, Inc. (Haley & Aldrich) to establish the procedures necessary for protection from potentially contaminated soils resulting from the excavation of soil at 22-32 Clay Street & 67-93 Dupont Street, Brooklyn, New York (the Site) due to the redevelopment plans for the Site. This CHASP is intended to supplement the Client's Corporate Safety Management Program (CSMP). The procedures in this plan have been developed based on current knowledge regarding the hazards which are known or anticipated for the operations to be conducted at this Site.

## SITE HAZARDS

This CHASP covers only the hazards associated with potential chemical exposures. Physical hazards such as injuries from typical excavation field work activities, including the operation of heavy equipment, noise exposure, heat and cold stress, electrical hazards, fire hazards, and general safety hazards associated with walking on working surfaces (trip and fall) are covered by the Client's CSMP.

Site activities may pose chemical exposure hazards. Potential chemical exposure hazards include skin contact, ingestion and inhalation hazards which may result from the presence of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and inorganic metallic elements (metals) on-Site. The potential adverse health effects from these detected contaminants are diverse. Many of these compounds are known or suspected to result in chronic illness from long-term exposures. However, due to the limited nature of the proposed work, only acute effects are a potential concern. See Section 2.0 for detailed chemical hazard information.

## PROJECT TEAM

The organizational structure established for the implementation of health and safety requirements established by this CHASP are outlined in the CSMP. Personnel who have been assigned specific authority to implement and enforce the provisions of this CHASP are identified below.

Name	Project Title/Assigned Role	Phone Numbers
Mari Conlon	Project Manager	Work: 646-277-5688 Mobile: 347-271-1521
Sarah Commisso	Site Supervisor	Work: 646-277-5693 Mobile: 516-317-9861

The control of Site hazards is dependent upon the degree to which management enforces compliance and employees cooperate with the specified health and safety requirements. Therefore, personnel at all levels of the organization must recognize their individual responsibility to comply. All activities covered by this CHASP must be conducted in compliance with this CHASP and with applicable federal, state, and local health and safety regulations, including 29 CFR 1910.120. Personnel covered by this CHASP who cannot or will not comply must be excluded from Site activities by the Project Superintendent, as defined in the CSMP.

## **WORK ACTIVITIES**

### **Excavation and Soil Screening**

Field personnel will screen excavated material for visual, olfactory, and instrumental indicators suggestive of a potential chemical or petroleum release. Instrument screening for the presence of VOCs may be performed with a duly calibrated Photoionization detector (PID). Impacted material shall be segregated and disposed in accordance with federal, state and city regulations.

### **Stockpiling**

As part of excavation activities, potentially impacted soil may be stockpiled pending waste characterization analysis. Visibly contaminated soil shall be segregated and stockpiled on at least 10 millimeters of plastic sheeting; reusable soil and fill shall be segregated and stockpiled separately from unusable fill, concrete and other debris. Stockpiles will be covered with 6 millimeters anchored plastic sheeting when not in use and overnight.

### **Soil Sampling**

Soil samples (waste characterization, endpoint, or delineation, may be collected during construction, as required.

### **Backfilling**

Backfilling is not anticipated at the Site however, areas of the Site that may be over-excavated will be backfilled to development grade. Imported material will consist of clean fill that meets the 6 New York Codes, Rules and Regulations (NYCRR) Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives (UU SCOs) or other acceptable fill material such as virgin stone from a permitted mine or quarry or recycled concrete aggregate (RCA), from a New York State Department of Environmental Conservation (NYSDEC)-registered facility.

### **Dewatering**

Dewatering will be part of construction activities. In this case, a dewatering contractor will be responsible for handling contaminated dewatering fluids in accordance with federal, state, and local regulations. Dewatering fluids will be discharged to the local sewer system after treatment and with an approved permit. Alternatively, containerized storage may allow for testing of groundwater prior to, and after, treatment and before disposal.



## HAZARD ASSESSMENT

The following hazard assessment applies only to the activities within the scope of this CHASP.

### CHEMICAL HAZARDS AND KNOWN/SUSPECT CHEMICALS OF CONCERN

The chemical hazard information provided below is based on the data provided in previous environmental investigations presented in the Remedial Investigation Report by Environmental Business Consultants dated August 2018, and the Supplemental Remedial Investigation Report (Haley & Aldrich 2022) dated February 2022. During the investigations, representative Site soils were sampled for VOCs, SVOCs, Target Analyte List (TAL) metals, pesticides, polychlorinated biphenyl (PCBs), per- and polyfluoroalkyl substances (PFAS) and 1,4-dioxane. Groundwater was encountered approximately 5 to 10 feet (ft) below ground surface (bgs). Contaminants of concern identified at the Site during these investigations include pesticide, metal, VOC, PCB, and SVOC impacts to soil, metal, VOC, and SVOC impacts to groundwater, and VOC impacts to soil vapor. Constituents with exceeding concentrations and their respective health effects are listed below for reference. Information presented is based upon established Occupational Safety and Health Administration (OSHA) permissible exposure limits (PEL) and The National Institute for Occupational Safety and Health (NIOSH) recommended exposure limits (RELs). All other analytical parameters were reported within acceptable levels for Site urban residential land use. See Section 4.0 for a description of the PPE that should be used for this Site.

Table 1. Health Hazards for Site Contaminants of Concern

Chemicals	REL/PEL/STEL (ppm)	Health Hazards
Benzo(a)anthracene	PEL = 0.2 mg/m <sup>3</sup> TWA REL = 0.1 mg/m <sup>3</sup> TWA	Irritation to respiratory system, bladder, kidneys, skin; dermatitis, bronchitis, cumulative lung damage; suspect human carcinogen.
Benzo(a)pyrene	PEL = 0.2 mg/m <sup>3</sup> TWA REL = 0.1 mg/m <sup>3</sup> TWA	Irritation to respiratory system, bladder, kidneys, skin; dermatitis, bronchitis, cumulative lung damage; suspect human carcinogen.
Benzo(b)fluoranthene	PEL = 0.2 mg/m <sup>3</sup> TWA REL = 0.1 mg/m <sup>3</sup> TWA	Irritation to respiratory system, bladder, kidneys, skin; dermatitis, bronchitis, cumulative lung damage; suspect human carcinogen.
Dibenzo(a,h)anthracene	PEL = 0.2 mg/m <sup>3</sup> TWA REL = 0.1 mg/m <sup>3</sup> TWA	Irritation to respiratory system, bladder, kidneys, skin; dermatitis, bronchitis, cumulative lung damage; suspect human carcinogen.
Indeno(1,2,3-cd)pyrene	PEL = 0.2 mg/m <sup>3</sup> TWA REL = 0.1 mg/m <sup>3</sup> TWA	Irritation to respiratory system, bladder, kidneys, skin; dermatitis, bronchitis, cumulative lung damage; suspect human carcinogen.
Benzo(k)fluoranthene	PEL = 0.2 mg/m <sup>3</sup> TWA REL = 0.1 mg/m <sup>3</sup> TWA	Irritation to respiratory system, bladder, kidneys, skin; dermatitis, bronchitis, cumulative lung damage; suspect human carcinogen.
Chrysene	PEL = 0.2 mg/m <sup>3</sup> TWA REL = 0.1 mg/m <sup>3</sup> TWA	Irritation to respiratory system, bladder, kidneys, skin; dermatitis, bronchitis, cumulative lung damage; suspect human carcinogen.

Lead	PEL = 0.05 mg/m <sup>3</sup> TWA REL = 0.05 mg/m <sup>3</sup> TWA	Lassitude (weakness, exhaustion), insomnia; facial pallor; anorexia, weight loss, malnutrition; constipation, abdominal pain, colic; anemia; gingival lead line; tremor; paralysis wrist, ankles; encephalopathy; kidney disease; irritation eyes; hypertension
Mercury	PEL = 0.1 mg/m <sup>3</sup> TWA REL = 0.05 mg/m <sup>3</sup> TWA	irritation eyes, skin; cough, chest pain, dyspnea (breathing difficulty), bronchitis, pneumonitis; tremor, insomnia, irritability, indecision, headache, lassitude (weakness, exhaustion); stomatitis, salivation; gastrointestinal disturbance, anorexia, weight loss; proteinuria
Arsenic	PEL = 0.010 mg/m <sup>3</sup> TWA REL = 0.002 mg/m <sup>3</sup> TWA	Ulceration of nasal septum, dermatitis, gastrointestinal disturbances, peripheral neuropathy, resp irritation, hyperpigmentation of skin, [potential occupational carcinogen]
Copper, Total	PEL = 1 mg/m <sup>3</sup> TWA REL = 1 mg/m <sup>3</sup> TWA	irritation eyes, nose, pharynx; nasal septum perforation; metallic taste; dermatitis; In Animals: lung, liver, kidney damage; anemia
Sodium, Total	REL = 1 mg/m <sup>3</sup> TWA PEL = None	irritation eyes, skin, upper respiratory system; dermatitis; epistaxis (nosebleed); cough, dyspnea (breathing difficulty)
Trichloroethene (TCE)	PEL = 25 mg/m <sup>3</sup> TWA REL = 0.1 mg/m <sup>3</sup> TWA	irritation eyes, skin; headache, visual disturbance, lassitude (weakness, exhaustion), dizziness, tremor, drowsiness, nausea, vomiting; dermatitis; cardiac arrhythmias, paresthesia; liver injury; [potential occupational carcinogen]
Tetrachloroethene (PCE)	PEL = 100 mg/m <sup>3</sup> TWA REL = minimize workplace exposure concentrations	irritation eyes, skin, nose, throat, respiratory system; nausea; flush face, neck; dizziness, incoordination; headache, drowsiness; skin erythema (skin redness); liver damage; [potential occupational carcinogen]
cis-1,2-Dichloroethene (Cis-1,2-DCE)	PEL = 200 mg/m <sup>3</sup> TWA REL = 200 mg/m <sup>3</sup> TWA	irritation eyes, respiratory system; central nervous system depression
Bis(2-ethylhexyl)phthalate (DEHP)	PEL = 5 mg/m <sup>3</sup> TWA REL = 5 mg/m <sup>3</sup> TWA	irritation eyes, skin, nose, throat, respiratory system; nausea; flush face, neck; dizziness, incoordination; headache, drowsiness; skin erythema (skin redness); liver damage; [potential occupational carcinogen]

## VOLATILE AND SEMI-VOLATILE ORGANIC COMPOUNDS

The SVOC compounds identified in the soils at the Site exceeded the New York State Department of Environmental Conservation (NYSDEC) standards promulgated in the Part 375 Restricted Residential criteria. If Site conditions are dry, the generation of contaminated dusts may pose a potential inhalation hazard. Therefore, dust levels should be controlled with wetting, if necessary, as described in Section 3.2. Odors will also be controlled and monitored via photoionization detectors stationed at the perimeters in accordance with standard CAMP procedures. In addition, repeated contact with certain SVOC compounds have been associated with the development of skin cancer. Contact with the skin may

cause photosensitization of the skin, producing skin burns after subsequent exposure to ultraviolet radiation. Protective measures, such as the wearing of chemically resistant gloves, are appropriate when handling SVOC contaminated materials.

## METALS

Various metals including copper, lead, mercury, and arsenic were detected in concentrations exceeding NYSDEC Part 375 Unrestricted Use and Restricted Residential criteria in soil samples collected and are attributed to historic fill materials present throughout the Site. Overexposure to metal compounds has been associated with a variety of local and systemic health hazards, both acute and chronic in nature, including lung damage, neurological effects, gastrointestinal effects, kidney and liver damage, allergic dermatitis, and other skin disorders. Exposure to metals is most commonly through inhalation and ingestion of dust. Therefore, dust levels should be controlled with wetting, if necessary, as described in Section 3.2.

## ADDITIONAL HAZARD ASSESSMENTS

Additional Site-specific hazards present during project work include simultaneous operations, hot temperatures, sun and slips and trips.

### Site Hazards and Controls

Site Hazard Summary		
Slips, Trips, Falls	Hot Temperatures	Cold Temperatures
Sun	Urban Fill	COVID-19

### COVID-19

#### Hazard Information

See attached:

- Fact Sheet HASP Add – This provides general information on the COVID-19 risk and the second page is the HASP Amendment form that will need to be completed for every project (current projects and future) – COVID-19 should be treated the same as any potential project risk.
- Fact Sheet COVID-19 Field Guidance Hygiene – This fact sheet provides guidance to staff performing field work on hygiene practices to undertake to reduce the risk of exposure in the field. The documentation includes information on proper PPE and disinfection.
- Fact Sheet Field Cleaning and Disinfection COVID-19 – This fact sheet provides guidance on cleaning and disinfecting field offices.
- Fact Sheet Field Cloth Face Covering – This fact sheet provides guidance on face covering practices.

#### Controls

See attachments.

### SUN

#### Hazard Information

Acute excessive exposure to solar radiation may cause painful sunburn, and chronic exposure may contribute to eye damage and skin cancer. The average peak intensity of solar ultraviolet (UV) radiation is at midday. Most of the total daily UV is received between 10 AM and 2 PM. UV radiation can reflect off of water, concrete, light colored surfaces, and snow. Cloud cover can reduce UV levels, but overexposure may still occur.

Use the shadow test to determine sun strength: If your shadow is shorter than you are, the sun's rays are at their peak, and it is important to protect yourself.

### Controls

- Wear light-colored, closely woven clothing, which covers as much of the body as practicable.
- Use sunscreens with broad spectrum protection (against both UVA and UVB rays) and sun protection factor (SPF) values of 30 or higher. Ideally, about 1 ounce of sunscreen (about a shot glass or palmful) should be used to cover the arms, legs, neck, and face of the average adult. Sunscreen needs to be reapplied at least every 2 hours to maintain protection.
- Hats should be worn and should be wide brimmed, protecting as much of the face, ears, and neck as possible. Hats should also provide ventilation around the head. Sunscreen should be applied to areas around the head not protected by the hat (ears, lips, neck, etc.).
- Wear sunglasses while working outdoors. Sunglasses should allow no more than 5% of UVA and UVB penetration and must also meet the ANSI Z87.1 standard for safety glasses.
- Use natural or artificial shade, where possible.

## HOT TEMPERATURES (HEAT STRESS)

### Hazard Information

Heat stress may occur at any time work is being performed at elevated ambient temperatures. Heat stress is one of the most common and potentially serious illnesses associated with outdoor work during hot seasons; therefore, regular monitoring and other preventative measures are vital. Site workers must learn to recognize and treat various forms of heat stress.

H&A employees and their subcontractors should be aware of potential health effects and/or physical hazards of working when there are hot temperatures or a high heat index.

Staff members should consult OP 1015 Heat Stress for additional information regarding hot weather hazards.

### Heat Stress Conditions

**Heat Rash:** Caused by continuous exposure to heat and humid air and aggravated by chafing clothes. Decreases ability to tolerate heat.

*Symptoms:* Mild red rash, especially in areas of the body in contact with protective gear.

*Treatment:* Decrease amount of time in protective gear and provide powder to help absorb moisture and decrease chaffing.

**Heat Cramps:** Caused by perspiration that is not balanced by adequate fluid intake. Heat cramps are often the first sign of a condition that can lead to heat stroke. This condition is much less dangerous than heat stroke, but it nonetheless must be treated.

*Symptoms:* Acute painful spasms of voluntary muscles (e.g., abdomen and extremities).

*Treatment:* Remove the victim to a cool area and loosen clothing. Have the patient drink 1 to 2 cups water immediately, and every 20 minutes thereafter until symptoms subside. Total water consumption should be 1 to 2 gallons per day.

**Heat Exhaustion:** A state of definite weakness or exhaustion caused by the loss of fluids from the body.

*Symptoms:* Pale, clammy, moist skin, profuse perspiration and extreme weakness. Body temperature is normal, pulse is weak and rapid, and breathing is shallow. The person may have a headache, may vomit, and may be dizzy.

*Treatment:* Remove the person to a cool place, loosen clothing, and place in a head-low position. Provide bed rest. Consult physician, especially in severe cases. The normal thirst mechanism is not sensitive enough to ensure body fluid replacement. Have patient drink 1 to 2 cups water immediately and every 20 minutes thereafter until symptoms subside. Total water consumption should be 1 to 2 gallons per day.

**Heat Stroke:** An acute and dangerous reaction to heat exposure caused by failure of heat regulating mechanisms of the body; the individual's temperature control system that causes sweating stops working correctly. Body temperature rises so high that brain damage and death will result if the person is not cooled quickly.

*Symptoms:* Red, hot, dry skin, although person may have been sweating earlier; nausea; dizziness; confusion; extremely high body temperature; rapid respiratory and pulse rate; unconsciousness or coma.

*Treatment:* Cool the victim quickly and obtain immediate medical assistance. If the body temperature is not brought down fast, permanent brain damage or death may result. Soak the victim in cool but not cold water, sponge the body with rubbing alcohol or cool water, or gently pour water on the body to reduce the temperature to a safe level (102°F). Observe the victim and obtain medical help. Do not give coffee, tea or alcoholic beverages.

### Controls

Practice heat stress management:

- Workers should drink 16 ounces of water before beginning or restarting work after a break. Water should be maintained at 50 to 60 degrees Fahrenheit (°F). Workers should drink one to two 4-ounce cups of water every 30 to 60 minutes during work. The use of alcohol during non-working hours and the intake of caffeine during working hours can lead to an increase in susceptibility to heat stress. Monitor for signs of heat stress (shown in Heat Stress Conditions above).
- Workers should acclimate to site work conditions by slowly increasing workloads (i.e., do not begin site work activities with extremely demanding activities). This acclimation process may require up to two weeks.
- In hot weather, field activities should be conducted in the early morning or evening when temperatures are cooler. Rotate shifts of workers with potential heat stress exposure.
- Adequate shelter should be available to protect personnel from heat, which can decrease physical efficiency and increase the probability of heat stress. Erect temporary shade at the workstation if necessary. A cool area for rest breaks should be designated, preferably air-conditioned.
- Cooling devices should be used to aid natural body ventilation. Note: These devices add weight, and their use should be balanced against worker efficiency.

## COLD TEMPERATURES

### Hazard Information

Cold stress may occur at any time work is being performed during low ambient temperatures and high velocity winds. Because cold stress is common and potentially serious illnesses are associated with outdoor work during cold seasons, regular monitoring and other preventative measures are vital.

Staff members should consult OP1003-Cold Stress for additional information on cold weather hazards.

### Cold Stress Conditions

**Frostbite:** Localized injury resulting from cold is included in the generic term "frostbite. There are several degrees of damage.

**Symptoms:** Frost nip or incident frostbite; sudden blanching or whitening of the skin.

- Superficial frostbite: Skin has a waxy or white appearance and is firm to the touch, but tissue beneath is resilient.
- Deep frostbite: Tissues are cold, pale, and solid; extremely serious injury.

**Treatment:**

- Bring the victim indoors and heat the areas quickly in water between 102° and 105° F.
  - Never place frostbitten tissue in hot water as the area will have a reduced heat awareness and such treatment could result in burns.
- Give the victim a warm drink (not coffee, tea, or alcohol).
  - The victim should not smoke or do anything that will inhibit blood circulation.
- Keep the frozen parts in warm water or covered with warm clothes for 30 minutes even though the tissue will be very painful as it thaws.
  - Elevate the injured area and protect it from injury.
  - Do not allow blisters to be broken. Use sterile, soft, dry material to cover the injured areas.
- Keep victim warm and get medical care immediately following first aid treatment.
- After thawing, the victim should try to move the injured areas slightly, but no more than can be done without assistance.

**Do NOT:**

- Rub the frostbitten area(s)
- Use ice, snow, gasoline, or anything cold on frostbite
- Use heat lamps or hot water bottles to rewarm the frostbitten area
- Place the frostbitten area near a hot stove

**Hypothermia:** Significant loss of body heat that is also a potential hazard during cold weather operations. Hypothermia is characterized as "moderate" or "severe".

**Symptoms:**

- Early hypothermia - Chills, pale skin, cold skin, muscle rigidity, depressed heart rate, and disorientation
- Moderate hypothermia - Any combination of severe shivering, abnormal behavior, slowing of movements, stumbling, weakness, repeated falling, inability to walk, collapse, stupor, or unconsciousness
- Severe hypothermia - Extreme skin coldness, loss of consciousness, faint pulse, and shallow, infrequent or apparently absent respiration

Death is the ultimate result of untreated hypothermia. The onset of severe shivering signals danger to personnel; exposure to cold shall be immediately terminated for any severely shivering worker.

**Treatment:** Staff members should seek emergency medical treatment in the event of hypothermia. The following actions can be taken prior to obtaining medical treatment:

- Gently place patients in an environment most favorable to reducing further heat loss from evaporation, radiation, conduction, or convection.
- Remove wet clothing and replace it with dry blankets or sleeping bags.
- Initiate active external rewarming with heat packs (e.g., hot water bottles, chemical packs, etc.) placed in the areas of the armpits, groin, and abdomen.
- Be aware of the risk of causing body surface burns from excessive active external rewarming.

In dire circumstances, rescuers may provide skin-to-skin contact with patients when heat packs are unavailable and such therapy would not delay evacuation.

### Controls

- Recognize the environmental and workplace conditions that may be dangerous.
  - When the temperature is below 41° F, workers should be aware that cold stress is a potential hazard.
- Learn signs of cold-induced illnesses and injuries and how to help affected staff members.
  - Observe fellow staff members for signs of cold stress and administer first aid, where necessary.
- Staff members should maintain a clothing level that keeps them warm but dry (not sweating).
  - Staff should wear thermal clothing including gloves and footwear and beneath chemical resistant clothing, when appropriate.
  - Workers should have a spare set of clothing in case work clothes are not warm enough or become wet.
  - If a worker begins to sweat, he/she should remove a layer.
  - If clothing becomes wet and temperatures are below 36° F, clothing must be immediately replaced with dry clothing.
- A warm area for rest breaks should be designated.
  - In cold temperatures, rotate shifts of workers with potential cold stress exposure or take periodic breaks to allow recovery from cold stress.
  - Do not go into the field alone when cold stress could occur.

- Avoid fatigue or exhaustion because energy is needed to keep muscles warm.
- Workers should drink warm liquids (non-alcoholic, non-caffeinated) periodically throughout their shifts so they do not get dehydrated.

## URBAN FILL

### Hazard Information

Urban Fill consists of historically placed soil materials commonly found in urban areas, and typically comprised of a heterogeneous mixture of granular and fine-grained solids containing various proportions of gravel and cobbles, construction and demolition debris, coal ash, wood ash or other deleterious materials. Urban fill usually contains anthropogenic levels of metals, petroleum hydrocarbons and/or PAHs due to non-point sources and/or which originated prior to placement.

### Controls

- Physical Hazards: Urban fill can contain debris such as glass, ceramics, rebar, wire, wood, nails and other objects that contain sharp edges. Personnel should use caution and wear appropriate gloves (e.g., leather) to prevent cuts associated with handling material contain sharp and abrasive edges.
- Personal Hygiene: Always wash hands prior and after eating and drinking. Take off work boots prior to getting in your car and going home which will help prevent introducing potentially contaminated soils to your car and home. Wash work clothing separately from non-work clothes to prevent clothing impacted by soil from urban fill to be cross contaminated with other clothing. Use chemical resistant gloves when handling soil to prevent contact with skin.
- Control the dust from urban fill material. Measures should be taken to prevent dust, such as wetting the material or covering the stockpiles.

## SLIPS AND TRIPS

### Hazard Information

Slip and trip injuries are the most frequent injuries to workers. Both slips and trips result from some kind of unintended or unexpected change in the contact between the foot and the ground or walking surface. This shows that good housekeeping, quality of walking surfaces (flooring), awareness of surroundings, selection of proper footwear, and appropriate pace of walking are critical to preventing fall accidents.

Site workers will be walking on a variety of irregular surfaces that may affect their balance. Extra care must be taken to walk cautiously near any surfaces that are unfamiliar or may have unseen slip or trip hazards such as rivers because the bottom of the river bed maybe slick and may not be visible. Rocks, gradient changes, sandy bottoms, and debris may be present but not observable.

### Controls

- Take your time and pay attention to where you are going.
- Adjust your stride to a pace that is suitable for the walking surface and the tasks you are doing.
- Check the work area to identify hazards - beware of trip hazards such as wet floors, slippery floors, and uneven surfaces or terrain.
- Establish and utilize a pathway free of slip and trip hazards.



- Choose a safer walking route.
- Carry loads you can see over and are not so heavy as to increase your trip/slip probability.
- Keep work areas clean and free of clutter.
- Communicate hazards to on-site personnel and mitigate hazards as appropriate.

## TASK SPECIFIC HAZARDS

### Task Description

**Remedial Oversight** –Remedial oversight may require working in close proximity to heavy equipment and may be exposed to many of the same hazards as the subcontractor. It is imperative that staff are aware of emergency stops and establish communication protocols with the drillers prior to the start of work. See OP 1002 Drilling Safety.

Potential Hazards			
Noise	Heavy Equipment	Ergonomics	Line of Fire
Ground Disturbance			

## Top Task Specific Hazards

### Overhead Utilities

When work is undertaken near overhead electrical lines, the distance maintained from those lines shall also meet the minimum distances for electrical hazards as defined in Table 1 below. Note: utilities other than overhead electrical utilities need to be considered when performing work

**Table 1 Minimal Radial Clearance Distances \***

Normal System Voltage Kilovolts (kV)	Required Minimal Radial Clearance Distance (feet/meters)
0 – 50	10/3.05
51 – 100	12/3.66
101 – 200	15/4.57
201 – 300	20/6.1
301 – 500	25/7.62
501 – 750	35/10.67
750 – 1000	45/13.72

\* For those locations where the utility has specified more stringent safe distances, those distances shall be observed.

### Controls

- To prevent damage, guy wires shall be visibly marked and work barriers or spotters provided in those areas where work is being conducted.

- When working around guy wires, the minimum radial clearance distances for electrical power shall be observed.
- The PM shall research and determine if the local, responsible utility or client has more restrictive requirements than those stated in Table 1.
- If equipment cannot be positioned in accordance with the requirements established in Table 1 the lines need to be de-energized.

### **Ground Disturbance**

Ground disturbance is defined as any activity disturbing the ground. Ground disturbance activities include, but are not limited to, excavating, trenching, drilling (either mechanically or by hand), digging, plowing, grading, tunneling and pounding posts or stakes.

Because of the potential hazards associated with striking an underground utility or structure, the operating procedure for underground utility clearance shall be followed prior to performing any ground disturbance activities.

See OP1020 Working Near Utilities

### **Controls**

Prior to performing ground disturbance activities, the following requirements should be applied:

- Confirm all approvals and agreements (as applicable) either verbal or written have been obtained.
- Request for line location has been registered with the applicable One-Call or Dial Before You Dig organization, when applicable
  - Whenever possible, ground disturbance areas should be adequately marked or staked prior to the utility locators site visit.
- Notification to underground facility operator/owner(s) that may not be associated with any known public notification systems such as the One-Call Program regarding the intent to cause ground disturbance within the search zone.
- Notifications to landowners and/or tenant, where deemed reasonable and practicable.
- Proximity and Common Right of Way Agreements shall be checked, if the line locator information is inconclusive.

### **Underground Utilities**

Various forms of underground/overhead utility lines or conveyance pipes may be encountered during site activities. Prior to the start of intrusive operations, utility clearance is mandated, as well as obtaining authorization from all concerned public utility department offices. Should intrusive operations cause equipment to come into contact with utility lines, the SSO, Project Manager, and Regional H&S Manager shall be notified immediately. Work will be suspended until the client and applicable utility agency is contacted and the appropriate actions for the situation can be addressed.

See OP1020 Work Near Utilities for complete information.

### **Controls**

- Obtain as-built drawings for the areas being investigated from the property owner;

- Visually review each proposed soil boring locations with the property owner or knowledgeable site representative;
- Perform a geophysical survey to locate utilities;
- Hire a private line locating firm to determine the location of utility lines that are present at the property;
- Identifying a no-drill or dig zone;
- Hand dig or use vacuum excavation in the proposed ground disturbance locations if insufficient data is unavailable to accurately determine the location of the utility lines.

## Noise

Working around heavy equipment (drill rigs, excavators, etc.) often creates excessive noise. The effects of noise can include physical damage to the ear, pain, and temporary and/or permanent hearing loss. Workers can also be startled, annoyed, or distracted by noise during critical activities. Noise monitoring data that indicates that work locations within 25 feet of operating heavy equipment (e.g., drill rigs, earthworking equipment) can result in exposure to hazardous levels of noise (levels greater than 85 dBA).

See OP 1031 Hearing Conservation for additional information.

### Controls

- Personnel are required to use hearing protection (earplugs or earmuffs) within 25 feet of any operating piece of heavy equipment.
- Limit the amount of time spent at a noise source.
- Move to a quiet area to gain relief from hazardous noise sources.
- Increase the distance from the noise source to reduce exposure.

## Heavy Equipment

Staff members must be careful and alert when working around heavy equipment, since equipment failure or breakage and limited visibility can lead to accidents and worker injury. Heavy equipment such as cranes, drills, haul trucks, or other can fail during operation increasing the likelihood of worker injury. Equipment of this nature should be visually inspected and checked for proper working order prior to the commencement of field work. Those that operate heavy equipment must meet all of the requirements to operate heavy equipment. Haley & Aldrich, Inc. staff members that supervise projects or are associated with such high risk projects that involve digging or drilling should use due diligence when working with a construction firm.

See OP1052 Heavy Equipment for additional information.

### Controls

- Only approach equipment once you have confirmed contact with the operator (e.g., the operator places the bucket on the ground).
- Maintain visual contact with operators at all times and keep out of the strike zone whenever possible.
- Always be alert to the position of the equipment around you.

- Always approach heavy equipment with an awareness of the swing radius and traffic routes of each piece of equipment and never go beneath a hoisted load.
- Avoid fumes created by heavy equipment exhaust.
- Understand the site traffic pattern and position yourself accordingly.

## Line of Fire

Line of fire refers to the path an object will travel. Examples of line of fire typically observed on project sites include lifting/hoisting, lines under tension, objects that can fall or roll, pressurized objects, springs or stored energy, work overhead, and vehicles and heavy equipment.

### Controls

The following precautions should be observed for work overhead:

- Never walk under a suspended load.
- Communicate to other workers when entering a lifting/hoisting zone, even if for a short period.
- Balance the load prior to lifting.
- Rigging equipment shall never be loaded in excess of its maximum safe loading limit.
- Establish a drop zone, an area below any work being performed aloft. Drop zone size depends on work scope and potential for falling tools and equipment. Keep the drop zone clear of people.
- If work at the structure base is unavoidable, inform the worker above. Make sure work stops and they secure tools and equipment prior to performing the work below.
- Materials should never be dropped from height. Use tool bags and hand lines when providing tools and equipment to the employee aloft

The following precautions should be observed for tension and pressure:

- Be aware and stay clear of tensioned lines such as cable, chain and rope.
- Use only correct gripping devices. Select proper equipment based on size and load limit.
- Be cautious of torque stresses that drilling equipment and truck augers can generate. Equipment can rotate unexpectedly long after applied torque force has been stopped.
- Springs come in a variety of shapes and sizes, and can release tremendous energy if compression as tension is suddenly released.
- Ensure tanks are stored upright and are in good condition, and be aware of potential failures or pressurized lines and fittings
- Items under tension and pressure can release tremendous energy if it is suddenly released.

The following precautions should be observed for objects that can fall or roll:

- Not all objects may be overhead; be especially mindful of top-heavy items and items being transported by forklift or flatbed.
- Secure objects that can roll such as tools, cylinders and pipes.
- Stay well clear of soil cuttings, soil stockpiles generated during drilling operations and excavations, be aware that chunks of dirt, rocks, and debris can fall or roll.
- Establish a drop zone that is free of any tools and/or debris.

The following precautions should be observed for working in proximity to vehicles and heavy equipment:

- Use parking brakes and wheel chocks for any vehicle or equipment parked on an incline.
- When working near moving, heavy equipment such as line trucks and cranes, remain in operator's full view. Obtain operator's attention prior to approaching equipment.
- Vacate the back of the bucket truck when the boom is being moved or cradled. Get the operator's attention if you must get into the back of the truck so he or she can stop boom movement.

Take precautions for all pedestrian and vehicle traffic when positioning vehicles and equipment at a job site.

## Posture/Ergonomics

Most Work-related Musculoskeletal Disorders (WMSDs) are caused by Ergonomic Stressors. Ergonomic Stressors are caused by poor workplace practices and/or insufficient design, which may present ergonomic risk factors. These stressors include, but are not limited to, repetition, force, extreme postures, static postures, quick motions, contact pressure, vibration, and cold temperatures.

WMSDs are injuries to the musculoskeletal system, which involves bones, muscles, tendons, ligaments, and other tissues in the system. Symptoms may include numbness, tightness, tingling, swelling, pain, stiffness, fatigue, and/or redness. WMSD are usually caused by one or more Ergonomic Stressors. There may be individual differences in susceptibility and symptoms among employees performing similar tasks. Any symptoms are to be taken seriously and reported immediately.

### Controls

Recommended controls, including Administrative, Work Practice, and/or Engineering Controls, will be put in place based on the interview results and/or after an ergonomic assessment. H&S and/or HP will work with staff members and their staff managers to implement Administrative and Work Practice Controls to control risk associated with ergonomic stressors. In addition, simple Engineering Controls may be implemented, such as use of a keyboard and/or mouse tray, replacing a mouse with a more ergonomic model, and/or changing workstation set up.

## Generated Waste

Excess sample solids, decontamination materials, rags, brushes, poly sheeting, etc. that are determined to be free of contamination through field or laboratory screening can usually be disposed into client-approved, on-site trash receptacles. Uncontaminated wash water may be discarded onto the ground surface away from surface water bodies in areas where infiltration can occur. Contaminated materials must be segregated into liquids or solids and drummed separately for off-site disposal.

All wastes generated shall be containerized in an appropriate container (i.e. open or closed top 55-gallon drum, roll-off container, poly tote, cardboard box, etc.) as directed by the PM. Prior to putting waste containers into service, the containers should be inspected for damages or defects. Waste containers should be appropriately labeled indicating the contents, date the container was filled, owner of the material (including address) and any unique identification number, if necessary. Upon completion of filling the waste container, the container should be inspected for leaks and an appropriate seal.

## Slippery Surfaces

Both slips and trips result from some a kind of unintended or unexpected change in the contact between the feet and the ground or walking surface. This shows that good housekeeping, quality of walking surfaces (flooring), selection of proper footwear, and appropriate pace of walking are critical for preventing fall accidents.

Slips happen where there is too little friction or traction between the footwear and the walking surface. Common causes of slips are:

- wet or oily surfaces
- occasional spills
- weather hazards
- loose, unanchored rugs or mats
- flooring or other walking surfaces that do not have same degree of traction in all areas

Weather-related slips and falls become a serious hazard as winter conditions often make for wet or icy surfaces outdoors. Even wet leaves or mud can create treacherous walking conditions. Spills and leaks inside can also lead to slips and falls.

- Evaluate the work area to identify any conditions that may pose a slip hazard.
- Address any spills, drips or leaks immediately.
- Mark areas where slippery conditions exist.
- Select proper footwear or enhance traction with additional PPE.

Where conditions are uncertain or environmental conditions result in slippery surfaces walk slowly, take small steps, and slide feet on wet or slippery surfaces.

## Congested Area

- Provide barricades, fencing, warning signs or signals and adequate lighting to protect people while working in or around congested areas.
- Vehicles and heavy equipment with restricted views to the rear should have functioning back-up alarms that are audible above the surrounding noise levels. Whenever possible, use a signaler to assist heavy equipment operators and/or drivers in backing up or maneuvering in congested areas.
- Lay out traffic control patterns to eliminate excessive congestion.
- Workers in congested areas must wear high visibility clothing at all times.
- Be aware of Line of Fire hazards when performing work activities in congested areas.
- Hazards associated with SIMOPs should be discussed daily at Tailgate Safety Meetings.

## AIR MONITORING

Community air monitoring may be conducted in compliance with the NYSDOH Generic CAMP outlined below:

Monitoring for dust and odors will be conducted during all ground intrusive activities by the FTL. Continuous monitoring on the perimeter of the work zones for odor, VOCs, and dust may be required for all ground intrusive activities such as soil excavation and handling activities. The work zone is defined as the general area in which machinery is operating in support of remediation activities. A portable PID will be used to monitor the work zone and for periodic monitoring for VOCs during activities such as soil and groundwater sampling and soil excavation.

The site perimeter will be monitored for fugitive dust emissions by visual observations as well as instrumentation measurements (if required). When required, particulate or dust will be monitored continuously with real-time field instrumentation that will meet, at a minimum, the performance standards from DER-10 Appendix 1B.

If VOC monitoring is required, the following actions will be taken based on VOC levels measured:

- If total VOC levels exceed 5 ppm above background for the 15-minute average at the perimeter, work activities will be temporarily halted and monitoring continued. If levels readily decrease (per instantaneous readings) below 5 ppm above background, work activities will resume with continued monitoring.
- If total VOC levels at the downwind perimeter of the hot zone persist at levels in excess of 5 ppm above background but less than 25 ppm, work activities will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps work activities will resume provided that the total organic vapor level 200 feet downwind of the hot zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less – but in no case less than 20 feet, is below 5 ppm above background for the 15-minute average.
- If the total VOC level is above 25 ppm at the perimeter of the hot zone, activities will be shut down.

If dust monitoring with field instrumentation is required, the following actions will be taken based on instrumentation measurements:

- If the downwind particulate level is 100 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression must be employed. Work may continue with dust suppression techniques provided that downwind PM10 levels do not exceed  $150 \mu\text{g}/\text{m}^3$  above the background level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM10 levels are greater than  $150 \mu\text{g}/\text{m}^3$  above the background level, work must be stopped and a reevaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM10 concentration to within  $150 \mu\text{g}/\text{m}^3$  of the upwind level and in preventing visible dust migration.

## VAPOR EMISSION RESPONSE

If the ambient air concentration of organic vapors exceeds 5 ppm above background, activities will be halted or odor controls will be employed and monitoring continued. Work practices to minimize odors and vapors include limiting the time that the excavations remain open, minimizing stockpiling of contaminated-source soil, and minimizing the handling of contaminated material. Offending odor and organic vapor controls may include the application of foam suppressants or tarps over the odor or VOC source areas. Foam suppressants may include biodegradable foams applied over the source material for short-term control of the odor and VOCs.

If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: direct load-out of soils to trucks for off-site disposal; use of chemical odorants in spray or misting systems; and, use of staff to monitor odors in surrounding neighborhoods.

If the organic vapor level decreases below 5 ppm above background, sampling and boring and well installation can resume, provided:

- The organic vapor level 200 feet downwind of the hot zone or half the distance to the nearest residential or commercial structure, whichever is less, is below 1 ppm over background, and
- More frequent intervals of monitoring, as directed by the HSO or FTL, are conducted

If any organic levels greater than 5 ppm over background are identified 200 feet downwind from the work site, or half the distance to the nearest residential or commercial property, whichever is less, all work activities must be halted, or odor controls must be implemented.

If, following the cessation of the work activities, or as the result of an emergency, organic levels persist above 5 ppm above background 200 feet downwind or half the distance to the nearest residential or commercial property from the hot zone, then the air quality must be monitored within 20 feet of the perimeter of the nearest residential or commercial structure (20 Foot Zone). If either of the following criteria is exceeded in the 20 Foot Zone, then the Major Vapor Emission Response Plan shall automatically be implemented.

- Sustained organic vapor levels approaching 5 ppm above background for a period of more than 30 minutes, or
- Organic vapor levels greater than 5 ppm above background for any time period.

Upon activation, the following tasks will occur:

- The local police authorities will immediately be contacted by the HSO or FTL and advised of the situation;
- Frequent air monitoring will be conducted at 30-minute intervals within the 20 Foot Zone. If two successive readings below action levels are measured, air monitoring may be halted or modified by the HSO or FTL; and
- All Emergency contacts will go into effect as appropriate.

## DUST SUPPRESSION TECHNIQUES



Preventative measures for dust generation may include wetting site fill and soil, construction of an engineered construction entrance with gravel pad, a truck wash area, covering soils with tarps, and limiting vehicle speeds to five miles per hour.

#### **PERSONAL EXPOSURE MONITORING**

No asbestos, lead-based paint, or radiological hazards have been identified within the vicinity of the proposed excavation area at the Site (see Section 2.0). Therefore, personal exposure monitoring is not required during excavation.

## PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment (PPE) will be donned as detailed below for the activities covered by this CHASP. Based on available analytical data and the proposed intrusive activities, the contractor anticipates that all activities will require Level D or Modified Level D PPE.

### GENERAL SITE WORK

General Site work conducted outside the soil excavation areas, operators of heavy equipment, and non-intrusive activities which do not generate dust will require Level D protective equipment. Level D is defined as:

- Steel-toed boots
- Hardhat
- Eye protection
- Hearing protection (carried on person at all time and donned when appropriate)
- Work clothes (sleeved shirts and pants)

Workers shall wear appropriate hearing protection during designated hearing protection-required tasks (such as, jack hammering, pile driving etc.). To reduce the exposure to noise, personnel working in areas of excessive noise must use hearing protectors (earplugs or earmuffs) in accordance with the CSMP. When lacking actual data from sound level meters or noise dosimeters is unavailable, if it is necessary to raise one's voice above a normal conversational level to communicate with others within 3 to 5 feet away, hearing protection should be worn.

### EXCAVATION AREAS AND OTHER SOIL HANDLING

Personnel working in the areas of excavation, but not operating heavy equipment, and any other personnel potentially contacting contaminated materials will be required to wear Modified Level D PPE. Modified Level D PPE provides minimal skin protection (i.e., hand/glove protection along with standard work clothes with optional coveralls). Modified Level D is defined as:

- Hardhat
- Eye protection
- Hearing protection (as warranted see above)
- Steel-toed work boots
- Tyvek Coveralls
- Disposable nitrile chemically resistant gloves

Increased PPE, such as Level C or Level B, is not anticipated to be required on the Site.

## SITE CONTROL

The overall purpose of site control is to minimize potential contamination of workers, protect the public from the site's hazards, and prevent vandalism. Site control is especially important in emergency situations. The degree of site control necessary depends on site characteristics, site size, and the surrounding community. The following information identifies the elements used to control the activities and movements of people and equipment at the project site.

<b>Communication</b>
<b>Internal</b> H&A site personnel will communicate with other H&A staff member and/or subcontractors or contractors with: <ul style="list-style-type: none"><li>• Face-to-Face Communication at a minimum of 6ft distance</li></ul>
<b>External</b> H&S site personnel will use the following means to communicate with off-site personnel or emergency services. <ul style="list-style-type: none"><li>• Cell Phones</li></ul>
<b>Visitors</b>
<b>Project Site</b> Will visitors be required to check-in prior to accessing the project site? <ul style="list-style-type: none"><li>• Yes</li><li>• All Visitors shall be briefed on COVID-19 protocols and PPE. Visitors not briefed, or that do not have the appropriate PPE will be asked to leave the site.</li></ul>
<b>Visitor Access</b> Authorized visitors that require access to the project site need to be provided with known information with respect to the site operations and hazards as applicable to the purpose of their site visit. Authorized visitors must have the required PPE and appropriate training to access the project site.
<b>Zoning</b>
<b>Work Zone</b> The work zone will be clearly delineated to ensure that the general public or unauthorized worker access is prevented. The following will be used: <ul style="list-style-type: none"><li>• Flagging tape</li><li>• Cones</li><li>• Proper Signage</li></ul>
<b>Project Site - Access</b>
<b>Work Hours</b> The following measure(s) will be used to control site entry and exit during site hours. <ul style="list-style-type: none"><li>• Site is gated and fenced</li></ul>
<b>After Hours</b> The following measure(s) will be used to control site entry and exit during hours that the site is not operating.

- None

**Site Traffic Control**

Is the work planned to be conducted on a public roadway or a public right-of-way?

- No

## DECONTAMINATION AND WORK ZONES

Work zones are intended to control the potential spread of contamination throughout the site and to assure that only authorized individuals are permitted into potentially hazardous areas. Any person working in an area where the potential for exposure to site contaminants exists will only be allowed access after providing the HSO with proper training and medical documentation.

**Work zones** on Site will be temporary or dynamic, encompassing the work area(s) actively being worked in on that particular day(s). Site personnel will be advised of the current work area(s) as part of site safety meetings.

**Exclusion Zone (EZ)** is the area where contamination does or could occur. Decontamination of field equipment will also be conducted in the Contaminant Reduction Zone (CRZ) which will be located on the perimeter of the EZ. The EZ and the CRZ will be clearly delineated by cones, tapes, or other means.

**Support zone** will consist of an area outside the areas of excavation and soil handling, where equipment and support vehicles will be located. Eating, drinking, and smoking will be permitted only in this area and not in the work zone. Sanitary facilities will be located on Site. In addition, potable water and water and soap for hand washing will be available on Site.

## OTHER SITE CONTROL AND SAFETY MEASURES

The following measures are designed to augment the specific health and safety guidelines provided in this plan. These issues will form the basis of the Site coordination and daily safety meetings discussed (Section 7.4).

- The Site hazards will be evaluated by the Client's Project Superintendent using the Site Safety Checklist as defined by the CSMP.
- No one is to perform field work alone. Team members must be intimately familiar with the procedures for initiating an emergency response.
- Avoidance of contamination is of the utmost importance. Whenever possible, avoid contact with contaminated (or potentially contaminated) surfaces or materials. Walk around (not through) puddles and dis-colored surfaces. Do not kneel on the ground or set equipment on the ground.
- Eating, drinking, chewing gum or tobacco, smoking or any practice that increases the probability of hand-to-mouth transfer and ingestion of materials is prohibited except in the support zone after proper decontamination as defined in Section 6.0.
- The use of alcohol or drugs is prohibited during the conduct of field operations.
- Safety equipment (PPE) will be required for all field personnel unless otherwise approved by the subcontractor's health and safety representatives and/or the Project Superintendent.

## SITE SECURITY

The Site shall be unoccupied during Site work except for Contractor personnel and subcontractors. If possible, access to the work areas during field work will be limited by closing site gates to reduce unauthorized pedestrian traffic. The Client's Project Superintendent is responsible for identifying the presence of all employees on Site.

Equipment left on Site during off hours must be locked, immobilized and/or otherwise secured to prevent theft or unauthorized use or access. The Contractor and subcontractors' employees will not be permitted on Site during off-hours without specific client approval.

### **PERSONAL DECONTAMINATION STATION**

Personal decontamination will be conducted by following a systematic procedure of cleaning and removal of PPE. The Contractor will supply decontamination equipment to allow PPE to be brushed to remove gross contamination and then scrubbed clean in a detergent solution and then rinsed clean. To facilitate this, a three-basin wash system will be set up on site by the Contractor.

Disposable PPE, such as Tyvek coveralls, gloves, and hearing protection, etc. will be placed in trash bags in an on-Site container pending a disposal. Alternative chemical decontamination procedures, such as steam-cleaning reusable rubber outer boots, may be used if necessary. Steps required in a decontamination sequence will depend on the level of protection worn in accordance with Section 4.0:

1. Remove and wipe clean hard hat
2. Brush boots and gloves of gross contamination
3. Scrub boots and gloves clean
4. Rinse boots and gloves
5. Dry non-disposable equipment with paper towels
6. Remove Tyvek coveralls
7. Remove eye protection
8. Remove chemically resistant gloves

### **EQUIPMENT DECONTAMINATION**

Hand tools and portable equipment will be decontaminated upon leaving the site using the same procedures for personal decontamination. Wooden tools are difficult to decontaminate because they absorb chemicals. Wooden hand tools will be kept on Site for the project duration and handled only by protected workers. At the end of the Site activities, wooden tools will be discarded if they cannot be decontaminated properly.

Large equipment (i.e. trucks, vehicles, etc.) will be decontaminated in an area near the entrance to the Site. Decontamination of large equipment will mitigate the risk of spreading potentially contaminated soil off-Site. The contractor will use a combination of long-handled brushes, rods and shovels for general exterior cleaning and dislodging contaminated soil caught in tires and the undersides of vehicles and equipment.

Prior to leaving the Site, large equipment will be inspected to assure that excess material has not adhered to the equipment. If needed, the contractor will clean the large equipment, including washing tires and undercarriages with a hose to remove excess adhered soil prior to leaving the Site. Exposed excavated material will be covered on each truck after loading. The cover will be secured and remain in place until the container has reached the disposal facility.

## **MEDICAL MONITORING AND TRAINING REQUIREMENTS**

Training records for Site personnel and subcontractors shall be provided by the Contractor prior to on-Site work and will be maintained on Site.

### **MEDICAL MONITORING**

Respiratory protection is not required by the levels of soil contamination. Therefore, no medical monitoring requirements will be instituted for this project.

### **TRAINING**

All personnel covered by this CHASP must have completed the appropriate training requirements specified in 29 CFR 1910.1200 Hazard Communication and 29 CFR 1910.120(e).

Completion of the 40-hour HAZWOPER training program as detailed in OSHA's 29 CFR 1910.120(e) is required for all employees as well as an annual 8-hour refresher training required to maintain competency and ensure a safe work environment. In addition, all employees must complete the OSHA 10-hour Construction Safety and Health training. Site specific training will also be provided including summary of the site hazards, chemical hazards, site layout, rally points, etc. for all new employees entering the site.

Also, at least one contractor employee must be on Site during all activities to act as the Site Foreman and will be responsible for identifying existing and predictable hazards in surroundings or working conditions that are unsanitary, hazardous, or dangerous to Site workers and or the community, and will have the authorization to take prompt corrective measures to eliminate them. This individual must have documentation of at least three days of supervised field experience as well as completion of the specified 8-hour training course for managers and supervisors. Records of certifications and training should be kept by the Contractor.

### **SUBCONTRACTORS**

Subcontractors will be required to provide to the Contractor Project (Site) Manager specific written documentation that each individual assigned to this project has completed the medical monitoring and training requirements specified above. This information must be provided prior to their performing any work on site.

### **SITE SAFETY MEETINGS**

Prior to the commencement of on-Site investigative activities, a Site safety meeting will be held to review the specific requirements of this CHASP. Sign-off sheets will be collected at this meeting (see Appendix A). Short safety refresher meetings will be conducted daily or as conditions or work activates change. In addition, the Project Superintendent will document that Site visitors have had the required training in accordance with 29 CFR 1910.120 and will provide documented pre-entry safety briefings.

## EMERGENCY ACTION

OSHA defines emergency response as any "response effort by employees from outside the immediate release area or by other designated responders (i.e., mutual-aid groups, local fire departments, etc.) to an occurrence which results, or is likely to result in an uncontrolled release of a hazardous substance." The Contractor personnel covered by this CHASP may not participate in any emergency response where there are potential safety or health hazards (i.e., fire, explosion, or chemical exposure). The Contractor response actions will be limited to evacuation and medical/first aid as described within this section below.

The basic elements of an emergency evacuation plan include employee training, alarm systems, escape routes, escape procedures, critical operations or equipment, rescue and medical duty assignments, designation of responsible parties, emergency reporting procedures, and methods to account for all employees after evacuation.

### EMPLOYEE INFORMATION

General training regarding emergency evacuation procedures are included in the Contractor initial and refresher training courses. Also as described, employees must be instructed in the specific aspects of emergency evacuation applicable to the Site as part of the site safety meeting prior to the commencement of all on-site activities. On-Site refresher or update training is required anytime escape routes or procedures are modified or personnel assignments are changed. This information will be provided during the Site safety meetings (see Section 7.4) will be documented by the contractor.

### EMERGENCY SIGNAL AND ALARM SYSTEM

An emergency communication system must be in effect at all sites. The most simple and effective emergency communication system in many situations will be direct verbal communications. Each site must be assessed at the time of initial Site activity and periodically as the work progresses. Verbal communications must be supplemented anytime voices cannot be clearly perceived above ambient noise levels (i.e., noise from heavy equipment, trucks, etc.) and anytime a clear line-of-sight cannot be easily maintained amongst all personnel because of distance, terrain or other obstructions. The Contractor will maintain an air horn (or whistle) on-Site that will be used to signal an emergency so that it can be heard over other construction noises on-Site.

### EMERGENCY CONTACTS

Police:	911
Fire:	911
Ambulance:	911
Woodhull Hospital:	718-963-8000 (non-emergency)

### HOSPITAL LOCATION

The Woodhull Hospital is located at 760 Broadway, Brooklyn, NY 11206. A hospital route map is included in the Emergency Information Section of this CHASP.



## **INCIDENT REPORTING PROCEDURES**

Any incident (other than minor first aid treatment) resulting in injury, illness or property damage requires an accident investigation and report. The investigation should be initiated as soon as emergency conditions are under control. The purpose of this investigation is not to attribute blame but to determine the pertinent facts so that repeat or similar occurrences can be avoided.

The investigation should begin while details are still fresh in the mind of anyone involved. The person administering first aid may be able to start the fact gathering process if the injured are able to speak. Pertinent facts must be determined. Questions beginning with who, what, when, where, and how are usually most effective to discover ways to improve job performance in terms of efficiency and quality of work, as well as safety and health concerns.

## **SPILL CONTROL**

Small spills/releases will be contained as close to the source as possible and an MSDS will be reviewed to determine the proper containment and clean up procedures. Procedures for containment can include sorbent materials such as sorbent pads and sand. Contractors should maintain spill kits for potential releases from on site vehicles. In the event a spill cannot be contained and is above the reportable requirements, NYSDEC will be notified.

# APPENDICES

**Appendix A** – Emergency Response Plan

**Appendix B** – Acknowledgement Form

# APPENDIX A: EMERGENCY RESPONSE PLAN

## Medical

If there is an injury or illness associated with an H&A staff member on the job-site stop work, stabilize the situation and secure the site. Assess the severity of the injury or illness to determine the appropriate course of action as listed below.

### First Aid Injury

First aid will be addressed using the on-site first aid kit. H&A employees are not required or expected to administer first aid/CPR to any H&A staff member, Contractor, or Civilian personnel at any time and it is H&A's position that those who do are doing it do so on their behalf and not as a function of their job.

- Injury or illness requiring clinic/hospital visit **WITHOUT** ambulance service

Injuries or illnesses requiring hospital service without ambulance services include minor lacerations, minor sprains, etc. The following action will be taken:

- The H&A SSO will ensure prompt transportation of the injured person to the clinic or hospital identified in the safety plan.
- Another H&A staff member, or contractor on-site, will always drive the injured staff member to the medical facility and remain at the facility until the staff member has been discharged. Staff members will not self-transport to the clinic or hospital.
- If the injured staff member is able to return to the job site the same day, he/she will bring with him/her a statement from the doctor containing such information as:
  - Date
  - Employee's name
  - Diagnosis
  - Date he/she is able to return to work, regular or light duty
  - Date he/she is to return to doctor for follow-up appointment, if necessary
  - Signature and address of doctor

### Injury or illness requiring a hospital visit **WITH** ambulance service

Injuries or illnesses requiring hospital service with ambulance services include severe head injuries, severe lacerations, heart attacks, heat stroke, etc. The following steps will be taken immediately:

- Call for ambulance service and notify the H&A SSO.
- Comfort the individual until ambulance service arrives.
- While the injured employee is being transported, the H&A SSO will contact the medical facility to be utilized.
- One designated representative will accompany the injured employee to the medical facility and remain at the facility until final diagnosis and other relevant information is obtained.

### Notifications

For all injuries or illness notify the SSO and PM who in turn will contact Corporate H&S. Within 24 hours the injured staff member or PM will complete the H&S Reporting Form found on HANK. Minor cuts, scratches, and bruises shall also be reported through the H&S Reporting Form. Notify the client in accordance with their notification protocol. Depending on severity, Human Potential will as promptly as possible following an injury or illness, ensure appropriate notification has been made to the family of the individual involved.

### **Severe Weather**

Where the threat of electrical storms and the hazard of lightning exist, staff shall ensure that there is the ability to detect when lightning is in the near vicinity and when there is a potential for lightning and to notify appropriate site personnel of these conditions. The weather forecast will be checked on a daily basis and communicated at the daily safety tailgate meetings.

When lightning is detected or observed the information will be communicated to all crews in the field for appropriate action. Field supervisors will make the decision to stay put or to leave the work site. A location will be identified to marshal field staff in the event that staff are required to leave the job site. A similar decision process will be used during heavy rain events.

Staff shall seek appropriate shelter and not stay in the open

### **Evacuation Alarms**

Verbal Communication will be used to communicate the evacuation alarm.

### **Emergency Services**

Cellular phone will be used to contact Emergency Services.

### **Emergency Evacuation Plan**

The site evacuation plan is as follows:

1. Establish a designated meeting area to conduct a head count in the event of an emergency evacuation.
2. If the work area is not near an emergency exit, exit via the closest route and meet at the designated meeting area.
3. Notify emergency response personnel (fire, police and ambulance) of the number of missing or unaccounted for employees and their suspected location.
4. Administer first aid will in the meeting area as necessary.

Under no circumstances should any personnel re-enter the site area without the approval of the corporate H&S manager, the H&S coordinator, and the fire department official in charge.

# ROLES AND RESPONSIBILITIES

## REGIONAL HEALTH AND SAFETY MANAGER (RHSM)

The Haley & Aldrich RHSM, Brian Ferguson, is a full-time Haley & Aldrich staff member, trained as a safety and health professional, who is responsible for the interpretation and approval of this Safety Plan. Modifications to this Safety Plan cannot be undertaken by the PM or the SSO without the approval of the RHSM.

Specific duties of the RHSM include:

- Approving and amending the Safety Plan for this project
- Advising the PM and SSOs on matter relating to health and safety
- Recommending appropriate personal protective equipment (PPE) and air monitoring instrumentation
- Maintaining regular contact with the PM and SSO to evaluate the conditions at the property and new information which might require modifications to the HASP and
- Reviewing and approving JSAs developed for the site-specific hazards.

## PROJECT MANAGER (PM)

The Haley & Aldrich PM, Mari Cate Conlon, is responsible for ensuring that the requirements of this HASP are implemented at that project location. Some of the PM's specific responsibilities include:

- Assuring that all personnel to whom this HASP applies have received a copy of it;
- Providing the RHSM with updated information regarding environmental conditions at the site and the scope of site work;
- Providing adequate authority and resources to the on-site SSO to allow for the successful implementation of all necessary safety procedures;
- Supporting the decisions made by the SSO;
- Maintaining regular communications with the SSO and, if necessary, the RHSM;
- Coordinating the activities of all subcontractors and ensuring that they are aware of the pertinent health and safety requirements for this project;
- Providing project scheduling and planning activities; and
- Providing guidance to field personnel in the development of appropriate Job Safety Analysis (JSA) relative to the site conditions and hazard assessment.

## SITE SAFETY OFFICER

The SSO, Sarah Commisso, is responsible for field implementation of this HASP and enforcement of safety rules and regulations. SSO functions may include some or all:

- Act as H&A's liaison for health and safety issues with client, staff, subcontractors, and agencies.
- Verify that utility clearance has been performed by H&A subcontractors.
- Oversee day-to-day implementation of the Safety Plan by H&A personnel on site.
- Interact with subcontractor project personnel on health and safety matters.
- Verify use of required PPE as outlined in the safety plan.
- Inspect and maintain H&A safety equipment, including calibration of air monitoring instrumentation used by H&A.

- Perform changes to HASP and document as needed and notify appropriate persons of changes.
- Investigate and report on-site accidents and incidents involving H&A and its subcontractors.
- Verify that site personnel are familiar with site safety requirements (e.g., the hospital route and emergency contact numbers).
- Report accidents, injuries, and near misses to the H&A PM and Regional Health and Safety Manager (RHSM) as needed.

The SSO will conduct initial site safety orientations with site personnel (including subcontractors) and conduct toolbox and safety meetings thereafter with H&A employees and H&A subcontractors at regular intervals and in accordance with H&A policy and contractual obligations. The SSO will track the attendance of site personnel at H&A orientations, toolbox talks, and safety meetings.

### **FIELD PERSONNEL**

Haley & Aldrich personnel are responsible for following the health and safety procedures specified in this HASP and for performing their work in a safe and responsible manner. Some of the specific responsibilities of the field personnel are as follows:

- Reading the HASP in its entirety prior to the start of on-site work;
- Submitting a completed Safety Plan Acceptance Form and documentation of medical surveillance and training to the SSO prior to the start of work;
- Attending the pre-entry briefing prior to beginning on-site work;
- Bringing forth any questions or concerns regarding the content of the Safety Plan to the PM or the SSO prior to the start of work;
- Stopping work when it is not believed it can be performed safely;
- Reporting all accidents, injuries and illnesses, regardless of their severity, to the SSO;
- Complying with the requirements of this safety plan and the requests of the SSO; and
- Reviewing the established JSAs for the site-specific hazards on a daily basis and prior to each shift change, if applicable.

### **VISITORS**

Authorized visitors (e.g., Client Representatives, Regulators, Haley & Aldrich management staff, etc.) requiring entry to any work location on the site will be briefed by the Site Supervisor on the hazards present at that location. Visitors will be escorted at all times at the work location and will be responsible for compliance with their employer's health and safety policies. In addition, this safety plan specifies the minimum acceptable qualifications, training and personal protective equipment which are required for entry to any controlled work area; visitors must comply with these requirements at all times. Unauthorized visitors, and visitors not meeting the specified qualifications, will not be permitted within established controlled work areas.

# APPENDIX B: HEALTH & SAFETY PLAN ACKNOWLEDGEMENT FORM

**Note: Only H&A employees sign this page.**

I hereby acknowledge receipt and briefing on this Health & Safety Plan prior to the start of on-site work and declare that I understand and agree to follow the provisions and procedures set forth herein while working on this site.

**PRINTED NAME**

**SIGNATURE**

**DATE**

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## **APPENDIX F**

### **Citizen Participation Plan**





Department of  
Environmental  
Conservation

# **Brownfield Cleanup Program**

## **Citizen Participation Plan for Former NuHart East Site**

December 2021

NYSDEC BCP SITE #C224287  
22-32 Clay Street & 67-93 Dupont Street  
Greenpoint, Brooklyn, NY 11222

## Contents

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**Note:** The information presented in this Citizen Participation Plan was current as of the date of its approval by the New York State Department of Environmental Conservation. Portions of this Citizen Participation Plan may be revised during the site's investigation and cleanup process.

Applicant: **Dupont Street 1 LLC (“Applicant”)**  
Site Name: **Former NuHart East Site (“Site”)**  
Site Address: **22-32 Clay Street & 67-93 Dupont Street**  
Site County: **Kings**  
Site Number: **C224287**

## **1. What is New York’s Brownfield Cleanup Program?**

New York’s Brownfield Cleanup Program (BCP) works with private developers to encourage the voluntary cleanup of contaminated properties known as “brownfields” so that they can be reused and developed. These uses include recreation, housing, and business.

A *brownfield* is any real property that is difficult to reuse or redevelop because of the presence or potential presence of contamination. A brownfield typically is a former industrial or commercial property where operations may have resulted in environmental contamination. A brownfield can pose environmental, legal, and financial burdens on a community. If a brownfield is not addressed, it can reduce property values in the area and affect economic development of nearby properties.

The BCP is administered by the New York State Department of Environmental Conservation (NYSDEC) which oversees Applicants who conduct brownfield site investigation and cleanup activities. An Applicant is a person who has requested to participate in the BCP and has been accepted by NYSDEC. The BCP contains investigation and cleanup requirements, ensuring that cleanups protect public health and the environment. When NYSDEC certifies that these requirements have been met, the property can be reused or redeveloped for the intended use.

For more information about the BCP, go online at: <http://www.dec.ny.gov/chemical/8450.html>.

## 2. Citizen Participation Activities

### *Why NYSDEC Involves the Public and Why It Is Important*

NYSDEC involves the public to improve the process of investigating and cleaning up contaminated sites, and to enable citizens to participate more fully in decisions that affect their health, environment, and social well-being. NYSDEC provides opportunities for citizen involvement and encourages early two-way communication with citizens before decision makers form or adopt final positions.

Involving citizens affected and interested in site investigation and cleanup programs is important for many reasons. These include:

- Promoting the development of timely, effective site investigation and cleanup programs that protect public health and the environment
- Improving public access to, and understanding of, issues and information related to a particular site and that site's investigation and cleanup process
- Providing citizens with early and continuing opportunities to participate in NYSDEC's site investigation and cleanup process
- Ensuring that NYSDEC makes site investigation and cleanup decisions that benefit from input that reflects the interests and perspectives found within the affected community
- Encouraging dialogue to promote the exchange of information among the affected/interested public, State agencies, and other interested parties that strengthens trust among the parties, increases understanding of site and community issues and concerns, and improves decision making.

This Citizen Participation (CP) Plan provides information about how NYSDEC will inform and involve the public during the investigation and cleanup of the site identified above. The public information and involvement program will be carried out with assistance, as appropriate, from the Applicant.

### *Project Contacts*

Appendix A identifies NYSDEC project contact(s) to whom the public should address questions or request information about the site's investigation and cleanup program. The public's suggestions about this CP Plan and the CP program for the site are always welcome. Interested

people are encouraged to share their ideas and suggestions with the project contacts at any time.

### *Locations of Reports and Information*

The locations of the reports and information related to the site's investigation and cleanup program also are identified in Appendix A. These locations provide convenient access to important project documents for public review and comment. Some documents may be placed on the NYSDEC web site. If this occurs, NYSDEC will inform the public in fact sheets distributed about the site and by other means, as appropriate.

### *Site Contact List*

Appendix B contains the site contact list. This list has been developed to keep the community informed about, and involved in, the site's investigation and cleanup process. The site contact list will be used periodically to distribute fact sheets that provide updates about the status of the project. These will include notifications of upcoming activities at the site (such as fieldwork), as well as availability of project documents and announcements about public comment periods. The site contact list includes, at a minimum:

- Chief executive officer and planning board chairperson of each county, city, town and village in which the site is located;
- Residents, owners, and occupants of the site and properties adjacent to the site;
- The public water supplier which services the area in which the site is located;
- Any person who has requested to be placed on the site contact list;
- The administrator of any school or day care facility located on or near the site for purposes of posting and/or dissemination of information at the facility;
- Location(s) of reports and information.

The site contact list will be reviewed periodically and updated as appropriate. Individuals and organizations will be added to the site contact list upon request. Such requests should be submitted to the NYSDEC project contact(s) identified in Appendix A. Other additions to the site contact list may be made at the discretion of the NYSDEC project manager, in consultation with other NYSDEC staff as appropriate.

**Note:** The first site fact sheet (usually related to the draft Remedial Investigation Work Plan) is distributed both by paper mailing through the postal service and through DEC Delivers, its email listserv service. The fact sheet includes instructions for signing up with the appropriate county listserv to receive future notifications about the site. See <http://www.dec.ny.gov/chemical/61092.html> .

Subsequent fact sheets about the site will be distributed exclusively through the listserv, except for households without internet access that have indicated the need to continue to receive site information in paper form. Please advise the NYSDEC site project manager identified in Appendix A if that is the case. Paper mailings may continue during the investigation and cleanup process for some sites, based on public interest and need.

### *CP Activities*

The table at the end of this section identifies the CP activities, at a minimum, that have been and will be conducted during the site's investigation and cleanup program. The flowchart in Appendix D shows how these CP activities integrate with the site investigation and cleanup process. The public is informed about these CP activities through fact sheets and notices distributed at significant points during the program. Elements of the investigation and cleanup process that match up with the CP activities are explained briefly in Section 5.

- **Notices and fact sheets** help the interested and affected public to understand contamination issues related to a site, and the nature and progress of efforts to investigate and clean up a site.
- **Public forums, comment periods and contact with project managers** provide opportunities for the public to contribute information, opinions and perspectives that have potential to influence decisions about a site's investigation and cleanup.

The public is encouraged to contact project staff at any time during the site's investigation and cleanup process with questions, comments, or requests for information.

This CP Plan may be revised due to changes in major issues of public concern identified in Section 3 or in the nature and scope of investigation and cleanup activities. Modifications may include additions to the site contact list and changes in planned citizen participation activities.

### *Technical Assistance Grant*

NYSDEC must determine if the site poses a significant threat to public health or the environment. This determination generally is made using information developed during the investigation of the site, as described in Section 5.

If the site is determined to be a significant threat, a qualifying community group may apply for a Technical Assistance Grant (TAG). The purpose of a TAG is to provide funds to the qualifying group to obtain independent technical assistance. This assistance helps the TAG recipient to

interpret and understand existing environmental information about the nature and extent of contamination related to the site and the development/implementation of a remedy.

An eligible community group must certify that its membership represents the interests of the community affected by the site, and that its members' health, economic well-being, or enjoyment of the environment may be affected by a release or threatened release of contamination at the site.

As of the date the declaration (page 2) was signed by the NYSDEC project manager, the significant threat determination for the site had not yet been made.

To verify the significant threat status of the site, the interested public may contact the NYSDEC project manager identified in Appendix A.

For more information about TAGs, go online at <http://www.dec.ny.gov/regulations/2590.html>

Note: The table identifying the citizen participation activities related to the site's investigation and cleanup program follows on the next page:

Citizen Participation Activities	Timing of CP Activity(ies)
<b>Application Process:</b>	
<ul style="list-style-type: none"> <li>• Prepare site contact list</li> <li>• Establish document repository(ies)</li> </ul>	At time of preparation of application to participate in the BCP.
<ul style="list-style-type: none"> <li>• Publish notice in Environmental Notice Bulletin (ENB) announcing receipt of application and 30-day public comment period</li> <li>• Publish above ENB content in local newspaper</li> <li>• Mail above ENB content to site contact list</li> <li>• Conduct 30-day public comment period</li> </ul>	When NYSDEC determines that BCP application is complete. The 30-day public comment period begins on date of publication of notice in ENB. End date of public comment period is as stated in ENB notice. Therefore, ENB notice, newspaper notice, and notice to the site contact list should be provided to the public at the same time.
<b>After Execution of Brownfield Site Cleanup Agreement (BCA):</b>	
<ul style="list-style-type: none"> <li>• Prepare Citizen Participation (CP) Plan</li> </ul>	Before start of Remedial Investigation <b>Note:</b> Applicant must submit CP Plan to NYSDEC for review and approval within 20 days of the effective date of the BCA.
<b>Before NYSDEC Approves Remedial Investigation (RI) Work Plan:</b>	
<ul style="list-style-type: none"> <li>• Distribute fact sheet to site contact list about proposed RI activities and announcing 30-day public comment period about draft RI Work Plan</li> <li>• Conduct 30-day public comment period</li> </ul>	Before NYSDEC approves RI Work Plan. If RI Work Plan is submitted with application, public comment periods will be combined and public notice will include fact sheet. Thirty-day public comment period begins/ends as per dates identified in fact sheet.
<b>After Applicant Completes Remedial Investigation:</b>	
<ul style="list-style-type: none"> <li>• Distribute fact sheet to site contact list that describes RI results</li> </ul>	Before NYSDEC approves RI Report
<b>Before NYSDEC Approves Remedial Work Plan (RWP):</b>	
<ul style="list-style-type: none"> <li>• Distribute fact sheet to site contact list about draft RWP and announcing 45-day public comment period</li> <li>• Public meeting by NYSDEC about proposed RWP (if requested by affected community or at discretion of NYSDEC project manager)</li> <li>• Conduct 45-day public comment period</li> </ul>	Before NYSDEC approves RWP. Forty-five day public comment period begins/ends as per dates identified in fact sheet. Public meeting would be held within the 45-day public comment period.
<b>Before Applicant Starts Cleanup Action:</b>	
<ul style="list-style-type: none"> <li>• Distribute fact sheet to site contact list that describes upcoming cleanup action</li> </ul>	Before the start of cleanup action.
<b>After Applicant Completes Cleanup Action:</b>	
<ul style="list-style-type: none"> <li>• Distribute fact sheet to site contact list that announces that cleanup action has been completed and that NYSDEC is reviewing the Final Engineering Report</li> <li>• Distribute fact sheet to site contact list announcing NYSDEC approval of Final Engineering Report and issuance of Certificate of Completion (COC)</li> </ul>	At the time the cleanup action has been completed. <b>Note:</b> The two fact sheets are combined when possible if there is not a delay in issuing the COC.



### **3. Major Issues of Public Concern**

This section of the CP Plan identifies major issues of public concern that relate to the site. Additional major issues of public concern may be identified during the course of the site's investigation and cleanup process.

Contaminants of concern for the Site include phthalates, chlorinated and petroleum related volatile organic compounds (VOCs), polyaromatic hydrocarbons (PAHs), and metals. To further characterize the impacts to the subsurface, a supplemental remedial investigation will be conducted in accordance with the work plan to be approved by NYSDEC.

Issues of concern are related to the proposed supplemental remedial investigation and interim remedial measures. Potential impacts to community air quality will be posed during the above referenced investigation and remedial site activities. The potential airborne contaminants are petroleum-related volatiles, chlorinated solvents volatiles, and phthalate semi-volatiles. Air quality, dust levels and odors will be monitored during site activities in accordance with the site specific NYSDEC-approved Community Air Monitoring Program (CAMP). Trucks will also avoid resident roads to the extent of possible before entering/ exiting highways to minimize air and noise impacts to the community.

The Site is located in an Environmental Justice Area. Environmental justice is defined as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

Environmental justice efforts focus on improving the environment in communities, specifically minority and low-income communities, and addressing disproportionate adverse environmental impacts that may exist in those communities.

Because there is a large Hispanic-American population near the Site, all future fact sheets will be translated into Spanish. In addition, because there is a large Polish-American population near the Site, all future fact sheets will also be translated into Polish.

For additional information, visit:

<https://popfactfinder.planning.nyc.gov/explorer/tracts/3056301>

#### **4. Site Information**

Appendix C contains a map identifying the location of the site.

##### *Site Description*

The Site is located at 22-32 Clay Street and 67-93 Dupont Street in the Greenpoint neighborhood of Brooklyn, NY. The Site, identified as Section 3, Block 2487, Lots 17, 18, 20, 21, and 57 on the New York City tax map, is 49,000-square feet and situated within special mixed-use district. The Site is bounded by Clay Street followed by industrial and manufacturing buildings to the north, residential apartment buildings to the east, Dupont Street followed by residential apartment buildings and a senior living facility to the south, and the former NuHart Class 2 Inactive Hazardous Waste Site to the west.

##### *History of Site Use, Investigation, and Cleanup*

Since 2004, the Site has been a vacant industrial building which was the eastern portion of the former NuHart plastics manufacturing facility. The Site was developed since at least 1887 and was used for metalworking, manufacturing of light fixtures, soaps, and water proofing materials through 1950. The NuHart East portion of the Site was primarily used for storage and shipping facility operations. From 1950 until 2004, the Site and associated manufacturing buildings to the west were used by the NuHart company for the production, storage, and shipping of plastic and vinyl products.

A series of environmental assessments, investigations, and cleanup has been performed at the Site.

In 2006, five underground storage tanks (USTs) were closed-in-place by Advanced Site Restoration, LLC (ASR). The tanks were emptied, cleaned, and filled with foam.

In 2006, Advanced Site Restoration (ASR) performed a Phase II Site Assessment investigation that includes installation of 15 borings, 5 monitoring wells, and 1 recovery well. The results from soil borings identified elevated levels of volatile organic compounds (VOCs) in soil in the boring located closest to two of the five fuel oil tanks (TK2, TK3). Phthalates and/or VOCs and/or semi-volatile organic compounds (SVOCs) were reported above groundwater standards in all of the monitoring wells located on-site. VOCs were reported above standards in one of the two off-site monitoring wells located in the sidewalk north of the building. Free phase fuel oil was present in the recovery well located adjacent to Tanks TK2 and TK3.

In 2007, Environmental Business Consulting (EBC) performed a Phase II Investigation that includes installation of 10 borings and collection of 20 soil samples from 0-4 ft interval and 0 – 8 ft interval. The report concluded that the fill materials contained elevated levels of metals and SVOCs above unrestricted soil criteria in the upper 5 ft of soil beneath the Site.

In 2015, Ecosystems Strategies performed a remedial investigation including 6 soil borings, 4 monitoring wells, and 3 soil gas implants. The results identified elevated levels of acetone in two samples (close to the former acetone tank) and methylnaphthalene in one. The groundwater sampling revealed elevated concentration of chlorinated solvents in western Site and elevated level of phthalate in eastern Site. Elevated chlorinated compounds were found in two of the three soil gas implants.

In 2016, Roux Associates performed a remedial investigation including collection of 21 soil samples from 8 borings, 5 groundwater samples, and 7 soil vapor samples. Polycyclic Aromatic Hydrocarbons (PAHs), typical compounds related to historic fill, were found above regulatory levels in most of the shallow soil samples. No VOCs above standards was reported in the groundwater samples. Low concentration of petroleum VOCs and chlorinated solvents were reported in the soil vapor samples.

Based on the above referenced site investigation events, known contaminants are summarized below.

- **Soil:** phthalates (chemicals used for plastic manufacturing), petroleum VOCs, PAHs, and metals.
- **Groundwater:** chlorinated solvents and fuel oil free product, chlorinated solvents (chemicals used for cleaning procedures), phthalates, petroleum VOCs, PAHs, metals
- **Soil Vapor:** chlorinated solvents, petroleum VOCs

A Phase I Environmental Site Assessment (Phase I) was completed by Haley & Aldrich in August 2021 for Dupont Street 1 LLC.

The requestor is currently in contract to purchase the Site.

## 5. Investigation and Cleanup Process

### *Application*

The Applicant has applied for and been accepted into New York's Brownfield Cleanup Program as a Volunteer. This means that the Applicant was not responsible for the disposal or discharge of the contaminants or whose ownership or operation of the site took place after the discharge or disposal of contaminants. The Volunteer must fully characterize the nature and extent of contamination onsite, and must conduct a "qualitative exposure assessment," a process that characterizes the actual or potential exposures of people, fish, and wildlife to contaminants on the site and to contamination that has migrated from the site.

The Applicant in its Application proposes that the site will be used for restricted residential purposes.

To achieve this goal, the Applicant will conduct investigation and cleanup activities at the site with oversight provided by NYSDEC. The Brownfield Cleanup Agreement executed by NYSDEC and the Applicant sets forth the responsibilities of each party in conducting these activities at the site.

### *Investigation*

The site has undergone partial site investigations before it entered into the BCP. Additionally, the Applicant will conduct a supplemental investigation of the site officially called a "supplemental remedial investigation" (SRI). This investigation will be performed with NYSDEC oversight and in accordance with a NYSDEC approved SRI Work Plan. The Applicant must develop this workplan, which is subject to public comment.

The site investigation has several goals:

- 1) Define the nature and extent of contamination in soil, surface water, groundwater and any other parts of the environment that may be affected;
- 2) Identify the source(s) of the contamination;
- 3) Assess the impact of the contamination on public health and the environment; and
- 4) Provide information to support the development of a proposed remedy to address the contamination or the determination that cleanup is not necessary.

The Applicant submits a draft "Supplemental Investigation Work Plan" to NYSDEC for review and approval. NYSDEC makes the draft plan available to the public review during a 30-day public comment period.

When the investigation is complete, the Applicant will prepare and submit a report that summarizes the results. This report also will recommend whether cleanup action is needed to address site-related contamination. The investigation report is subject to review and approval by NYSDEC.

NYSDEC will use the information in the investigation report to determine if the site poses a significant threat to public health or the environment. If the site is a “significant threat,” it must be cleaned up using a remedy selected by NYSDEC from an analysis of alternatives prepared by the Applicant and approved by NYSDEC. If the site does not pose a significant threat, the Applicant may select the remedy from the approved analysis of alternatives.

#### *Interim Remedial Measures*

An Interim Remedial Measure (IRM) is an action that can be undertaken at a site when a source of contamination or exposure pathway can be effectively addressed before the site investigation and analysis of alternatives are completed. If an IRM is likely to represent all or a significant part of the final remedy, NYSDEC will require a 30-day public comment period.

#### *Remedy Selection*

When the investigation of the site has been determined to be complete, the project likely would proceed in one of two directions:

1. The Applicant may recommend in its investigation report that no action is necessary at the site. In this case, NYSDEC would make the investigation report available for public comment for 45 days. NYSDEC then would complete its review, make any necessary revisions, and, if appropriate, approve the investigation report. NYSDEC would then issue a “Certificate of Completion” (described below) to the Applicant.

**or**

2. The Applicant may recommend in its investigation report that action needs to be taken to address site contamination. After NYSDEC approves the investigation report, the Applicant may then develop a cleanup plan, officially called a “Remedial Work Plan”. The Remedial Work Plan describes the Applicant’s proposed remedy for addressing contamination related to the site.

When the Applicant submits a draft Remedial Work Plan for approval, NYSDEC would announce the availability of the draft plan for public review during a 45-day public comment period.

### *Cleanup Action*

NYSDEC will consider public comments, and revise the draft cleanup plan if necessary, before approving the proposed remedy. The New York State Department of Health (NYSDOH) must concur with the proposed remedy. After approval, the proposed remedy becomes the selected remedy. The selected remedy is formalized in the site Decision Document.

The Applicant may then design and perform the cleanup action to address the site contamination. NYSDEC and NYSDOH oversee the activities. When the Applicant completes cleanup activities, it will prepare a final engineering report that certifies that cleanup requirements have been achieved or will be achieved within a specific time frame. NYSDEC will review the report to be certain that the cleanup is protective of public health and the environment for the intended use of the site.

### *Certificate of Completion*

When NYSDEC is satisfied that cleanup requirements have been achieved or will be achieved for the site, it will approve the Final Engineering Report (FER). NYSDEC then will issue a Certificate of Completion (COC) to the Applicant. The COC states that cleanup goals have been achieved, and relieves the Applicant from future liability for site-related contamination, subject to certain conditions. The Applicant would be eligible to redevelop the site after it receives a COC.

### *Site Management*

The purpose of site management is to ensure the safe reuse of the property if contamination will remain in place. Site management is the last phase of the site cleanup program. This phase begins when the COC is issued. Site management incorporates any institutional and engineering controls required to ensure that the remedy implemented for the site remains protective of public health and the environment. All significant activities are detailed in a Site Management Plan.

An *institutional control* is a non-physical restriction on use of the site, such as a deed restriction that would prevent or restrict certain uses of the property. An institutional control may be used when the cleanup action leaves some contamination that makes the site suitable for some, but not all uses.

An *engineering control* is a physical barrier or method to manage contamination. Examples include: caps, covers, barriers, fences, and treatment of water supplies.

Site management also may include the operation and maintenance of a component of the remedy, such as a system that pumps and treats groundwater. Site management continues until NYSDEC determines that it is no longer needed.

## **Appendix A - Project Contacts and Locations of Reports and Information**

### **Project Contacts**

For information about the site's investigation and cleanup program, the public may contact any of the following project staff:

#### **New York State Department of Environmental Conservation (NYSDEC):**

**Bryan Wong**

Project Manager  
NYSDEC Region 2  
Division of Environmental Remediation  
47-40 21st Street  
Long Island City, NY 11101  
(718) 482-4905  
Yukyin.wong@dec.ny.gov

**Thomas B. Panzone**

Public Participation Specialist  
NYSDEC Region 2  
1 Hunters Point Plaza  
47-40 21st Street  
Long Island City, NY 11101  
(718) 482-4953  
Thomas.panzone@dec.ny.gov

#### **New York State Department of Health (NYSDOH):**

**Stephen Lawrence**

Project Manager  
Empire State Plaza,  
Corning Tower Rm. 1787  
Albany, NY 12237  
(518) 402-0450  
BEEI@health.ny.gov

### **Locations of Reports and Information**

Project-related documents can be accessed electronically through DECinfo Locator: <https://www.dec.ny.gov/data/DecDocs/C224287>. In addition, the facilities identified below are being used to provide the public with convenient access to important project documents:

Greenpoint Library  
107 Norman Avenue  
Brooklyn, NY 11222  
Phone: 718-389-4394

Brooklyn Public Library  
Williamsburg Branch  
240 Division Avenue  
Brooklyn, NY 11211  
Phone: 718-486-6006

Brooklyn Community Board 1  
435 Graham Avenue  
Brooklyn, NY 11211  
Phone: 718-389-0009

NYSDEC Region 2  
47-40 21<sup>st</sup> Street, Long Island City, NY 11101  
Phone: 718 482-4905 (call for appointment)



## Appendix B - Site Contact List

### Owners, Residents, Occupants, Requestor :

The Site is currently vacant.

Entity	Contact Name	Phone	Mailing Address	Email
Dupont Street 1 LLC (requestor)	Zach Kadden	(212) 788-3056	520 Madison Avenue, Suite 3501 New York, NY 10022	<a href="mailto:zkadden@madisonrealtycapital.com">zkadden@madisonrealtycapital.com</a>
Dupont Street Developers LLC	Bo Jin Zhu	(917) 273-8657	87-10 Queens Boulevard Elmhurst, New York 11211	<a href="mailto:statedesignsny@gmail.com">statedesignsny@gmail.com</a>

### Executive:

New York City Mayor  
Mayor William De Blasio  
City Hall  
New York, NY 10007

NYC Department of City Planning Commissioner  
Anita Laremont  
120 Broadway 31st Floor  
New York, NY 10271

Brooklyn Borough President  
Hon. Eric Adams  
Brooklyn Borough Hall  
209 Joralemon Street  
Brooklyn, NY 11201

Brooklyn Community Board 1 District Manager  
Dealice Fuller  
435 Graham Avenue  
Brooklyn, NY 11211

NY Senate District 18 Senator  
Hon. Julia Salazar  
212 Evergreen Avenue  
Brooklyn, NY 11201

NY State Assembly District 050 Member  
Hon. Emily Gallagher  
685A Manhattan Ave  
Brooklyn, NY 11222

Hon. Scott Stringer  
NYC Comptroller  
1 Centre Street  
New York, NY 10007

Hon. Jumaane Williams  
Public Advocate  
1 Centre Street  
New York, NY 10007

Hon. Stephen Levin  
NYC Councilman  
410 Atlantic Avenue  
Brooklyn, NY 11217

Hon. Carolyn Maloney  
U.S. House of Representatives  
31-19 Newtown Ave.  
Astoria, NY 11102

Mark McIntyre, Director  
NYC Office of Environmental Remediation  
100 Gold Street - 2nd Floor  
New York, NY 10038

Julie Stein  
Office of Environmental Assessment & Planning  
NYC Dept. of Environmental Protection  
96-05 Horace Harding Expressway  
Flushing, NY 11373

Hon Charles Schumer  
U.S. Senator  
780 Third Avenue, Suite 2301  
New York, NY 11373

Hon. Kirsten Gillibrand  
 U.S. Senator  
 780 Third Avenue, Suite 2601  
 New York, NY 11373

Nancy T. Sunshine  
 Kings County Clerk  
 360 Adams Street - Room 189  
 Brooklyn, NY 11201

***Adjacent Property Owners:***

Owner/Entity Name	Contact Name	Site Use	Property Address	Owner Mailing Address
Greenpoint Court Management LLC	Unknown	Multi-family walk-up building	95 Dupont Street	991 Metropolitan Avenue, Brooklyn, NY 11222
Agosto, Angelina	Angelina Agosto	Multi-family walk-up building	38 Clay Street	38 Clay Street, Brooklyn, NY 11222
42 Clay Street LLC	Unknown	One- & Two-family building	42 Clay Street	42 Clay Street, Brooklyn, NY 11222
Stanislawa, Natkaniec	Stanislawa Natkaniec	Multi-family walk-up building	44 Clay Street	44 Clay Street, Brooklyn, NY 11222
K Matyszczyk	Krzysztof Matyszczyk	Multi-family walk-up building	46 Clay Street	716 Humboldt Street, Brooklyn, NY
Miah, Faruque	Faruque Miah	Mixed residential and commercial building	48 Clay Street	1020 Manhattan Ave, Brooklyn, NY 11222
Pakala, Swetha	Swetha Pakala	One- & Two-family building	50 Clay Street	535 E 70 <sup>th</sup> Street, New York, NY 10021
92 Dupont Street LLC	Unknown	Multi-family walk-up building	92 Dupont Street	926 Sunrise Terrace, Indian River Shores, FL 32963
Pitynski Andrzej	Andrzej Pitynski	Multi-family walk-up building	90 Dupont Street	90 Dupont Street, Brooklyn, NY 11222
Dupont St Senior Housing Division	Unknown	Public facilities and institutions	80 Dupont Street	80 Dupont Street, Brooklyn, NY 11222
Gabrys, Stanislaw	Stanislaw Gabrys	One- & two-family buildings	66 Dupont Street	66 Dupont Street, Brooklyn, NY 11222
Nicole Associates LLC	Unknown	Industrial and manufacturing	19 Clay Street	41 Box Street, Brooklyn, NY 11222
Greenpoint Development Group LLC	Unknown	Industrial and manufacturing	15 Clay Street	112-45 Roosevelt Ave, Corona, NY 11368

Rimani Realty LLC	Unknown	Miscellaneous	40 Commercial Street	101 Malba Drive, Malba, NY 11357
Dupont Street Developers LLC	Bo Jin Zhu	Industrial and manufacturing	14 Clay Street	390 Berry Street, Suite 200 Brooklyn, NY 11249
Dupont Street Developers LLC	Bo Jin Zhu	Industrial and manufacturing	57 Dupont Street	390 Berry Street, Suite 200 Brooklyn, NY 11249

***Local Media Outlets:***

Brooklyn Daily Eagle  
16 Court Street, 30<sup>th</sup> Floor  
Brooklyn, NY 11241

Spectrum NY 1 News  
75 Ninth Avenue  
New York, NY 10011

New York Daily News  
4 New York Plaza  
New York, NY 10004

New York Post  
1211 Avenue of the Americas  
New York, NY 10036

Courier-Life Publications  
1 Metrotech Center #10T  
Brooklyn, NY 11201

The Brooklyn Papers  
1 Metrotech Center, 3<sup>rd</sup> Floor  
Brooklyn, NY 11201

Hoy Nueva York  
15 Metrotech Center Floor 7  
Brooklyn, NY 11201

El Diario  
15 Metrotech Center Floor 7  
Brooklyn, NY 11201

**Public Water Supply:**

Public water supply is a shared responsibility between the New York City Department of Environmental Protection (NYCDEP) and the Municipal Water Finance Authority.

Owner/Entity Name	Contact	Address	Phone	Email
NYCDEP	Vincent Sapienza - Commissioner	59-17 Junction Blvd. Flushing, NY 11373	718-595-6565	<a href="mailto:ltcp@dep.nyc.gov">ltcp@dep.nyc.gov</a>
NYC Municipal Water Finance Authority	Olga Chernat- Executive Director	255 Greenwich Street 6th Floor New York, NY 10007	212-788-5889	N/A

**School or Day Care located on or proximal to the site:**

There are no schools or daycares located on the Site. The following schools or day care facilities are located within ½-mile radius to the site:

School/Day Care Name	Approximate distance from Site in feet and (directional)	Administrator	Phone	Address
NY League for Early Learning – The Greenpoint School	2250' (east)	Marie Gallagher	347-472-4792	725 Leonard Street, Brooklyn, NY 11222
P.S. 31 - Samuel F. Dupont	3300' (south)	Mary Scarlato	718-383-8998	75 Meserole Avenue, Brooklyn, NY 11222
P.S. 34 – Oliver H Perry	3800' (southeast)	Carmen Asselta	718-389-5842	131 Normal Avenue, Brooklyn, NY 11211
Greenpoint Montessori	1056' (northeast)	Kat Walker	262-732-2359	288 McGuinness Boulevard, Brooklyn, NY 11211
Lightbridge Academy	1625' (southwest)	N/A	718-369-6300	23 India Street, Brooklyn, NY 11222
Building Blocks of Greenpoint	1950' (southwest)	N/A	718-383-0208	44 Kent Street, Brooklyn, NY 11211

**Document Repository:**

Owner/Entity Name	Contact	Address	Phone	Email
Brooklyn Public Library – Williamsburg Branch	Catherine Skrzpek	718-302-3485	240 Division Avenue Brooklyn, NY 11211	<a href="mailto:c.skrzpek@brooklynpubliclibrary.org">c.skrzpek@brooklynpubliclibrary.org</a>
Brooklyn Public Library – Greenpoint Branch	Alexa Orr	718- 389-4394	107 Norman Ave. Brooklyn, NY 11222	<a href="mailto:a.orr@brooklynpubliclibrary.org">a.orr@brooklynpubliclibrary.org</a>

**Community Board:**

Owner/Entity Name	Contact	Address	Phone	Email
Brooklyn Community Board 1 District Manager	Dealice Fuller	718-389-0009	435 Graham Avenue Brooklyn, NY 11211	<a href="mailto:bk01@cb.nyc.gov">bk01@cb.nyc.gov</a>

**Community, Religious, Civic, and other Environmental Organizations located proximal to the site:**

North Brooklyn Neighbors  
240 Kent Avenue  
Brooklyn, NY 11249

St. Nick's Alliance  
2 Kingsland Avenue, 1st Floor  
Brooklyn, NY 11211

Antonia Yuille - Director  
Consolidated Edison Corporate Affairs  
30 Flatbush Avenue  
Brooklyn, NY 11217

Elizabeth Hulsen- President  
94th Police Precinct Council  
100 Meserole Ave,  
Brooklyn, NY 11222

Engine 238  
FDNY  
205 Greenpoint Avenue  
Brooklyn, NY 11222  
North Brooklyn Boat Club  
51 Ash Street  
Brooklyn, NY 11222  
Email: [info@northbrooklynboatclub.org](mailto:info@northbrooklynboatclub.org)

Newtown Creek Monitoring Committee  
329 Greenpoint Avenue  
Brooklyn, NY 11222  
Attn: Christine Holowacz  
Email: [nc.mc@verizon.net](mailto:nc.mc@verizon.net)

Concerned Citizens of Greenpoint, Inc.  
1044 Manhattan Avenue  
Brooklyn, NY 11222

First Polish Baptist Church  
55 Sutton Street  
Brooklyn, NY 11222  
Email: [info@polskizbornyc.com](mailto:info@polskizbornyc.com)  
Email: [pastor@polskizbornyc.com](mailto:pastor@polskizbornyc.com)  
Tel: (718) 389-3969

Greenpoint Muslim Community Center Inc.  
602 Leonard Street  
Brooklyn, NY 11222

Hispanos Unidos De Greenpoint Inc.  
C/o Edwin Perez  
1074 Manhattan Avenue  
Brooklyn, NY 11222

McCarren Park Conservancy Inc  
C/o Phyllis Yampolsky  
888 Manhattan Avenue  
Brooklyn, NY 11222

Town Square Inc.  
<https://www.townsquarebk.org/>  
Email: [hello@townsquarebk.org](mailto:hello@townsquarebk.org)

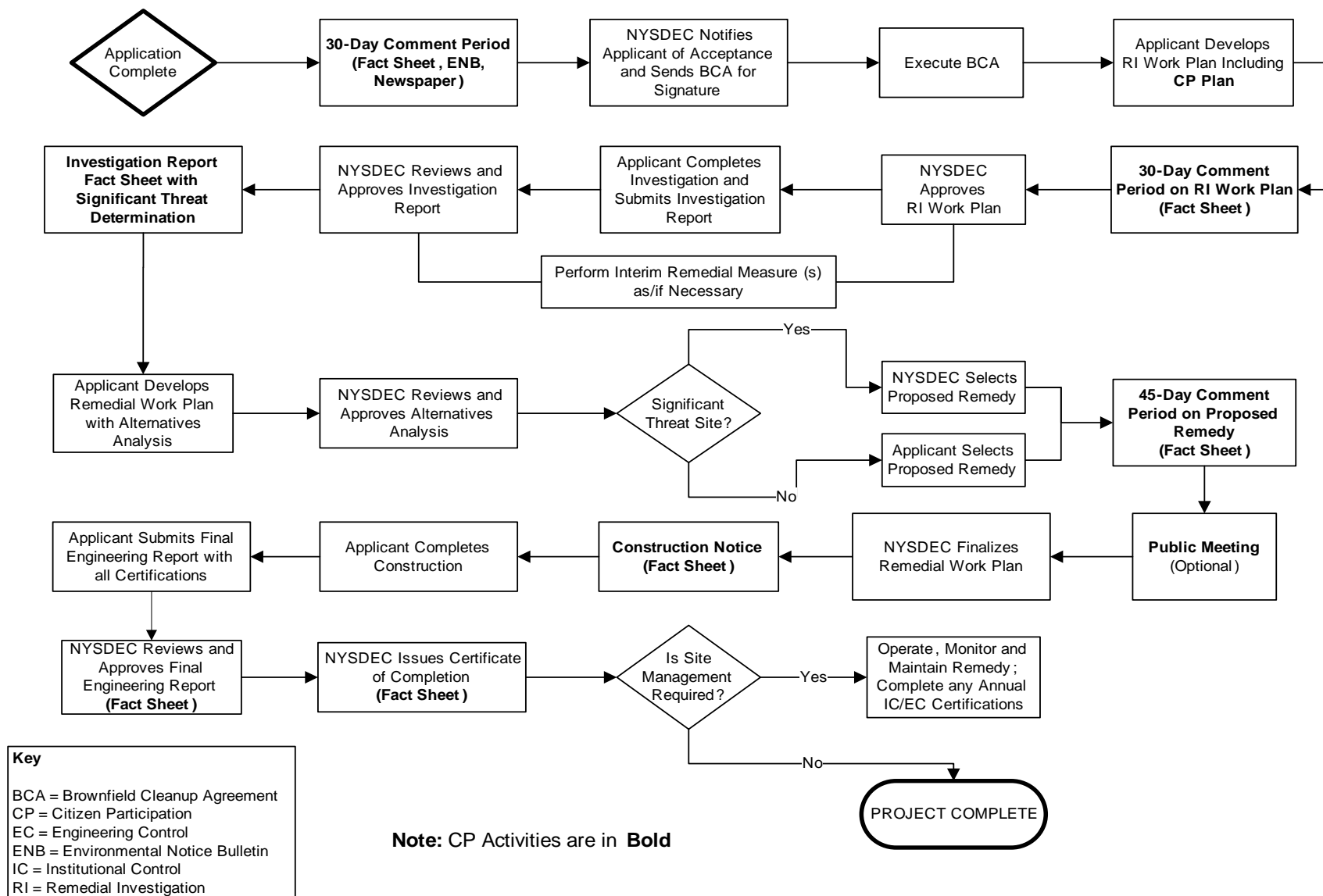
Barge Park Pals  
127 Dupont Street  
New York, NY 11222  
[contact@northbrooklynneighbors.org](mailto:contact@northbrooklynneighbors.org)

## Appendix C - Site Location Map





## Appendix D– Brownfield Cleanup Program Process







Division of Environmental Remediation

## Remedial Programs Scoping Sheet for Major Issues of Public Concern

### Instructions

This Scoping Sheet assesses major issues of public concern; impacts of the site and its remedial program on the community; community interest in the site; information the public needs; and information needed from the public.

The information generated helps to plan and conduct required citizen participation (CP) activities, and to choose and conduct additional CP activities, if appropriate. The scoping sheet can be revisited and updated as appropriate during the site's remedial process to more effectively implement the site's CP program.

**Note: Use the information as an aid to prepare and update the Major Issues of Public Concern section of the site CP Plan.**

### General Instructions

- When to prepare: During preparation of the CP Plan for the site. It can be revisited and updated anytime during the site remedial process.
- Fill in site name and other information as appropriate.
- The Scoping Sheet may be prepared by DEC or a remedial party, but must be reviewed and approved by the DER site project manager or his/her designee.

### Instructions for Numbered Parts

Consider the bulleted issues and questions below and any others that may be unique or appropriate to the site and the community to help complete the five Parts of this Scoping Sheet. Identify the issue stakeholders in Parts 1 through 3 and adjust the site's contact list accordingly.

### **Part 1. List Major Issues of Public Concern and Information the Community Wants.**

- Is our health being impacted? (e.g. Are there problems with our drinking water or air? Are you going to test our water, yards, sums, basements? Have health studies been done?)
- There are odors in the neighborhood. Do they come from the site and are they hazardous?
- Are there restrictions on what we may do (e.g. Can our children play outside? Can we garden? Must we avoid certain areas? Can we recreate (fish, hunt, hike, etc. on/around the site?)
- How and when were the site's contamination problems created?
- What contaminants are of concern and why? How will you look for contamination and find out where it is going? What is the schedule for doing that?
- The site is affecting our property values!
- How can we get more information (e.g. who are the project contacts?)
- How will we be kept informed and involved during the site remedial process?
- Who has been contacted in the community about site remedial activities?
- What has been done to this point? What happens next and when?
- The site is going to be cleaned up for restricted use. What does that mean? We don't want redevelopment on a "dirty" site.

## Part 2. List Important Information Needed From the Community, if Applicable.

- Can the community supplement knowledge about past/current uses of the site?
- Does the community have knowledge that the site may be significantly impacting nearby people, properties, natural resources, etc.?
- Are activities currently taking place at the site or at nearby properties that may need to be restricted?
- Who may be interested or affected by the site that has not yet been identified?
- Are there unique community characteristics that could affect how information is exchanged?
- Does the community and/or individuals have any concerns they want monitored?
- Does the community have information about other sources in the area for the contamination?

## Part 3. List Major Issues and Information That Need to be Communicated to the Community.

- Specific site investigation or remediation activities currently underway, or that will begin in the near future.
- The process and general schedule to investigate, remediate and, if applicable, redevelop the site.
- Current understanding about the site contamination and effects, if any, on public health and the environment.
- Site impacts on the community and any restrictions on the public's use of the site and/or nearby properties.
- Planned CP activities, their schedule, and how they relate to the site's remedial process.
- Ways for the community to obtain/provide information (document repositories, contacts, etc.).

## Part 4. Community Characteristics

**a. - e.** Obtain information from local officials, property owners and residents, site reports, site visits, "windshield surveys," other staff, etc.

**f.** Has the affected community experienced other **significant** present or past environmental problems unrelated to this site? Such experiences could significantly affect public concerns and perspectives about the site; how the community will relate to project staff; the image and credibility of project staff within the community; and the ways in which project staff communicate with the community.

**g.** In its remedial programs, DER seeks to integrate, and be consistent with, environmental justice principles set forth in *DEC Commissioner Policy 29 on Environmental Justice* and *DER 23 – Citizen Participation Handbook for Remedial Programs*. Is the site and/or affected community wholly or partly in an Environmental Justice (EJ) Area? Use the Search feature on DEC's public web site for "environmental justice". DEC's EJ pages define an EJ area, and link to county maps to help determine if the site and/or community are in an EJ area.

**h.** Consider factors such as:

- Is English the primary language of the affected community? If not, provisions should be considered regarding public outreach activities such as fact sheets, meetings, door-to-door visits and other activities to ensure their effectiveness.
- The age demographics of the community. For example, is there a significant number of senior citizens in the community? It may be difficult for some to attend public meetings and use document repositories. This may suggest adopting more direct interaction with the community with activities such as door-to-door visits, additional fact sheets, visits to community and church centers, nursing homes, etc.
- How do people travel about the community? Would most people drive to a public meeting or document repository? Is there adequate public transportation?

## Part 5. Affected/Interested Public.

Individuals and organizations who need or want information and input can change during the site's remedial process. This need is influenced by real, potential, or perceived impacts of the site or the remedial process. Some people may want information and input throughout the remedial process. Others may participate only during specific remedial stages, or may only be interested in particular issues.

It is important to revisit this question when reviewing this scoping sheet. Knowing who is interested in the site – and the issues that are important to them – will help to select and conduct appropriate outreach activities, and to identify their timing and the information to be exchanged.

Check all affected/interested parties that apply to the site. **Note: Adjust the site's contact list appropriately.** The following are some ways to identify affected/interested parties:

- Tax maps of adjacent property owners
- Attendees at public meetings
- Telephone discussions
- Letters and e-mails to DER, the remedial party, and other agencies
- Political jurisdictions and boundaries
- Media coverage
- Current/proposed uses of site and/or nearby properties (recreational, commercial, industrial)
- Discussions with community organizations: grass roots organizations, local environmental groups, environmental justice groups, churches, and neighborhood advisory groups



Division of Environmental Remediation

**Remedial Programs**  
**Scoping Sheet for Major Issues of Public Concern** (see instructions)

**Site Name:** Former East NuHart Site

**Site Number:** C224287

**Site Address and County:** 22-32 Clay Street & 67-93 Dupont Street

**Remedial Party(ies):** Dupont Street 1 LLC

**Note: For Parts 1. – 3. the individuals, groups, organizations, businesses and units of government identified should be added to the site contact list as appropriate.**

**Part 1.** List major issues of public concern and information the community wants. Identify individuals, groups, organizations, businesses and/or units of government related to the issue(s) and information needs. **Use this information as an aid to prepare or update the Major Issues of Public Concern section of the site Citizen Participation Plan.**

Contaminants of concern for the Site include phthalates, chlorinated and petroleum related volatile organic compounds (VOCs), polyaromatic hydrocarbons (PAHs), and metals. To further characterize the impacts to the subsurface, a supplemental remedial investigation will be conducted in accordance with the work plan to be approved by NYSDEC. Air quality, dust levels and odors will be monitored during site activities in accordance with the site specific NYSDEC-approved Community Air Monitoring Program (CAMP)

The Site is located in an Environmental Justice Area. Environmental justice is defined as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Environmental justice efforts focus on improving the environment in communities, specifically minority and low-income communities, and addressing disproportionate adverse environmental impacts that may exist in those communities.

Future fact sheets will be translated to Spanish and Polish.

How were these issues and/or information needs identified?

These issues were identified through a series of previous site investigations reports, correspondence with NYSDEC and from resources available through the NYSDEC Office of Environmental Justice.

**Part 2.** List important information needed **from** the community, if applicable. Identify individuals, groups, organizations, businesses and/or units of government related to the information needed.

The sources of the contaminants of concern detailed in Part 1 was not fully identified during the previous investigations completed at the Site. If the community can provide any knowledge regarding previous site use or previous nearby property use it may assist in determining the onsite or offsite source of impact.

How were these information needs identified?

This information need was identified through review of the results of the previous site investigations results.

**Part 3.** List major issues and information that need to be communicated **to** the community. Identify individuals, groups, organizations, businesses and/or units of government related to the issue(s) and/or

information.

The anticipated schedule for the proposed Supplemental Remedial Investigation is early 2022. Interim Remedial Measure is scheduled to take place in the spring of 2022. Based on results of this investigation a Remedial Action Work Plan (RAWP) will be drafted and implemented. The site is a privately owned vacant property therefore the public does not use the site so there will be no additional restrictions. The remedial action will be in accordance with all applicable regulations and upon RAWP approval and implementation additional communications will be made to the public as necessary.

How were these issues and/or information needs identified?

These issues were identified through review of the project schedule, site background and contaminants of concern.

**Part 4.** Identify the following characteristics of the affected/interested community. This knowledge will help to identify and understand issues and information important to the community, and ways to effectively develop and implement the site citizen participation plan (mark all that apply):

**a.** Land use/zoning at and around site:

☒ **Residential**   ☐ **Agricultural**   ☐ **Recreational**   ☒ **Commercial**   ☒ **Industrial**

**b.** Residential type around site:

☒ **Urban**   ☐ **Suburban**   ☐ **Rural**

**c.** Population density around site:

☒ **High**   ☐ **Medium**   ☐ **Low**

**d.** Water supply of nearby residences:

☒ **Public**   ☐ **Private Wells**   ☐ **Mixed**

**e.** Is part or all of the water supply of the affected/interested community currently impacted by the site?

☐ **Yes**   ☒ **No**

Provide details if appropriate:

[Click here to enter text.](#)

**f.** Other environmental issues significantly impacted/impacting the affected community?

☒ **Yes**   ☐ **No**

Provide details if appropriate:

The Former NuHart West Site that is adjacent to the west of the Site is an active NYSDEC Class 2 Inactive Hazardous Waste Disposal Site (Site # 224136) which is categorized as posing significant threat to the public health and/or environment. Additional information of this Class 2 site can be obtained through NYSDEC Environmental Justice Office.

**g.** Is the site and/or the affected/interested community wholly or partly in an Environmental Justice Area?

☒ **Yes**   ☐ **No**

**h.** Special considerations:

☒ **Language**   ☐ **Age**   ☒ **Transportation**   ☐ **Other**

Explain any marked categories in **h**:

Future fact sheets will be translated to Spanish and Polish.

Truck entering/leaving the Site will avoid residential roads to the extent of possible.

**Part 5.** The site contact list must include, at a minimum, the individuals, groups, and organizations identified in Part 2. of the Citizen Participation Plan under 'Site Contact List'. Are *other* individuals, groups, organizations, and units of government affected by, or interested in, the site, or its remedial program? (Mark and identify all that apply, then adjust the site contact list as appropriate.)

☐ **Non-Adjacent Residents/Property Owners:** [Click here to enter text.](#)

☒ **Local Officials:** NYC Mayor William De Blasio/Eric Adams, NYC Department of City Planning Chairperson Marisa Lago, Brooklyn Borough President Eric Adams, Brooklyn Community Board 1 Manager Dealice Fuller, NY Senator Julia Salazar, District 050 Member Emily Gallagher, NYC Comptroller Hon. Scott Stringer, Public Advocate Hon. Juumane Williams, NY Councilman Hon. Stephen Levin, US House of Representatives Carolyn Maloney, NYC Office of Environmental Remediation Director Mark McIntyre, Office of Environmental Assessment & Planning Julie Stein, U.S. Senator Hon. Charles Schumer, U.S. Senator Hon. Kirsten Gillibrand, Kings Clerk Nancy T. Sunshine

☒ **Media:** Brooklyn Daily Eagle, Spectrum NY 1 News, NY Daily News, NY Post, Courier-Life Publications, The Brooklyn Papers, Hoy Nueva York, El Diario

☒ **Business/Commercial Interests:** [Click here to enter text.](#)

☐ **Labor Group(s)/Employees:** [Click here to enter text.](#)

☐ **Indian Nation:** [Click here to enter text.](#)

☒ **Citizens/Community Group(s):** North Brooklyn Neighbors, St. Nick's Alliance

☒ **Environmental Justice Group(s):** [Click here to enter text.](#)

☒ **Environmental Group(s):** [Click here to enter text.](#)

☒ **Civic Group(s):** NYPD 94<sup>th</sup> Precinct, FDNY Engine 238

☐ **Recreational Group(s):** [Click here to enter text.](#)

☐ **Other(s):** [Click here to enter text.](#)

**Prepared/Updated By:** Die Fu

**Date:** 11/17/2021

**Reviewed Approved By:** Thomas V. Panzone

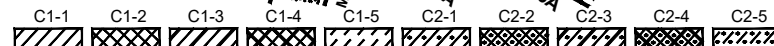
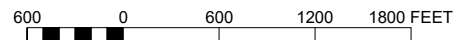
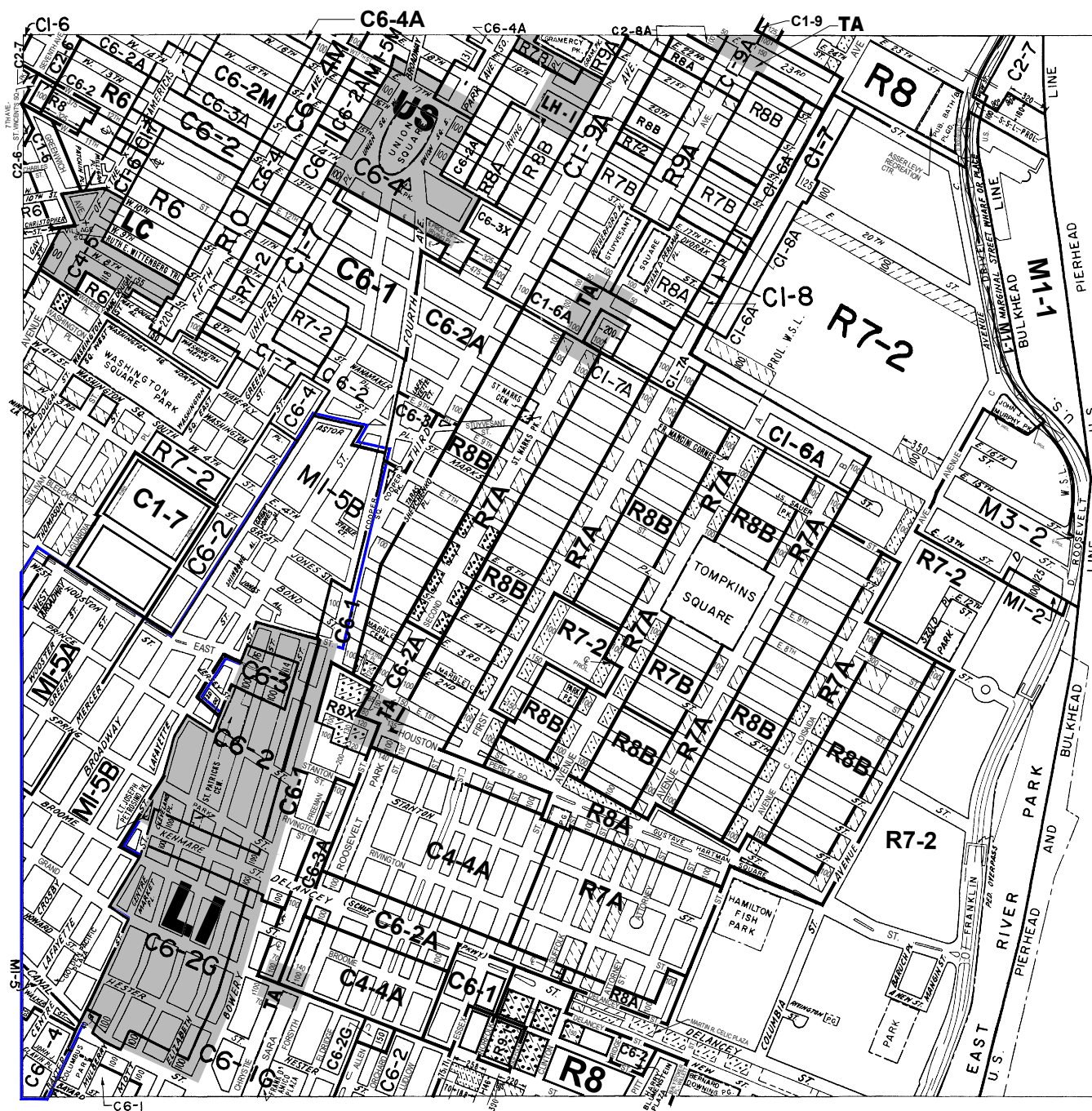
**Date:** 11/30/2021



## **APPENDIX G**

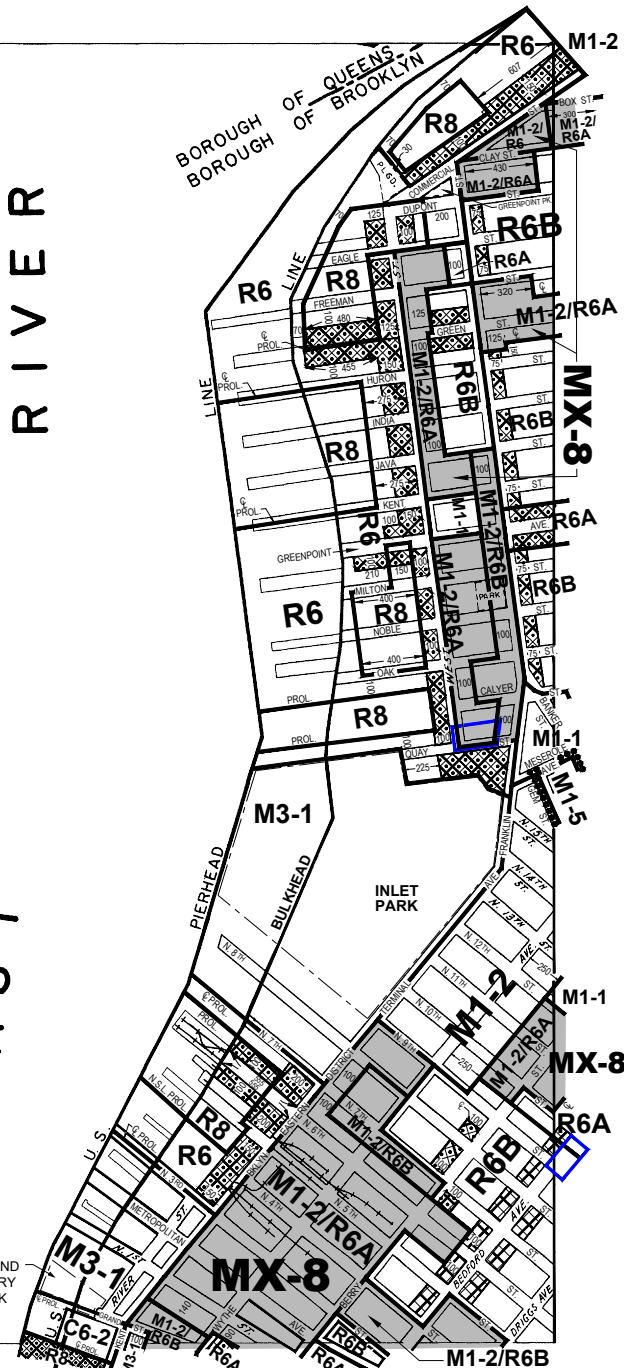
### **Zoning Map**

Click blue outline on map to view diagram of **proposed** zoning change



**NOTE:** Where no dimensions for zoning district boundaries appear on the zoning maps, such dimensions are determined in Article VII, Chapter 6 (Location of District Boundaries) of the Zoning Resolution.

EAST RIVER



## ZONING MAP

THE NEW YORK CITY PLANNING COMMISSION

### Major Zoning Classifications:

The number(s) and/or letter(s) that follows an R, C or M District designation indicates use, bulk and other controls as described in the text of the Zoning Resolution.

- R – RESIDENTIAL DISTRICT
- C – COMMERCIAL DISTRICT
- M – MANUFACTURING DISTRICT

SPECIAL PURPOSE DISTRICT  
The letter(s) within the shaded area designates the special purpose district as described in the text of the Zoning Resolution.

AREA(S) REZONED

### Effective Date(s) of Rezoning:

05-27-2021 C 210138 ZMK

### Special Requirements:

For a list of lots subject to CEQR environmental requirements, see APPENDIX C.

For a list of lots subject to "D" restrictive declarations, see APPENDIX D.

For Inclusionary Housing designated areas and Mandatory Inclusionary Housing areas on this map, see APPENDIX F.

### MAP KEY

8b	8d	9b
12a	<b>12c</b>	13a
12b	12d	13b

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**NOTE:** Zoning information as shown on this map is subject to change. For the most up-to-date zoning information for this map, visit the Zoning section of the Department of City Planning website: [www.nyc.gov/planning](http://www.nyc.gov/planning) or contact the Zoning Information Desk at (212) 720-3291.

ZONING MAP **12c**

## **APPENDIX H**

### **Project Personnel Resumes**

**SCOTT A. UNDERHILL, P.E.**

Senior Environmental Remediation Engineer

**EDUCATION**

M.S., Environmental Engineering, State University of New York

B.S., Civil Engineering, State University of New York

**PROFESSIONAL REGISTRATIONS**

1998/ NY: Professional Engineer (Reg. No. 075332)

**SPECIAL STUDIES AND COURSES**

40-Hour OSHA Hazardous Waste Operations and Emergency Response Training (29 CFR 1910.120)

8-Hour Hazardous Waste Operations and Emergency Response Supervisor Training  
Project Management Training

8-Hour Hazardous Waste Operations and Emergency Response Refresher

Scott has 25 years of experience as an environmental engineer. His diverse background includes the investigation, design, installation, and operation of remediation systems for soil, water, and air; design of water and wastewater treatment facilities; energy studies; and numerical modeling of environmental media. Scott has worked for federal, state and industrial clients throughout the United States, most recently working on the remediation of contaminated sites, such as manufactured gas plant (MGP) and chlorinated solvent, in the Northeast and Midwest.

**RELEVANT PROJECT EXPERIENCE**

**New Jersey Natural Gas, Former MGP Remediation, Toms River, New Jersey.** Construction project manager for the construction inspection oversight of a former MGP that consists of the removal and off-site disposal of 6,800 cubic yards of impacted soils, dewatering during excavation that produced over 12,000,000 gallons of water to handle, treat and dispose, and in situ solidification (ISS) of 85,000 cubic yards of soil to depths of 45 feet. Engineering oversight services provided during construction included attending weekly meetings, reviewing contractor submittals, issuing field orders and work change directives, reviewing and responding to change order requests, developing change orders, responding to request for information, and documenting remediation activities in a remedial action report.

**Duke Energy, Former MGP Remediation, Cincinnati, Ohio.** Lead design engineer for a design/build remediation project at a former MGP that consists of the removal and off-site disposal of 75,000 cubic yards of impacted soils, dewatering during excavations, and ISS of over 150,000 cubic yards of soil to depths of 60 feet below ground surface. Engineering services provided during construction included weekly engineering calls, working with contractor to develop engineering solutions to changes in field conditions, reviewing contractor submittals, issuing field orders, developing change orders, and documenting remediation activities in a construction completion report.

**AEP, Former MGP Remediation, Three Rivers, Michigan.** Lead design engineer for a design/build remediation project at a former manufactured gas plant (MGP) that consists of the installation of a four-cell sheeting system, installation and operation of a dewatering system that removed and discharged 420,000 gallons of water, and removal and off-site disposal of 5,400 cubic yards of impacted soils. Engineering services included developing full set of design drawings and specifications and provided engineering oversight during construction included weekly engineering calls, working to develop engineering solutions to changes in field conditions, and documenting remediation activities in a construction completion report.

**American Electric Power, Former MGP Remediation, Dowagiac, Michigan.** Lead design engineer for a design/build remediation project at a former manufactured gas plant (MGP) that consists of the removal and off-site disposal of 1,000 tons of impacted soils. Engineering services included developing full set of design drawings and specifications

and provided engineering oversight during construction included weekly engineering calls, working to develop engineering solutions to changes in field conditions, and documenting remediation activities in a construction completion report.

**New York State Energy and Gas, Former MGP Remediation, Lockport, New York.** Project manager for the remedial design of a former MGP that consists of the removal of 4,000 cubic yards of impacted soils, overburden non-aqueous phase liquid (NAPL) collection trench, 600 linear feet of bedrock grout wall, bedrock NAPL collection wells and the removal of 1,200 cubic yards of impacted sediment from the NYS Barge Canal. Design required submission of work plan, pilot test for grout wall implementation, and New York State Department of Environmental Conservation (NYSDEC) approval of final design drawing, report and specifications. Program director for the engineering oversight services provided during construction which included attending weekly meetings, reviewing contractor submittals, reviewing and approving change orders, responding to request for information, and certifying the construction completion report.

**New York State Energy and Gas, Former MGP Remediation, Norwich, New York.** Project manager for design and construction management, including design of an ISS system of 52,000 cubic yards of soil and NAPL recovery, in situ chemical oxidation (ISCO) and enhanced in situ bioremediation systems for the off-site groundwater plume. Scott managed preparation of work plans for submission to the NYSDEC and on-site construction management services during remediation of the on-site ISS services. Scott managed the operation and maintenance of the NAPL recovery system from 2009-2016 which resulted in the recovery of almost 100,000 gallons of total fluids or 40,000 gallons of NAPL. Due to the large quantities of NAPL encountered off-site, initiated and obtained NYSDEC approval in 2015 for a modification to the Record of Decision to all for ISS of the off-site soils rather than NAPL recovery and ISCO. Program director for the design package for the ISS treatment of 11,500 cubic yards of soil and NAPL.

**New York State Energy and Gas, Former MGP Remediation, Ithaca, New York.** Project manager for remedial design of a former MGP plant that consisted of the removal of 11,000 tons of impacted soils within sheet piling down to a depth of 18 feet, temporary relocation of a sewer main, and three injection events for in situ chemical oxidation (ISCO) treatment of coal tar stringers. Design requires submission of work plan, pilot test for ISCO implementation, and NYSDEC approval of final design drawing, report and specifications. Program director for the engineering oversight services provided during construction which included attending weekly meetings, reviewing contractor submittals, reviewing and approving change orders, responding to request for information, and certifying the construction completion report.

**New York State Department of Environmental Conservation, New York.** Program manager of three standby engineering services contracts issued by the NYSDEC for the investigation, design, construction oversight, and site management of inactive hazardous waste sites within New York. Responsible for overall program management, including budgeting, schedule and quality deliverable to the NYSDEC for over 100 individual work assignments valued at over \$35,000,000, which was managed by a team of over 12 project managers. As required, acted as engineer-of-record for many sites, which required approval of feasibility studies, remedial designs, construction completion reports, and periodic review reports.

**United States Army Corps of Engineers, Former Scotia Naval Depot, Scotia, New York.** Project manager for the design and installation of a 900-foot-long, 45-foot-high and 0.25-foot-thick permeable reactive barrier (PRB) wall containing zero valent iron. The PRB was installed to treat a chlorinated solvent groundwater plume. In addition, four large commercial buildings (80,000 square feet) over a portion of the groundwater plume were fitted with sub-slab depressurization systems to mitigate indoor air concerns. As project manager, Scott was responsible for project deliverables, costs, schedule and quality for the \$10MM remediation project.

**New York State Department of Environmental Conservation, Scotia New York.** Remedial design lead and engineer of record for the development and issuance of two feasibility studies (on-site and off-site) for a large, complex inactive hazardous waste site. An estimated 7,000 gallons of tetrachloroethylene (PCE) released to the environment created a groundwater plume almost ¾ mile in length and impacting numerous residential supply wells. The on-site feasibility



study evaluated remedial technologies selecting excavation and in situ thermal treatment for a present worth cost of \$14,000,000. The off-site feasibility study selected ISCO/bioremediation and downgradient permeable reactive barrier wall to treat the plume with concentrations greater than 100 µg/L with a present worth cost of \$13,000,000. Also designed an aeration system as an interim remedial measure to treat PCE impacts to local surface water detention pond and stream.

**New York State Department of Environmental Conservation, Scotia New York.** Project manager for the design and construction oversight of the installation of water line to a residential neighborhood affected by a PCE plume. The design consisted of engineering calculations, basis of design, drawings, and specifications for the installation of 8,800 linear feet of water main and 100 residential connections. Construction services included reviewing contractor submittals and invoices, overseeing contractor work, responding to request for information and attending weekly construction meetings.

**New York State Energy and Gas, Former MGP Remediation, Homer, New York.** Project manager for design and construction management, including design of a permanent watertight barrier wall system, in situ stabilization system within the utility corridor and a temporary water treatment plant as part of the remediation of 25,000 cubic yards of soil. Scott managed preparation of work plans for submission to the NYSDEC and on-site construction management services during remediation. Scott managed air monitoring, scheduling of trucks for off-site disposal of impacted soil, and preparation of daily reports and a final closure report.

**New York State Energy and Gas, Former MGP Remediation, Mechanicville, New York.** Project manager for design and construction management, including the design of a temporary watertight barrier wall system and temporary water treatment system as part of a remediation of 10,000 cubic yards of soil. The project also included the evaluation and development of alternatives for the recovery of coal tar contamination in the fractured bedrock underlying the site, which included performing multiple long-term NAPL recovery pump tests. Project manager for the engineering oversight services provided during construction which included attending weekly meetings, reviewing contractor submittals, reviewing and approving change orders, responding to request for information, and certifying the construction completion report.

**New York State Department of Environmental Conservation, Poughkeepsie, New York.** Engineer of record for the design and construction oversight of the thermal treatment of soil and groundwater at an inactive hazardous waste site impacted with chlorinated solvents. The design consisted of engineering calculations, basis of design, drawings, and specifications for the installation 100 electrodes to treat the 0.5-acre plume. Construction services included reviewing contractor submittals and invoices, overseeing contractor work, responding to request for information and attending regular construction meetings.

**New York State Department of Environmental Conservation, Poughkeepsie, New York.** Project engineer for the design and implementation of a full-scale pilot test of in situ enhanced bioremediation to treatment of soil and groundwater at an inactive hazardous waste site impacted with chlorinated solvents. The pilot study consisted of direct injection of approximately 4,150 gallons of 60% edible vegetable oil (EVO) and 7,825 pounds zero-valent iron (ZVI) at 75 points. Scott managed development of design and bid package, selected and oversaw injection contractor, and reviewed follow-on sampling reports.

**United States Army Corps of Engineers, Griffiss Air Force Base, Rome, New York.** Project engineer for land farming treatment of over 50,000 cubic yards of petroleum impacted soils. Activities included design of a land farming approach in a performance based contract to successfully remediate the soils within a three-year contract period. Due to an aggressive remediation approach, all soils were remediated within two years.

**New York State Electric and Gas, Cortland Homer Manufactured Gas Plant Demolition Procurement, Homer, New York.** Project manager for procuring a contractor to demolish the southern portion of the MGP building as defined by the demolition drawings. Work included developing a request for proposal with final demolition drawings, specifications, and bid schedule and overseeing successful completion of the building demolition.

**New York State Energy and Gas, Former MGP Remediation, Oneonta, New York.** Project engineer for the design of temporary water treatment system as part of the remediation of a former MGP site.

**US Air National Guard, Site Management and Project Close-Out for Site 2 – Pesticide Burial Pit, Stewart ANGB, Newburg, New York.** Project manager for preparation of a site management plan (SMP) and periodic review report (PRR) for Site 2 - Pesticide Burial Pit Area at the 105th Airlift Wing (AW), New York Air National Guard (ANG), and Stewart International Airport. Due to negotiations with the NYSDEC, Site 2 was delisted.

**US Air National Guard, Remedial Design and Remedial Action, Site 15, Hancock ANGB, New York.** Project engineer for the bioremediation of a petroleum groundwater plume. The project included the design, installation and operation of a 15 well biosparging system for the on-site source area and the injection of calcium peroxide for the downgradient plume. Responsible for the remedial action work plan, construction completion report and annual periodic review reports.

**US Air National Guard, Interim Remedial Action and Focused Feasibility Study, Sites 3 and 6, Stratton ANGB, New York.** Project manager for an interim remedial measure and focused feasibility study at Site 3 contaminated with chlorinated solvents, and Site 6 contaminated with petroleum hydrocarbons. At Site 6, managed removal of 6,200 tons of contaminated soil, installation of a horizontal well network below the water table, and injection of a substrate into the groundwater to enhance biodegradation of the contaminants. At Site 3, managing removal of 600 tons of contaminated soils from four hot spots, delineation of the nature and extent of groundwater contamination by installing and sampling new wells.

**BP, Pilot-Scale Soil Thermal Treatment, Rumaila, Iraq.** Primary author of a pilot scale work plan for the treatment of heavily-impacted soils at the Rumaila Well Field. Work plan included the evaluation of several thermal desorption units capable of being shipped to the location, transportation logistics, compound design for placement of the unit and utility requirements to operate the TDU.

**Confidential Client, Lagoon Biocell Design, Maybrook, New York.** Project engineer for the design of a membrane lined biocell for the treatment of 25,000 cubic yards of soils impacted with petroleum and pyridine compounds associated with former waste lagoons. Design also included the use of enhanced bioremediation for the contaminants of concern in groundwater. Scott managed development of a design in accordance with the remedial design and remedial action framework developed by the United States Environmental Protection Agency (USEPA).

**Chevron, Malabalay Remediation Project, Philippines.** Project engineer for remedial design sub-slab depressurization system and vapor barrier for the redevelopment of a gasoline station for a Jolibee Store in Malabalay. Project was completed within budget and on-time given challenging field conditions.

**Confidential Client, Solid Waste Disposal Area, Kisladag, Turkey.** Project engineer responsible for the development of a feasibility study to evaluate 1,250 cubic meters of petroleum impacted soil as a waste storage area at an active mining facility in Turkey. Remedial alternatives evaluated included land farming, windrow composting, bioremediation in piles, in situ solidification, and capping.

**Chevron, Remedial Design and construction Oversight, Service Station/Residential House, Manila, Philippines.** Project engineer for the design and implementation of a sub-slab barrier system and vapor collection system at a residential home downgradient from a gas station. Travelled to site to oversee installation and quality control of the first sub-slab barrier system to be installed in the Philippines. Project was recognized by Chevron for being completed with zero accidents.

**BEM Systems, Remedial Design and Remedial Action, Site 6, Schenectady ANGB, New York.** Project manager for the design and implementation of the in situ chemical oxidation of chlorinated hydrocarbon impacted groundwater at Site 6. Project included supporting the development and issuance of the Record of Decision (ROD), submission and approval of the remedial design and implementation of the injection of sodium permanganate to treat the residual groundwater plume at Site 6.

**Navy, Light Non-Aqueous Phase Liquid (LNAPL) Modeling Effort, Pearl Harbor, HI.** Provided technical support for investigation and modeling of several large LNAPL plumes at the Shipyard GSA at Pearl Harbor. The modeling effort included applying the van Genuchten method to properly estimating the LNAPL plume size, volume, distribution, transport, and potential release to the harbor.

**New York State Department of Environmental Conservation, Remediation System Installation, National Heatset Printing, East Farmingdale, New York.** Project engineer supporting the installation and evaluation of a pilot study evaluating the use of an innovative technology - density driven convection (DDC) and in-well stripping – for the treatment of a large chlorinated solvent plume in a sandy aquifer on Long Island.

**NYSDEC, Remedial Design and Construction Oversight, North East Alloy and Metals Site, Utica, New York.** Project engineer for the design of a sub-slab depressurization system (SSDS) at a residential house above a chlorinated solvent plume. The design utilized two fans and six vacuum points installed over a concrete slab. Oversaw contractor's installation of the system including sealing of the concrete floor cracks and documented installed system met the performance requirements of the design.

**Confidential Client, Remediation System Pilot Study and Evaluation, Schenectady, New York.** Project engineer responsible for technical evaluation and comparison of a traditional and an innovative thermal enhanced soil vapor extraction system below a concrete slab. The innovative thermal enhanced soil vapor extraction (TESVE) system removed over 99.99% of the volatile compounds and over 96% of the semi volatile compounds in the unsaturated zone and outperformed the traditional TESVE system.

**NYSDEC, Remedial Design and Construction Oversight, Utility Manufacturing Site, New Hampstead, New York.** Project engineer for the design of nine SSDSs at three industrial buildings above a chlorinated solvent plume. The design utilized 30 fans and 30 vacuum points installed over a concrete slab. Oversaw contractor's installation of the system and documented that the installed system met the performance requirements of the design.

**NYSDEC, Remediation System Optimization, Multiple Sites, New York.** Provided technical support for the optimization and improvements of a number of remediation systems currently operated under the NYSDEC contract (D004445). System evaluations and improvements included the Becker Electronic pump-and treat system; NOW Corporation pump-and-treat system; SMS Industries biosparge (PhoSTER) system; Kingsbury Landfill pump and treat system, Fort Edward phytoremediation system; and Korkay soil vapor extraction/air sparging system.

**NYSDEC, Site Management, Multiple Sites, New York.** Provided technical support, final review and engineering certification for periodic reviews on the following sites: Armonk; Becker Electronics; Dzus Fasteners; Fort Edward Landfill; Kingsbury Landfill; Korkay; Liberty Industries; Now Corporation; Old Agway; ServeAll; and SMS Industries.

**NYSDEC, Remedial Design, BB&S Treated Lumber Site, Southampton, New York.** Project engineer reviewing preliminary design concepts of the groundwater remedy selected in the ROD for this former wood pressure treating site. The site was contaminated primarily with chromium, which was associated with the former wood preservative chromated copper arsenate (CCA). Using results from the pre-design investigations, prepared a Supplemental Feasibility Study (FS) that formed the basis for NYSDEC to amend the ROD for the site. The Amended ROD revised the groundwater remedy for the site from groundwater pump and treat to providing an alternative water-supply to authorized homes and businesses, and ongoing monitoring of plume attenuation.

**New York State Department of Environmental Conservation, Construction Oversight, Freeman's Bridge Site, Scotia, New York.** Quality assurance/quality control (QA/QC) manager for the certification report of completion for the remediation of contaminated soils using low-temperature thermal desorption at the 34 Freeman's Bridge Road site.

**New York State Office of General Services (NYSOGS), Remediation System Optimization, Multiple Sites, New York.** Provided technical support for optimization and improvements of a number of remediation systems operated under the NYSOGS contract. System evaluations and improvements included the Bedford Hills pump-and-treat system and the Highland Residential pump-and-treat system.



**Bank of New York, Brownfield Remediation Monthly Site Visits, Flushing, New York.** Project manager for periodic site visits to review progress of work performed by Creamer Environmental, Inc., the remedial contractor working on behalf of Muss Development. Scott managed the review of the remedial progress in relation to the proposed schedule, budget, and New York State Department of Environmental Conservation approved work plans. Scott managed preparation of a site observation report with information pertaining to construction status; permits, tests, and certifications; subcontracts; change orders; and contractor's completion schedule.

**Remediation System Design, Fort Drum Military Reservation, New York.** Scott designed a 150-well multiphase extraction and air sparging system for remediation of a 200,000-gallon gasoline-contaminated area and oversaw installation, start-up, and operation of the complex remedial systems.

**Solvent Site Remediation, Batavia, New York.** Scott designed and implemented injection of whey powder solution for the bioremediation of a chlorinated solvent site.

**Railyard, Oneonta, New York.** Scott designed, installed, and operated two 8-well soil vapor extraction and air sparging system at an industrial facility.

**Railyard Site, North Creek, New York.** Scott implemented an innovative application of Fenton's reagent to remediate diesel-contaminated soil at a historic railyard. Was awarded an Engineering Excellence Award by the American Consulting Engineering Council.

**Toluene Site, Pittsburgh, Pennsylvania.** Scott optimized a 20-well soil vapor extraction and air sparge system at an industrial facility in an urban area.

**Town of Windham, Wastewater Treatment Plant, Windham, New York.** Scott designed a new 250,000-gpd wastewater treatment plant that used tertiary filtration, microfiltration, and ultraviolet disinfection.

**Ski Windham, Wastewater Treatment Plant, Windham, New York.** Scott designed tertiary filtration, microfiltration, and ultraviolet disinfection for a treatment plant upgrade.

**Wastewater Treatment Plant Upgrade, Endicott, New York.** Scott designed solids contact tanks, secondary clarifiers, ultraviolet disinfection system, and pumping station as part of the upgrade of the 10-mgd wastewater treatment plant.

**New York State, Gas-to-Energy Studies, New York.** Scott evaluated the potential of using landfill gas from Colonie Landfill at Mohawk Paper mills boilers.

**New York State, Sludge-to-Energy Study, Glens Falls, New York.** Scott evaluated the potential of using dried paper sludge from a paper manufacturer as feed material and energy source at a cement kiln.

**Groundwater and Soil Vapor Treatment, Pease AFB, NH, and Loring AFB, Maine.** Scott designed, installed, and operated in-situ treatment systems at the former bases, including two groundwater pump-and-treat systems, four soil vapor extraction and air sparging systems, and 16 bioventing systems.

**Hydrocarbon Cleanup, Pease AFB, New Hampshire.** Scott evaluated and implemented the use of natural attenuation to remediate more than 60 petroleum hydrocarbon plumes.

**Remedial Action, Loring AFB, Maine.** Field engineer responsible for eight remedial actions including oversight of three subcontractors.

**Oak Ridge National Laboratory, RI Report, Oak Ridge, Tennessee.** Scott prepared remedial investigation report for a radioactive waste burial.

**Radioactive Waste Disposal Siting Study, Nebraska.** Scott provided hydrologic modeling support for the safety analysis and license application permit for siting a low-level radioactive waste disposal site.

## PUBLICATIONS

"Subsurface Solution," with C.H. Floess, T. Blazicek, M. Thorpe, S. McDonough and R. Doshi, *American Society of Civil Engineering Magazine*, pp. 76-81,86. September 2012.

"In Situ Chemical Oxidation of Saturated and Unsaturated Petroleum-Containing Soils at a Historic Railroad Site," with A.R. Vitolins, B.R. Nelson, L.M. Thomas, *Contaminated Soil Sediment and Water, International Issue*, pp. 38-40, 2001.

"Development and Application of a Geographically-Based Groundwater Flow and Solute Transport Model," Master's Thesis, State University of New York at Buffalo, 1993.

## INVITED LECTURER OR SPEAKER

"Developing a Water Supply System in Rural Haiti," Albany, New York Celebration of Engineer's Week. February 16, 2012.

"Remediation of a Former MGP Site in Norwich, New York: A Case Study," with C. Floess and T. Blazicek, 27th Annual Conference on Contaminated Soils, Amherst, Massachusetts, October 17-20, 2011.

"Developing a Water Supply System in Rural Zimbabwe," . Albany, 7 June 2016, New York Celebration of Engineer's Week. February 15, 2008.

"Remediation of Petroleum-Containing Soil and Groundwater at a Former Rail Yard Locomotive Fueling Area," with S. Compston, B.R. Nelson, L.M. Thomas, 20th Annual Conference on Contaminated Soils, Amherst, Massachusetts, October 18-21, 2004.

"Optimization of an LNAPL Recovery System Based on the Observational Approach," with S. Taylor and A. Ditto, ASCE International Water Resources Engineering Conference in Seattle, Washington, August 8-11, 1999.

"Natural Attenuation of 60 Petroleum Groundwater Plumes at Pease Air Force Base, New Hampshire, USA," with S. Szojka and J. Flagg, 6<sup>th</sup> FZK/TNO International Conference on Contaminated Soils, Edinburgh, Scotland. May 17-21, 1998.

"Bioremediation of Petroleum Contaminated Soils at Loring Air Force Base, Maine," with P. Forbes and J.A. Mueller, Fourth International Conference on Bioremediation, New Orleans, Louisiana, April 28-May 2, 1997.

"Expedited CERCLA Removal Actions at Loring AFB," with T.R. Wood, D. St. Peter, D.S. Hopkins and J.A. Mueller, Maine. 11th Annual Conference on Contaminated Soils, Amherst, Massachusetts, October 21-24, 1996.

"Innovative Investigative Technique for Characterization of Radioactive Disposal Trenches," with J.B. Cange and S.A. Blair, Superfund XVI Conference, Washington D.C., November 6-8, 1995.

"Development of a Geographically Based Groundwater Flow and Solute Transport Model," with S.W. Taylor and J.V. DePinto, ASCE International Groundwater Symposium, San Antonio, Texas, August 14-18, 1995.

"Modeling Surface Water Flow and Contaminant Flux from a Mixed Waste Burial Ground," with R.A. Lambert and J.B. Cange, 21st Environmental Symposium. San Diego, California, April 18-21, 1995.

"Who's Taking Out the Garbage?," ASCE Environmental Engineering Division Conference. Reno, Nevada, July 6-10, 1991.



## JAMES BELLEW

Senior Client Leader

### EDUCATION

M.S., Environmental Geology, Queens College

B.S., Geology, Pre-Law, Environmental Science, Binghamton University

### PROFESSIONAL SOCIETIES

American Council of Engineering Companies, Member, 2017

Urban Land Institute, Member, 2016

Business Council of New York, Member, 2018

### SPECIAL STUDIES AND COURSES

40-Hour OSHA Hazardous Waste Operations and Emergency Response Training  
(29 CFR 1910.120)

30-Hour OSHA Construction Safety and Health

8-hour OSHA Site Supervisor Certification

OSHA Confined Space Entry Training Certification

Erosion and Sediment Control, New York, No. 006925

USDOT/IATA Training on the Shipping and/or Transportation of Hazardous Materials

James Bellew is a senior client leader and geologist with experience in bedrock, soil and groundwater investigation and an emphasis on remedial design and implementation and will focus his time at Haley & Aldrich serving the Buildings and Infrastructure markets. His experience also includes completion of numerous Phase I Environmental Site Assessments and Phase II Environmental Site Investigations, development of conceptual site models, site characterization, environmental permitting, environmental compliance reports as well as remedial design and implementation. He has been involved with numerous projects within the New York State Superfund Program, New York State Brownfield Clean-up Program and New York City Office of Environmental Remediation E-Designation Program.

James has designed, estimated and managed large-scale remediation jobs in a variety of settings in the New York/New Jersey metropolitan area. He has performed construction management services on large scale projects requiring abatement of asbestos-containing materials and polychlorinated biphenyls (PCBs). He has direct experience developing and implementing operation, maintenance and monitoring programs for groundwater and soil remediation systems.

James has also worked on large scale remediation projects for Manufactured Gas Product (MGP) in the lower New York Region from former operations associated with National Grid and Con Edison. He has also designed, installed, operated and maintained remedial systems at retail petroleum stations for Hess Amerada, British Petroleum, Sunoco and Shell in addition to providing operation and maintenance programs for chemical injection and petroleum systems for New York State Department of Environmental Conservation (NYSDEC) Superfund and Environmental Protection Agency (EPA) Superfund Sites.

## RELEVANT PROJECT EXPERIENCE

**Development, Former BP Station, Elmhurst Queens, NY.** James was responsible for the preparation of a full environmental impact statement with respect to a mixed-use development proposed in Elmhurst Queens. The work includes a full impact assessment of the proposed construction with respect to the neighborhood, evaluation of green/open spaces for the community and environmental site investigation and remediation services.

**New York State Superfund Site, Former Nuhart Plastics Site, New York State Superfund Site, Brooklyn, NY.** Senior Project Manager for a feasibility study and remedial planning for a former plasticizer facility with on- and off-site pollutant concerns. Project was a high-profile New York State Superfund Site that required compliance with the

NYSDEC, the New York City Office of Environmental Remediation (NYCOER), and local regulatory agencies. Ongoing work was the operation and maintenance (O&M) activities related to two large groundwater plumes impacted by light non-aqueous liquids (LNAPL) with phthalates and trichloroethene (TCE), which extend downgradient of the Site. Completed the first remedial action design for Lot 57 which is enrolled in the NYCOER E-Designation program. The Site will include two additional developments within the former manufacturing building footprint.

**New York State Brownfield Site, Former Delta Metals Site, Brooklyn, NY.** Senior Project manager for the remedial investigation and remedial action design for the former Delta Metal Products Company. Project is under the New York State Brownfield Cleanup program as a Participant where TCE and tetrachloroethene (PCE) were encountered in soil and groundwater. James successfully delineated the vertical and lateral extents of the plumes which were identified as an upgradient, on-site and downgradient plume. Investigation results triggered the NYSDEC to utilize its call-out contract to perform a plume trackdown for the immediate area and identify additional Potentially Responsible Parties. The design for an Air Sparge Soil Vapor Extraction system has been accepted and the project is currently in construction.

**Manufacturing-Industrial, Hess Amerada, Bogota and Edgewater, NJ.** James provided construction management services for the demolition of two waterfront terminals, one each on the Hackensack and Hudson rivers. Demolition included oversight, planning and coordination of activities related to asbestos abatement, demolition of buildings, thirty holding tanks, piping structures, containment structures and storm water structures.

**Manufacturing-Industrial, PQ Corporation, Northeastern United States.** James designed and implemented a three phased program for handling PCBs containing materials on approximately 100 tank structures at large, active industrial sites, which included coating removal, encapsulation, demolition, and Toxic Substances Control Act (TSCA) remediation. He was responsible for development of the overall program, specifications, drawings, bid packages, construction oversight and project administration until closure. Program also included design and oversight of a new façade and roof upgrades completed concurrently to client operations.

**Development, New York State Brownfield Site, Former Cascade Laundry, Brooklyn, NY.** James was responsible for environmental and construction management services required to successfully navigate seven-building redevelopment project through the NYSDEC Brownfield Cleanup Program (BCP). Project included site investigation, design, and remediation for development of seven buildings within a 2-acre site in Brooklyn, New York. Remediation included excavation of approximately 40,000 cubic yards of soil, groundwater extraction and treatment, underground storage tank (UST) removal, design and installation of a Sub Slab Depressurization System (SSDS) and ex situ chemical oxidation of groundwater impacted by petroleum.

**Development, New York City Brownfield Site - 520-534 West 29<sup>th</sup> Street, New York, NY.** James was responsible for environmental site investigation and remediation activities required to successfully navigate the project through the New York City Office of Environmental Remediation's (NYCOER's) E-Designation and Voluntary Cleanup Programs. Project included demolition of existing buildings and development of two separate mixed-use buildings.

**Development, New York State Brownfield Site, BJ's Wholesale, Brooklyn, NY.** James managed construction oversight activities at an 8-acre peninsula in Gravesend Bay being redeveloped by BJ's Wholesale Club (BJ's) into a "big-box" warehouse and parking garage, and a publicly accessible, waterfront open space. Implemented a comprehensive community air monitoring plan (CAMP), managed the design and installation of a passive sub slab depressurization system, and oversaw handling and off-site disposal of impacted material generated by BJ's (the Lessee for the subject site) during their foundation construction activities.

**Development, New York State Brownfield Site, Coney Island, Brooklyn, NY.** James provided environmental services during the rehabilitation and expansion of a 1970s-era mixed-use complex, which covers an area equivalent to three city blocks. He facilitated the BCP applications for two adjacent parcels within the complex impacted by historic dry-cleaning uses. Site investigations performed had documented the presence of PCE in soil gas and was delineated over three separate structural slabs in commercial and residential space utilizing a mobile laboratory. He designed and installed two sub-slab depressurization systems and prepared Remedial Investigation Work Plan which outlined work

required to delineate the vertical and horizontal extent of the impacted soils, soil vapor and groundwater at both BCP sites. The system was designed with below slab suction pits, remote sensing vacuum monitoring points, and a variable frequency drive blower tied into the monitoring points for optimization and power savings.

**Development, New York City Brownfield Site, Hospitals, Memorial Sloan Kettering Cancer Center (MSKCC), New York, NY.** Project Manager for environmental remediation for this MSKCC development project. James was directly responsible for subsurface investigation and remediation activities, large MGP gas holder removal (from former Con Edison Operations), UST removal, daily status updates to the NYCOER, implementation of the CAMP and the management, handling, characterization, and off-site disposal of MGP impacted soil and dewatering fluids.

**New York State Spill Remediation, Metropolitan Transportation Agency Bridges and Tunnels, New York, NY.** James managed investigation for underground storage tank removal, excavation of 600 cubic yards of petroleum impacted soil, design and installation of a groundwater extraction and treatment system and post remediation samples. Implemented the In Situ Chemical Oxidation program for the injection of 54,000 gallons of 8 percent solution Fenton's Reagent and the O&M of the petroleum spill with respect to the Fenton's performance and the plume migration.

**Various Public Schools, New York City School Construction Authority, New York, NY.** James oversaw environmental remediation proposed for several school development sites, including PS 312, P.S. 281 and PS 27K. Assisted in the design and implementation of the remediation programs for the sites for petroleum spills, PCB TSCA contamination and hazardous lead hot spots.

**Development, i.Park Edgewater, Edgewater, NJ.** James designed and oversaw the environmental remediation on-site. Implemented the construction plan for remediation of arsenic, pitch- and PCB-impacted soil for excavation and off-site disposal of 20,000 tons. He managed the air monitoring system on-site which consisted of four permanent stations set upwind and downwind on-site for volatile organic compound (VOC) and particulate migration off-site. Also, James performed redesigns throughout the project to keep within the current schedule and budget.

**Development, New York State Brownfield, Queens West, Long Island City, NY.** Assistant Project Manager for oversight of the Environmental Remediation on-site. James implemented the construction plan for remediation of 20,000 cubic yards of LNAPL on the Site; he assisted in design and oversight of the In Situ Chemical Oxidation mixing on-site. The project was eventually developed into three large towers and a new school.

**Manufactured Gas Plant, National Grid, Rockaway, NY.** James aided in the design and implementation of the soil characterization plan for MGP impacted sands. After delineation of the contamination plume, helped draft work plans and site layout of the negative pressure tent. He performed and trained the on-site staff on the use of personal air monitoring equipment and provided assistance with design considerations on the installation of a waterloo barrier to be advanced to minus 80 feet below grade surface. James also helped with the design and permitting for the groundwater treatment system installed on-site.

**Manufactured Gas Plant, Con Edison, New York, NY.** Environmental engineer for responsible party for all environmental issues associated with this job, including transportation and disposal of 8,000 tons of MGP contaminated soil from former Con Edison operations. James scheduled weekly work for all civil and environmental tasks on the job. He was responsible for the design and installation of the dewatering treatment system with a daily discharge of 25,000 gallons per day of MGP-impacted water.

**New York State Superfund Project, NYSDEC, Hicksville, NY.** James performed O&M and reporting on the Site's Potassium Permanganate Injection system, which was on a timed system; maintained the system, troubleshooting problems and ensuring that the proper ratios were being injected. He performed the fieldwork for analysis and drafted interim reports for the project manager.

**Retail Petroleum, New York State Spills Program, Hess Amerada, Various Locations, NY.** James designed installed and maintained groundwater and soil vapor remedial systems at over 30 retail petroleum stations for Hess. Responsible for ensuring that the remedial systems were operating properly and performing repairs as necessary

during operation. He performed groundwater and soil vapor monitoring and drafted O&M reports for the NYSDEC. Plume size ranged from within the retail station property with monitoring off-site impacts in local neighborhoods greater than a 3-mile radius.

**Retail Petroleum, New York State Spills Program, British Petroleum, Various Locations, NY.** James designed installed and maintained groundwater and soil vapor remedial systems at over 10 retail petroleum stations for BP. He was responsible for ensuring that the remedial systems were operating properly and performing repairs necessary during operation. He performed groundwater and soil vapor monitoring and drafted O&M reports for the NYSDEC. Plume size ranged from within the retail station property with monitoring off-site impacts in local neighborhoods greater than a 2-mile radius.

**Development, 524 West 19<sup>th</sup> Street, New York, NY (Metal Shutter Homes).** Responsible party for all environmental and civil issues associated with this job, including transportation and disposal of 5,000 tons of MGP contaminated soil from former Con Edison operations. James scheduled weekly work for all civil and environmental tasks on the job. He successfully redesigned the grout cutoff wall connections to the installed steel sheeting with a secant wall installed off-site. He provided technical guidance for drilling 4-foot diameter exploratory casings for subsurface anomalies. Additionally, James was responsible for the design and installation of the dewatering treatment system with a daily discharge of 25,000 gallons per day of MGP impacted water.

**EPA Superfund Site, Newtown Creek Superfund, Brooklyn, NY.** James aided in the design of the pump and treat system installed at Peerless Importers. He also aided in the design and installation of the harbor boom set up. Operated and Maintained groundwater/LNAPL extraction systems on-site and performed monthly site gauging as part of the O&M plan.



## MARI C. CONLON

Project Manager

### EDUCATION

M.S., Geology, Boston College

B.S., Geology with a minor in Economics and Business, Lafayette College

### PROFESSIONAL REGISTRATIONS

NY: Professional Geologist (License No. 000769)

### PROFESSIONAL SOCIETIES

Big Apple Brownfield Awards, Co-Chair, 2018-2019

Big Apple Brownfield Awards Nomination Committee, 2016-2017

### SPECIAL STUDIES AND COURSES

40-Hour OSHA Hazardous Waste Operations and Emergency Response Training (29 CFR 1910.120)

10-Hour OSHA Construction Safety

8-Hour OSHA Supervisor of Hazardous Waste (29 CFR 1910.120 & 29 CFR 1926.65)

Mari is a project manager with experience in soil, groundwater and soil vapor investigation and a focus on remedial design and implementation, and will focus her time at Haley & Aldrich serving the environmental and real estate markets. She is also experienced in completion of numerous Phase I Environmental Site Assessments and Phase II Environmental Site Investigations, site characterization, hazardous materials analysis, regulatory closure reports as well as remedial design and implementation.

Mari has experience in composing site closure documentation including Remedial Closure Reports and Noise Installation Reports reviewed by the Office of Environmental Remediation as well as Final Engineering Reports reviewed by the New York State Department of Environmental Conservation. Her background includes developing and complying with approved site management plans overseeing the operation and maintenance of on-site engineering controls and ensuring the protection of human health and the environment.

Mari has also worked on city rezoning proposals by performing work associated with and composing the Hazardous Materials Analysis chapter included in Final Environmental Impact Statements published by New York City Department of Planning. Analysis methods were performed in accordance with the City Environmental Quality Review (CEQR) guidelines for neighborhoods including East New York, Brooklyn, Jerome Avenue, Brooklyn, Inwood, and Manhattan.

## RELEVANT PROJECT EXPERIENCE

### State and City Agencies

#### **School Construction Authority, Waste Characterization and Excavation Materials Disposal Plan, Brooklyn, New York.**

Project manager for consulting services for New York Public School 127. Services included composition of an Excavated Materials Disposal Plan, collection of waste characterization samples and preparation of and preparation of a findings and recommendations report.

**Department of City Planning, Rezoning Environmental Impact Statement, Bronx, New York.** Project lead for analysis and composing the Hazardous Materials Chapter as per City Environmental Quality Review (CEQR) Technical Manual guidelines included in the Final Environmental Impact Statement (FEIS) for an approximately 92-block area primarily along Jerome Avenue and its east-west commercial corridors in the Bronx. The review assessed the potential for the presence of hazardous materials in soil and/or groundwater at both the projected and potential development sites identified in the reasonable worst-case development scenario under the proposed East New York Rezoning Proposal. Procedures involved site inspections and review of historic Sanborn fire insurance maps, city directories and city/state regulatory databases. The assessment identified that each of the 146 projected and potential development sites has



some associated concern regarding environmental conditions. As a result, the proposed zoning map actions include (E) designations (E-366) for all privately-held projected and potential development sites.

**Department of City Planning, Rezoning Environmental Impact Statement, Brooklyn, New York.** Project lead for performance analysis and composing the Hazardous Materials Chapter as per CEQR Technical Manual guidelines included in the FEIS for an approximately 190-block area of East New York, Cypress Hills, and Ocean Hill neighborhoods of Brooklyn, New York. The review assessed the potential for the presence of hazardous materials in soil and/or groundwater at both the projected and potential development sites identified in the reasonable worst-case development scenario under the proposed East New York Rezoning Proposal. Procedures involved site inspections and review of historic Sanborn fire insurance maps, city directories and city/state regulatory databases. The assessment identified that each of the 186 projected and potential development sites has some associated concern regarding environmental conditions. As a result, the proposed zoning map actions include (E) designations (E-366) for all privately-held projected and potential development sites.

### Redevelopment and Remediation

**Titan Equity Group, Hotel Redevelopment, Bronx, New York.** Project manager for a hotel redevelopment in the south Bronx. The site has been assigned New York City Office of Environmental Remediation (NYC OER) E-Designation status for hazardous materials, noise and air quality. Services included completion of a remedial investigation, composition of a Remedial Investigation Report and development of Hazardous Material Remedial Action Work Plan and Air Quality/Noise Remedial Action Plan as per NYC OER requirements.

**The Related Companies, Chelsea Mixed-Use Redevelopment, New York, New York.** Field geologist for oversight of the remediation of a mixed-use residential and commercial building, the second of a two-building development on 30<sup>th</sup> Street. Contaminants of concern included volatile and semi-volatile organic compounds associated with historic operations and underground storage tanks (USTs) located on the Site. The Site was given an E-designation (E-142) for hazardous materials and noise as part of the Highline/West Chelsea rezoning proposal. To satisfy the requirements of the E-designation program, soil was excavated to at least 12 feet below grade and bottom endpoint collected showing no contaminants of concern exceeding the New York State Department of Environmental Conservation (NYSDEC) Unrestricted Use Soil Cleanup Objectives (SCO). By achieving Unrestricted Use SCOs, no engineering controls were necessary, although the building slab was included as part of development, and removal of the hazardous materials E-designation was requested.

**Tishman Speyer, Long Island City Residential Development, Long Island City, New York.** Field geologist for remedial oversight and implementation of a Community Air Monitoring Program during concurrent remediation and development of three Brownfield Cleanup Program (BCP) sites located in Long Island City, New York. The Sites were grossly contaminated with creosote, a carcinogenic chemical formed from the distillation of various tars. Remediation strategies included soil excavation and in-situ soil stabilization. To prevent migration of groundwater off-site, a temporary and later a permanent capture well system was installed on the western boundary of the property. The BCP site located on the western portion of the property left residual contamination in place requiring installation of a sub-slab depressurization system.

**Queens West Development Corporation, Queens Waterfront Development, Long Island City, New York.** Field geologist for performance of site management post remedial action. Services included annual groundwater monitoring, evaluation of engineering and institutional controls completion and Period Review Reports. In addition to conducting annual site management activities, responsibilities included composing a work plan to evaluate the transition from active sub-slab depressurization systems to passive. Upon NYSDEC approval, active systems were shut down for 30 days prior to a sub-slab vapor sampling event evaluation soil vapor, indoor and outdoor air conditions for potential vapor intrusion risk. As results indicated no evidence of vapor intrusion, continued pressure monitoring was conducted for from the existing monitoring ports for one year assessing whether negative pressure was held by the existing slab by stack-effect or other passive processes.



**Jim Beam Brands Co., Brownfield Cleanup Program Remediation Site, Long Island City, New York.** Field geologist for oversight of the installation of an Electrical Resistive Heating (ERH) system implemented in order to remediate trichloroethylene groundwater plumes in shallow/intermediate and deep groundwater on- and off-site. The Site, a former stapler manufacturing facility, underwent various remedies, including a Soil Vapor Extraction system, air sparging, ozone injection and chemical oxidation using potassium permanganate injections, which resulted in little reduction to contamination levels and rebounding chlorinated solvents. Components of the ERH system installed included electrodes for delivery of steam, vapor recovery wells, and groundwater monitoring wells. The site is currently under remediation in the state BCP program.

### Due Diligence and Site Characterization

**Manufacturing Plants, Multiple Investors, Environmental and Compliance Assessment Portfolio United States.**

Project lead for completion of Phase I Environmental Site Assessments (ESAs) and Limited Compliance Reviews for multiple auto parts manufacturing facilities throughout the United States. Services included completion of Phase I ESAs in accordance with the American Society for Testing and Materials E1527-13 requirements and a limited review of each facility's compliance liabilities including issues pertaining to the Resource Conservation and Recovery Act, Greenhouse Gas Emission Standards and Tier II Emergency and Hazardous Chemical Inventory reporting requirements.

**ARM Parking, Environmental Site Assessment and Subsurface Investigation, Brooklyn, New York.** Project manager for site assessment and subsurface investigation of parking facility in Sunset Park neighborhood, Brooklyn, New York. Services included ground penetrating radar survey for former and current petroleum USTs, completion of a subsurface investigation of soils and composition of Limited Subsurface Investigation Report.

### Spill Consulting

**The Trump Organization, Spill Consulting Services, New York, New York.** Project manager for consulting services provided after incidental release of calcium carbonate ice rink paint to the Central Park Pond from Wollman Rink. Services included liaising with NYSDEC regarding violations, consent order and required corrective action. Corrective action included designing alterations to the existing on-site drainage plans and routing all meltwater containing paint into the combined sewer system. Coordination was required with property owner, operations personnel, New York City Department of Parks and NYSDEC.

**Richmond Gardens Apartments, Spill Management and Closure Services, Staten Island, New York.** Project lead responsible for spill closure activities and reporting for Spill 1105661 located at the Richmond Gardens Apartment Complex in the Richmond neighborhood of Staten Island, New York. The spill was opened in 2011 when several underground storage tanks were identified adjacent to the apartments at Jersey Street and Hendricks Avenue. The tanks were cleaned and removed and impacted soils surrounding the tank area excavated to the extent possible. Excavation of all impacted material was not feasible due to the proximity of the tanks to the apartment buildings. Residual contamination in soil and groundwater remained and was monitored through 2016. Upon reviewing the groundwater monitoring data from over 12 consecutive quarters, it was apparent monitored natural attenuation was not a feasible option and an in situ chemical oxidation (ISCO) remedy was approved by NYSDEC. Due to success of the pilot test, the ISCO injection event was implemented utilizing pressure pulse technology to deliver the alkaline activated persulfate solution to the subsurface.

**BRIAN FITZPATRICK, CHMM**

Corporate Director, Health and Safety

**EDUCATION**

M.P.A., Environmental Policy, Syracuse University  
B.S., Environmental Science, University of Massachusetts-Amherst  
A.S., Chemistry, Valley Forge Military Junior College  
Commissioned Officer, United States Army

**CERTIFICATIONS**

Certified Hazardous Materials Manager (Reg. No. 13454)  
Certified Department of Transportation Shipper  
Certified International Air Transport Authority Shipper

**PROFESSIONAL SOCIETIES**

Alliance of Hazardous Materials Professionals  
Academy of Certified Hazardous Materials Managers, New England Chapter

**SPECIAL STUDIES AND COURSES**

Department of Transportation	Radiation Safety Officer
International Air Transport Authority	RCRA Hazardous Waste
Incident Commander	Massachusetts Industrial Waste Water
Confined Space Entry and Rescue	Operator Grade 2I (expired)

**AWARDS**

Presidents Club Award (one million hours worked without a recordable injury, Cabot Corporation)  
Chancellors Award for Excellence, Syracuse University

Brian has over 25 years of experience in developing, implementing, and managing a wide range of environmental, health, and safety (EH&S) solutions for a variety of clients. Brian has served as the Health and Safety Manager and Incident Commander at several research and development sites and has managed extensive programs to maintain and clean contaminated sites under Federal and State regulatory programs. He has provided expertise in managing EH&S programs as a consultant, and has actively developed, implemented, and managed these programs as an EH&S professional for various industries.

Brian is currently working as the Chief Health and Safety Officer for Haley & Aldrich, Inc. He, and his staff, are involved in every project Haley & Aldrich, Inc. undertakes. Brian is involved on several projects, directly overseeing the health and safety on the project site of our staff, our contractors, and the public. Brian also acts as support for our on-site health and safety staff on other larger construction and remediation projects.

Through Brian's leadership our safety culture and focus extend from the top of our organization to each and every Haley & Aldrich employee as well as subconsultants and subcontractors. Utilizing a Behavior Based Safety approach, Haley & Aldrich expects every project team member to play an important role in making our projects safe and has given authority to every Haley & Aldrich employee, subconsultant, and subcontractor to stop any activity at any time for health or safety concerns. Our record illustrates that our hard work is paying off. The company has gone 4 years without a lost time injury, and our TRIR and EMR have consistently improved each of the last 3 years.

## RELEVANT PROJECT EXPERIENCE

**Haley & Aldrich, Inc., Burlington, Massachusetts.** As Chief Health and Safety Officer, Brian has led and facilitated the development and implementation of corporate health and safety (H&S) improvement plans to enhance compliance and improve H&S performance. In Brian's time with Haley & Aldrich, Inc., the company has realized dramatic improvement on H&S goals and in Key Performance Indicators. Brian is responsible for developing a risk competence culture, where our staff are empowered to look for and engage to address risk before anyone is injured. Brian oversees the development, implementation and continuous improvement of all H&S programs for the company.

Additional responsibilities include:

- Developing a safety culture through incident reporting, root cause analysis, behavior-based safety, hazard recognition and risk assessment, communication, and developing leaders;
- Monitoring proposed and existing SH&E regulations and legislation to determine their impact on operations and to ensure continued compliance;
- Overseeing the safety, industrial hygiene, and toxicology programs for over 600 staff members engaged in remediation, construction, health and safety, consulting, and general office work across 28 offices in the United States and on assignment to international project sites;
- Continuously seeks to improve H&S performance as measured by the OSHA Incident Rating (IR) and Worker's Compensation Experience Modification Rating (EMR), as well as Leading Indicators developed with the management team; and
- Participating in the corporate audit program as an auditor or lead auditor;

**Energy Client, California.** As Chief Health and Safety Officer, Brian led and facilitated the Alliance Partnership Safety Council in 2017, is still an active contributor to the council, and hosts routine contractor safety forums for the client. Brian is actively involved in the development and implementation of program safety, health, and environmental (SH&E) plans to ensure safe operations on project sites. Brian developed permits and Health and Safety Plans for large projects and routinely audits the site safety. Additional responsibilities include:

- Driving reporting and behavior-based safety initiatives to support our internal safety culture and developing monthly summary reports to illustrate performance to our client.
- Develop, assess and continuously improve site safety plans and practices, including specific safety protocols for working safely over and around water.
- Worked as an extension of the client's organization to provide assurance that the remedy was completed safely and consistent with client-specific requirements.
- Support on-site safety personnel in ensuring the health and safety of the general public, our staff, and our sub-contracted employees.
- Audits and visits sites to ensure compliance with our internal policies and client-specific requirements.

**Energy Client, Ohio.** As Chief Health and Safety Officer, Brian supports the project team in developing and executing client and project specific health and safety measures, such as a site specific Health and Safety Plan, Job Hazard Analyses, Industrial Hygiene program, and site specific training. Brian also routinely visits the site to assess current practices and condition and to ensure continuous improvement. Additional responsibilities include:

- Develop, assess, and continuously improve site safety plans and practices, including specific safety protocols to comply with supplemental EH&S requirements such as the Duke Health and Safety Handbook, Environmental Supplemental, and EHS Keys to Life.
- Develop, assess, and continuously improve site safety plans and practices to address the risks associated with the work being performed on site, as well as the environmental conditions and simultaneous operations, including trenching and excavation, hot work, work over and near water, heavy equipment, HAZWOPER, etc.
- Worked as an extension of the client's organization to provide assurance that the remedy was completed safely and consistent with client-specific requirements.
- Support on-site safety personnel in ensuring the health and safety of the general public, our staff, and our sub-contracted employees.
- Audits and visits site to ensure compliance with our internal policies and client-specific requirements.



## BRIAN A. FERGUSON

Senior Engineer

### EDUCATION

M. S. Geotechnical Engineering, Tufts University, Medford, Massachusetts; 2012

B. S. Civil Engineering, State University of New York - Environmental, Science, and Forestry, Syracuse, New York; 2000

Ass. Science Degree in Applied Science and Technology (Nuclear Engineering), Thomas A. Edison State College, Trenton, New Jersey; 2000

### PROFESSIONAL SOCIETIES

Order of the Engineer – 2000

Boston Society of Civil Engineers (BSCE)

American Society of Civil Engineers (ASCE)

### SPECIAL STUDIES AND COURSES

American Concrete Institute – Certified Field Technician Certified Grade 1

Radiation Safety and Operations of Nuclear Testing Equipment – Troxler

40-Hour OSHA Hazardous Waste Operations Training (+ 8-Hour annual refresher)

10-Hour OSHA Construction training

Confined Space Entry Training

16-Hour Asbestos Operations and Maintenance

Mr. Ferguson has over six years of experience serving as project engineer on a variety of real estate development projects. His project experience has included monitoring field investigations and performing construction oversight, performing due diligence and engineering analyses, performing geotechnical analyses and developing geotechnical recommendations, and preparing geotechnical reports and project specifications.

In addition to providing engineering design support, Mr. Ferguson has managed and participated in a number of field service activities. Field work has included construction monitoring and documentation of contractors' deep and shallow foundation related construction, including slurry walls, caissons, pile driving, pile cap installation, earthwork, backfilling and compaction, installation of soldier pile and wood lagging support systems, installation of tie backs, reading inclinometers, conducting in-place field unit weight tests, tie-back load testing, seismograph installation, monitoring, and evaluating, and preparation of footing bearing surfaces. Other responsibilities have included site development activities, including placement of utilities and subgrade preparation for roads; observations and testing to determine that work is completed in compliance with contract documents; on-site soil management; sampling of soil and groundwater for chemical laboratory testing and conducting in situ field screening; maintenance of job records including pile driving logs, results of field density tests, records of caisson and footing installations; preparation of daily field reports; in contact with key personnel; and resolution of field related problems.

### RELEVANT PROJECT EXPERIENCE

**St. Elizabeths Hospital – West Campus Forensic Evaluations, Washington, D.C.** Project Engineer for forensic evaluations on the adaptive reuse of former hospital buildings. Responsibilities included coordination of a field exploration program, including test borings and test pits to obtain subsurface information for project design and construction, overseeing multiple field personnel, subcontractors, assisting with project management, reviewing subcontractors invoices, reviewing and summarizing subsurface data and writing data reports.

**TUFTS University, New Central Energy Plant, Medford, MA.** Project engineer for a new Central Energy Plant that will house new co-generation steam boilers, centralized chilled water and electrical transformer switchgear that is planned to occupy approximately 20,000 square feet across two or three levels. Responsibilities included coordination of construction monitoring, observing SOE and footing installation, assisting with project management,

reviewing weekly field construction reports, reviewing and responding to geotechnical design submittals and attending project meetings.

**Lahey Hospital and Medical Center – Stilts Infill Project, Burlington, MA** Project Engineer for an addition to the existing Stilts building on the Lahey campus. Responsibilities included coordination and overseeing geotechnical and environmental subsurface investigations, coordination of construction monitoring, observing footing installation, assisting with project management, reviewing weekly field construction reports, reviewing and responding to geotechnical design submittals and attending project meetings.

**Gloucester Beauport Hotel, Gloucester, MA** Project engineer for a four story hotel with a seawall constructed adjacent to tidal beach. Responsibilities included coordination and overseeing geotechnical and environmental subsurface investigations, coordination of construction monitoring, assisting with project management, reviewing weekly field construction reports, reviewing and responding to geotechnical design submittals and attending project meetings, design and implementation of a sub-slab gas mitigation system.

**275 Wyman Street, New Office Building, Waltham, MA.** Project engineer for a new office building and parking garage founded on a shallow foundation system. Responsibilities included preparing proposals, assisting with management and planning of a subsurface investigation program, summarizing subsurface data and reviewing geotechnical test boring logs, coordination of construction monitoring and instrumentation monitoring programs, reviewing weekly field construction reports, reviewing and responding to specialty geotechnical design submittals and RFIs by others and attending project meetings.

**Suffolk University - 20 Somerset Street, Boston, MA** Project engineer for design of 8-story academic building with two levels of below grade finished space. Responsibilities included coordination of construction monitoring, observing SOE and footing installation, assisting with project management, reviewing weekly field construction reports, reviewing and responding to geotechnical design submittals and attending project meetings.

**Worcester State University, New Student Housing, Worcester, MA** Project engineer for design and construction of a 7-story residence/dining hall with a single level basement and a major site retaining wall structure. Responsibilities included overseeing geotechnical subsurface investigations, provided foundation recommendations and specifications, and prepared a retaining wall contract document. Responsibilities included coordination of construction monitoring, excavation and construction of footings, and soil reuse and management, assisting with project management, reviewing weekly field construction reports, reviewing and responding to geotechnical design submittals and attending project meetings.

**University of Massachusetts Boston, General Academic Building No.1, Boston, MA.** Project engineer responsible for assisting project manager in preliminary foundation engineering recommendations and construction considerations for a new academic building on a part of Columbia Point, a historic landfill area. Assisted in design phase services that included preparing foundation support design recommendations including the use of high allowable stresses for 190-ft long end-bearing H-piles and application of Slickcoat coating to address downdrag concerns and reduce foundation costs.

**Waltham Watch Factory, Waltham, MA** project engineer for redevelopment of former watch factory. Responsibilities included construction oversight of new precast parking garage, utility upgrades, soil remediation and management, installation of gas mitigation systems, assisting with project management, reviewing weekly field construction reports, reviewing and responding to geotechnical design submittals and attending project meetings.

**Massachusetts Green High Performance Computing Center, Holyoke, MA.** Project engineer for 60,000 sq. ft high level computing center and associated support utilities. Redevelopment of the site included recycling 50,000 cy of construction debris into the site fills at this historic site along the Connecticut River. Responsibilities included coordinating geotechnical and environmental field investigations, coordination of construction monitoring, seismic analysis, reviewing weekly field construction reports, reviewing and responding to geotechnical design submittals and attending project meetings.

**The Shops at Riverwood, Hyde Park, MA.** The project consisted of the redevelopment of a colonial era paper mill. The multi-building complex was demolished and the concrete and brick from the previous buildings were recycled. The project involved crushing 50,000 cy of brick and concrete and placement of excavated soils and recycled brick and concrete as compacted fill materials to support proposed buildings, pavement areas, and achieve 5 to 9 ft. raises in grade. Field Representative was responsible for management and reuse of brick and concrete stockpiles, in-place density testing, coordination of test pits, installation of soldier pile and versa-lok walls, and backfilling of underground vaults. Remedial activities included: excavation of 5,000 cy of petroleum contaminated soils, on-site cement batching in a pug mill, and placement of compacted recycled materials in roadway areas; delineation, excavation and off-site disposal of TSCA-regulated PCB contaminated soils associated with historical Askarel transformers and dioxin-contaminated soils associated with historical bleaching operations; and disposition of 1,000 tons of paper mill sludge encountered within an abandoned granite-walled sluiceway structure. In addition, assisted with weekly project meetings, maintaining a record of material reuse, and providing weekly field reports.

**Harvard Law School, Cambridge, MA.** The Harvard Law School project is located on Massachusetts Avenue in Cambridge. The project consisted of a multistory building above ground with 5 levels below ground for a parking garage. Field Representative was responsible for overseeing the installation of slurry walls into bedrock and LBEs with three installation rigs while monitoring the removal of urban fill and transfer to several different receiving facilities from another portion of the site. The slurry walls were constructed into bedrock. Other Field Representative activities were: testing of the slurry, management of the excavated soils, and record keeping of the Contractor's obstruction and down time of the equipment. In addition, assisted with weekly project meetings, maintaining a record of obstruction and machine time, and providing weekly field reports.



## SARAH COMMISSO

Staff Geologist

### EDUCATION

B.S., Geological Sciences with a minor in Chemistry, Binghamton University

### SPECIAL STUDIES AND COURSES

40-Hour OSHA Hazardous Waste Operations and Emergency Response Training (29 CFR 1910.120)

8-Hour OSHA HAZWOPER Refresher Training

10-Hour OSHA Construction Safety Training

8-Hour DOT Hazmat Employee & RCRA Hazardous Waste Generator Training

Sarah is a geologist with experience in remedial site investigations, subsurface investigations, geotechnical drilling investigations, preparation of technical reports, and data collection and analysis. She also has extensive experience with conducting Phase I Environmental Site Assessments and Phase II Environmental Site Assessments, and other forms of environmental due diligence. She has performed soil, groundwater, and soil vapor sampling events, geotechnical drilling projects, and has drafted site investigation plans and reports. Sarah regularly utilizes computer programs such as Microsoft Excel, Microsoft Word, and Adobe Acrobat DC in her daily job functions.

She will focus her time at Haley & Aldrich serving the Building and Infrastructure markets with performing site reconnaissance to observe existing conditions and features, monitor subsurface exploration activities to collect soil, bedrock, groundwater, as well as other pertinent information for project design, and assist in the development of remedial work plans.

### RELEVANT PROJECT EXPERIENCE

#### Environmental Experience

**Confidential Environmental Client, 590-594 Myrtle Avenue, Brooklyn, New York.** As lead field geologist, Sarah was responsible for the oversight of the excavation and remediation of the property under the New York City Office of Environmental Remediation. During remediation Sarah observed and documented the excavation and proper disposal of on-site soil required for the installation of foundation elements. In addition, she oversaw the proper cleaning and removal of three underground storage tanks encountered during site wide excavation. After excavation was complete, she inspected the installation of a sub-slab vapor barrier and conducted the community air monitoring program during the course of remedial action.

**Confidential Environmental Client, Former NuHart Plastics Manufacturing Plant, Brooklyn, New York.** Sarah worked as a field geologist for multiple monitoring events which consisted of the removal of light non-aqueous-phase liquid (LNAPL) performed in compliance with the site-specific, New York State Department of Environmental Conservation (NYSDEC)-approved Operation, Maintenance, and Monitoring Plan (OM&M Plan) for the product recovery system. Additionally, she assisted in drafting a Supplemental Remedial Investigation Work Plan to address remaining contamination at the Site and determine a course for remedial action.

**Multiple Confidential Clients, Brownfield Cleanup Program Applications and Remedial Investigation Work Plans for NYSDEC.** Sarah has completed writing several Brownfield Cleanup Program Applications for various clients in New York State. In writing the applications, Sarah reviewed previous subsurface investigations of the site, and historical information to help get underutilized and abandoned contaminated properties into the Brownfield Cleanup Program to be remediated and redeveloped under NYSDEC. After completing the application, she prepared a Remedial Investigation Work Plan to strategically investigate site contamination so proper Remedial Action can take place.



**Confidential Environmental Clients, Excavation Oversight and CAMP Monitoring, Various Sites, Bronx and Brooklyn, New York.** Sarah served as field geologist for several projects under the NYC Mayor's Office of Environmental Remediation (NYCOER) program and New York State Brownfield Cleanup Program (NYSBCP). Her responsibilities included performing excavation oversight, air monitoring, vapor barrier installation oversight, and logging trucks for off-site disposal.

**Multiple Clients, Phase I Environmental Site Assessments (ESAs) and Due Diligence, Multiple Locations in New York, New Jersey, and Massachusetts.** Sarah conducted Phase I ESAs, for buyers on a variety of properties including commercial, industrial, and residential sites in New York, New Jersey, and Massachusetts. She has experience conducting site reconnaissance and reviewing historical site documentation to identify recognized environmental conditions at the sites.

**Multiple Clients, Phase II, Multiple Locations, New York.** As field geologist, Sarah conducted Phase II ESAs on a variety of different sites. She assisted with the development of sampling plans primarily based off previous environmental investigations and due diligence. Primary responsibilities for Phase II investigations included oversight of the installation of test borings and/or test pits, the installation of groundwater monitoring wells, and soil vapor points.

### Geotechnical Engineering Experience

**Smithsonian Institution Revitalization of the Historic Core, Washington, D.C.** Sarah supported a team providing geotechnical engineering services for the renovation of several Smithsonian Institution buildings adjacent to the National Mall. Sarah was responsible for the oversight of geotechnical borings using hollow-stem augur and mud-rotary techniques as well as rock coring operations. Sarah classified soil samples using the Unified Soil Classification System, analyzed bedrock samples, and analyzed the geology of the Washington D.C. area.

**Parcel B Development, Washington, D.C.** Sarah was the lead field Geologist for the geotechnical investigation for the development of the Parcel B Site adjacent to the D.C. United Stadium in Washington D.C. Sarah was responsible for the oversight of geotechnical borings using hollow stem augur and mud rotary techniques. She observed and coordinated pressure meter testing of several borings and observed the installation of several groundwater monitoring wells to investigate impacted groundwater on the property. Additionally, based on her soil classifications in the field, she drafted boring logs and analyzed subsurface conditions at the site.



## **APPENDIX I**

### **Quality Assurance Project Plan**

QUALITY ASSURANCE PROJECT PLAN  
FORMER NUHART EAST SITE  
22-32 CLAY STREET & 67-93 DUPONT STREET  
BROOKLYN, NEW YORK

by  
Haley & Aldrich of New York  
New York, New York

for  
New York State Department of Environmental Conservation  
Albany, New York

File No. 0201891-002  
March 2022



## **Executive Summary**

This Quality Assurance Project Plan (QAPP) outlines the scope of the quality assurance and quality control (QA/QC) activities associated with the site monitoring activities associated with the Remedial Action Work Plan (RAWP) for the Former NuHart East Site located at 22-32 Clay Street and 67-93 Dupont Street (Site) in Brooklyn, New York.

Protocols for sample collection, sample handling and storage, chain-of-custody procedures, and laboratory and field analyses are described herein or specifically referenced to related project documents.

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II	Method Detection Limits for the Per- and Polyfluoroalkyl Substances (PFAS) in Water and Soil Samples

# 1. Project Description

This Quality Assurance Project Plan (QAPP) has been prepared as a component of the RAWP for the Former NuHart East Site located at 22-32 Clay Street and 67-93 Dupont Street in Brooklyn, New York.

## 1.1 PROJECT OBJECTIVES

The primary objective for data collection activities is to collect sufficient data necessary to monitor the nature of any remaining soil impacts.

## 1.2 SITE DESCRIPTION AND HISTORY

The general Site description and Site history is provided in the Site Description and History Summary that accompanies the RAWP.

## 1.3 LABORATORY PARAMETERS

The laboratory parameters for soil include:

- Target Compound List volatile organic compounds (VOCs) using EPA method 8260B
- Target Compound List semi-volatile organic compounds (SVOCs) using EPA method 8270C
- Total Analyte List (TAL) Metals using EPA method 6010
- Polychlorinated biphenyls (PCBs) using EPA method 8082
- Pesticides using EPA 8081
- Per- and polyfluoroalkyl substances (PFAS) using modified EPA method 537.1 via LC-MS/MS
- 1,4-Dioxane using EPA method 8270 SIM

*Note: 1,4-Dioxane and PFAS sampling techniques will be conducted following the NYSDEC, Sampling, Analysis and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) under NYSDEC Part 375 Remedial Program released in January 2021 and Sampling for 1,4-Dioxane and Per- and Polyfluoroalkyl Substances (PFAS) Under DEC's Part 375 Remedial Programs release June 2019.*

Laboratory parameters for disposal samples will be determined by the disposal facility after an approved facility has been determined.

## 1.4 SAMPLING LOCATIONS

The RAWP provides the locations of confirmation soil samples that will be collected.



## **2. Project Organization and Responsibilities**

This section defines the roles and responsibilities of the individuals who will perform the RAWP monitoring activities. A NYSDOH certified analytical laboratory will perform the analyses of environmental samples collected at the Site.

### **2.1 MANAGEMENT RESPONSIBILITIES**

The Project Manager is responsible for managing the implementation of the RAWP and monitoring and coordinating the collection of data. The Project Manager is responsible for technical quality control and project oversight. The Project Manager responsibilities include the following:

- Acquire and apply technical and corporate resources as needed to ensure performance within budget and schedule restraints;
- Review work performed to ensure quality, responsiveness, and timeliness;
- Communicate with the client point of contact concerning the progress of the monitoring activities;
- Assure corrective actions are taken for deficiencies cited during audits of SRIWP monitoring activities; and
- Overall Site health and safety plan compliance.

### **2.2 QUALITY ASSURANCE RESPONSIBILITIES**

The Quality Assurance team will consist of a Quality Assurance Officer and the Data Validation staff. Quality Assurance responsibilities are described as follows:

#### **2.2.1 Quality Assurance (QA) Officer**

The QA Officer reports directly to the Project Manager and will be responsible for overseeing the review of field and laboratory data. Additional responsibilities include the following:

- Assure the application and effectiveness of the QAPP by the analytical laboratory and the project staff;
- Provide input to the Project Manager as to corrective actions that may be required as a result of the above-mentioned evaluations;
- Prepare and/or review data validation and audit reports.

The QA Officer will be assisted by the data validation staff in the evaluation and validation of field and laboratory generated data.

#### **2.2.2 Data Validation Staff**

The data validation staff will be independent of the laboratory and familiar with the analytical procedures performed. The validation will include a review of each validation criterion as prescribed by the guidelines presented in Section 9.2 of this document and be presented in a Data Usability Summary Report (DUSR) for submittal to the QA Officer.

## **2.3 LABORATORY RESPONSIBILITIES**

Laboratory services in support of the RAWP monitoring include the following personnel:

### **2.3.1 Laboratory Project Manager**

The Laboratory Project Manager will report directly to the QA Officer and Project Manager and will be responsible for ensuring all resources of the laboratory are available on an as-required basis. The Laboratory Project Manager will also be responsible for the approval of the final analytical reports.

### **2.3.2 Laboratory Operations Manager**

The Laboratory Operations Manager will report to the Laboratory Project Manager and will be responsible for coordinating laboratory analysis, supervising in-house chain-of-custody reports, scheduling sample analyses, overseeing data review and overseeing preparation of analytical reports.

### **2.3.3 Laboratory QA Officer**

The Laboratory QA Officer will have sole responsibility for review and validation of the analytical laboratory data. The Laboratory QA Officer will provide Case Narrative descriptions of any data quality issues encountered during the analyses conducted by the laboratory. The QA Officer will also define appropriate QA procedures, overseeing QA/QC documentation.

### **2.3.4 Laboratory Sample Custodian**

The Laboratory Sample Custodian will report to the Laboratory Operations Manager and will be responsible for the following:

- Receive and inspect the incoming sample containers;
- Record the condition of the incoming sample containers;
- Sign appropriate documents;
- Verify chain-of-custody and its correctness;
- Notify the Project Manager and Operations Manager of sample receipt and inspection;
- Assign a unique identification number and enter each into the sample receiving log;
- Initiate transfer of samples to laboratory analytical sections; and
- Control and monitor access/storage of samples and extracts.

### **2.3.5 Laboratory Technical Personnel**

The laboratory technical staff will have the primary responsibility in the performance of sample analysis and the execution of the QA procedures developed to determine the data quality. These activities will include the proper preparation and analysis of the project samples in accordance with the laboratory's Quality Assurance Manual (QAM) and associated Standard Operating Procedures (SOP).

## **2.4 FIELD RESPONSIBILITIES**

### **2.4.1 Field Coordinator**

The Field Coordinator is responsible for the overall operation of the field team and reports directly to the Project Manager. The Field Coordinator works with the project Health & Safety Officer (HSO) to conduct operations in compliance with the project Health & Safety Plan (HASP). The Field Coordinator will facilitate communication and coordinate efforts between the Project Manager and the field team members.

Other responsibilities include the following:

- Develop and implement field-related work plans, ensuring schedule compliance, and adhering to management-developed project requirements;
- Coordinate and manage field staff;
- Perform field system audits;
- Oversee quality control for technical data provided by the field staff;
- Prepare and approve text and graphics required for field team efforts;
- Coordinate and oversee technical efforts of subcontractors assisting the field team;
- Identify problems in the field; resolve difficulties in consultation with the Project QAO, and Project Manager; implement and document corrective action procedures; and,
- Participate in preparation of the final reports.

### **2.4.2 Field Team Personnel**

Field Team Personnel will be responsible for the following:

- Perform field activities as detailed in the RAWP and in compliance with the QAPP.
- Immediately report any accidents and/or unsafe conditions to the Site Health & Safety Officer and take reasonable precautions to prevent injury.

### 3. Sampling Procedures

#### 3.1 SAMPLE CONTAINERS

Sample containers for each sampling task will be provided by the laboratory performing the analysis. The containers will be cleaned by the manufacturer to meet or exceed the analyte specifications established in the U.S. EPA, "Specifications and Guidance for Obtaining Contaminant-Free Sample Containers", April 1992, OSWER Directive #9240.0-0.5A. Certificates of analysis for each lot of sample containers used will be maintained by the laboratory.

The appropriate sample containers, preservation method, maximum holding times, and handling requirements for each sampling task are provided in Table I.

#### 3.2 SAMPLE LABELING

Each sample will be labeled with a unique sample identifier that will facilitate tracking and cross-referencing of sample information:

- Sample Identifier-Month Day Year

Equipment rinse blank and field duplicate samples also will be numbered with a unique sample identifier to prevent analytical bias of field QC samples.

#### 3.3 FIELD QC SAMPLE COLLECTION

##### 3.3.1 Field Duplicate Sample Collection

###### 3.3.1.1 *Soil Samples*

Soil field duplicates will be collected as specified in the following procedure:

1. Soils will be sampling directly from acetate liners.
2. Soil for VOC analysis will be removed from the sampling device as specified in laboratory requirements.
3. Soil for non-VOC analysis will be removed from the sampling device and collected into clean laboratory provided containers.

## 4. Custody Procedures

Sample custody is addressed in three parts: field sample collection, laboratory analysis, and final project files. Custody of a sample begins when it is collected by or transferred to an individual and ends when that individual relinquishes or disposes of the sample.

A sample is under custody if:

1. The item is in actual possession of a person;
2. The item is in the view of the person after being in actual possession of the person;
3. The item was in actual possession and subsequently stored to prevent tampering; or
4. The item is in a designated and identified secure area.

### 4.1 FIELD CUSTODY PROCEDURES

Field personnel will keep written records of field activities on applicable preprinted field forms or in a bound field notebook to record data collecting activities. These records will be written legibly in ink and will contain pertinent field data and observations. Entry errors or changes will be crossed out with a single line, dated, and initialed by the person making the correction. Field forms and notebooks will be periodically reviewed by the Field Coordinator.

The beginning of each entry in the logbook or preprinted field form will contain the following information:

- Date
- Start time
- Weather
- Names of field personnel (including subcontractors)
- Level of personal protection used at the Site
- Names of all visitors and the purpose of their visit.

For each measurement and sample collected, the following information will be recorded:

- Detailed description of sample location,
- Equipment used to collect sample or make measurement and the date equipment was calibrated,
- Time sample was collected,
- Description of the sample conditions,
- Depth sample was collected (if applicable),
- Volume and number of containers filled with the sample; and,
- Sampler's identification.

#### 4.1.1 Field Procedures

The following procedure describes the process to maintain the integrity of the samples:

- Upon collection samples are placed in the proper containers. In general, samples collected for organic analysis will be placed in pre-cleaned glass containers and samples collected for inorganic analysis will be placed in pre-cleaned plastic (polyethylene) bottles.
- Samples will be assigned a unique sample number and will be affixed to a sample label.
- Samples will be properly and appropriately preserved by field personnel in order to minimize loss of the constituent(s) of interest due to physical, chemical, or biological mechanisms.
- Appropriate volumes will be collected to ensure that the appropriate reporting limits can be successfully achieved and that the required QC sample analyses can be performed.

#### 4.1.2 Transfer of Custody and Shipment Procedures

- A chain-of-custody (COC) record will be completed at the time of sample collection and will accompany each shipment of project samples to the laboratory. The field personnel collecting the samples will be responsible for the custody of the samples until the samples are relinquished to the laboratory. Sample transfer will require the individuals relinquishing and receiving the samples to sign, date and note the time of sample transfer on the COC record.
- Samples will be shipped or delivered in a timely fashion to the laboratory so that holding times and/or analysis times as prescribed by the methodology can be met.
- Samples will be transported in containers (coolers) which will maintain the refrigeration temperature for those parameters for which refrigeration is required in the prescribed preservation protocols.
- Samples will be placed in an upright position and limited to one layer of samples per cooler. Additional bubble wrap or packaging material will be added to fill the cooler. Shipping containers will be secured with strapping tape and custody tape for shipment to the laboratory.
- When samples are split with the NYSDEC representatives, a separate chain-of-custody will be prepared and marked to indicate with whom the samples are shared. The person relinquishing the samples will require the representative's signature acknowledging sample receipt.
- If samples are sent by a commercial carrier, a bill of lading will be used. A copy of the bill of lading will be retained as part of the permanent record. Commercial carriers will not sign the custody record as long as the custody record is sealed inside the sample cooler and the custody tape remains intact.
- Samples will be picked up by a laboratory courier or transported to the laboratory the same day they are collected unless collected on a weekend or holiday. In these cases, the samples will be stored in a secure location until delivery to the laboratory. Additional ice will be added to the cooler as needed to maintain proper preservation temperatures.

## 4.2 LABORATORY CHAIN-OF-CUSTODY PROCEDURES

A sample custodian will be designated by the laboratory and will have the responsibility to receive all incoming samples. Once received, the custodian will document if the sample is received in good condition (i.e., unbroken, cooled, etc.) and that the associated paperwork, such as chain-of-custody forms have been completed. The custodian will sign the chain-of-custody forms.

The custodian will also document if sufficient sample volume has been received to complete the analytical program. The sample custodian will then place the samples into secure, limited access storage (refrigerated storage, if required). The sample custodian will assign a unique number to each incoming sample for use in the laboratory. The unique number will then be entered into the sample-receiving log with the verified time and date of receipt also noted.

Consistent with the analyses requested on the chain-of-custody form, analyses by the laboratory's analysts will begin in accordance with the appropriate methodologies. Samples will be removed from secure storage with internal chain-of-custody sign-out procedures followed.

## 4.3 STORAGE OF SAMPLES

Empty sample bottles will be returned to secure and limited access storage after the available volume has been consumed by the analysis. Upon completion of the entire analytical work effort, samples will be disposed of by the sample custodian. The length of time that samples are held will be at least thirty (30) days after reports have been submitted. Disposal of remaining samples will be completed in compliance with all Federal, State and local requirements.

## 4.4 FINAL PROJECT FILES CUSTODY PROCEDURES

The final project files will be the central repository for all documents with information relevant to sampling and analysis activities as described in this QAPP. The Haley & Aldrich Project Manager will be the custodian of the project file. The project files including all relevant records, reports, logs, field notebooks, pictures, subcontractor reports and data reviews will be maintained in a secured, limited access area and under custody of the Project Director or his designee.

The final project file will include the following:

- Project plans and drawings
- Field data records
- Sample identification documents and soil boring/monitoring well logs
- All chain-of-custody documentation
- Correspondence
- References, literature
- Laboratory data deliverables
- Data validation and assessment reports
- Progress reports, QA reports
- Final report

The laboratory will be responsible for maintaining analytical logbooks, laboratory data and sample chain of custody documents. Raw laboratory data files and copies of hard copy reports will be inventoried and maintained by the laboratory for a period of six (6) years at which time the laboratory will contact the Haley & Aldrich Project Manager regarding the disposition of the project related files.



## **5. Calibration Procedures and Frequency**

### **5.1 FIELD INSTRUMENT CALIBRATION PROCEDURES**

Several field instruments will be used for both on-site screening of samples and for health and safety monitoring, as described in the Health and Safety Plan (HASP). On-site air monitoring for health and safety purposes may be accomplished using a vapor detection device, such as a Photo-ionization Detector (PID).

Field instruments will be calibrated at the beginning of each day and checked during field activities to verify performance. Instrument specific calibration procedures will be performed in accordance with the instrument manufacturer's requirements.

### **5.2 LABORATORY INSTRUMENT CALIBRATION PROCEDURES**

Reference materials of known purity and quality will be utilized for the analysis of environmental samples. The laboratory will carefully monitor the preparation and use of reference materials including solutions, standards, and reagents through well-documented procedures.

All solid chemicals and acids/bases used by the laboratory will be rated as "reagent grade" or better. All gases will be "high" purity or better. All Standard Reference Materials (SRMs) or Performance Evaluation (PE) materials will be obtained from approved vendors of the National Institute of Standards and Technology (formerly National Bureau of Standards), the U.S. EPA Environmental Monitoring Support Laboratories (EMSL), or reliable Cooperative Research and Development Agreement (CRADA) certified commercial sources.

## **6. Analytical Procedures**

Analytical procedures to be utilized for analysis of environmental samples will be based on referenced USEPA analytical protocols and/or project specific SOP.

### **6.1 FIELD ANALYTICAL PROCEDURES**

Field analytical procedures include the qualitative measurement of Volatile Organic Compounds (VOC) during the collection of soil samples.

### **6.2 LABORATORY ANALYTICAL PROCEDURES**

Laboratory analyses will be based on the U.S. EPA methodology requirements promulgated in:

- "Test Methods for Evaluating Solid Waste," SW-846 EPA, Office of Solid Waste, and promulgated updates, 1986.

#### **6.2.1 List of Project Target Compounds and Laboratory Detection Limits**

The laboratory reporting limits (RLs) and associated method detection limits (MDLs) for the target analytes and compounds for the environmental media to be analyzed are presented in Table I. MDLs have been experimentally determined by the project laboratory using the method provided in 40 CFR, Part 136 Appendix B.

Laboratory parameters for soil samples are listed in the RAWP. Laboratory parameters for disposal samples will be determined by the disposal facility after an approved facility has been determined.

#### **6.2.2 List of Method Specific Quality Control (QC) Criteria**

The laboratory SOPs include a section that presents the minimum QC requirements for the project analyses. Section 7.0 references the frequency of the associated QC samples for each sampling effort and matrix.

## 7. Internal Quality Control Checks

This section presents the internal quality control checks that will be employed for field and laboratory measurements.

### 7.1 FIELD QUALITY CONTROL

#### 7.1.1 Field Blanks

Internal quality control checks will include analysis of field blanks to validate equipment cleanliness. Whenever possible, dedicated equipment will be employed to reduce the possibility of cross-contamination of samples.

#### 7.1.2 Trip Blanks

Trip blanks samples will be prepared by the project laboratory using ASTM Type II or equivalent water placed within pre-cleaned 40 milliliter (ml) VOC vials equipped with Teflon septa. Trip blanks will accompany each sample delivery group (SDG) of environmental samples collected for analysis of VOCs.

Trip blank samples will be placed in each cooler that stores and transports project samples that are to be analyzed for VOCs.

### 7.2 LABORATORY PROCEDURES

Procedures which contribute to maintenance of overall laboratory quality assurance and control include appropriately cleaned sample containers, proper sample identification and logging, applicable sample preservation, storage, and analysis within prescribed holding times, and use of controlled materials.

#### 7.2.1 Field Duplicate Samples

The precision or reproducibility of the data generated will be monitored through the use of field duplicate samples. Field duplicate analysis will be performed at a frequency of 1 in 20 project samples.

Precision will be measured in terms of the absolute value of the relative percent difference (RPD) as expressed by the following equation:

$$RPD = [|R1-R2|/[(R1+R2)/2]] \times 100\%$$

Acceptance criteria for duplicate analyses performed on solid matrices will be 100% and aqueous matrices will be 35%. RPD values outside these limits will require an evaluation of the sampling and/or analysis procedures by the project QA Officer and/or laboratory QA Director. Corrective actions may include re-analysis of additional sample aliquots and/or qualification of the data for use.

#### 7.2.2 Matrix Spike Samples

Ten percent of each project sample matrix for each analytical method performed will be spiked with known concentrations of the specific target compounds/analytes.

The amount of the compound recovered from the sample compared to the amount added will be expressed as a percent recovery. The percent recovery of an analyte is an indication of the accuracy of an analysis within the site-specific sample matrix. Percent recovery will be calculated for MS/MSD using the following equation.

$$\% \text{ Recovery} = \frac{\text{Spiked Sample} - \text{Background}}{\text{Known Value of Spike}} \times 100\%$$

If the quality control value falls outside the control limits (UCL or LCL) due to sample matrix effects, the results will be reported with appropriate data qualifiers. To determine the effect a non-compliant MS recovery has on the reported results, the recovery data will be evaluated as part of the validation process.

### 7.2.3 Laboratory Control Sample (LCS) Analyses

The laboratory will perform LCS analyses prepared from Standard Reference Materials (SRMs). The SRMs will be supplied from an independent manufacturer and traceable to NIST materials with known concentrations of each target analyte to be determined by the analytical methods performed. In cases where an independently supplied SRM is not available, the LCS may be prepared by the laboratory from a reagent lot other than that used for instrument calibration.

The laboratory will evaluate LCS analyses in terms of percent recovery using the most recent laboratory generated control limits.

LCS recoveries that do not meet acceptance criteria will be deemed invalid. Analysis of project samples will cease until an acceptable LCS analysis has been performed. If sample analysis is performed in association with an out-of-control LCS sample analysis, the data will be deemed invalid.

Corrective actions will be initiated by the Haley & Aldrich QA Officer and/or Laboratory QA Officer to investigate the problem. After the problem has been identified and corrected, the solution will be noted in the instrument run logbook and re-analysis of project samples will be performed, if possible.

The analytical anomaly will be noted in the sample delivery group (SDG) Case Narrative and reviewed by the data validator. The data validator will confirm that appropriate corrective actions were implemented and recommend the applicable use of the affected data.

### 7.2.4 Surrogate Compound/Internal Standard Recoveries

For VOCs, surrogates will be added to each sample prior to analysis to establish purge and trap efficiency. Quantitation will be accomplished via internal standardization techniques.

The recovery of surrogate compounds and internal standards will be monitored by laboratory personnel to assess possible site-specific matrix effects on instrument performance.

For semi-volatile organics analyses, surrogates will be added to the raw sample to assess extraction efficiency. Internal standards will be added to all sample extracts and instrument calibration standard immediately before analysis for quantitation via internal standardization techniques.

Method specific quality control (QC) limits are provided in the attached laboratory method SOPs. Surrogate compound/internal standard recoveries that do not fall within accepted QC limits for the analytical methodology performed will have the analytical results flagged with data qualifiers as appropriate by the laboratory and will not be noted in the laboratory report Case Narrative.

To ascertain the effect non-compliant surrogate compound/internal standard recoveries may have on the reported results, the recovery data will be evaluated as part of the validation process. The data validator will provide recommendations for corrective actions including but not limited to additional data qualification.

#### **7.2.5 Calibration Verification Standards**

Calibration verification (CV) standards will be utilized to confirm instrument calibrations and performance throughout the analytical process. CV standards will be prepared as prescribed by the respective analytical protocols. Continuing calibration will be verified by compliance with method-specific criteria prior to additional analysis of project samples.

Non-compliant analysis of CV standards will require immediate corrective action by the project laboratory QA officer and/or designated personnel. Corrective action may include re-analysis of each affected project sample, a detailed description of the problem, the corrective action undertaken, the person who performed the action, and the resolution of the problem.

#### **7.2.6 Laboratory Method Blank Analyses**

Method blank sample analysis will be performed as part of each analytical batch for each methodology performed. If target compounds are detected in the method blank samples, the reported results will be flagged by the laboratory in accordance with standard operating procedures. The data validator will provide recommendations for corrective actions including but not limited to additional data qualification.

## **8. Data Quality Objectives**

Sampling that will be performed as described in the RAWP is designed to produce data of the quality necessary to achieve the minimum standard requirements of the field and laboratory analytical objectives described below. These data are being obtained with the primary objective to assess levels of contaminants of concern associated with the Site.

The overall project data quality objective (DQO) is to implement procedures for field data collection, sample collection, handling, and laboratory analysis and reporting that achieve the project objectives. The following section is a general discussion of the criteria that will be used to measure achievement of the project DQO.

### **8.1 PRECISION**

#### **8.1.1 Definition**

Precision is defined as a quantitative measure of the degree to which two or more measurements are in agreement. Precision will be determined by collecting and analyzing field duplicate samples and by creating and analyzing laboratory duplicates from one or more of the field samples. The overall precision of measurement data is a mixture of sampling and analytical factors. The analytical results from the field duplicate samples will provide data on sampling precision. The results from duplicate samples created by the laboratory will provide data on analytical precision. The measurement of precision will be stated in terms of relative percent difference (RPD).

#### **8.1.2 Field Precision Sample Objectives**

Field precision will be assessed through collection and measurement of field duplicate samples at a rate of 1 duplicate per 20 investigative samples. The RPD criteria for the project field duplicate samples will be +/- 100% for soil, +/- 35 % for groundwater for parameters of analysis detected at concentrations greater than 5 times (5X) the laboratory reporting limit (RL).

#### **8.1.3 Laboratory Precision Sample Objectives**

Laboratory precision will be assessed through the analysis of laboratory control and laboratory control duplicate samples (LCS/LCSD).

### **8.2 ACCURACY**

#### **8.2.1 Definition**

Accuracy relates to the bias in a measurement system. Bias is the difference between the observed and the "true" value. Sources of error are the sampling process, field contamination, preservation techniques, sample handling, sample matrix, sample preparation and analytical procedure limitations.

#### **8.2.2 Field Accuracy Objectives**

Sampling bias will be assessed by evaluating the results of field equipment rinse and trip blanks. Equipment rinse and trip blanks will be collected as appropriate based on sampling and analytical methods for each sampling effort.

If non-dedicated sampling equipment is used, equipment rinse blanks will be collected by passing ASTM Type II water over and/or through the respective sampling equipment utilized during each sampling effort. One equipment rinse blank will be collected for each type of non-dedicated sampling equipment used for the sampling effort. Equipment rinse blanks will be analyzed for each target parameter for the respective sampling effort for which environmental media have been collected. (Note: If dedicated or disposable sampling equipment is used, equipment rinse samples will not be collected as part of that field effort.)

Trip blank samples will be prepared by the laboratory and provided with each shipping container that includes containers for the collection of samples for the analysis of VOC.

### **8.3      LABORATORY ACCURACY OBJECTIVES**

Analytical bias will be assessed through the use of laboratory control samples (LCS) and Site-specific matrix spike (MS) sample analyses. LCS analyses will be performed with each analytical batch of project samples to determine the accuracy of the analytical system.

One (1) set of MS/MSD analyses will be performed with each batch of twenty (20) project samples collected for analysis to assess the accuracy of the identification and quantification of analytes within the Site-specific sample matrices. Additional sample volume will be collected at sample locations selected for the preparation of MS/MSD samples so that the standard laboratory reporting limits (RLs) are achieved.

The accuracy of analyses that include a sample extraction procedure will be evaluated through the use of system monitoring or surrogate compounds. Surrogate compounds will be added to each sample, standard, blank, and QC sample prior to sample preparation and analysis. Surrogate compound percent recoveries will provide information on the effect of the sample matrix on the accuracy of the analyses.

## **8.4 REPRESENTATIVENESS**

### **8.4.1 Definition**

Representativeness expresses the degree to which sample data represent a characteristic of a population, a parameter variation at a sampling point or an environmental condition. Representativeness is a qualitative parameter that is dependent upon the design of the sampling program. The representativeness criterion is satisfied through the proper selection of sampling locations, the quantity of samples and the use of appropriate procedures to collect and analyze the samples.

### **8.4.2 Measures to Ensure Representativeness of Field Data**

Representativeness will be addressed by prescribing sampling techniques and the rationale used to select sampling locations. Sampling locations may be biased (based on existing data, instrument surveys, observations, etc.) or unbiased (completely random or stratified-random approaches).

## **8.5 COMPLETENESS**

### **8.5.1 Definition**

Completeness is a measure of the amount of valid (usable) data obtained from a measuring system compared to the total amount of the anticipated to be obtained. The completeness goal for all data uses is that a sufficient amount of valid data be generated so that determinations can be made related to the intended data use with a sufficient degree of confidence.

### **8.5.2 Field Completeness Objectives**

Completeness is a measure of the amount of valid measurements obtained from measurements taken in this project versus the number planned. Field completeness objective for this project will be greater than (>) 90%.

### **8.5.3 Laboratory Completeness Objectives**

Laboratory data completeness objective is a measure of the amount of valid data obtained from laboratory measurements. The evaluation of the data completeness will be performed at the conclusion of each sampling and analysis effort.

The completeness of the data generated will be determined by comparing the amount of valid data, based on independent validation, with the total laboratory data set. The completeness goal will be >90%.

## **8.6 COMPARABILITY**

### **8.6.1 Definition**

Comparability is a qualitative parameter expressing the confidence with which one data set can be compared to another.



## 8.6.2 Measures to Ensure Comparability of Laboratory Data

Comparability of laboratory data will be measured from the analysis of Standard Reference Materials (SRM) obtained from either EPA Cooperative Research and Development Agreement (CRADA) suppliers or the National Institute of Standards and Technology (NIST). The reported analytical data will also be presented in standard units of mass of contaminant within a known volume of environmental media. The standard units for various sample matrices are as follows:

- Solid Matrices – mg/kg of media (Dry Weight).
- Aqueous Matrices – ng/L for PFAS analyses, ug/L of media for organic analyses, and mg/L for inorganic analyses.

## 8.7 LEVEL OF QUALITY CONTROL EFFORT

If non-dedicated sampling equipment is used, equipment rinse blanks will be prepared by field personnel and submitted for analysis of target parameters. Equipment rinse blank samples will be analyzed to check for potential cross-contamination between sampling locations that may be introduced during the investigation. One (1) equipment rinse blank will be collected per sampling event to the extent that non-dedicated sampling equipment is used.

If necessary, A separate equipment rinse blank sample will be collected for PFAS using the sample collection procedure described in Section 8.1.1 of the NYSDEC-approved Avangrid Field Sampling Plan. (Note: If dedicated or disposable sampling equipment is used, equipment rinse samples will not be collected as part of that field effort.)

Trip blanks will be used to assess the potential for contamination during sample storage and shipment. Trip blanks will be preserved and handled in the same manner as the project samples. One (1) trip blank will be included along with each shipping container containing project samples to be analyzed for VOC.

Method blank samples will be prepared by the laboratory and analyzed concurrently with all project samples to assess potential contamination introduced during the analytical process.

Field duplicate samples will be collected and analyzed to determine sampling and analytical reproducibility. One (1) field duplicate will be collected for every 20 or fewer investigative samples collected for off-Site laboratory analysis.

Matrix spikes will provide information to assess the precision and accuracy of the analysis of the target parameters within the environmental media collected. One (1) matrix spike/matrix spike duplicate (MS/MSD) will be collected for every 20 or fewer investigative samples per sample matrix.

(Note: Soil MS/MSD samples require triple sample volume for VOC only. Aqueous MS/MSD samples require triple the normal sample volume for VOC analysis and double the volume for the remaining parameters.)

## 9. Data Reduction, Validation and Reporting

Data generated by the laboratory operation will be reduced and validated prior to reporting in accordance with the following procedures:

### 9.1 DATA REDUCTION

#### 9.1.1 Field Data Reduction Procedures

Field data reduction procedures will be minimal in scope compared to those implemented in the laboratory setting. The pH, conductivity, temperature, turbidity, DO, ORP and breathing zone VOC readings collected in the field will be generated from direct read instruments. The data will be written into field logbooks immediately after measurements are taken. If errors are made, data will be legibly crossed out, initialed and dated by the field member, and corrected in a space adjacent to the original entry.

#### 9.1.2 Laboratory Data Reduction Procedures

Laboratory data reduction procedures are provided by the appropriate chapter of USEPA, "Test Methods for Evaluating Solid Waste", SW-846, Third Edition. Errors will be noted; corrections made with the original notations crossed out legibly. Analytical results for soil samples will be calculated and reported on a dry weight basis.

#### 9.1.3 Quality Control Data

Quality control data (e.g., laboratory duplicates, surrogates, matrix spikes, and matrix spike duplicates) will be compared to the method acceptance criteria. Data determined to be acceptable will be entered into the laboratory information management system.

Unacceptable data will be appropriately qualified in the project report. Case narratives will be prepared which will include information concerning data that fell outside acceptance limits and any other anomalous conditions encountered during sample analysis.

### 9.2 DATA VALIDATION

Data validation procedures of the analytical data will be performed by the Haley & Aldrich QA Officer or designee using the following documents as guidance for the review process:

- "U.S. EPA National Functional Guidelines for Organic Data Review", and the "U.S. EPA National Functional Guidelines for Inorganic Data Review".
- The specific data qualifiers used will be applied to the reported results as presented and defined in the EPA National Functional Guidelines. Validation will be performed by qualified personnel at the direction of the Haley & Aldrich QAO. Tier 1 data validation (the equivalent of USEPA's Stage 2A validation) will be performed to evaluate data quality.

- The completeness of each data package will be evaluated by the Data Validator. Completeness checks will be administered on all data to determine that the deliverables are consistent with the NYSDEC Analytical Services Protocol (ASP) Category B data package requirements. The validator will determine whether the required items are present and request copies of missing deliverables (if necessary) from the laboratory.

### 9.3 DATA REPORTING

Data reporting procedures will be carried out for field and laboratory operations as indicated below:

- Field Data Reporting: Field data reporting will be conducted principally through the transmission of report sheets containing tabulated results of measurements made in the field and documentation of field calibration activities.
- Laboratory Data Reporting: The laboratory data reporting package will enable data validation based on the protocols described above. The final laboratory data report format will include the QA/QC sample analysis deliverables to enable the development of a data usability summary report (DUSR) based on Department DER-10 Appendix 2B.

## **10. Performance and System Audits**

A performance audit is an independent quantitative comparison with data routinely obtained in the field or the laboratory. Performance audits include two separate, independent parts: internal and external audits.

### **10.1 FIELD PERFORMANCE AND SYSTEM AUDITS**

#### **10.1.1 Internal Field Audit Responsibilities**

Internal audits of field activities will be initiated at the discretion of the Project Manager and will include the review of sampling and field measurements. The audits will verify that all procedures are being followed. Internal field audits will be conducted periodically during the project. The audits will include examination of the following:

- Field sampling records, screening results, instrument operating records
- Sample collection
- Handling and packaging in compliance with procedures
- Maintenance of QA procedures
- Chain-of-custody reports

#### **10.1.2 External Field Audit Responsibilities**

External audits may be conducted by the Project Coordinator at any time during the field operations. These audits may or may not be announced and are at the discretion of the NYSDEC. The external field audits can include (but are not limited to) the following:

- Sampling equipment decontamination procedures
- Sample bottle preparation procedures
- Sampling procedures
- Examination of health and safety plans
- Procedures for verification of field duplicates
- Field screening practices

### **10.2 LABORATORY PERFORMANCE AND SYSTEM AUDITS**

#### **10.2.1 Internal Laboratory Audit Responsibilities**

The laboratory system audits are typically conducted by the laboratory QA Officer or designee on an annual basis. The system audit will include an examination of laboratory documentation including sample receiving logs, sample storage, chain-of-custody procedures, sample preparation and analysis and instrument operating records.

At the conclusion of internal system audits, reports will be provided to the laboratory's operating divisions for appropriate comment and remedial/corrective action where necessary. Records of audits and corrective actions will be maintained by the Laboratory QA Officer.

### 10.2.2 External Laboratory Audit Responsibilities

External audits will be conducted as required, by the NYSDOH or designee. External audits may include any of the following:

- Review of laboratory analytical procedures
- Laboratory on-site visits
- Submission of performance evaluation samples for analysis

Failure of any of the above audit procedures can lead to laboratory de-certification. An audit may consist of but not limited to:

- Sample receipt procedures
- Custody, sample security and log-in procedures
- Review of instrument calibration logs
- Review of QA procedures
- Review of log books
- Review of analytical SOPs
- Personnel interviews

A review of a data package from samples recently analyzed by the laboratory can include (but not be limited to) the following:

- Comparison of resulting data to the SOP or method
- Verification of initial and continuing calibrations within control limits
- Verification of surrogate recoveries and instrument timing results
- Review of extended quantitation reports for comparisons of library spectra to instrument spectra, where applicable
- Assurance that samples are run within holding times

## **11. Preventive Maintenance**

### **11.1 FIELD INSTRUMENT PREVENTIVE MAINTENANCE**

The field equipment preventive maintenance program is designed to ensure the effective completion of the sampling effort and to minimize equipment down time. Program implementation is concentrated in three areas:

- Maintenance responsibilities
- Maintenance schedules
- Inventory of critical spare parts and equipment

The maintenance responsibilities for field equipment will be assigned to the task leaders in charge of specific field operations. Field personnel will be responsible for daily field checks and calibrations and for reporting any problems with the equipment. The maintenance schedule will follow the manufacturer's recommendations. In addition, the field personnel will be responsible for determining that an inventory of spare parts will be maintained with the field equipment. The inventory will primarily contain parts that are subject to frequent failure, have limited useful lifetimes and/or cannot be obtained in a timely manner.

### **11.2 LABORATORY INSTRUMENT PREVENTIVE MAINTENANCE**

Analytical instruments at the laboratory will undergo routine and/or preventive maintenance. The extent of the preventive maintenance will be a function of the complexity of the equipment.

Generally, annual preventive maintenance service will involve cleaning, adjusting, inspecting and testing procedures designed to deduce instrument failure and/or extend useful instrument life. Between visits, routine operator maintenance and cleaning will be performed according to manufacturer's specifications by laboratory personnel.

Maintenance records will be placed on file at the laboratory and can be made available upon request.

## 12. Specific Routine Procedures Used to Assess Data Precision, Accuracy, and Completeness

### 12.1 FIELD MEASUREMENTS

Field generated information will be reviewed by the Field Coordinator and typically include evaluation of bound logbooks/forms, data entry and calculation checks. Field data will be assessed by the Project Coordinator who will review the field results for compliance with the established QC criteria that are specified in Section 7.0 of this QAPP. The accuracy of pH and specific conductance will be assessed using daily instrument calibration, calibration check, and blank data. Accuracy will be measured by determining the percent recovery (% R) of calibration check standards. Precision of the pH and specific conductance measurements will be assessed on the basis of the reproducibility of duplicate readings of a field sample and will be measured by determining the relative percent difference (RPD). Accuracy and precision of the soil VOC screening will be determined using duplicate readings of calibration checks. Field data completeness will be calculated using the following equation:

$$\text{Completeness} = \frac{\text{Valid (usable) Data Obtained}}{\text{Total Data Planned}} \times 100$$

### 12.2 LABORATORY DATA

Surrogate, internal standard and matrix spike recoveries will be used to evaluate data quality. The laboratory quality assurance/quality control program will include the following elements:

- Precision, in terms of relative percent difference (RPD), will be determined by relative sample analysis at a frequency of one duplicate analysis for each batch of ten project samples or a frequency of 10 percent (10%). RPD is defined as the absolute difference of duplicate measurements divided by the mean of these analyses normalized to percentage.
- Accuracy, in terms of percent recovery (recovery of known constituent additions or surrogate recoveries), will be determined by the analysis of spiked and unspiked samples. MS/MSD will be used to determine analytical accuracy. The frequency of MS/MSD analyses will be one project sample MS/MSD per set of 20 project samples.
- One method blank will be prepared and analyzed with each batch of project samples. The total number of method blank sample analyses will be determined by the laboratory analytical batch size.
- Standard Reference Materials (SRMs) will be used for each analysis. Sources of SRM's include the U.S. EPA, commercially available material from CRADA certified vendors and/or laboratory produced solutions. SRMs, when available and appropriate, will be processed and analyzed on a frequency of one per set of samples.
- Completeness is the evaluation of the amount of valid data generated versus the total set of data produced from a particular sampling and analysis event. Valid data is determined by independent confirmation of compliance with method-specific and project-specific data quality

objectives. The calculation of data set completeness will be performed by the following equation.

$$\frac{\text{Number of Valid Sample Results}}{\text{Total Number of Samples Planned}} \times 100 = \% \text{ Complete}$$



### **13. Quality Assurance (QA) Reports**

Critically important to the successful implementation of the QA Plan is a reporting system that provides the means by which the program can be reviewed, problems identified, and programmatic changes made to improve the plan.

QA reports to management can include:

- Audit reports, internal and external audits with responses
- Performance evaluation sample results; internal and external sources
- Daily QA/QC exception reports/corrective actions

QA/QC corrective action reports will be prepared by the Haley & Aldrich QA Officer when appropriate and presented to the project and/or laboratory management personnel so that performance criteria can be monitored for all analyses from each analytical department. The updated trend/QA charts prepared by the laboratory QA personnel will be distributed and reviewed by various levels of the laboratory management.

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## TABLES

**TABLE I**  
**SUMMARY OF ANALYSIS METHOD, PRESERVATION METHOD, HOLDING TIME, SAMPLE SIZE REQUIREMENTS AND SAMPLE CONTAINERS**  
Former NuHart East Site  
22-32 Clay Street 67-93 Dupont Street  
Brooklyn, NY

Analysis/Method	Sample Type	Preservation	Holding Time	Volume/Weight	Container
Volatile Organic Compounds/8260B	Soil	1 - 1 Vial MeOH/2 Vial Water	14 days	120 mL	3 - 40ml glass vials
Semi-volatile Organic Compounds/8270C	Soil	Cool, 4 ± 2 °C	14 days	8 oz	1 - 8 oz Glass
TAL Metals/6010	Soil	Cool, 4 ± 2 °C	180 days	2 oz	1 - 2 oz Glass
Polychlorinated Biphenyls/8082A	Soil	Cool, 4 ± 2 °C	14 days	8 oz	1 - 8 oz Glass
Pesticides/8081B	Soil	Cool, 4 ± 2 °C	14 days	8 oz	1 - 8 oz Glass
PFAS/537	Soil	Cool, 4 ± 2 °C	14 days	8 oz	1 - HDPE 8 oz containers
1,4-Dioxane/8270 SIM	Soil	Cool, 4 ± 2 °C	14 days	2 oz	1 - 2 oz Glass

**Notes:**

1. Refer to text for additional information.

## **APPENDIX J**

### **Estimated Remedial Action Project Schedule**

**Estimated Remedial Action Project Schedule**  
22-32 Clay Street, 67-93 Dupont Street, Brooklyn, NY  
BCP Project C224287

ESTIMATED PROJECT SCHEDULE		2022												2023											
Task	Description	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
1	Design, Investigation and Permitting																								
2	NYSDEC RAWP Review																								
3	45-Day Public Comment Period																								
4	Implementation of RAWP																								
6	Preparation of FER and SMP (if required)																								
7	SVI Evaluation																								
8	NYSDEC/NYSDOH Review of FER, SMP (if required), SVI Evaluation																								
9	Issuance of COC																								

Notes:

- Schedule is estimated and subject to change.
- Implementation of RAWP does not include completion of building construction
- NYSDEC - New York State Department of Environmental Conservation
- NYSDOH - New York State Department of Health
- BCP - Brownfield Cleanup Program
- RAWP - Remedial Action Work Plan
- FER - Final Engineering Report
- SMP - Site Management Plan
- SVI - Soil Vapor Intrusion
- COC - Certificate of Completion
- COC issuance estimated for November 2023 and prior to December 31, 2023

## **APPENDIX K**

### **Site-Specific Community Air Monitoring Plan**

**COMMUNITY AIR MONITORING PLAN**  
**FORMER NUHART EAST SITE**  
**22-32 CLAY STREET & 67-93 DUPONT STREET**  
**BROOKLYN, NEW YORK**

by Haley & Aldrich of New York  
New York, New York

File No. 0201891  
May 2022





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### **Appendix A – DER-10 Generic CAMP and Fugitive Dust and Particulate Monitoring**

## **1. Introduction**

This Community Air Monitoring Plan (CAMP) has been prepared for the proposed activities to be performed under the Remedial Action Work Plan (RAWP) at the Former NuHart East Site. The CAMP details measures for protection of the downwind community (i.e., off-site receptors including residences, businesses, and on-site workers not directly involved in the investigation activities) from potential airborne contaminant releases resulting from sampling activities at the site.

Compliance with this CAMP is required during all activities associated with demolition and intrusive activities such as drilling, excavation, stockpiling, equipment idling, transport, etc. that have the potential to generate airborne particulate matter and volatile organic compounds (VOCs). These activities include drilling and monitoring well installation. This CAMP is specific to the Site and was developed in accordance with the New York State Department of Health Generic Community Air Monitoring Plan and the New York State Department of Environmental Conservation (NYSDEC) DER-10 Technical Guidance for Site Investigation and Remediation. CAMP adjustments may be recommended by NYSDEC/NYSDOH based on actual site conditions, local community input, and location of sensitive receptors.

## **2. Community Air Monitoring Program**

Real-time air monitoring will be conducted in at least two locations during ground intrusive activities including 1) at the egress of the ground intrusive work zone (permanent station) and 2) at a downwind location(s), to be evaluated daily and logistically biased towards nearby sensitive receptors and occupied structures within 20 feet, to prevent potential exposure to the surrounding community (Figure 1).

Continuous monitoring will be performed for all ground intrusive activities and during the handling of contaminated or potentially contaminated media. Ground intrusive activities include, but are not limited to, drilling, excavation, stockpiling, equipment idling, transport, etc. Monitoring equipment will be set up to connect to a cloud-based data management system where data will be stored on a real time basis.

### **2.1 VOC MONITORING, RESPONSE LEVELS, AND ACTIONS**

VOCs will be monitored at CAMP stations at the egress of the ground intrusive work zone (permanent station) and at a downwind location biased towards nearby sensitive receptors and occupied structures within 20 feet. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions. Roaming equipment to assess VOCs will be carried by the field support overseeing implementation of the RAWP. The monitoring work will be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment will be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment will be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities will resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities will resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities will be shutdown.

All 15-minute readings must be recorded and be available for OER personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded. Proactive measures will be taken to control VOCs such as use of rusmar foaming agent and wintergreen misting to prevent offsite migration of VOCs and to suppress odors.

### **2.2 PARTICULATE MONITORING, RESPONSE LEVELS AND ACTIONS**

Dust particulates will be monitored at CAMP stations at the egress of the ground intrusive work zone (permanent station) and at a downwind location(s) biased towards nearby sensitive receptors and

occupied structures within 20 feet. Particulate concentrations will be evaluated through particulate monitoring via real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10). In the event this equipment is implemented, the equipment will be capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level discussed below:

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter ( $\text{mcg}/\text{m}^3$ ) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Work will continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150  $\text{mcg}/\text{m}^3$  greater than the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150  $\text{mcg}/\text{m}^3$  above the upwind level, work will be stopped and a re-evaluation of activities initiated. Work will resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150  $\text{mcg}/\text{m}^3$  of the upwind level and in preventing visible dust migration.

All 15-minute readings must be recorded and be available for OER personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded. Proactive measures will be taken to control dust particulates such as use of water prayers to suppress dust generation and migration offsite.

## 2.3 SPECIAL CONSIDERATIONS

When work areas are within 20 feet of potentially exposed populations or occupied structures, the continuous monitoring locations for VOCs and particulates must reflect the nearest potentially exposed individuals and the location of ventilation system intakes for nearby structures. The use of engineering controls such as vapor/dust barriers, temporary negative pressure enclosures, or special ventilation devices should be considered to prevent exposures related to the work activities and to control dust and odors. Consideration should be given to implementing the planned activities when potentially exposed populations are at a minimum, such as during weekends or evening hours in non-residential settings.

- If total VOC concentrations opposite the walls of occupied structures or next to intake vents exceed 1 ppm, monitoring should occur within the occupied structure(s). Background readings in the occupied spaces must be taken prior to commencement of the planned work. Any unusual background readings should be discussed with NYSDOH prior to commencement of the work.
- If total particulate concentrations opposite the walls of occupied structures or next to intake vents exceed 150  $\text{mcg}/\text{m}^3$ , work activities should be suspended until controls are implemented and are successful in reducing the total particulate concentration to 150  $\text{mcg}/\text{m}^3$  or less at the monitoring point.
- Depending upon the nature of contamination and remedial activities, other parameters (e.g., explosivity, oxygen, hydrogen sulfide, carbon monoxide) may also need to be monitored. Response levels and actions should be pre-determined, as necessary, for each site.

## 2.4 SENSITIVE RECEPTORS

Below is a list of sensitive receptors within a  $\frac{1}{4}$  mile radius of the Site and shown on Figure 1.

- Dupont Street Senior Housing – 80 Dupont Street, Brooklyn, NY
- Greenpoint Muslim Community Center – 48 Clay Street, Brooklyn, NY
- St. Cyril & Methodius Church – 150 Dupont Street, Brooklyn, NY
- Greenpoint Playground – 243 Franklin Street, Brooklyn, NY
- Newtown Barge Park – 3 Commercial Street, Brooklyn, NY

### **3. Reporting**

Exceedances of action levels observed during performance of the CAMP will be reported to the NYSDEC and NYSDOH via email and included in the daily report to be submitted to NYSDEC the morning after site activities are completed along with actions and responses. Daily reports will include the following information:

- Date
- Personnel
- Wind direction
- Meteorological Data (i.e. temperature, weather, atmospheric pressure)
- Site Map
- CAMP station locations
- Notes regarding any equipment malfunctions
- Notes regarding any mitigation efforts or work stoppage due to CAMP exceedances

Full CAMP data sets collected in the cloud-based system will be included with each monthly report to be submitted to NYSDEC by the 10<sup>th</sup> day of each month.

#### **4. Data Quality Assurance**

To ensure data quality, instrument calibration will be completed as required by the manufacturer and recorded daily. Calibration checks and duplicate readings may be completed as needed to confirm instrument response and accuracy. All instruments will be operated in accordance with manufacturer's specifications, copies of which will be kept on site.

The onsite field engineers will review monitoring data throughout the day and evaluate in comparison to the action levels. The project manager will review monitoring data periodically and/or when action levels are triggered.

## FIGURES



## **APPENDIX A**

### **DER-10 GENERIC CAMP AND FUGITIVE DUST AND PARTICULATE MONITORING**





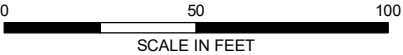
GIS: C:\Users\khensen\OneDrive - haleyaldrich.com\Desktop\KH\_LOCAL\201891\_Former\_Nuhart\GIS\Maps\2021\_06\201891\_000\_0003\_TAX\_MAP.mxd - khensen - 6/30/2021 11:08:51 AM

LEGEND

- TAX LOT BOUNDARY
- SITE BOUNDARY
- POTENTIAL CAMP LOCATION - TO BE ADJSUTED BASED ON WIND DIRECTION

NOTES

- 1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
- 2. ASSESSOR PARCEL DATA SOURCE: KINGS COUNTY
- 3. AERIAL IMAGERY SOURCE: NEARMAP, 12 MARCH 2021



HALEY  
ALDRICH

FORMER NUHART EAST SITE  
22-32 CLAY STREET & 67-93 STREET  
BROOKLYN, NEW YORK

TAX MAP

JULY 2021

FIGURE 6



## Appendix 1A

### New York State Department of Health Generic Community Air Monitoring Plan

#### Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

#### Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

**Continuous monitoring** will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

**Periodic monitoring** for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or

overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

#### VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.
4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

#### Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter ( $\text{mcg}/\text{m}^3$ ) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed  $150 \text{ mcg}/\text{m}^3$  above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than  $150 \text{ mcg}/\text{m}^3$  above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within  $150 \text{ mcg}/\text{m}^3$  of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

## **Appendix 1B**

### **Fugitive Dust and Particulate Monitoring**

A program for suppressing fugitive dust and particulate matter monitoring at hazardous waste sites is a responsibility on the remedial party performing the work. These procedures must be incorporated into appropriate intrusive work plans. The following fugitive dust suppression and particulate monitoring program should be employed at sites during construction and other intrusive activities which warrant its use:

1. Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.
2. Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Remedial activities may also include the excavation, grading, or placement of clean fill. These control measures should not be considered necessary for these activities.
3. Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM<sub>10</sub>) with the following minimum performance standards:
  - (a) Objects to be measured: Dust, mists or aerosols;
  - (b) Measurement Ranges: 0.001 to 400 mg/m<sup>3</sup> (1 to 400,000 :ug/m<sup>3</sup>);
  - (c) Precision (2-sigma) at constant temperature: +/- 10 :g/m<sup>3</sup> for one second averaging; and +/- 1.5 g/m<sup>3</sup> for sixty second averaging;
  - (d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized);
  - (e) Resolution: 0.1% of reading or 1g/m<sup>3</sup>, whichever is larger;
  - (f) Particle Size Range of Maximum Response: 0.1-10;
  - (g) Total Number of Data Points in Memory: 10,000;
  - (h) Logged Data: Each data point with average concentration, time/date and data point number
  - (i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number;
  - (j) Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required;
  - (k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger;
  - (l) Operating Temperature: -10 to 50° C (14 to 122° F);
  - (m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.
4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the remedial party to adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record keeping plan.
5. The action level will be established at 150 ug/m<sup>3</sup> (15 minutes average). While conservative,

this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m<sup>3</sup>, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m<sup>3</sup> above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m<sup>3</sup> continue to be exceeded work must stop and DER must be notified as provided in the site design or remedial work plan. The notification shall include a description of the control measures implemented to prevent further exceedances.

6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM<sub>10</sub> at or above the action level. Since this situation has the potential to allow for the migration of contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed. Activities that have a high dusting potential--such as solidification and treatment involving materials like kiln dust and lime--will require the need for special measures to be considered.

7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:

- (a) Applying water on haul roads;
- (b) Wetting equipment and excavation faces;
- (c) Spraying water on buckets during excavation and dumping;
- (d) Hauling materials in properly tarped or watertight containers;
- (e) Restricting vehicle speeds to 10 mph;
- (f) Covering excavated areas and material after excavation activity ceases; and
- (g) Reducing the excavation size and/or number of excavations.

Experience has shown that the chance of exceeding the 150ug/m<sup>3</sup> action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

8. The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended. There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require additional monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate suppression and monitoring requirements are established for protection of health and the environment.