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REMEDIAL INVESTIGATION WORK PLAN
297 WALLABOUT STREET
BROOKLYN, NEW YORK

by Haley & Aldrich of New York
New York, New York

for 295 W Holdings LLC
Brooklyn, New York

File No. 133156-005
October 2019

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14 October 2019
File No. 133156-005

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

Attention: Ms. Jane O'Connell

Subject: Remedial Investigation Work Plan
297 Wallabout Street
Brooklyn, New York

Dear Ms. O'Connell

On behalf of 295 W Holdings LLC (295 W Holdings), Haley & Aldrich of New York is submitting for the review and approval of the New York State Department of Environmental Conservation (NYSDEC) this draft Remedial Investigation Work Plan (RIWP) for 297 Wallabout Street located in the Broadway Triangle neighborhood of Brooklyn, NY (Site). This document is being submitted as part of 295 W Holdings Brownfield Cleanup Program Application for the Site. This RIWP has been developed based on the NYSDEC's "Technical Guidance for Site Investigation and Remediation" (DER-10 dated May 2010).

Please do not hesitate to contact us if there are any questions regarding this submittal or any other aspects of the project.

Sincerely yours,
HALEY & ALDRICH OF NEW YORK

James M. Bellew
Senior Associate

Mari Cate Conlon

Mari C. Conlon, P.G.
Project Manager

Enclosures

c: 295 W Holdings LLC; Attn: Lazar Waldman
Barclay Damon; Attn: Frank V. Bifera, Esq.

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1. Introduction

On behalf of 295 W Holdings LLC (295 W Holdings), Haley & Aldrich of New York (Haley & Aldrich) has prepared this Remedial Investigation Work Plan (RIWP) for 297 Wallabout Street (see Figure 1) in the Broadway Triangle neighborhood of Brooklyn, NY (Site). This RIWP is being submitted as part of the Brownfield Cleanup Program (BCP) Application submitted by the Site owner 295 W Holdings and was prepared in accordance with the regulations and guidance applicable to the BCP.

The Site, identified as Block 2250 Lot 45 on the New York City tax map, is 6,300-square feet and is bounded by a residential apartment building to the north, a warehouse to the south, Wallabout Street to the east, and a warehouse to the west. The Site location is shown on Figure 1. Existing Site features are shown on Figure 2. The Site is currently a vacant unpaved open lot. Attachment 1a of the BCP Application provides a detailed description of the Site, historic use and regulatory history including a summary of previous site characterization activities.

The land is currently zoned as R7A for "medium-density apartment house districts" which allows for residential use. The Site is located in an urban area surrounded by commercial and residential properties served by municipal water. The Site owner plans to continue Site use for residential purposes consistent with current zoning.

1.1 PURPOSE

A Phase II/Remedial Investigation (Ph II/RI) has been performed at the Site for the New York City Office of Environmental Remediation (NYC OER) E-Designation program and partially determined the nature and extent of volatile organic compound (VOC), semi-volatile organic compound (SVOC), pesticide and metals contaminants. Results of previous site characterization activities are summarized on Tables 1, 2 and 3. Details on previous site characterization activities are provided in Section 1.2 and Attachment 1a of the BCP Application.

The site characterization did not identify a source of contamination on the Site, therefore additional targeted soil, groundwater and soil vapor sampling is proposed. The RI will be performed upon acceptance of the Site into the BCP and approval of this RIWP. Results of the additional sample analyses will be used to confirm the results of the previous site characterization activities, potentially identify an on site source and to determine a course for remedial action.

2. Background

2.1 CURRENT LAND USE

The Site is currently a vacant undeveloped lot accessed from Wallabout Street to the east.

2.2 SITE HISTORY

The Site was developed with a three-story dwelling/store from at least the late 1880s through the 1940s. By the late 1940s the dwellings were demolished and a rectangular building encompassing the site and adjoining lots was constructed. The subject site operated as a manufacturing facility used for woodworking and plastics product manufacturing from the 1960s through 2007. By 2012, the facility was demolished, and the site remains vacant. A. Holding LLC. sold the Site to Middleton Developers LLC in February 2013 before 295 W Holdings LLC purchased the Site in May 2019.

2.3 SURROUNDING LAND USE

The Site is located in a mixed use residential and commercial area. The Site is bounded by a residential apartment building to the north, a warehouse to the south, Wallabout Street to the east beyond which are residential apartment buildings and a warehouse to the west. One public school, JHS 318, is located at 101 Walton Street approximately 200 feet to the northwest of the Site. No hospitals or daycare facilities are located within 500 ft radius of the Site. The properties immediately surrounding the Site are zoned R7A while the properties to the south adjacent to Harrison Avenue and north adjacent to Throop Avenue are zoned R7A with commercial overlay C2-4. Properties on the north side of Walton street are zoned R6-A.

2.4 SURROUNDING LAND USE HISTORY

The area surrounding the Site was historically used for dwellings, light manufacturing, warehousing and auto works from the late 1800s through the mid-1970s. From the mid to late-1970s the area was primarily used for commercial/residential purposes and warehouses.

2.5 PREVIOUS INVESTIGATIONS

A Ph II/RI, performed by Haley & Aldrich on 18 March 2019 on behalf of 295 W Holdings for the NYC OER E-Designation program, included the following scope of work:

1. Conducted a Site inspection to identify areas of concern (AOC) and physical obstructions (i.e. structures, buildings, etc.);
2. Installed five (5) soil borings across the entire project Site, and collected ten (10) soil samples and one duplicate for chemical analysis from the soil borings to evaluate soil quality;
3. Installed three (3) groundwater monitoring wells throughout the Site to establish groundwater flow and collected three (3) groundwater samples for chemical analysis to evaluate groundwater quality;

4. Installed four (4) soil vapor probes around Site perimeter and collected four (4) samples for chemical analysis to evaluate the potential for vapor intrusion.

Full investigation findings are included in Appendix A. A summary of environmental findings of the Ph II/RI include the following:

1. Elevation of the property ranges from 13 to 14 feet above mean sea level (amsl).
2. Depth to groundwater ranges from 8.10 to 8.35 feet below ground surface (ft bgs) at the Site.
3. Groundwater flow is generally from northwest to southeast beneath the Site.
4. Depth to bedrock at the Site is greater than 100 feet.
5. The stratigraphy of the site, from the surface down, consists of historic fill material to depths up to 1 foot, underlain by 4-6 feet of brown medium to fine sand with trace silt. This layer is underlain by 3-5 feet of firm light brown to tan silty clay below which stratigraphy returns to a medium to coarse brown sand layer extending to at least 12 feet below existing grade.
6. Soil/fill samples were compared to NYSDEC 6NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives (UUSCOs) and Restricted Residential Use Soil Cleanup Objectives (RRSCOs). Soil/fill samples collected during the Ph II/RI showed:
   - The volatile organic compound (VOC), acetone, was detected at 59 µg/kg above the UUSCO of 50 µg/kg in the 0-2 foot interval at SB-1. In addition, trichloroethene (max of 220 µg/kg) was detected in 0-2 foot interval at SB-3, well below the UUSCO of 470 µg/kg.
   - Five semi-volatile organic compounds(SVOC), benz(a)anthracene (2,000 µg/kg), benzo(a)pyrene (1,900 µg/kg), benzo(b)fluoranthene (1,800 µg/kg), dibenz(a,h)anthracene (420 µg/kg) and indeno(1,2,3-cd)pyrene (1,200 µg/kg), were detected above the RRSCOs and two SVOCs, benzo(k)fluoranthene (1,700 µg/kg) and chrysene (2,400 µg/kg), were detected above the UUSCOs in the 0-2 foot interval at SB-5. SVOCs were not detected above the UUSCOs in any other sample.
   - No polychlorinated biphenyls (PCBs) were detected at concentrations exceeding the UUSCOs
   - Five metals, barium (maximum 373 mg/kg), chromium (maximum 62.3 mg/kg), copper (maximum 90.1 mg/kg), nickel (maximum 159 mg/kg) and zinc (maximum 848 mg/kg), were detected above UUSCOs in four of five 0-2 foot interval samples. Two metals, lead (maximum of 796 mg/kg) and mercury (maximum of 1.19 mg/kg) were detected above RRSCOs in the 0-2 foot interval at SB-5.
   - Four pesticides, 4,4'-DDD (maximum 33 µg/kg), 4,4'-DDE (maximum 12 µg/kg), 4,4'-DDT (maximum 60 µg/kg) and dieldrin (maximum 14 µg/kg), were detected above UUSCOs in three of the five 0-2 foot interval samples. No pesticides were detected above UUSCOs in the development depth samples.
7. Groundwater analytical results were compared to New York State Department of Environmental Conservation 6NYCRR Part 703.5 Class GA groundwater standards (NYSDEC GWQS). Groundwater samples collected during the RI showed:

- Two VOCs, cis-1,2-Dichloroethene (maximum 11 µg/L) and vinyl chloride (maximum 6.2 µg/L) were detected above the GWQS in TW-2 and TW-3. A third VOC, trichloroethene, was detected above the GWQS at 6.5 µg/L in TW-2 only.

- Three SVOCs, benz(a)anthracene (0.03 µg/L), benzo(b)fluoranthene (0.02 µg/L), and chrysene (0.03 µg/L), were detected above the GWQS in TW-1.

- No PCBs or pesticides were detected in any groundwater samples.

- Five metals (undissolved), including aluminum (maximum 12 µg/L), antimony (maximum 0.011 µg/L), iron (maximum 35.6 µg/L), manganese (maximum of 2.67 µg/L) and sodium (maximum of 59.5 µg/L), were detected above the GWQS in at least two of the three groundwater samples. Magnesium (undissolved) was detected above the GWQS at 53.5 µg/L in TW-1 only. Two dissolved metals, manganese (maximum of 2.38 µg/L) and sodium (maximum of 65 µg/L), were detected in at least two of the three groundwater samples. Dissolved iron was also detected above the GWQS at 9.72 µg/L in TW-3 only and dissolved magnesium at 52.6 µg/L in TW-1 only.

- TW-3 was analyzed for 1,4-dioxane and per- and polyfluoroalkyl substances (PFOA/PFAS) target analyte list. Several analytes were detected above the detection limit including perfluorobutanesulfonic acid (2.5 ng/L), perfluorohexanoic acid (6.5 ng/L), perfluoroheptanoic acid (3.2 ng/L), perfluoropentnoic acid (7.4 ng/L), perfluorooctanoic acid (12 ng/L), and perfluorooctanesulfonic acid (6.6 ng/L). 1,4-dioxane was not detected above the reporting limit of 0.20 µg/L.

8. Soil vapor analytical results were compared to New York State Department of Health (NYSDOH) Final Guidance on Soil Vapor Intrusion (May 2017) Matrix A, B, and C guidance values. Approximately 24 VOCs were detected above the method detection limits within the four soil vapor samples collected. Based on the VOC concentrations detected and the NYSDOH decision matrices, the concentrations of cis-1,2-dichloroethene, tetrachloroethene, trichloroethene and vinyl chloride exceed the guidance value for no further action and indicate the need for monitoring and/or mitigation if a building was currently present. Cis-1,2-dichloroethene was detected at 14.2 µg/m^3 in SV-2, 64.2 µg/ m^3 in SV-3 and 33.6 µg/ m^3 in SV-4 exceeding the no further action guidance value of 6 µg/ m^3. Tetrachloroethene was detected at 110 µg/ m^3 in SV-3 exceeding the no further action guidance value of 100 µg/ m^3. Trichloroethene was detected at 53.7 µg/ m^3 in SV-1, 96.1 µg/ m^3 in SV-2, 3,350 µg/ m^3 in SV-3 and 2,620 µg/ m^3 in SV-4 exceeding the no further action guidance value of 6 µg/ m^3. Lastly, vinyl chloride was detected at 11.9 µg/ m^3 in SV-2 also exceeding the no further action guidance value of 6 µg/ m^3. Total concentrations of petroleum-related VOCs (BTEX) within the four soil vapor samples ranged from 7.85 µg/m^3 to 210.01 µg/m^3.

3. Remedial Investigation

This section describes the field activities to be conducted during the RI and provides the sampling scope, objectives, methods, anticipated number of samples, and sample locations. A summary of the sampling and analysis plan is provided in Table 4 and Figure 3. The following activities will be conducted to fill data gaps and determine the nature and extent of contamination at the Site.

3.1 UTILITY MARKOUT

Field personnel will mobilize to the Site to stake (with flagging or paint) the proposed soil sample locations. Once the sample locations are marked, Dig Safely New York will be contacted to mark underground utilities. If necessary, the adjacent property owners and/or private vendors will be contacted for assistance with markout of utilities. Once the utilities are marked, field equipment and personnel will be mobilized to the Site.

3.2 SOIL SAMPLING

To further characterize surface soil conditions, additional on-Site soil samples will be collected to meet NYSDEC DER-10 requirements for remedial investigations.

The sampling and analysis plan is summarized in Table 4. Eight soil borings will be installed to 10 feet below ground surface (ft-bgs) by a track-mounted direct push drill rig (Geoprobe®) operated by a licensed operator. Soil samples will be collected from acetate liners using a stainless-steel trowel or sampling spoon. Samples will be collected using laboratory provided clean bottle ware. VOC grab samples will be collected using terra cores.

Soils will be logged continuously by a geologist or engineer using the Unified Soil Classification System. The presence of staining, odors, and photoionization detector (PID) response will be noted. Samples will be collected using laboratory-provided clean bottle ware. VOC grab samples will be collected using terra cores. Sampling methods are described in the Field Sampling Plan (FSP) provided as Appendix B. A Quality Assurance Project Plan (QAPP) is provided as Appendix C. Laboratory data will be reported in ASP Category B deliverable format.

Soil samples representative of Site conditions will be collected at eight locations widely distributed across the Site as shown on Figure 3. Samples will be collected from 0-2 ft bgs and 8-10 ft bgs and additional samples will be collected from any interval exhibiting elevated PID readings and/or visual and olfactory impacts. Soil samples will be analyzed for:

- 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;

3.3 GROUNDWATER SAMPLING

The purpose of the groundwater sampling is to obtain current groundwater data and analyze for additional parameters (i.e., per- and polyfluoroalkyl substances [PFAS] and 1,4-dioxane) to meet NYSDEC DER-10 requirements for remedial investigations. Groundwater flow generally flows northwest to southeast.

Five two-inch permanent monitoring wells will be installed to 15 ft bgs. Wells will be screened from 5-15 ft bgs. Groundwater was encountered at approximately 8 ft bgs during the Remedial Investigation completed in March 2019. Monitoring wells will be developed by surging a pump in the well several times to pull fine-grained material from the well. Development will be completed until the water turbidity is 50 nephelometric turbidity units (NTU) or less or 10 well volumes are removed, if possible. The well casings will be surveyed by a trained Qualified Environmental Professional and/or New York State licensed surveyor to facilitate preparation of a groundwater contour map and determine the direction of groundwater flow.

The sampling and analysis plan is summarized in Table 4. Well locations are provided on Figure 3.

Monitoring wells MW-1, MW-2, MW-3, MW-4 and MW-5 will be sampled and analyzed for:

- TCL VOCs using EPA method 8260B;
- TCL SVOCs using EPA method 8270C; and
- Total Metals using EPA methods 6010/7471.

Monitoring wells MW-4 and MW-5 will be sampled and analyzed for:

- PFAS using EPA method 537; and
- 1,4-Dioxane using EPA method 8260B.

Groundwater wells will be sampled using low-flow sampling methods as described in the Field Sampling Plan (FSP). Following the low-flow purge, samples will be collected from monitoring wells for analysis of the analytes mentioned above.

The FSP presented in Appendix B details field procedures and protocols that will be followed during field activities. The Quality Assurance Project Plan (QAPP) presented in Appendix C details the analytical methods and procedures that will be used to analyze samples collected during field activities. Select wells to be sampled for PFAS will be done so following the purge and sampling method detailed in the NYSDEC guidance documents (see Appendix D).

3.4 SOIL VAPOR SAMPLING

Samples will be collected in accordance with the Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH October 2006). Four soil vapor probes will be installed to approximately 7 ft bgs or approximately one and two feet above the groundwater interface (previously encountered at approximately 8 ft bgs). The vapor implants will be installed with a direct-push drilling rig (e.g., Geoprobe®) to advance a stainless-steel probe to the desired sample depth. Sampling will occur for the duration of two (2) hours.

Samples will be collected in appropriately sized Summa canisters that have been certified clean by the laboratory and samples will be analyzed by using USEPA Method TO-15. Flow rate for both purging and sampling will not exceed 0.2 L/min. Sampling methods are described in the Field Sampling Plan (FSP) provided as Appendix B.

3.5 INVESTIGATION DERIVED WASTE

Following sample collection, boreholes that are not converted to monitoring wells will be backfilled with soil cutting and an upper bentonite plug. Boreholes will be restored to grade with surrounding area. If soil is identified as grossly contaminated it will be separated and placed into a sealed and labeled Department of Transportation (DOT) approved 55-gallon drum pending characterization and offsite disposal. Groundwater purged from the monitoring wells during development and sample collected will be placed into a DOT approved 55-gallon drum pending offsite disposal.

4. Quality Assurance and Quality Control

Quality Assurance/Quality Control (QA/QC) procedures will be used to provide performance information with regard to accuracy, precision, sensitivity, representation, completeness, and comparability associated with the sampling and analysis for this investigation. Field QA/QC procedures will be used (1) to document that samples are representative of actual conditions at the Site and (2) identify possible cross-contamination from field activities or sample transit. Laboratory QA/QC procedures and analyses will be used to demonstrate whether analytical results have been biased either by interfering compounds in the sample matrix, or by laboratory techniques that may have introduced systematic or random errors to the analytical process.

QA/QC procedures are defined in the Quality Assurance Project Plan included in Appendix C.

5. Data Use

5.1 DATA SUBMITTAL

Analytical data will be supplied in ASP Category B Data Packages. If more stringent than those suggested by the United States Environmental Protection Agency, the laboratory's in house QA/QC limits will be utilized.

5.2 DATA VALIDATION

Data packages will be sent to a qualified data validation specialist for evaluation of accuracy and precision of the analytical results. A Data Usability Summary Report (DUSR) will be created to confirm the compliance of methods with the protocols described in the NYSDEC Analytical service Protocol (ASP). DUSRs will summarize and confirm usability of the data for project related decisions. Data validation will be completed in accordance with the DUSR guidelines from NYSDEC Division of Environmental Remediation. DUSRs will be included with the submittal of a Remedial Investigation Report (RIR), further discussed in Section 8.

6. Project Organization

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

James Bellew will be the Qualified Environmental Professional and Principal in Charge for this work. In this role, Mr. Bellew will be responsible for the overall completion of each task as per requirements outlined in this work plan and in accordance with the DER-10 guidance.

Mari Conlon will be the Project Manager for this work. In this role, Ms. Conlon will manage the day-to-day tasks including coordination and supervision of field engineers and scientists, adherence to the work plan and oversight of project schedule. As the Project Manager, Ms. Conlon will also be responsible for communications with the NYSDEC Case Manager regarding project status, schedule, issues and updates for project work.

Zachary Simmel will be the field engineer responsible for implementing the field effort for this work. Mr. Simmel's responsibilities will include implementing the work plan activities and directing the subcontractors to ensure successful completion of all field activities.

The NYSDEC Case Manager is Mr. Gerard Burke (Or designated Case Manager). The Case Manager will be responsible for overseeing the successful completion of the project work and adherence to the work plan on behalf of NYSDEC.

The drilling subcontractor will be Coastal Environmental Solutions. Coastal Environmental Solutions will provide a geoprobe operator to implement the scope of work in this RIWP.

The analytical laboratory will be Alpha Analytical of Westborough, MA, a New York Environmental Laboratory Approval Program (ELAP) certified laboratory. Alpha Analytical will be responsible for analyzing samples as per the analyses and methods identified in Section 2.

7. Health and Safety

7.1 HEALTH AND SAFETY PLAN

A Site-specific Health and Safety Plan (HASP) has been prepared in accordance with NYSDEC and NYSDOH guidelines and is provided as Appendix E of this work plan. The HASP includes a description of health and safety protocols to be followed by Haley & Aldrich field staff during implementation of the remedy, including monitoring within the work area, along with response actions should impacts be observed. The HASP has been developed in accordance with Occupational Health and Safety Administration (OSHA) 40 CFR Part 1910.120 regulatory requirements for use by Haley & Aldrich field staff that will work at the Site during planned activities. Contractors or other personnel who perform work at the Site are required to develop their own health and safety plan and procedures of comparable or higher content for their respective personnel in accordance with relevant OSHA regulatory requirements for work at hazardous waste Sites as well as general industry as applicable based on the nature of work being performed.

7.2 COMMUNITY AIR MONITORING PLAN

The proposed investigation work will be completed outdoors at the Site. Where intrusive drilling operations are planned, community air monitoring will be implemented to protect the downwind receptors. A Haley & Aldrich representative will continually monitor the breathing air in the vicinity of the immediate work area using a PID to measure total volatile organic compounds in air at concentrations as low as 1 part per million (ppm). The air in the work zone also will be monitored for visible dust generation.

If VOC measurements above 5 ppm are sustained for 15 minutes or visible dust generation is observed, the intrusive work will be temporarily halted and a more rigorous monitoring of VOCs and dust using recordable meters will be implemented in accordance with the NYSDOH Generic Community Air Monitoring Plan (CAMP).

8. Reporting

Following completion of the work, a summary of the RI will be provided to NYSDEC in a Remedial Investigation Report (RIR) to support implementation of proposed remedial action. The report will include:

- Summary of the RI activities;
- Figure showing sampling locations;
- Tables summarizing laboratory analytical results;
- Laboratory analytical data reports;
- Field sampling data sheets;
- Findings regarding the nature and extent of contamination at the Site; and
- Conclusions and recommendations.

The RIR may be combined with the Remedial Action Work Plan (RAWP) as a RIR/RAWP. The RIR/RAWP will include all data collected during the RI and adhere to technical requirements of DER-10.

9. Schedule

The Site owner plans to implement this RIWP promptly upon execution of a Brownfield Cleanup Agreement and after approval of the RIWP.

Anticipated RI Schedule		
RIWP and 30-Day Public Comment Period (concurrent with BCP application)	September-October 2019	
Executed Brownfield Cleanup Agreement	December 2019	
NYSDEC Approval of RIWP	December/January 2019	Approximately 2-3 weeks to schedule and complete the RI
RIR/RAWP and 45-Day Public Comment Period	February/March 2019	
NYSDEC Approval of RIR/RAWP	April/May 2019	

References

1. Brownfield Cleanup Program Application. 297 Wallabout Street, Brooklyn, New York. Prepared by 295 W Holdings LLC & Haley & Aldrich of New York, prepared for the New York State Department of Environmental Conservation. [INSERT DATE].

2. Remedial Investigation Report. 297 Wallabout Street, Brooklyn, New York. Prepared by Haley & Aldrich of New York, prepared for the New York City Office of Environmental Remediation, April 2019.

3. Program Policy DER-10, "Technical Guidance for Site Investigation and Remediation," New York State Department of Environmental Conservation, May 2010.

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TABLES

Table 1. Soil Analytical Results
297 Wallabout Street, Brooklyn, NY

Lab Sample Id				CC69596		CC69597		CC69598		CC69599		CC69590		CC69591		CC69594		CC69595		CC69592		CC69593		CC69600	
Collection Date				3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019	
Client Id				SB-1 (0-2)		SB-1 (10-12)		SB-2 (0-2)		SB-2 (10-12)		SB-3 (0-2)		SB-3 (10-12)		SB-4 (0-2)		SB-4 (10-12)		SB-5 (0-2)		SB-5 (10-12)		DUP (190318)	
Matrix				Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
	Units	NY-ResRestrict	NY-UnRestricted	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Miscellaneous/Inorganics																									
Percent Solid	%			82		82		91		85		86		93		89		80		87		81		84	
Metals, Total																									
Aluminum	mg/Kg			5,430	59	8,050	62	9,090	52	4,510	59	5,200	57	11,000	53	8,660	51	5,850	59	7,450	59	14,100	59	6,740	55
Antimony	mg/Kg			< 3.9	3.9	< 4.1	4.1	< 3.5	3.5	< 3.9	3.9	< 3.8	3.8	< 3.5	3.5	< 3.4	3.4	< 4.0	4.0	< 3.9	3.9	< 4.0	4.0	< 3.7	3.7
Arsenic	mg/Kg	16	13	2.02	0.78	3.47	0.82	2.08	0.70	1.01	0.78	< 0.76	0.76	3.58	0.71	1.78	0.68	1.71	0.79	8.69	0.79	9.81	0.79	1.36	0.73
Barium	mg/Kg	400	***350***	190	0.39	44.7	0.41	57.5	0.35	21.1	0.39	17.3	0.38	65.5	0.35	54.4	0.34	27.5	0.40	***373***	0.39	82.2	0.40	19.8	0.37
Beryllium	mg/Kg	72	7.2	< 0.31	0.31	0.41	0.33	0.47	0.28	< 0.31	0.31	< 0.30	0.30	0.48	0.28	0.38	0.27	0.35	0.32	0.36	0.31	1.07	0.32	0.4	0.29
Cadmium	mg/Kg	4.3	2.5	0.51	0.39	< 0.41	0.41	0.47	0.35	< 0.39	0.39	< 0.38	0.38	0.44	0.35	1.07	0.34	< 0.40	0.40	1.55	0.39	0.67	0.40	< 0.37	0.37
Calcium	mg/Kg			76,300	59	1,470	6.2	14,500	52	1,780	5.9	451	5.7	11,100	53	8,530	5.1	905	5.9	38,300	59	1,390	5.9	1,310	5.5
Chromium	mg/Kg		***30***	11.1	0.39	20.3	0.41	24.7	0.35	19.2	0.39	***62.3***	0.38	27.6	0.35	***34.3***	0.34	12.7	0.40	***48.7***	0.39	***39.4***	0.40	***31***	0.37
Cobalt	mg/Kg			2.72	0.39	7.32	0.41	8.86	0.35	3.37	0.39	5.38	0.38	9.12	0.35	7.5	0.34	6.93	0.40	6.69	0.39	7.83	0.40	4.52	0.37
Copper	mg/kg	270	***50***	11.6	0.8	11.7	0.8	23.6	0.7	8.6	0.8	9.6	0.8	28.6	0.7	33.1	0.7	10.8	0.8	***90.1***	0.8	24.9	0.8	9.5	0.7
Iron	mg/Kg			7,200	5.9	12,400	62	22,700	52	6,900	5.9	8,630	5.7	20,500	53	20,800	51	9,970	59	25,500	59	32,800	59	8,970	5.5
Lead	mg/Kg	**400**	***63***	**420**	3.9	8.55	0.41	14.3	0.35	33.2	0.39	2.78	0.38	14.4	0.35	***103***	0.34	5.4	0.40	**796**	3.9	13.3	0.40	6.72	0.37
Magnesium	mg/Kg			3,550	5.9	2,520	6.2	3,620	5.2	1,150	5.9	1,530	5.7	5,670	53	4,000	5.1	1,820	5.9	5,700	5.9	4,120	5.9	1,300	5.5
Manganese	mg/Kg	2,000	1,600	155	0.39	134	0.41	413	3.5	80	0.39	81.2	0.38	483	3.5	378	3.4	132	0.40	342	3.9	137	0.40	141	0.37
Mercury	mg/Kg	**0.81**	***0.18***	***0.33***	0.03	< 0.03	0.03	< 0.03	0.03	< 0.03	0.03	< 0.03	0.03	< 0.03	0.03	0.16	0.03	< 0.03	0.03	**1.19**	0.08	< 0.03	0.03	< 0.03	0.03
Nickel	mg/Kg	310	***30***	5.9	0.39	14.3	0.41	23.9	0.35	14.7	0.39	***159***	3.8	***30.3***	0.35	***42.7***	0.34	10.8	0.40	***45.4***	0.39	21.5	0.40	29.5	0.37
Potassium	mg/Kg			1,120	5.9	1,100	6.2	1,520	5.2	481	5.9	731	5.7	2,280	5.3	1,290	5.1	990	5.9	1,250	5.9	2,060	5.9	651	5.5
Selenium	mg/Kg	180	3.9	< 1.6	1.6	< 1.6	1.6	< 1.4	1.4	< 1.6	1.6	< 1.5	1.5	< 1.4	1.4	< 1.4	1.4	< 1.6	1.6	< 1.6	1.6	< 1.6	1.6	< 1.5	1.5
Silver	mg/Kg	180	2	< 0.39	0.39	< 0.41	0.41	< 0.35	0.35	< 0.39	0.39	< 0.38	0.38	< 0.35	0.35	< 0.34	0.34	< 0.40	0.40	< 0.39	0.39	< 0.40	0.40	< 0.37	0.37
Sodium	mg/Kg			1,160	5.9	102	6.2	375	5.2	101	5.9	50.5	5.7	939	5.3	137	5.1	58.7	5.9	426	5.9	111	5.9	79.3	5.5
Thallium	mg/Kg			< 3.5	3.5	< 3.7	3.7	< 3.1	3.1	< 3.5	3.5	< 3.4	3.4	< 3.2	3.2	< 3.0	3.0	< 3.6	3.6	< 3.5	3.5	< 3.6	3.6	< 3.3	3.3
Vanadium	mg/Kg			11.2	0.39	24.7	0.41	29.5	0.35	13.2	0.39	14.3	0.38	34.6	0.35	27.2	0.34	18.5	0.40	24.1	0.39	51.5	0.40	20	0.37
Zinc	mg/Kg	10,000	***109***	***235***	7.8	35.5	0.8	45.2	0.7	23.4	0.8	24.1	0.8	73	0.7	***214***	6.8	25.1	0.8	***848***	7.9	58.4	0.8	21.4	0.7
PCBs By SW8082A																									
PCB-1016	ug/Kg		100	< 81	81	< 79	79	< 73	73	< 76	76	< 76	76	< 71	71	< 73	73	< 83	83	< 76	76	< 80	80	< 78	78
PCB-1221	ug/Kg		100	< 81	81	< 79	79	< 73	73	< 76	76	< 76	76	< 71	71	< 73	73	< 83	83	< 76	76	< 80	80	< 78	78
PCB-1232	ug/Kg		100	< 81	81	< 79	79	< 73	73	< 76	76	< 76	76	< 71	71	< 73	73	< 83	83	< 76	76	< 80	80	< 78	78
PCB-1242	ug/Kg		100	< 81	81	< 79	79	< 73	73	< 76	76	< 76	76	< 71	71	< 73	73	< 83	83	< 76	76	< 80	80	< 78	78
PCB-1248	ug/Kg		100	< 81	81	< 79	79	< 73	73	< 76	76	< 76	76	< 71	71	< 73	73	< 83	83	< 76	76	< 80	80	< 78	78
PCB-1254	ug/Kg		100	< 81	81	< 79	79	< 73	73	< 76	76	< 76	76	< 71	71	< 73	73	< 83	83	< 76	76	< 80	80	< 78	78
PCB-1260	ug/Kg		100	< 81	81	< 79	79	< 73	73	< 76	76	< 76	76	< 71	71	< 73	73	< 83	83	< 76	76	< 80	80	< 78	78
PCB-1262	ug/Kg		100	< 81	81	< 79	79	< 73	73	< 76	76	< 76	76	< 71	71	< 73	73	< 83	83	< 76	76	< 80	80	< 78	78
PCB-1268	ug/Kg		100	< 81	81	< 79	79	< 73	73	< 76	76	< 76	76	< 71	71	< 73	73	< 83	83	< 76	76	< 80	80	< 78	78
Volatiles By SW8260C																									
1,1,1,2-Tetrachloroethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,1,1-Trichloroethane	ug/Kg	100,000	680	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,1,2,2-Tetrachloroethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,1,2-Trichloroethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,1-Dichloroethane	ug/Kg	26,000	270	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,1-Dichloroethene	ug/Kg	100,000	330	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9

Notes:

NY-ResRestrict - NYCRR Part 375 Restricted Residential Use SCOs

NY-UnRestricted - NYCRR Part 375 Unrestrcited Use SCOs

Bold italicized results exceed the Unrestricted Use SCOs

Unrestricted Use and Restricted Residential SCOs

< - Result not detected above the reporting limit

Table 1. Soil Analytical Results
297 Wallabout Street, Brooklyn, NY

Lab Sample Id				CC69596		CC69597		CC69598		CC69599		CC69590		CC69591		CC69594		CC69595		CC69592		CC69593		CC69600	
Collection Date				3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019	
Client Id				SB-1 (0-2)		SB-1 (10-12)		SB-2 (0-2)		SB-2 (10-12)		SB-3 (0-2)		SB-3 (10-12)		SB-4 (0-2)		SB-4 (10-12)		SB-5 (0-2)		SB-5 (10-12)		DUP (190318)	
Matrix				Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
	Units	NY-ResRestrict	NY-UnRestricted	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
1,1-Dichloropropene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,2,3-Trichlorobenzene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,2,3-Trichloropropane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,2,4-Trichlorobenzene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,2,4-Trimethylbenzene	ug/Kg	52,000	3,600	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,2-Dibromo-3-chloropropane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,2-Dibromoethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,2-Dichlorobenzene	ug/Kg	100,000	1,100	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,2-Dichloroethane	ug/Kg	3,100	20	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,2-Dichloropropane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,3,5-Trimethylbenzene	ug/Kg	52,000	8,400	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,3-Dichlorobenzene	ug/Kg	49,000	2,400	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,3-Dichloropropane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,4-Dichlorobenzene	ug/Kg	13,000	1,800	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
2,2-Dichloropropane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
2-Chlorotoluene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
2-Hexanone	ug/Kg			< 30	30	< 30	30	< 27	27	< 31	31	< 29	29	< 27	27	< 29	29	< 31	31	< 32	32	< 31	31	< 29	29
2-Isopropyltoluene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
4-Chlorotoluene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
4-Methyl-2-pentanone	ug/Kg			< 30	30	< 30	30	< 27	27	< 31	31	< 29	29	< 27	27	< 29	29	< 31	31	< 32	32	< 31	31	< 29	29
Acetone	ug/Kg	100,000	***50***	***59***	30	< 30	30	< 27	27	< 31	31	< 29	29	< 27	27	< 29	29	< 31	31	< 32	32	< 31	31	< 29	29
Acrylonitrile	ug/Kg			< 12	12	< 12	12	< 11	11	< 12	12	< 12	12	< 11	11	< 11	11	< 12	12	< 13	13	< 12	12	< 12	12
Benzene	ug/Kg	4,800	60	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Bromobenzene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Bromochloromethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Bromodichloromethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Bromoform	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Bromomethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Carbon Disulfide	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Carbon tetrachloride	ug/Kg	2,400	760	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Chlorobenzene	ug/Kg	100,000	1,100	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Chloroethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Chloroform	ug/Kg	49,000	370	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Chloromethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
cis-1,2-Dichloroethene	ug/Kg	100,000	250	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
cis-1,3-Dichloropropene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Dibromochloromethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Dibromomethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Dichlorodifluoromethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Ethylbenzene	ug/Kg	41,000	1,000	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Hexachlorobutadiene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Isopropylbenzene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
m&p-Xylene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Methyl Ethyl Ketone	ug/Kg	100,000	120	< 30	30	< 30	30	< 27	27	< 31	31	< 29	29	< 27	27	< 29	29	< 31	31	< 32	32	< 31	31	< 29	29

Notes:

NY-ResRestrict - NYCRR Part 375 Restricted Residential Use SCOs

NY-UnRestricted - NYCRR Part 375 Unrestrcited Use SCOs

Bold italicized results exceed the Unrestricted Use SCOs

Unrestricted Use and Restricted Residential SCOs

< - Result not detected above the reporting limit

Table 1. Soil Analytical Results
297 Wallabout Street, Brooklyn, NY

Lab Sample Id				CC69596		CC69597		CC69598		CC69599		CC69590		CC69591		CC69594		CC69595		CC69592		CC69593		CC69600	
Collection Date				3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019	
Client Id				SB-1 (0-2)		SB-1 (10-12)		SB-2 (0-2)		SB-2 (10-12)		SB-3 (0-2)		SB-3 (10-12)		SB-4 (0-2)		SB-4 (10-12)		SB-5 (0-2)		SB-5 (10-12)		DUP (190318)	
Matrix				Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
	Units	NY-ResRestrict	NY-UnRestricted	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Methyl t-butyl ether (MTBE)	ug/Kg	100,000	930	< 12	12	< 12	12	< 11	11	< 12	12	< 12	12	< 11	11	< 11	11	< 12	12	< 13	13	< 12	12	< 12	12
Methylene chloride	ug/Kg	100,000	50	< 12	12	< 12	12	< 11	11	< 12	12	< 12	12	< 11	11	< 11	11	< 12	12	< 13	13	< 12	12	< 12	12
Naphthalene	ug/Kg	100,000	12,000	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
n-Butylbenzene	ug/Kg	100,000	12,000	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
n-Propylbenzene	ug/Kg	100,000	3,900	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
o-Xylene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
p-Isopropyltoluene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
sec-Butylbenzene	ug/Kg	100,000	11,000	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Styrene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
tert-Butylbenzene	ug/Kg	100,000	5,900	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Tetrachloroethene	ug/Kg	19,000	1,300	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Tetrahydrofuran (THF)	ug/Kg			< 12	12	< 12	12	< 11	11	< 12	12	< 12	12	< 11	11	< 11	11	< 12	12	< 13	13	< 12	12	< 12	12
Toluene	ug/Kg	100,000	700	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Total Xylenes	ug/Kg	100,000	260	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
trans-1,2-Dichloroethene	ug/Kg	100,000	190	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
trans-1,3-Dichloropropene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
trans-1,4-dichloro-2-butene	ug/Kg			< 12	12	< 12	12	< 11	11	< 12	12	< 12	12	< 11	11	< 11	11	< 12	12	< 13	13	< 12	12	< 12	12
Trichloroethene	ug/Kg	21,000	470	7	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	220	200	< 5.4	5.4	12	5.7	12	6.2	160	130	< 6.2	6.2	< 5.9	5.9
Trichlorofluoromethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Trichlorotrifluoroethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Vinyl chloride	ug/Kg	900	20	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Semivolatiles By SW8270D																									
1,2,4,5-Tetrachlorobenzene	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
1,2,4-Trichlorobenzene	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
1,2-Dichlorobenzene	ug/Kg	100,000	1,100	< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
1,2-Diphenylhydrazine	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
1,3-Dichlorobenzene	ug/Kg	49,000	2,400	< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
1,4-Dichlorobenzene	ug/Kg	13,000	1,800	< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
2,4,5-Trichlorophenol	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
2,4,6-Trichlorophenol	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
2,4-Dichlorophenol	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
2,4-Dimethylphenol	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
2,4-Dinitrophenol	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
2,4-Dinitrotoluene	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
2,6-Dinitrotoluene	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
2-Chloronaphthalene	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
2-Chlorophenol	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
2-Methylnaphthalene	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
2-Methylphenol (o-cresol)	ug/Kg	100,000	330	< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
2-Nitroaniline	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
2-Nitrophenol	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
3&4-Methylphenol (m&p-cresol)	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
3,3'-Dichlorobenzidine	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
3-Nitroaniline	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390

Notes:

NY-ResRestrict - NYCRR Part 375 Restricted Residential Use SCOs

NY-UnRestricted - NYCRR Part 375 Unrestrcited Use SCOs

Bold italicized results exceed the Unrestricted Use SCOs

Gray bold results exceed both the Unrestricted Use and Restricted

< - Result not detected above the reporting limit

Table 1. Soil Analytical Results
297 Wallabout Street, Brooklyn, NY

Lab Sample Id				CC69596		CC69597		CC69598		CC69599		CC69590		CC69591		CC69594		CC69595		CC69592		CC69593		CC69600	
Collection Date				3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019	
Client Id				SB-1 (0-2)		SB-1 (10-12)		SB-2 (0-2)		SB-2 (10-12)		SB-3 (0-2)		SB-3 (10-12)		SB-4 (0-2)		SB-4 (10-12)		SB-5 (0-2)		SB-5 (10-12)		DUP (190318)	
Matrix				Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
	Units	NY-ResRestrict	NY-UnRestricted	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
4,6-Dinitro-2-methylphenol	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
4-Bromophenyl phenyl ether	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
4-Chloro-3-methylphenol	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
4-Chloroaniline	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
4-Chlorophenyl phenyl ether	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
4-Nitroaniline	ug/Kg			< 630	630	< 650	650	< 570	570	< 610	610	< 610	610	< 570	570	< 590	590	< 660	660	< 600	600	< 650	650	< 630	630
4-Nitrophenol	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Acenaphthene	ug/Kg	100,000	20,000	< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Acenaphthylene	ug/Kg	100,000	100,000	< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	330	260	< 280	280	< 280	280
Acetophenone	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Aniline	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
Anthracene	ug/Kg	100,000	100,000	< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	440	260	< 280	280	< 280	280
Benz(a)anthracene	ug/Kg	**1,000**	***1,000***	450	280	< 280	280	420	250	< 270	270	< 270	270	< 250	250	630	260	< 290	290	**2,000**	260	< 280	280	< 280	280
Benzidine	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Benzo(a)pyrene	ug/Kg	**1,000**	***1,000***	380	280	< 280	280	360	250	< 270	270	< 270	270	< 250	250	600	260	< 290	290	**1,900**	260	< 280	280	< 280	280
Benzo(b)fluoranthene	ug/Kg	**1,000**	***1,000***	310	280	< 280	280	290	250	< 270	270	< 270	270	< 250	250	560	260	< 290	290	**1,800**	260	< 280	280	< 280	280
Benzo(ghi)perylene	ug/Kg	100,000	100,000	280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	350	260	< 290	290	1,100	260	< 280	280	< 280	280
Benzo(k)fluoranthene	ug/Kg	3,900	***800***	310	280	< 280	280	280	250	< 270	270	< 270	270	< 250	250	510	260	< 290	290	***1,700***	260	< 280	280	< 280	280
Benzoic acid	ug/Kg			< 790	790	< 810	810	< 710	710	< 770	770	< 770	770	< 710	710	< 740	740	< 830	830	< 750	750	< 810	810	< 790	790
Benzyl butyl phthalate	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Bis(2-chloroethoxy)methane	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Bis(2-chloroethyl)ether	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
Bis(2-chloroisopropyl)ether	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Bis(2-ethylhexyl)phthalate	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Carbazole	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
Chrysene	ug/Kg	3,900	***1,000***	500	280	< 280	280	450	250	< 270	270	< 270	270	< 250	250	800	260	< 290	290	***2,400***	260	< 280	280	< 280	280
Dibenz(a,h)anthracene	ug/Kg	**330**	***330***	< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	**420**	260	< 280	280	< 280	280
Dibenzofuran	ug/Kg	59,000	7,000	< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Diethyl phthalate	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Dimethylphthalate	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Di-n-butylphthalate	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
Di-n-octylphthalate	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Fluoranthene	ug/Kg	100,000	100,000	670	280	< 280	280	900	250	< 270	270	< 270	270	< 250	250	1,300	260	< 290	290	3,600	260	< 280	280	< 280	280
Fluorene	ug/Kg	100,000	30,000	< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Hexachlorobenzene	ug/Kg	1,200		< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Hexachlorobutadiene	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Hexachlorocyclopentadiene	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Hexachloroethane	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Indeno(1,2,3-cd)pyrene	ug/Kg	**500**	***500***	< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	390	260	< 290	290	**1,200**	260	< 280	280	< 280	280
Isophorone	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 380	380	< 280	280	< 280	280
Naphthalene	ug/Kg	100,000	12,000	< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Nitrobenzene	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
N-Nitrosodimethylamine	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
N-Nitrosodi-n-propylamine	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280

Notes:

NY-ResRestrict - NYCRR Part 375 Restricted Residential Use SCOs

NY-UnRestricted - NYCRR Part 375 Unrestrcited Use SCOs

Bold italicized results exceed the Unrestricted Use SCOs

Gray bold results exceed both the Unrestricted Use and Restricted

< - Result not detected above the reporting limit

Lab Sample Id				CC69596		CC69597		CC69598		CC69599		CC69590		CC69591		CC69594		CC69595		CC69592		CC69593		CC69600	
Collection Date				3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019	
Client Id				SB-1 (0-2)		SB-1 (10-12)		SB-2 (0-2)		SB-2 (10-12)		SB-3 (0-2)		SB-3 (10-12)		SB-4 (0-2)		SB-4 (10-12)		SB-5 (0-2)		SB-5 (10-12)		DUP (190318)	
Matrix				Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
	Units	NY-ResRestrict	NY-UnRestricted	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
N-Nitrosodiphenylamine	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
Pentachloronitrobenzene	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
Pentachlorophenol	ug/Kg	6,700	800	< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
Phenanthrene	ug/Kg	100,000	100,000	770	280	< 280	280	1,200	250	< 270	270	< 270	270	< 250	250	1,100	260	< 290	290	3,100	260	< 280	280	< 280	280
Phenol	ug/Kg	100,000	330	< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Pyrene	ug/Kg	100,000	100,000	650	280	< 280	280	870	250	< 270	270	< 270	270	< 250	250	1,300	260	< 290	290	3,500	260	< 280	280	< 280	280
Pyridine	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
Pesticides - Soil By SW8081B																									
4,4' -DDD	ug/Kg	13,000	***3.3***	***8.8***	2.4	< 2.4	2.4	< 2.2	2.2	< 2.3	2.3	< 2.3	2.3	< 2.1	2.1	< 2.2	2.2	< 2.5	2.5	***33***	2.3	< 2.4	2.4	< 2.3	2.3
4,4' -DDE	ug/Kg	8,900	***3.3***	***12***	2.4	< 2.4	2.4	< 2.2	2.2	< 2.3	2.3	< 2.3	2.3	< 2.1	2.1	< 2.2	2.2	< 2.5	2.5	< 2.3	2.3	< 2.4	2.4	< 2.3	2.3
4,4' -DDT	ug/Kg	7,900	***3.3***	***60***	2.4	< 2.4	2.4	***8.4***	2.2	< 2.3	2.3	< 2.3	2.3	< 2.1	2.1	< 2.2	2.2	< 2.5	2.5	***14***	2.3	< 2.4	2.4	< 2.3	2.3
a-BHC	ug/Kg	480	20	< 8.1	8.1	< 7.9	7.9	< 7.3	7.3	< 7.6	7.6	< 7.6	7.6	< 7.1	7.1	< 7.3	7.3	< 8.3	8.3	< 7.6	7.6	< 8.0	8.0	< 7.8	7.8
a-Chlordane	ug/Kg	4,200	94	< 4.0	4.0	< 3.9	3.9	< 3.6	3.6	< 3.8	3.8	< 3.8	3.8	< 3.6	3.6	< 3.6	3.6	< 4.2	4.2	15	3.8	< 4.0	4.0	< 3.9	3.9
Aldrin	ug/Kg	97	5	< 4.0	4.0	< 3.9	3.9	< 3.6	3.6	< 3.8	3.8	< 3.8	3.8	< 3.6	3.6	< 3.6	3.6	< 4.2	4.2	< 3.8	3.8	< 4.0	4.0	< 3.9	3.9
b-BHC	ug/Kg	360	36	< 8.1	8.1	< 7.9	7.9	< 7.3	7.3	< 7.6	7.6	< 7.6	7.6	< 7.1	7.1	< 7.3	7.3	< 8.3	8.3	< 7.6	7.6	< 8.0	8.0	< 7.8	7.8
Chlordane	ug/Kg			82	40	< 39	39	< 36	36	< 38	38	< 38	38	< 36	36	< 36	36	< 42	42	86	38	< 40	40	< 39	39
d-BHC	ug/Kg	100,000	40	< 8.1	8.1	< 7.9	7.9	< 7.3	7.3	< 7.6	7.6	< 7.6	7.6	< 7.1	7.1	< 7.3	7.3	< 8.3	8.3	< 7.6	7.6	< 8.0	8.0	< 7.8	7.8
Dieldrin	ug/Kg	200	***5***	***5.6***	4.0	< 3.9	3.9	< 3.6	3.6	< 3.8	3.8	< 3.8	3.8	< 3.6	3.6	< 3.6	3.6	< 4.2	4.2	***14***	3.8	< 4.0	4.0	< 3.9	3.9
Endosulfan I	ug/Kg	24,000	2,400	< 8.1	8.1	< 7.9	7.9	< 7.3	7.3	< 7.6	7.6	< 7.6	7.6	< 7.1	7.1	< 7.3	7.3	< 8.3	8.3	< 7.6	7.6	< 8.0	8.0	< 7.8	7.8
Endosulfan II	ug/Kg	24,000	2,400	< 8.1	8.1	< 7.9	7.9	< 7.3	7.3	< 7.6	7.6	< 7.6	7.6	< 7.1	7.1	< 7.3	7.3	< 8.3	8.3	< 7.6	7.6	< 8.0	8.0	< 7.8	7.8
Endosulfan sulfate	ug/Kg	24,000	2,400	< 8.1	8.1	< 7.9	7.9	< 7.3	7.3	< 7.6	7.6	< 7.6	7.6	< 7.1	7.1	< 7.3	7.3	< 8.3	8.3	< 7.6	7.6	< 8.0	8.0	< 7.8	7.8
Endrin	ug/Kg	11,000	14	< 8.1	8.1	< 7.9	7.9	< 7.3	7.3	< 7.6	7.6	< 7.6	7.6	< 7.1	7.1	< 7.3	7.3	< 8.3	8.3	< 7.6	7.6	< 8.0	8.0	< 7.8	7.8
Endrin aldehyde	ug/Kg			< 8.1	8.1	< 7.9	7.9	< 7.3	7.3	< 7.6	7.6	< 7.6	7.6	< 7.1	7.1	< 7.3	7.3	< 8.3	8.3	< 7.6	7.6	< 8.0	8.0	< 7.8	7.8
Endrin ketone	ug/Kg			< 8.1	8.1	< 7.9	7.9	< 7.3	7.3	< 7.6	7.6	< 7.6	7.6	< 7.1	7.1	< 7.3	7.3	< 8.3	8.3	< 7.6	7.6	< 8.0	8.0	< 7.8	7.8
g-BHC	ug/Kg	1,300	100	< 1.6	1.6	< 1.6	1.6	< 1.5	1.5	< 1.5	1.5	< 1.5	1.5	< 1.4	1.4	< 1.5	1.5	< 1.7	1.7	< 1.5	1.5	< 1.6	1.6	< 1.6	1.6
g-Chlordane	ug/Kg			14	4.0	< 3.9	3.9	< 3.6	3.6	< 3.8	3.8	< 3.8	3.8	< 3.6	3.6	< 3.6	3.6	< 4.2	4.2	14	3.8	< 4.0	4.0	< 3.9	3.9
Heptachlor	ug/Kg	2,100	42	< 8.1	8.1	< 7.9	7.9	< 7.3	7.3	< 7.6	7.6	< 7.6	7.6	< 7.1	7.1	< 7.3	7.3	< 8.3	8.3	< 7.6	7.6	< 8.0	8.0	< 7.8	7.8
Heptachlor epoxide	ug/Kg			< 8.1	8.1	< 7.9	7.9	< 7.3	7.3	< 7.6	7.6	< 7.6	7.6	< 7.1	7.1	< 7.3	7.3	< 8.3	8.3	< 7.6	7.6	< 8.0	8.0	< 7.8	7.8
Methoxychlor	ug/Kg			< 40	40	< 39	39	< 36	36	< 38	38	< 38	38	< 36	36	< 36	36	< 42	42	< 38	38	< 40	40	< 39	39
Toxaphene	ug/Kg			< 160	160	< 160	160	< 150	150	< 150	150	< 150	150	< 140	140	< 150	150	< 170	170	< 150	150	< 160	160	< 160	160

Notes:

NY-ResRestrict - NYCRR Part 375 Restricted Residential Use SCOs

NY-UnRestricted - NYCRR Part 375 Unrestrcited Use SCOs

Bold italicized results exceed the Unrestricted Use SCOs

Unrestricted Use and Restricted Residential SCOs

< - Result not detected above the reporting limit

Table 2. Groundwater Analytical Results
297 Wallabout Street, Brooklyn, NY

Lab Sample Id			CC69573		CC69572		CC69571	
Collection Date			3/18/2019		3/18/2019		3/18/2019	
Client Id			TW-1		TW-2		TW-3	
Matrix			Ground Water		Ground Water		Ground Water	
	Units	NY-AWQS	Result	RL	Result	RL	Result	RL
Metals, Total								
Aluminum	mg/L	***0.1***	***12***	0.010	***9.96***	0.010	***4.61***	0.010
Antimony	mg/L	***0.003***	***0.005***	0.003	< 0.003	0.003	***0.011***	0.003
Arsenic	mg/L	0.025	0.013	0.004	< 0.004	0.004	0.008	0.004
Barium	mg/L	1	0.126	0.002	0.078	0.002	0.136	0.002
Beryllium	mg/L	0.003	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001
Cadmium	mg/L	0.005	0.001	0.001	< 0.001	0.001	< 0.001	0.001
Calcium	mg/L		376	0.10	74.5	0.010	194	0.10
Chromium	mg/L	0.05	0.034	0.001	0.041	0.001	0.025	0.001
Cobalt	mg/L		0.007	0.002	0.006	0.002	0.02	0.002
Copper	mg/L	0.2	0.024	0.005	0.017	0.005	0.036	0.005
Iron	mg/L	***0.3***	***23.2***	0.010	***10.1***	0.010	***35.6***	0.010
Lead	mg/L	0.025	0.016	0.002	0.005	0.002	0.005	0.002
Magnesium	mg/L	***35***	***53.5***	0.010	7.36	0.010	12.1	0.010
Manganese	mg/L	***0.3***	0.158	0.001	***1.88***	0.001	***2.67***	0.010
Mercury	mg/L	0.0007	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002
Nickel	mg/L	0.1	0.02	0.001	0.04	0.001	0.069	0.001
Potassium	mg/L		21.8	0.1	7.5	0.1	14.5	0.1
Selenium	mg/L	0.01	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010
Silver	mg/L	0.05	< 0.001	0.001	< 0.001	0.001	< 0.002	0.002
Sodium	mg/L	***20***	***53.3***	1.0	***59.5***	1.0	***55.2***	1.0
Thallium	mg/L	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005
Vanadium	mg/L		0.032	0.002	0.027	0.002	0.013	0.002
Zinc	mg/L	5	0.119	0.004	0.025	0.004	0.016	0.004
Metals, Dissolved								
Aluminum (Dissolved)	mg/L	0.1	0.089	0.011	0.045	0.011	0.072	0.011
Antimony (Dissolved)	mg/L	0.003	< 0.003	0.003	< 0.003	0.003	< 0.003	0.003
Arsenic (Dissolved)	mg/L	0.025	< 0.004	0.004	< 0.004	0.004	< 0.004	0.004
Barium (Dissolved)	mg/L	1	0.055	0.002	0.029	0.002	0.092	0.002
Beryllium (Dissolved)	mg/L	0.003	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001
Cadmium (Dissolved)	mg/L	0.005	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001
Calcium (Dissolved)	mg/L		330	0.11	68.8	0.01	171	0.11
Chromium (Dissolved)	mg/L	0.05	0.003	0.001	< 0.001	0.001	< 0.001	0.001
Cobalt (Dissolved)	mg/L		< 0.001	0.001	< 0.001	0.001	0.015	0.001
Copper (Dissolved)	mg/L	0.2	0.005	0.005	< 0.005	0.005	< 0.005	0.005
Thallium (Dissolved)	mg/L	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005
Iron (Dissolved)	mg/L	***0.3***	< 0.011	0.011	< 0.011	0.011	***9.72***	0.011
Lead (Dissolved)	mg/L	0.025	0.006	0.002	< 0.002	0.002	< 0.002	0.002
Magnesium (Dissolved)	mg/L	***35***	***52.6***	0.01	5.92	0.01	11.3	0.01
Manganese (Dissolved)	mg/L	***0.3***	0.04	0.001	***1.65***	0.001	***2.38***	0.011
Mercury (Dissolved)	mg/L	0.0007	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002
Nickel (Dissolved)	mg/L	0.1	0.003	0.001	0.014	0.001	0.044	0.001
Potassium (Dissolved)	mg/L		18.8	0.1	5.6	0.1	12.7	0.1
Selenium (Dissolved)	mg/L	0.01	< 0.01	0.01	< 0.01	0.01	< 0.01	0.01
Silver (Dissolved)	mg/L	0.05	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001
Sodium (Dissolved)	mg/L	***20***	***53.3***	1.1	***65***	1.1	***58.4***	1.1
Vanadium (Dissolved)	mg/L		< 0.002	0.002	< 0.002	0.002	< 0.002	0.002
Zinc (Dissolved)	mg/L	5	0.007	0.002	< 0.002	0.002	< 0.002	0.002
PCBs By SW8082A								
PCB-1016	ug/L	0.09	< 0.047	0.047	< 0.047	0.047	< 0.047	0.047
PCB-1221	ug/L	0.09	< 0.047	0.047	< 0.047	0.047	< 0.047	0.047

Notes:

NY-AWQS: New York TOGS 111 Ambient Water Quality Standards

Bold italicized results exceed the NY-AWQS

< - Result not detected above the reporting limit

Table 2. Groundwater Analytical Results
297 Wallabout Street, Brooklyn, NY

Lab Sample Id Collection Date Client Id Matrix			CC69573 3/18/2019 TW-1 Ground Water		CC69572 3/18/2019 TW-2 Ground Water		CC69571 3/18/2019 TW-3 Ground Water	
	Units	NY-AWQS	Result	RL	Result	RL	Result	RL
PCB-1232	ug/L	0.09	< 0.047	0.047	< 0.047	0.047	< 0.047	0.047
PCB-1242	ug/L	0.09	< 0.047	0.047	< 0.047	0.047	< 0.047	0.047
PCB-1248	ug/L	0.09	< 0.047	0.047	< 0.047	0.047	< 0.047	0.047
PCB-1254	ug/L	0.09	< 0.047	0.047	< 0.047	0.047	< 0.047	0.047
PCB-1260	ug/L	0.09	< 0.047	0.047	< 0.047	0.047	< 0.047	0.047
PCB-1262	ug/L		< 0.047	0.047	< 0.047	0.047	< 0.047	0.047
PCB-1268	ug/L		< 0.047	0.047	< 0.047	0.047	< 0.047	0.047
Volatiles By SW8260C								
1,1,1,2-Tetrachloroethane	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1,1-Trichloroethane	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1,2,2-Tetrachloroethane	ug/L	5	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50
1,1,2-Trichloroethane	ug/L	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1-Dichloroethane	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1-Dichloroethene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1-Dichloropropene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2,3-Trichlorobenzene	ug/L		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2,3-Trichloropropane	ug/L	0.04	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2,4-Trichlorobenzene	ug/L		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2,4-Trimethylbenzene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2-Dibromo-3-chloropropane	ug/L	0.04	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2-Dibromoethane	ug/L	0.0006	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2-Dichlorobenzene	ug/L		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2-Dichloroethane	ug/L	0.6	< 0.60	0.60	< 0.60	0.60	< 0.60	0.60
1,2-Dichloropropane	ug/L	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3,5-Trimethylbenzene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3-Dichlorobenzene	ug/L	3	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3-Dichloropropane	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,4-Dichlorobenzene	ug/L		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2,2-Dichloropropane	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2-Chlorotoluene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2-Hexanone	ug/L	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
2-Isopropyltoluene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
4-Chlorotoluene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
4-Methyl-2-pentanone	ug/L		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Acetone	ug/L	50	< 25	25	< 25	25	< 25	25
Acrylonitrile	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Benzene	ug/L	1	< 0.70	0.70	< 0.70	0.70	< 0.70	0.70
Bromobenzene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromochloromethane	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromodichloromethane	ug/L	50	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50
Bromoform	ug/L	50	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromomethane	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Carbon Disulfide	ug/L		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Carbon tetrachloride	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Chlorobenzene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Chloroethane	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Chloroform	ug/L	7	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Chloromethane	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
cis-1,2-Dichloroethene	ug/L	***5***	< 1.0	1.0	***11***	1.0	***7.6***	1.0
cis-1,3-Dichloropropene	ug/L	0.4	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40
Dibromochloromethane	ug/L	50	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50

Notes:
NY-AWQS: New York TOGS 111 Ambient Water Quality Standards
Bold italicized results exceed the NY-AWQS
< - Result not detected above the reporting limit

Table 2. Groundwater Analytical Results

297 Wallabout Street, Brooklyn, NY

Lab Sample Id Collection Date Client Id Matrix			CC69573 3/18/2019 TW-1 Ground Water		CC69572 3/18/2019 TW-2 Ground Water		CC69571 3/18/2019 TW-3 Ground Water	
	Units	NY-AWQS	Result	RL	Result	RL	Result	RL
Dibromomethane	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Dichlorodifluoromethane	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Ethylbenzene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Hexachlorobutadiene	ug/L	0.5	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40
Isopropylbenzene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
m&p-Xylene	ug/L		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Methyl ethyl ketone	ug/L	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Methyl t-butyl ether (MTBE)	ug/L		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Methylene chloride	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Naphthalene	ug/L	10	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
n-Butylbenzene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
n-Propylbenzene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
o-Xylene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
p-Isopropyltoluene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
sec-Butylbenzene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Styrene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
tert-Butylbenzene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Tetrachloroethene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Tetrahydrofuran (THF)	ug/L	50	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5
Toluene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Total Xylenes	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
trans-1,2-Dichloroethene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
trans-1,3-Dichloropropene	ug/L	0.4	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40
trans-1,4-dichloro-2-butene	ug/L	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Trichloroethene	ug/L	***5***	< 1.0	1.0	***6.5***	1.0	2.6	1.0
Trichlorofluoromethane	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Trichlorotrifluoroethane	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Vinyl chloride	ug/L	***2***	< 1.0	1.0	***4.2***	1.0	***6.2***	1.0
Semivolatiles By SW8270D								
1,2,4,5-Tetrachlorobenzene	ug/L		< 3.3	3.3	< 3.3	3.3	< 3.3	3.3
1,2,4-Trichlorobenzene	ug/L		< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
1,2-Dichlorobenzene	ug/L		< 2.4	2.4	< 2.4	2.4	< 2.4	2.4
1,2-Diphenylhydrazine	ug/L		< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
1,3-Dichlorobenzene	ug/L	3	< 2.4	2.4	< 2.4	2.4	< 2.4	2.4
1,4-Dichlorobenzene	ug/L		< 2.4	2.4	< 2.4	2.4	< 2.4	2.4
2,4,5-Trichlorophenol	ug/L	1	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
2,4,6-Trichlorophenol	ug/L	1	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
2,4-Dichlorophenol	ug/L	5	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
2,4-Dimethylphenol	ug/L	1	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
2,4-Dinitrophenol	ug/L	5	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
2,4-Dinitrotoluene	ug/L	5	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
2,6-Dinitrotoluene	ug/L	5	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
2-Chloronaphthalene	ug/L	10	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
2-Chlorophenol	ug/L	1	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
2-Methylphenol (o-cresol)	ug/L	1	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
2-Nitroaniline	ug/L	5	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
2-Nitrophenol	ug/L	1	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
3&4-Methylphenol (m&p-cresol)	ug/L		< 9.4	9.4	< 9.4	9.4	< 9.4	9.4
3,3'-Dichlorobenzidine	ug/L	5	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
3-Nitroaniline	ug/L	5	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
4,6-Dinitro-2-methylphenol	ug/L	1	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94

Notes:

NY-AWQS: New York TOGS 111 Ambient Water Quality Standards

Bold italicized results exceed the NY-AWQS

< - Result not detected above the reporting limit

Table 2. Groundwater Analytical Results
297 Wallabout Street, Brooklyn, NY

Lab Sample Id / Collection Date / Client Id / Matrix			CC69573 / 3/18/2019 / TW-1 / Ground Water		CC69572 / 3/18/2019 / TW-2 / Ground Water		CC69571 / 3/18/2019 / TW-3 / Ground Water	
	Units	NY-AWQS	Result	RL	Result	RL	Result	RL
4-Bromophenyl phenyl ether	ug/L		< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
4-Chloro-3-methylphenol	ug/L	1	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
4-Chloroaniline	ug/L	5	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
4-Chlorophenyl phenyl ether	ug/L		< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
4-Nitroaniline	ug/L	5	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
4-Nitrophenol	ug/L	1	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
Acetophenone	ug/L		< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
Aniline	ug/L	5	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
Benzidine	ug/L	5	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
Benzoic acid	ug/L		< 47	47	< 47	47	< 47	47
Benzyl butyl phthalate	ug/L	50	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
Bis(2-chloroethoxy)methane	ug/L	5	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
Bis(2-chloroethyl)ether	ug/L	1	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
Bis(2-chloroisopropyl)ether	ug/L		< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
Bis(2-ethylhexyl)phthalate	ug/L	5	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
Carbazole	ug/L		< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
Dibenzofuran	ug/L		< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
Diethyl phthalate	ug/L	50	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
Dimethylphthalate	ug/L	50	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
Di-n-butylphthalate	ug/L	50	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
Di-n-octylphthalate	ug/L	50	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
Hexachloroethane	ug/L	5	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
Isophorone	ug/L	50	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
N-Nitrosodi-n-propylamine	ug/L		< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
N-Nitrosodiphenylamine	ug/L	50	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
Pentachloronitrobenzene	ug/L		< 2.4	2.4	< 2.4	2.4	< 2.4	2.4
Phenol	ug/L	1	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
Semivolatiles (SIM) By SW8270D (SIM)								
2-Methylnaphthalene	ug/L		< 0.47	0.47	< 0.47	0.47	< 0.47	0.47
Acenaphthene	ug/L	20	< 0.47	0.47	< 0.47	0.47	< 0.47	0.47
Acenaphthylene	ug/L		< 0.47	0.47	< 0.47	0.47	< 0.47	0.47
Anthracene	ug/L	50	< 0.47	0.47	< 0.47	0.47	< 0.47	0.47
Benz(a)anthracene	ug/L	***0.002***	***0.03***	0.02	< 0.02	0.02	< 0.02	0.02
Benzo(a)pyrene	ug/L		< 0.02	0.02	< 0.02	0.02	< 0.02	0.02
Benzo(b)fluoranthene	ug/L	***0.002***	***0.02***	0.02	< 0.02	0.02	< 0.02	0.02
Benzo(ghi)perylene	ug/L		< 0.47	0.47	< 0.47	0.47	< 0.47	0.47
Benzo(k)fluoranthene	ug/L	0.002	< 0.02	0.02	< 0.02	0.02	< 0.02	0.02
Chrysene	ug/L	***0.002***	***0.03***	0.02	< 0.02	0.02	< 0.02	0.02
Dibenz(a,h)anthracene	ug/L		< 0.47	0.47	< 0.47	0.47	< 0.47	0.47
Fluoranthene	ug/L	50	< 0.47	0.47	< 0.47	0.47	< 0.47	0.47
Fluorene	ug/L	50	< 0.47	0.47	< 0.47	0.47	< 0.47	0.47
Hexachlorobenzene	ug/L	0.04	< 0.04	0.04	< 0.04	0.04	< 0.04	0.04
Hexachlorobutadiene	ug/L	0.5	< 0.47	0.47	< 0.47	0.47	< 0.47	0.47
Hexachlorocyclopentadiene	ug/L	5	< 0.47	0.47	< 0.47	0.47	< 0.47	0.47
Indeno(1,2,3-cd)pyrene	ug/L	0.002	< 0.02	0.02	< 0.02	0.02	< 0.02	0.02
Naphthalene	ug/L	10	0.84	0.47	< 0.47	0.47	< 0.47	0.47
Nitrobenzene	ug/L	0.4	< 0.38	0.38	< 0.38	0.38	< 0.38	0.38
N-Nitrosodimethylamine	ug/L		< 0.47	0.47	< 0.47	0.47	< 0.47	0.47
Pentachlorophenol	ug/L	1	< 0.47	0.47	< 0.47	0.47	< 0.47	0.47
Phenanthrene	ug/L	50	0.87	0.47	< 0.47	0.47	< 0.47	0.47
Pyrene	ug/L	50	< 0.47	0.47	< 0.47	0.47	< 0.47	0.47
Pyridine	ug/L	50	< 0.47	0.47	< 0.47	0.47	< 0.47	0.47

Notes:
NY-AWQS: New York TOGS 111 Ambient Water Quality Standards
Bold italicized results exceed the NY-AWQS
< - Result not detected above the reporting limit

Table 2. Groundwater Analytical Results

297 Wallabout Street, Brooklyn, NY

Lab Sample Id Collection Date Client Id Matrix			CC69573 3/18/2019 TW-1 Ground Water		CC69572 3/18/2019 TW-2 Ground Water		CC69571 3/18/2019 TW-3 Ground Water	
	Units	NY-AWQS	Result	RL	Result	RL	Result	RL
Pesticides By SW8081B								
4,4' -DDD	ug/L	0.3	< 0.009	0.009	< 0.009	0.009	< 0.009	0.009
4,4' -DDE	ug/L	0.2	< 0.009	0.009	< 0.009	0.009	< 0.009	0.009
4,4' -DDT	ug/L	0.2	< 0.009	0.009	0.017	0.009	< 0.009	0.009
a-BHC	ug/L	0.01	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005
a-chlordane	ug/L		< 0.009	0.009	< 0.009	0.009	< 0.009	0.009
Alachlor	ug/L	0.5	< 0.071	0.071	< 0.071	0.071	< 0.071	0.071
Aldrin	ug/L		< 0.001	0.001	< 0.004	0.004	< 0.001	0.001
b-BHC	ug/L	0.04	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005
Chlordane	ug/L	0.05	< 0.050	0.050	< 0.05	0.05	< 0.05	0.05
d-BHC	ug/L	0.04	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005
Dieldrin	ug/L	0.004	< 0.001	0.001	< 0.004	0.004	< 0.001	0.001
Endosulfan I	ug/L		< 0.009	0.009	< 0.009	0.009	< 0.009	0.009
Endosulfan II	ug/L		< 0.009	0.009	< 0.009	0.009	< 0.009	0.009
Endosulfan Sulfate	ug/L		< 0.009	0.009	< 0.009	0.009	< 0.009	0.009
Endrin	ug/L		< 0.009	0.009	< 0.009	0.009	< 0.009	0.009
Endrin Aldehyde	ug/L	5	< 0.009	0.009	< 0.009	0.009	< 0.009	0.009
Endrin ketone	ug/L	5	< 0.009	0.009	< 0.009	0.009	< 0.009	0.009
g-BHC (Lindane)	ug/L	0.05	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005
g-chlordane	ug/L		< 0.009	0.009	< 0.009	0.009	< 0.009	0.009
Heptachlor	ug/L	0.04	< 0.009	0.009	< 0.009	0.009	< 0.009	0.009
Heptachlor epoxide	ug/L	0.03	< 0.009	0.009	< 0.009	0.009	< 0.009	0.009
Methoxychlor	ug/L	35	< 0.094	0.094	< 0.094	0.094	< 0.094	0.094
Toxaphene	ug/L	0.06	< 0.24	0.24	< 0.24	0.24	< 0.24	0.24
1,4-dioxane By SW8270DSIM								
1,4-dioxane	ug/l		-	-	-	-	< 0.20	0.20
PFOA/PFAS by EPA 537								
Perfluorobutanesulfonic acid (PFBS)	ng/l		-	-	-	-	2.5	<2.0
Perfluorohexanoic acid (PFHxA)	ng/l		-	-	-	-	6.5	<2.0
Perfluoroheptanoic acid (PFHpA)	ng/l		-	-	-	-	3.2	<2.0
Perfluorobutanoic acid (PFBA)	ng/l		-	-	-	-	<2.0	<2.0
Perfluorodecanesulfonic acid (PFDS)	ng/l		-	-	-	-	<2.0	<2.0
Perfluoroheptanesulfonic acid (PFHpS)	ng/l		-	-	-	-	<2.0	<2.0
Perfluorooctanesulfonamide (FOSA)	ng/l		-	-	-	-	<2.0	<2.0
Perfluoropentanoic acid (PFPeA)	ng/l		-	-	-	-	7.4	<2.0
6:2 Fluorotelomersulfonate (6:2 FTS)	ng/l		-	-	-	-	<2.0	<2.0
8:2 Fluorotelomersulfonate (8:2 FTS)	ng/l		-	-	-	-	<2.0	<2.0
Perfluorohexanesulfonic acid (PFHxS)	ng/l		-	-	-	-	<2.0	<2.0
Perfluorooctanoic acid (PFOA)	ng/l		-	-	-	-	12	<2.0
Perfluorooctanesulfonic acid (PFOS)	ng/l		-	-	-	-	6.6	<2.0
Perfluorononanoic acid (PFNA)	ng/l		-	-	-	-	<2.0	<2.0
Perfluorodecanoic acid (PFDA)	ng/l		-	-	-	-	<2.0	<2.0
N-MeFOSAA	ng/l		-	-	-	-	<2.0	<2.0
Perfluoroundecanoic acid (PFUnA)	ng/l		-	-	-	-	<2.0	<2.0
N-EtFOSAA	ng/l		-	-	-	-	<2.0	<2.0
Perfluorododecanoic acid (PFDoA)	ng/l		-	-	-	-	<2.0	<2.0
Perfluorotridecanoic acid (PFTrDA)	ng/l		-	-	-	-	<2.0	<2.0
Perfluorotetradecanoic acid (PFTA)	ng/l		-	-	-	-	<2.0	<2.0

Notes:

NY-AWQS: New York TOGS 111 Ambient Water Quality Standards

Bold italicized results exceed the NY-AWQS

< - Result not detected above the reporting limit

Table 3. Soil Vapor Analytical Results

297 Wallabout Street, Brooklyn, NY

Lab Sample Id			CC69577		CC69575		CC69576		CC69578	
Collection Date			3/18/2019		3/18/2019		3/18/2019		3/18/2019	
Client Id			SV-1		SV-2		SV-3		SV-4	
Matrix			Air		Air		Air		Air	
Sample Depth			7 ft		7 ft		7 ft		7 ft	
	Units	NYSDOH VI Sub-Slab Vapor Guidance	Result	RL	Result	RL	Result	RL	Result	RL
1,1,1,2-Tetrachloroethane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
1,1,1-Trichloroethane	ug/m3	100	< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
1,1,2,2-Tetrachloroethane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
1,1,2-Trichloroethane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
1,1-Dichloroethane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.02	5.02	< 5.02	5.02
1,1-Dichloroethene	ug/m3	6	< 0.20	0.20	0.27	0.20	< 1.00	1.00	< 1.00	1.00
1,2,4-Trichlorobenzene	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
1,2,4-Trimethylbenzene	ug/m3		3.29	1.00	< 1.00	1.00	< 5.01	5.01	< 5.01	5.01
1,2-Dibromoethane(EDB)	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
1,2-Dichlorobenzene	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
1,2-Dichloroethane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.02	5.02	< 5.02	5.02
1,2-dichloropropane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 4.99	4.99	< 4.99	4.99
1,2-Dichlorotetrafluoroethane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
1,3,5-Trimethylbenzene	ug/m3		1.7	1.00	< 1.00	1.00	< 5.01	5.01	< 5.01	5.01
1,3-Butadiene	ug/m3		< 1.00	1.00	2.52	1.00	< 5.00	5.00	< 5.00	5.00
1,3-Dichlorobenzene	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
1,4-Dichlorobenzene	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
1,4-Dioxane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.01	5.01	< 5.01	5.01
2-Hexanone(MBK)	ug/m3		< 1.00	1.00	< 1.00	1.00	< 4.99	4.99	< 4.99	4.99
4-Ethyltoluene	ug/m3		6.83	1.00	< 1.00	1.00	< 5.01	5.01	< 5.01	5.01
4-Isopropyltoluene	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
4-Methyl-2-pentanone(MIBK)	ug/m3		< 1.00	1.00	< 1.00	1.00	< 4.99	4.99	< 4.99	4.99
Acetone	ug/m3		71.5	1.00	10.2	1.00	62	5.01	94.2	5.01
Acrylonitrile	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.01	5.01	< 5.01	5.01
Benzene	ug/m3		5.52	1.00	2.54	1.00	7.25	5.01	< 5.01	5.01
Benzyl chloride	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
Bromodichloromethane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
Bromoform	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
Bromomethane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.01	5.01	< 5.01	5.01
Carbon Disulfide	ug/m3		1.64	1.00	< 1.00	1.00	5.57	5.01	< 5.01	5.01
Carbon Tetrachloride	ug/m3	6	0.36	0.20	0.4	0.20	< 1.00	1.00	< 1.00	1.00
Chlorobenzene	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.01	5.01	< 5.01	5.01
Chloroethane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.01	5.01	< 5.01	5.01
Chloroform	ug/m3		< 1.00	1.00	2.23	1.00	34.1	4.98	< 4.98	4.98
Chloromethane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 4.99	4.99	< 4.99	4.99
Cis-1,2-Dichloroethene	ug/m3	***6***	2.34	0.20	***14.2***	0.20	***64.2***	1.00	***33.6***	1.00
cis-1,3-Dichloropropene	ug/m3		< 1.00	1.00	< 1.00	1.00	< 4.99	4.99	< 4.99	4.99
Cyclohexane	ug/m3		19.7	1.00	< 1.00	1.00	< 4.99	4.99	< 4.99	4.99
Dibromochloromethane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
Dichlorodifluoromethane	ug/m3		2.34	1.00	2.63	1.00	< 4.99	4.99	< 4.99	4.99
Ethanol	ug/m3		37.3	1.00	7.57	1.00	35.4	5.01	49.9	5.01
Ethyl acetate	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.01	5.01	< 5.01	5.01
Ethylbenzene	ug/m3		20.4	1.00	< 1.00	1.00	< 4.99	4.99	< 4.99	4.99
Heptane	ug/m3		15.1	1.00	< 1.00	1.00	15.4	5.00	44.2	5.00
Hexachlorobutadiene	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
Hexane	ug/m3		5.53	1.00	1.41	1.00	14.9	5.00	6.06	5.00
Isopropylalcohol	ug/m3		14.7	1.00	1.18	1.00	13.9	5.01	16.6	5.01
Isopropylbenzene	ug/m3		9.73	1.00	< 1.00	1.00	< 5.01	5.01	< 5.01	5.01
m,p-Xylene	ug/m3		25.8	1.00	1.19	1.00	< 4.99	4.99	8.29	4.99
Methyl Ethyl Ketone	ug/m3		22.1	1.00	2.42	1.00	16.5	5.01	22.5	5.01
Methyl tert-butyl ether(MTBE)	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.01	5.01	< 5.01	5.01
Methylene Chloride	ug/m3	100	< 3.00	3.00	< 3.00	3.00	< 15.0	15.0	< 15.0	15.0
n-Butylbenzene	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
o-Xylene	ug/m3		15	1.00	< 1.00	1.00	< 4.99	4.99	184	4.99
Propylene	ug/m3		< 1.00	1.00	18.7	1.00	< 5.01	5.01	< 5.01	5.01
sec-Butylbenzene	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
Styrene	ug/m3		< 1.00	1.00	< 1.00	1.00	< 4.98	4.98	< 4.98	4.98
Tetrachloroethene	ug/m3	***100***	3.25	0.25	1.9	0.25	***110***	1.25	63.2	1.25
Tetrahydrofuran	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.01	5.01	< 5.01	5.01
Toluene	ug/m3		24.6	1.00	2.12	1.00	7.87	5.01	7.76	5.01
Trans-1,2-Dichloroethene	ug/m3		< 1.00	1.00	< 1.00	1.00	5.31	4.99	< 4.99	4.99
trans-1,3-Dichloropropene	ug/m3		< 1.00	1.00	< 1.00	1.00	< 4.99	4.99	< 4.99	4.99
Trichloroethene	ug/m3	***6***	***53.7***	0.20	***96.1***	0.20	***3,350***	15.0	***2,620***	6.01
Trichlorofluoromethane	ug/m3		1.91	1.00	2.52	1.00	330	5.00	15.9	5.00
Trichlorotrifluoroethane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
Vinyl Chloride	ug/m3	***6***	< 0.20	0.20	***11.9***	0.20	< 1.00	1.00	1.66	1.00

Notes:

NYSDOH VI Sub-Slab Vapor Guidance - 2006 NYSDOH Soil Vapor Intrusion Guidance Decision Matrices

Bold italicized results exceed NYSDOH sub-slab vapor no further action guidance values

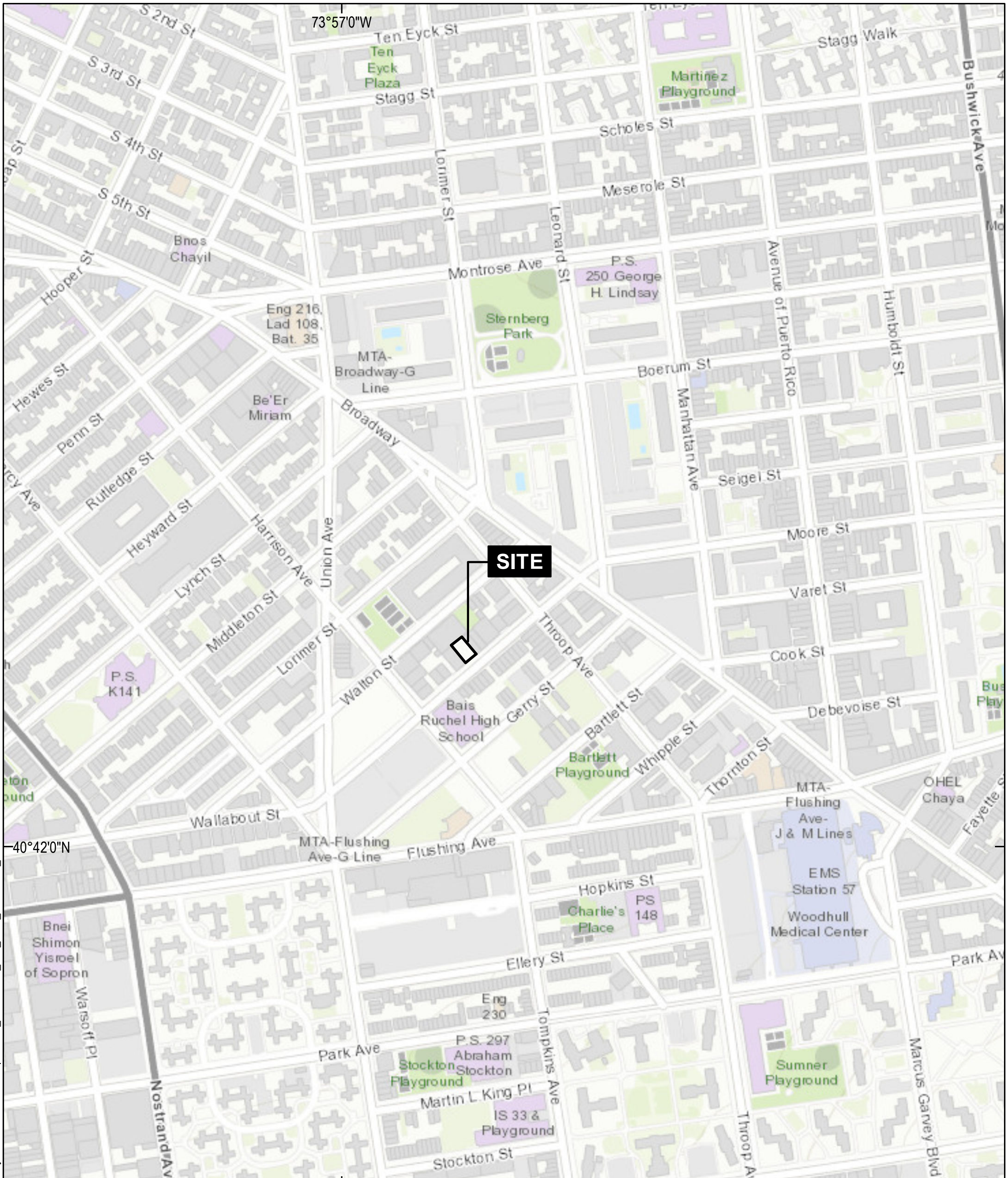
< - Result not detected above the reporting limit

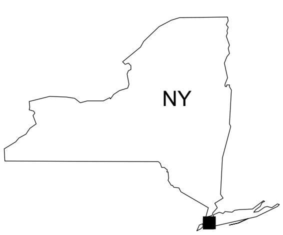
Table 4. Sample and Analysis Plan
297 Wallabout Street, Brooklyn, NY

Boring Number	Soil Sample Depth	Target Compound List VOCs (8260B)	Target Compound List SVOCs (8270C)	Total Analyte List Metals (6010)	PCBs (8082)	Pesticides (8081)	Herbicides (8151)	PFAS (537)	1,4-Dioxane (8260B)	VOCs (TO-15)
SOIL										
B-1		X	X	X	X	X	X			
		X	X	X	X	X	X			
B-2		X	X	X	X	X	X			
		X	X	X	X	X	X			
B-3		X	X	X	X	X	X			
		X	X	X	X	X	X			
B-4		X	X	X	X	X	X			
		X	X	X	X	X	X			
B-5		X	X	X	X	X	X			
		X	X	X	X	X	X			
B-6		X	X	X	X	X	X			
		X	X	X	X	X	X			
B-7		X								
		X								
B-8		X								
		X								
GROUNDWATER										
MW-1	-	X	X							
MW-2	-	X	X							
MW-3	-	X	X							
MW-4	-	X	X					X	X	
MW-5	-	X	X					X	X	
SOIL VAPOR										
SG-1	-									X
SG-2	-									X
SG-3	-									X
SG-4	-									X

Notes:
PCBs - Polychlorinated biphenyls
PFAS - Per- and Polyfluoroalkyl Substances
QAQC samples include:
MS/MSD - 1 for every 20 samples
Field Duplicate - 1 for every 20 samples
Trip Blanks - 1 per cooler of samples to be analyzed for VOCs
Field Blanks - 1 for every 20 samples

FIGURES





MAP SOURCE: ESRI
SITE COORDINATES: 40°42'08"N, 73°56'52"W

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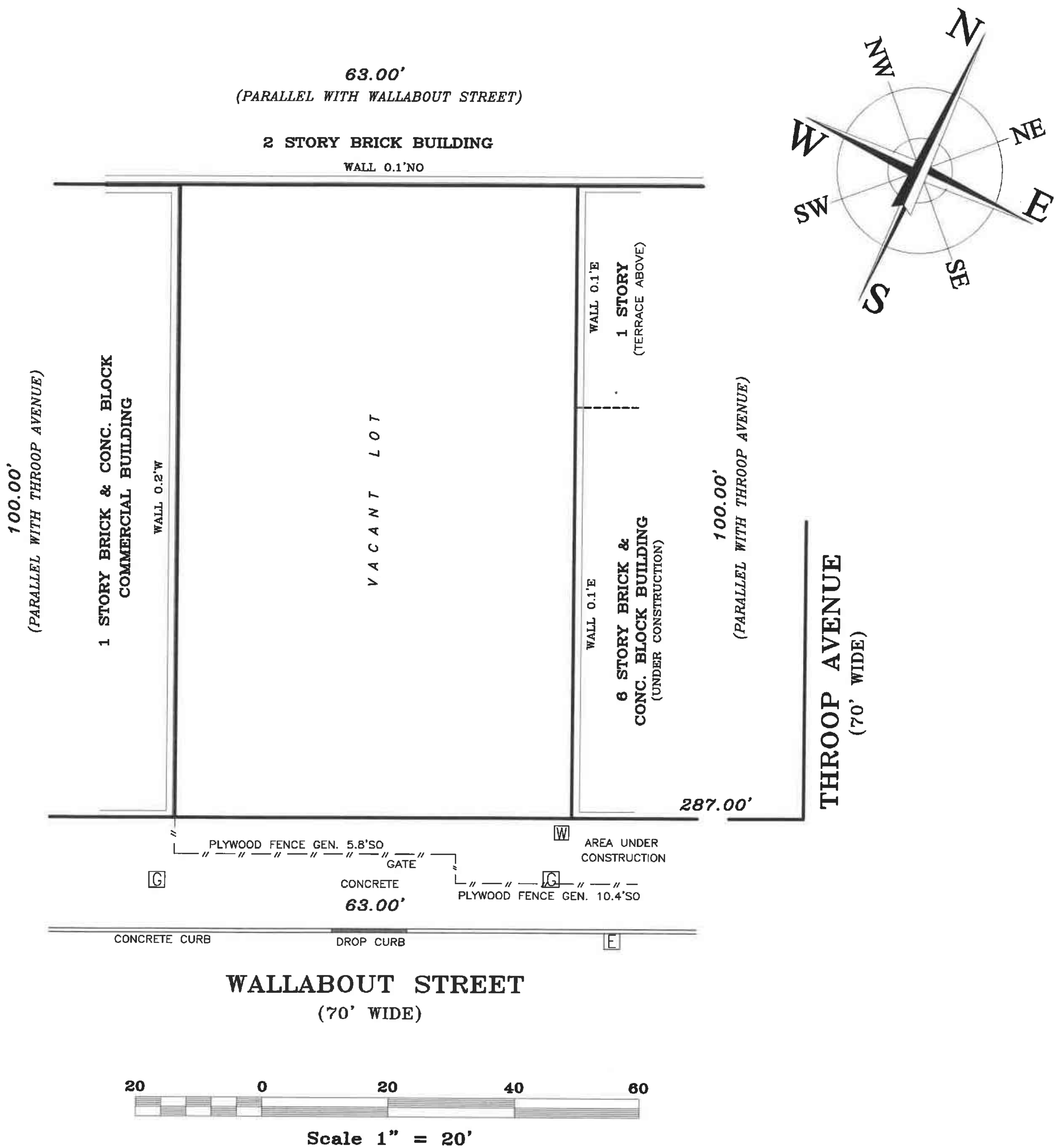
297 WALLABOUT STREET
BROOKLYN, NEW YORK

SITE LOCUS

APPROXIMATE SCALE: 1 IN = 800 FT
FEBRUARY 2019

FIGURE 1

GIS FILE PATH: \\haleyaldrich.com\share\CF\Projects\133156\GIS\Maps\2019_02\133156_005_0001_PROJECT_LOCUS.mxd — USER: hwachholz — LAST SAVED: 2/15/2019 4:14:19 PM



NOTES

1. ALL LOCATIONS ARE APPROXIMATE.
2. IMAGERY FROM MAPY OF SURVEY BY LEONARD J. STRANDBERG AND ASSOCIATES, MARCH 2018

HALEY ALDRICH

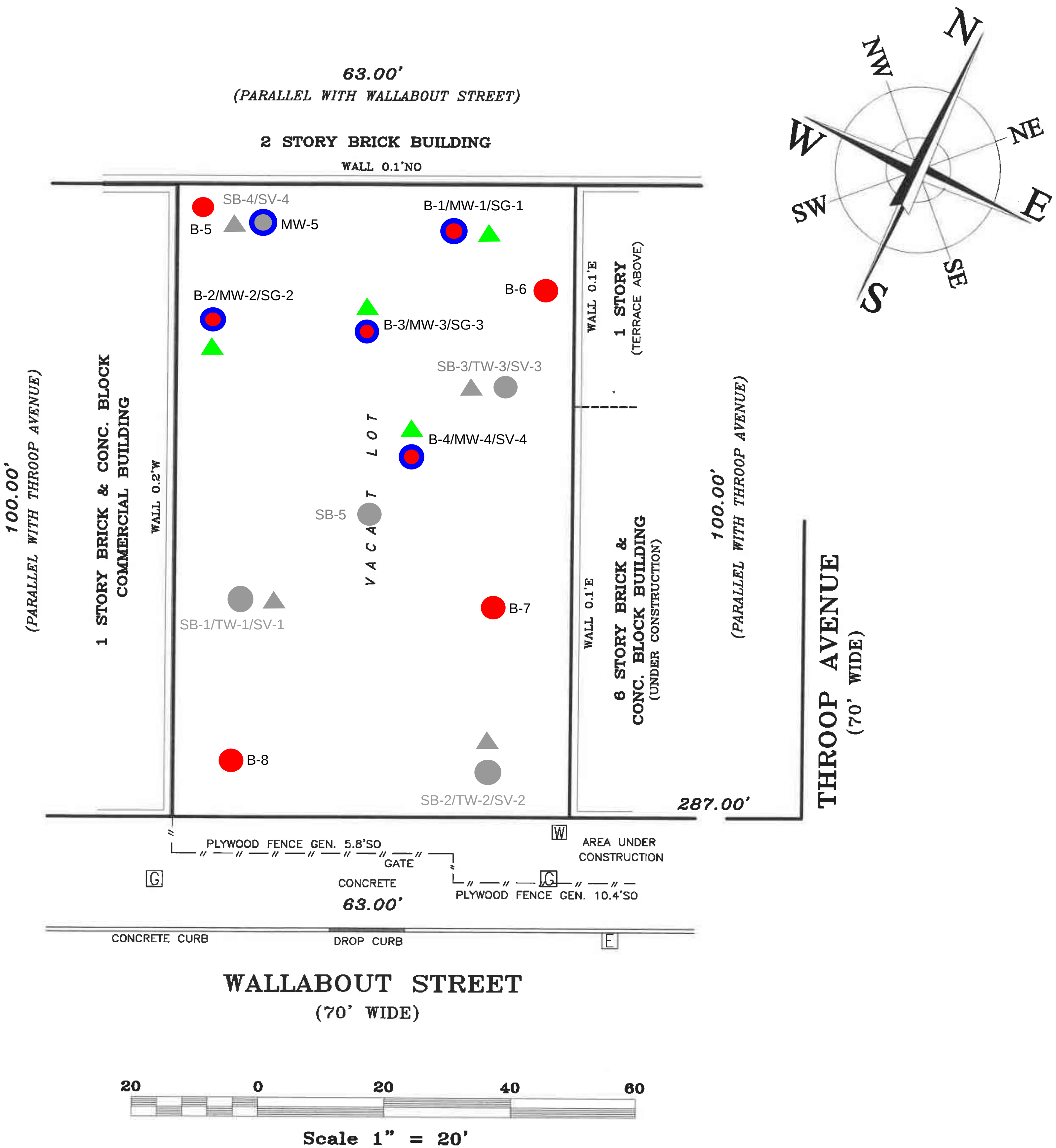
297 WALLABOUT STREET
BROOKLYN, NEW YORK

SITE FEATURES

SEPTEMBER 2019

FIGURE 2

FILE PATH: \\haleyaldrich.com\share\CF\Projects\133156\005 - 297 Wallabout\Deliverables\RIR\Figures



LEGEND

- SOIL BORING/TEMPORARY WELL POINT INSTALLED 18 MARCH 2019
- TEMPORARY SOIL VAPOR POINT INSTALLED 18 MARCH 2019
- PROPOSED SOIL BORING/PERMANENT WELL POINT (BLUE CIRCLE INDICATES BORING IS CONVERTED TO A WELL)
- PROPOSED TEMPORARY SOIL VAPOR POINT

NOTES

1. ALL LOCATIONS ARE APPROXIMATE.
2. IMAGERY FROM MAPY OF SURVEY BY LEONARD J. STRANDBERG AND ASSOCIATES, MARCH 2018

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297 WALLABOUT STREET
BROOKLYN, NEW YORK

PROPOSED SAMPLE LOCATION MAP

SEPTEMBER 2019

FIGURE 3

FILE PATH: \\haleyaldrich.com\share\CF\Projects\133156\005 - 297 Wallabout\Deliverables\RIR\Figures

APPENDIX A

PREVIOUS REPORTS

www.haleyaldrich.com

HAZARDOUS MATERIALS PHASE II WORK PLAN
297 WALLABOUT STREET
BROOKLYN, NEW YORK

Prepared by
Haley & Aldrich of New York
1441 Broadway, Suite 6031
New York, New York 10018

Prepared for

NYC Office of Environmental Remediation
100 Gold Street, 2nd Floor
New York, NY 10038

Date:
February 2019

OER Project Number:
19EH-A304K

File No. 133156-005

INTRODUCTION

This Phase II Investigation Work Plan has been developed for the above referenced site. The site is located within the Broadway Triangle section of Brooklyn, NY. The following work scope has been developed in response to Phase I ESA findings, as per OER meeting on February 21, 2019, or at risk for due-diligence, or in response to the proposed development project.

SITE LOCATION, CURRENT USE, AND PROPOSED DEVELOPMENT PLAN

The Site is located in the Broadway Triangle section of Brooklyn and is identified as Block 2250 and Lot 45. Currently, the Site is 6,300 square feet in size and used vacant undeveloped land. The development project consists of new seven-story residential building. The building will include 11 residential units and a cellar to be used for equipment and bicycle storage only. The water table is expected at approximately 8-10 feet below grade surface (bgs). Layout of the proposed site development is presented in Figure 1.

LIMITED ENVIRONMENTAL SITE ASSESSMENT SUMMARY

Haley & Aldrich performed a limited review of available historical records as no recent Phase I Environmental Site Assessment (ESA) was made available. This limited assessment was conducted in accordance with the methodology specified in ASTM Standard E1527-13. REPC completed the following tasks as part of this review:

A review of information contained in federal and state environmental databases, as obtained from the sources noted below:

- A radius report prepared by EDR, Inc. (EDR, see Appendix A), which presents the results of searches of federal and state databases for the site, as well as properties near the site. The radius searched for each database, as well as the databases themselves, was selected in accordance with the ASTM Standard.
- The United States Environmental Protection Agency's (USEPA's) Envirofacts database, which provides site information contained in multiple USEPA regulatory databases.
- The New York State Department of Environmental Conservation Environmental Site Database Search, which includes the Spill Incidents Database Search, the Remedial Site Database Search, and the Bulk Storage Database Search. These databases provide site-specific information for properties in New York.

A review of standard historical sources (included as Appendix 2 and 3) and local agency inquiries, as defined in the ASTM Standard. The following resources were reviewed:

- Readily available historical sources, including (where available) historical topographic maps and aerial photographs, city directories, Sanborn Maps and property records from the New York City Department of Finance Automated City Register Information System to develop a history of the previous uses of the site and surrounding area (as shown in Appendix B).
- A Freedom of Information Act (FOIA) request to the New York City Department of Health (NYCDOH), New York State Department of Environmental Conservation (NYSDEC) and the New York City Department of Environmental Protection (NYCDEP) for information related to

the site that are listed databases noted in Section 8.2.1 of the ASTM Standard. A response had not yet been received at the time the report was completed.

Environmental Regulatory Database Review

Haley & Aldrich used the electronic database service, EDR to complete the environmental records review. The database search was used to identify properties that may be listed in the referenced agency records, located within the ASTM-specified approximate minimum search distances as shown in the table below. The complete environmental database report is provided in Appendix A. Pertinent information obtained from the database is summarized below.

Database Searched	Approximate Minimum Search Distance	Subject Site Listed?	Number of Sites within Search Distance[1]
1. NPL Sites	1 mile	No	0
2. Delisted NPL Sites	0.5 mile	No	0
3. CERCLIS[2] Sites	0.5 mile	No	0
4. CERCLIS-NFRAP[2] Sites	0.5 mile	No	2
5. Federal ERNS	Site only	No	Not Applicable
6. RCRA non-CORRACTS TSD Facilities	0.5 mile	No	0
7. RCRA CORRACTS TSD Facilities	1 mile	No	2
8. RCRA Generators	Site & Adjoining	No	
9. Federal Institutional/Engineering Controls	Site Only	No	Not Applicable
10. State/Tribal Equivalent NPL Sites	1 mile	No	
11. State/Tribal Equivalent CERCLIS[2] Sites	0.5 mile	No	8
12. State/Tribal Registered Storage Tanks	Site & Adjoining	No	
13. State/Tribal Landfills and Solid Waste Disposal Sites	0.5 mile	No	2
14. State/Tribal Leaking Storage Tanks	0.5 mile	No	31
15. State/Tribal Institutional Controls/Engineering Controls	Site Only	No	Not Applicable
16. State/Tribal Voluntary Cleanup Sites	0.5 mile	No	36
17. State/Tribal Brownfield Sites	0.5 mile	No	8
18. Orphan Site List[3]	Site & Adjoining	No	0
19. NY E-Designation[4]	0.125 miles	No…	92
20. NY Spills	0.125 miles	No	23

Notes:

1. *Some sites may be included on multiple databases.*
2. *The US EPA retired the CERCLIS database in October 2013. In January 2016, the Superfund Enterprise Management System (SEMS), which replaces the CERCLIS database, became active. The CERCLIS database records search included as part of this assessment includes currently ascertainable data from the SEMS and SEMS-Archive databases as reported through the database vendor.*
3. *Haley & Aldrich also searched the Orphan Site List provided in the database report for the subject site and sites adjoining the subject site. Orphan sites are those that, due to incorrect or incomplete addresses, could not be mapped.*

4. *If applicable, other relevant databases, not specifically required by ASTM were included in the database review.*

Subject Site

While the site is not listed in the New York City E-Designation database in the regulatory database review, the site is assigned an E-Designation for hazardous materials and air quality in the New York City Department of Buildings database. The site received E-Designation E-238 as part of the Broadway Triangle Rezoning (CEQR Number 09HPD019K). The lot does not have a remediation date listed in the database. The subject site is not listed in any other regulatory databases.

Nearby Sites

Several sites were listed in the database report within the applicable search radii or identified in regulatory records reviews. Due to their location with respect to the subject site (distance from the site, location of the site relative to inferred groundwater flow, subsurface utilities and building levels, etc.), or their status (closed out release, etc.), several of the sites are not likely to adversely affect the subject site and are not discussed herein. Only those sites adjacent to the subject site and sites with a potential to have impacted the subject site are discussed below. The complete database report and relevant records review information is included in Appendix A.

Property Name & Location	Database/ Record Identified	Description	Potential Impact to Subject Site
Lot 44 Taxblock 2250 (adjoining northeast)	E-Designation	The property was assigned designation E-238 for hazardous materials and air quality as part of the Broadway Triangle Rezoning (CEQR Number 09HPD019K).	A listing on this database, by itself, is not necessarily indicative of contamination.
299-301 Wallabout Street (adjoining northeast)	Voluntary Cleanup Program	The property is listed in the Voluntary Cleanup Program (VCP) program with Project ID 6CVCP008K.	A listing on this database, by itself, is not necessarily indicative of contamination.
295 Wallabout Street (adjoining southwest)	Manifest	Con Edison is listed in the NY Manifest database for transportation of 1,000 pounds of lead waste (D008) in 2015.	A listing on this database, by itself, is not necessarily indicative of contamination.
94 Wallton Street (adjoining northwest)	UST, E-designation	Hoo Corp. is listed in the Underground Storage Tank database for a closed-in-place 1,500-gallon No. 2 Fuel Oil tank (Registration No. 2-608305). The property was assigned designation E-238 for hazardous materials, noise attenuation and air quality as part of the Broadway Triangle Rezoning (CEQR Number 09HPD019K).	Listings on these databases, by themselves, is not necessarily indicative of contamination.

Property Name & Location	Database/ Record Identified	Description	Potential Impact to Subject Site
386 Wallabout Street (adjoining southeast)	E-Designation, Voluntary Cleanup Program	The property was assigned designation E-238 for hazardous materials, noise attenuation and air quality as part of the Broadway Triangle Rezoning (CEQR Number 09HPD019K). The property is listed in the Voluntary Cleanup Program (VCP) program with Project ID 12CBCP025K.	Listings on these databases, by themselves, is not necessarily indicative of contamination.
382, 384, 388 Wallabout Street (adjoining southeast)	E-Designation	The properties were assigned designation E-238 for hazardous materials, noise attenuation and air quality (with the exception of 384 Wallabout only assigned air quality) as part of the Broadway Triangle Rezoning (CEQR Number 09HPD019K).	A listing on this database, by itself, is not necessarily indicative of contamination.
70 Union Avenue (0.113 miles southwest)	Spills	Hydro Tech is listed in the NY Spills program for two spills, Nos. 9930010 and 0702983. The former spill remains open due to chlorinated solvent contamination in groundwater believed to be associated with the breakdown of PERC. As of February 2, 2018 the spill was transferred to the Central Spill office and according to the New York State Department of Environmental Conservation Spills Database the spill achieved closured on February 4, 2019.	The case has achieved regulatory closure likely does not pose an environmental concern.
243-271 Wallabout Street (0.141 miles southwest)	New York State Brownfield Cleanup Program	Former Pfizer Site A is listed in the Brownfield Cleanup Program (BCP) as Site C224284. The property Is currently undergoing investigation and a Draft Remedial Investigation Work Plan received public comments through November 31, 2018.	This property is located upgradient from the subject site and could pose an environmental concern.

Property Name & Location	Database/ Record Identified	Description	Potential Impact to Subject Site
243-271 Wallabout Street (0.203 miles southwest)	New York State Brownfield Cleanup Program, Inst Controls, Eng Controls, Spills	Former Charles Pfizer & Co is listed in the Institutional and Engineering Controls and BCP database as Site C224175. Environmental contamination includes chlorinated volatile organic compounds impact to groundwater and volatile/semi-volatile organic compounds and metal impacts to soil. The project received a certificate of completion in 2014 and holds an environmental easement with groundwater use restriction, vapor mitigation, soil management plan, cover system, land use restriction, monitoring plan, site manage plan and institutional/engineering control plans. The property is also listed in the NY Spills database with Spill No. 1214474. The spill was reportedly associated with the property's remediation and was closed on July 18, 2013.	While this property is located upgradient from the subject site, it has achieved regulatory closure likely does not pose an environmental concern.
171 Wallabout Street (0.313 miles southwest)	Potentially Responsible Party, SEMS Archive	Slattery Stove Site is listed in the SEMS Archive database as EPA ID NYD001288349. The property is classified as not on the National Priorities List. In addition, Datsun Realty Corp is listed in the Potentially Responsible Party (PRP) database for the property.	Listings on these databases, by themselves, is not necessarily indicative of contamination.

Historical Uses of the Subject Site

The site was developed with a three-story dwelling/store from at least the late 1880s through the 1940s. By the late 1940s the dwellings were demolished and a rectangular building encompassing the site and adjoining lots was constructed. The subject site operated as a manufacturing facility used for woodworking and plastics product manufacturing from the 1960s through 2007. By 2012, the facility was demolished and the site remains vacant. Middleton Developers LLC purchased the site from A. Holding LLC in February 2013.

The table below provides a detailed summary of pertinent information from the historical sources reviewed:

Dates	Description of Subject Site	Sources
1887-1904	The site is developed with a three-story dwelling.	Sanborn Maps
1918-1940s	The site is developed with a three-story store. In 1934 the site is reportedly owned/operated by six individuals.	Sanborn Maps, City Directories, Aerial Photographs
1940s-2012	The site is developed with a rectangular building covering the adjoining lots (295 and 299 Wallabout Street) by 1951. Operators of the site itself were not listed, but in 1949 the adjoining properties are noted as operated by Glass Louis P & Bro Steel Factory, Glass Chas Factory, L&K Winding Co and Delmonico Glass Pros Corp. The site is reportedly used for woodworking in 1965 and from 1977-1982 the site is labeled as plastic products manufacturing. From 1986-2007 the site is labeled "One-M" on the historic Sanborn fire insurance maps.	Sanborn Maps, City Directories
2012-present	The building was demolished by 2012 and the site remains vacant. Middleton Developers LLC purchased the site from A. Holding LLC in February 2013.	Google Earth, ACRIS

Historical Uses of the Adjoining Sites

The majority of former uses of the adjoining properties do not represent an environmental concern for the subject site.

The table below provides a summary of pertinent information from the historical sources reviewed regarding adjacent properties:

Dates	Description of Adjoining Properties	Sources
1887-1950	Dwellings and stores in all directions. Koerners J Sons	Sanborn Maps, City Directories

	Wagon Manufacturing located at the adjoining property to the south.	
1965-1977	North: Scrap metal shop East: Wallabout Street beyond which there are dwellings and stores South and West: Johnny Koerners Sons Inc. Truck Body	Sanborn Maps, City Directories
1977-1993	North and East: Commercial/residential buildings South and West: Warehouse	Sanborn Maps
1993-present	North: Warehouse East: Wallabout Street beyond which there are commercial/residential buildings South and West: Warehouse	Sanborn Maps, Google Earth

Additional Environmental Records or File Review

To supplement the environmental record search, we contacted the following state and local government agencies and searched applicable online databases. If copies of the documents reviewed were obtained, pertinent material is included in Appendix C. Relevant information obtained is included in the appropriate sections of the report. Adjacent properties were also included in requests for additional information if a significant incident or release was identified. Those adjacent properties reviewed for this assessment include:

- 243-271 Wallabout Street BCP Site C224284

Agency	Request Sent or Files Searched			Files Exist and are Available for Review	Files Reviewed
	Subject Site	Adjoining Properties	Upgradient Non-Adjoining Properties		
New York State Department of Environmental Conservation[2]	Yes	No	Yes	No response provided	N/A
New York City Department of Finance City Register[3]	Yes	No	No	Yes (online)	Yes
New York City Department of Buildings[4]	Yes	No	No	Yes (online)	Yes
New York City Department of Health[5]	Yes	No	No	No response provided	N/A
Fire Department of New York[6]	Yes	No	No	No response provided	N/A
New York City Department of Environmental Protection[7]	Yes	No	No	No response provided	N/A
New York City Office of Environmental Remediation Searchable Property Environmental E-Database	Yes	Yes	Yes	Yes (online)	Yes

Notes:

1. *To date, no responses have been received from the Freedom of Information Act (FOIA) requests to the Fire Department of New York, The New State Department of Health (NYSDOH), the New York State Department of Environmental Conservation (NYSDEC) or the New York City Department of Environmental Protection. Based on the information obtained through our interviews with key site personnel, and our review of other records, it does not appear that responses to the FOIA requests should affect our conclusions regarding RECs on the site. However, when a response is received, it will be forwarded and, if it affects our conclusions regarding the site, the user will be informed.*
2. *The New York State Department of Environmental Conservation maintains information regarding spills, underground and above ground tanks and investigation and remediations overseen by New York State regulatory programs.*
3. *The New York City Department of Finance City Register maintains information regarding property transactions including deeds, lease and mortgage documents.*
4. *The New York City Building Department maintains information regarding violations, complaints, certificates of occupancy, elevator records and permits.*
5. *The New York City Health Department maintains information regarding environmental concerns for public health.*
6. *The Fire Department of New York maintains information regarding underground storage tanks (USTs) and emergencies/fires.*

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7. *The New York City Department of Health maintains information regarding wastewater discharges and boilers.*

Recognized Environmental Conditions

The ASTM E 1527-13 Standard defines an REC in part as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment."

Our opinion regarding an REC's potential impact on the subject site is based on the scope of our work, the information obtained during the course of our work, the conditions prevailing at the time our work was performed, the applicable regulatory requirements in effect at the time our work was performed, our experience evaluating similar sites, and on our understanding of the client's intended use for the subject site.

Based on the limited review of available Site records, Haley & Aldrich has identified the following Recognized Environmental Condition (REC) for the Site:

- **Upgradient offsite contamination-** The former Pfizer properties, including BCP Site C224284 and C224175, are located offsite and upgradient from the subject site. BCP Site C224175 received a certification of completion in 2015 but BCP Site C224284 is still undergoing investigation and remediation for volatile and semivolatile compounds impacting soil and groundwater.

PHASE II INVESTIGATION WORK SCOPE

Geophysical Survey

A geophysical survey will not be performed across the entire site as evidence of historic underground storage tanks or subsurface anomalies was not found in the review of the historic Sanborn maps, during site reconnaissance, etc.

Soil, Groundwater and Soil Vapor Summary

An investigation of soil, soil vapor and groundwater is being performed to properly characterize the site for potential environmental impacts from historic on-site/off-site uses, operations, etc. The proposed sampling event will address both RECs and historic fill, as well as to provide general horizontal/vertical characterization across the site for development purposes. The sampling procedures of this investigation will be performed in accordance with the NYSDEC Technical Guidance for Site Investigation and Remediation DER-10.

Five (5) test borings will be completed at the site. Please see attached site plan depicting sample point locations, where soil, groundwater, and soil vapor samples will be collected. At a minimum, a total of ten (10) soil samples will be collected from the five (5) test borings. A minimum of three (3) groundwater samples will be collected. A total of four (4) soil vapor/sub-slab samples be collected. The depth of groundwater is expected to be encountered at approximately 8-10 feet bgs and general groundwater flow direction is expected to be northeast towards the Newtown Creek. Each sample point location at the site will be accurately measured to fixed benchmarks (i.e., select properly lines, adjacent structures, etc.) or by a precision GPS that is capable of coordinating a fixed point with within +/- 1 foot.

Soil Sampling

A geologist/engineer/QEP will screen the soil samples during borehole advancement for organic vapors with a photo-ionization detector (PID) and evaluated for visual and olfactory impacts prior to collecting environmental samples. All field work will be recorded in a field log. Direct push track-mounted geoprobe drilling equipment will be used and if necessary, more advanced drilling technology will be used to complete the site investigation. At a minimum, two (2) soil samples will be collected from five (5) test borings (for a total of ten [10] soil samples) for laboratory analysis. A surface soil sample (from the 0-2 feet bgs interval) and subsurface soil sample (from the two (2) foot interval beneath the proposed maximum excavation depth. Discrete (grab) samples will be taken from the aforementioned sampling intervals. The subsurface soil samples may also serve as in-situ post-excavation soil samples for the remedial plan. A third soil sample may be collected from each or several test boring(s) if 1) elevated PID readings and/or visual and olfactory observations are noted during borehole advancement and/or 2) field observations identify an upper fill layer underlain by native material the additional soil sample from the upper zone of the native layer will help delineate the vertical migration of impacts (if any), as well as determine a more detailed remedy and potentially provide a cost savings for disposal options.

Monitoring Well Installation and Groundwater Sampling

Three (3) two-inch diameter temporary groundwater monitoring wells will be installed. Representative groundwater samples will be collected using low-flow sampling techniques. Properly sized screen and silica sand pack will be used for noted site conditions. A representative groundwater sample will be collected from each well with a peristaltic pump and dedicated tubing. Sampling will be conducted in accordance with NYSDEC Draft DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010, and Sampling Guidelines and Protocols, dated March 1991. Groundwater wells will be gauged with a water level meter to record a depth to groundwater reading (1/100 foot), and if necessary, an interface meter to determine the thickness of LNAPL or DNAPL. The well casings will be surveyed by a trained QEP and/or NYS licensed surveyor to facilitate preparation of a groundwater contour map and determine the direction of groundwater flow.

Soil Vapor Sampling

Samples will be collected in accordance with the Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH October 2006). Conditions in the field may require adjustment of sampling locations. Groundwater is expected to be encountered at a depth of 8-10 feet.

Four (4) soil vapor samples will be collected. Temporary soil vapor implants will be set at a depth of approximately 7 feet. The soil vapor probe will be installed between one and two feet above the groundwater interface. The vapor implants will be installed with a direct-push drilling rig (i.e., Geoprobe®) to advance a stainless-steel probe to the desired sample depth. Sampling will occur for the duration of two (2) hours.

Samples will be collected in appropriate sized Summa canisters that have been certified clean by the laboratory and samples will be analyzed by using USEPA Method TO-15. Flow rate for both purging and sampling will not exceed 0.2 L/min. One to three implant volumes shall be purged prior to the collection of any soil-gas samples. A sample log sheet will be maintained summarizing sample identification, date and time of sample collection, sampling depth, identity of samplers, sampling methods and devices, soil vapor purge volumes, volume of the soil vapor extracted, vacuum of canisters before and after the samples are collected, apparent moisture content of the sampling zone, and chain of custody protocols.

As part of the vapor intrusion evaluation, a tracer gas will be used in accordance with NYSDOH protocols to serve as a quality assurance/quality control (QA/QC) device to verify the integrity of the soil vapor probe seal. A container (box, plastic pail, etc.) will serve to keep the tracer gas in contact with the probe during testing. A portable monitoring device will be used to analyze a sample of soil vapor for the tracer gas prior to sampling. If the tracer sample results show a significant presence of the tracer, the probe seals will be adjusted to prevent infiltration. At the conclusion of the sampling round, tracer monitoring will be performed a second time to confirm the integrity of the probe seals.

Sample Analysis

Soil, groundwater, and soil vapor samples will be submitted to a NYSDOH Environmental Laboratory Accreditation Program (ELAP)-certified laboratory for Full analysis:

- Volatile Organic Compounds by EPA Method 8260;
- Semi-volatile organic compounds by EPA Method 8270;
- Pesticides/PCBs by EPA Method 8081/8082; and
- Target Analyte List metals by EPA Method 6010 and 7471;
- Soil vapor samples will be analyzed for VOCs by using USEPA Method TO-15

One groundwater sample will also be analyzed for the emerging contaminants 1,4-dioxane and per- and polyfluoroalkyl substances (PFAS). All groundwater samples will be analyzed for both filtered (dissolved) and unfiltered (total) metals. If either LNAPL and/or DNAPL are detected, appropriate samples will be collected for characterization and “finger print analysis” and required regulatory reporting (i.e. NYSDEC spills hotline) will be performed.

Quality Assurance/Quality Control Procedures

QA/QC procedures will be used to provide performance information with regard to accuracy, precision, sensitivity, representation, completeness, and comparability associated with the sampling and analysis for this investigation. Field QA/QC procedures will be used (1) to document that samples are representative of actual conditions at the Site and (2) identify possible cross-contamination from field activities or sample transit. Laboratory QA/QC procedures and analyses will be used to demonstrate whether analytical results have been biased either by interfering compounds in the sample matrix, or by laboratory techniques that may have introduced systematic or random errors to the analytical process. QA/QC samples (field and trip blanks, duplicates, etc.) will be collected and analyzed at an ELAP-certified laboratory.

INVESTIGATION DERIVED WASTE

Cuttings may be disposed at the site within the borehole that generated them to within 24 inches of the surface unless:

- Free product or grossly contaminated soil, are present in the cuttings;
- The borehole has penetrated an aquitard, aquiclude or other confining layer; or extends significantly into bedrock;
- Backfilling the borehole with cuttings will create a significant path for vertical movement of contaminants. Soil additives (bentonite) may be added to the cuttings to reduce permeability;
- The soil cannot fit into the borehole.

Those soil cuttings needing to be managed on-site will be containerized in properly labeled DOT approved 55-gallon drums for future off-site disposal at a permitted facility. All boreholes which require drill cuttings disposal would ultimately be filled with bentonite chips (hydrated) and asphalt/concrete capping. Disposable sampling equipment including, spoons, gloves, bags, paper towels, etc. that came in contact with environmental media will be double bagged and disposed as municipal trash in a facility trash dumpster as non-hazardous trash.

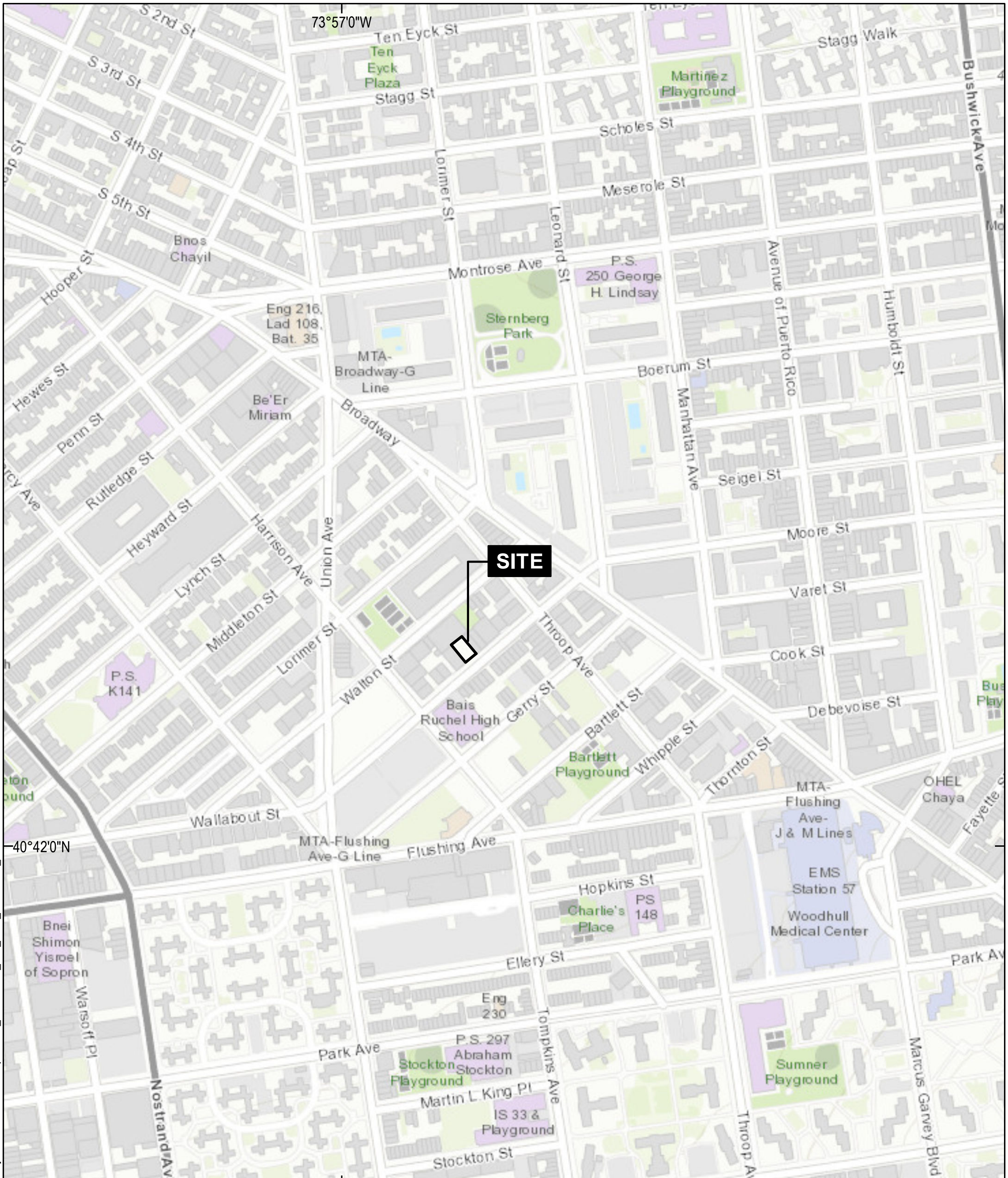
REPORTING

A Phase II Investigation Report (template version) will be prepared following completion of the field activities and receipt of the laboratory data. The report will provide detailed summaries of the investigative findings. Soil, groundwater and soil vapor analytical results will be compared to the NYSDEC Part 375-6.8(a) Unrestricted Used Soil Cleanup Objectives, appropriate Part 375-6.8(b) Restricted Soil Cleanup Objectives and NYSDEC Part 703 Groundwater Quality Standards (GQS) (class GA) or Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards (AWQS), and NYSDOH October 2006 Final Guidance for Evaluating Soil Vapor Intrusion Matrices. The report will include an updated sampling plan, spider diagrams, analytical data tables for all reported constituent compounds (including non-detectable concentrations) and remedial recommendations, as warranted.

INVESTIGATION HASP

An OSHA compliant Health and Safety Plan that meets all OSHA HAZWOPER requirements will be implemented during the site work to protect worker safety. The Site Safety Coordinator will ensure full compliance of the HASP in accordance with applicable health and safety laws and regulations. All field personnel involved in investigation activities will participate in training required under OSHA HAZWOPER 29 CFR 1910.120, including 40-hour hazardous waste operator training and annual 8-hour refresher training. Emergency telephone numbers will be posted at the site location before any work begins. A safety meeting will be conducted before each shift begins. Topics to be discussed include task hazards and protective measures (physical, chemical, environmental); emergency procedures; PPE levels and other relevant safety topics including a highlighted route map to the nearest hospital/emergency room. Meetings will be documented in a log book or specific form. Potential on-site chemicals of concern include VOCs, SVOCs, Pesticides/PCBs, and Metals (specifically arsenic, lead, and mercury at a minimum). Information fact sheets and/or summary tables for each contaminant group are included in the HASP. A copy of this HASP will be on-site during each sampling event.

FIGURES



MAP SOURCE: ESRI
SITE COORDINATES: 40°42'08"N, 73°56'52"W

HALEY ALDRICH

297 WALLABOUT STREET
BROOKLYN, NEW YORK

SITE LOCUS

APPROXIMATE SCALE: 1 IN = 800 FT
FEBRUARY 2019

FIGURE 1

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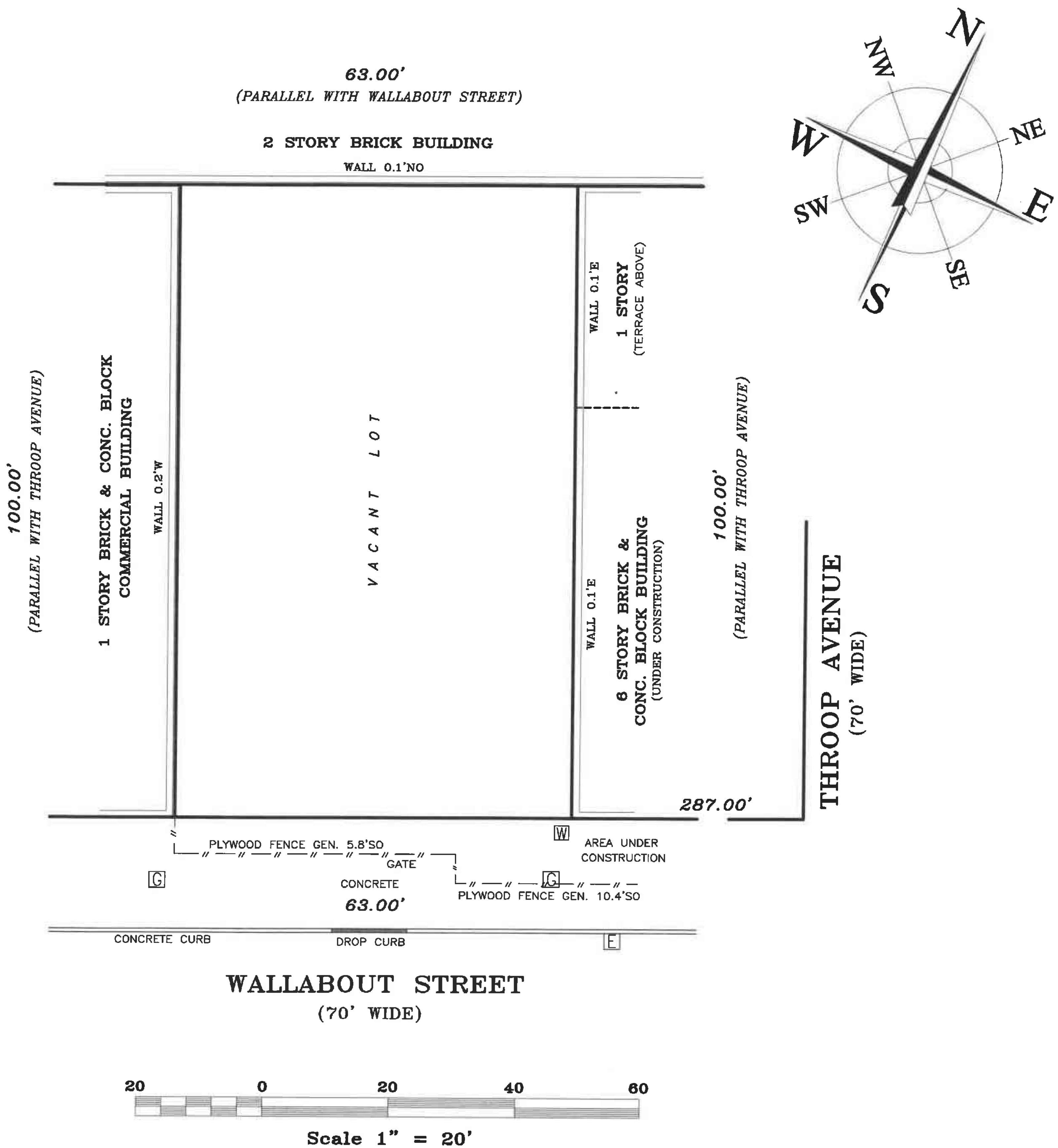

NOTES

1. ALL LOCATIONS ARE APPROXIMATE.
2. IMAGERY FROM MAPY OF SURVEY BY LEONARD J. STRANDBERG AND ASSOCIATES, MARCH 2018

HALEY ALDRICH

297 WALLABOUT STREET
BROOKLYN, NEW YORK

SITE FEATURES

SEPTEMBER 2019

FIGURE 2

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DRAFT

LEGEND

SITE BOUNDARY

PROPOSED SOIL BORING

PROPOSED TEMPORARY WELL POINT

PROPOSED TEMPORARY SOIL VAPOR POINT

NOTES

1. ALL LOCATIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: ESRI

N

0 20 40

SCALE IN FEET

HALEY ALDRICH

297 WALLABOUT STREET
BROOKLYN, NEW YORK

PROPOSED SAMPLE LOCATION MAP

FEBRUARY 2019

FIGURE 3

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www.haleyaldrich.com

REMEDIAL INVESTIGATION REPORT
297 WALLABOUT STREET
BROOKLYN, NY

Prepared by
Haley & Aldrich of New York
1441 Broadway, Suite 6031
New York, New York 10018

Prepared for

NYC Office of Environmental Remediation
100 Gold Street, 2nd Floor
New York, NY 10038

Rock Brokerage
170 Lee Avenue
Brooklyn, NY

Date:
April 2019

OER Project Number: 19TMP1325K; 19EH-A304K

File No. 133156-005
April 2019

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Acronyms and Abbreviations

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
OSHA	Occupational Safety and Health Administration
PID	Photoionization Detector
QEP	Qualified Environmental Professional
RI	Remedial Investigation
RIR	Remedial Investigation Report
SCO	Soil Cleanup Objective
SPEED	Searchable Property Environmental Electronic Database

CERTIFICATION

I, James M. Bellew, am a Qualified Environmental Professional, as defined in RCNY § 43-1402(ar). I have primary direct responsibility for implementation of the Remedial Investigation for the 297 Wallabout Street, Brooklyn, NY Site OER Project #19TMP1325K; 19EH-A304K. 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.

James M. Bellew 4/22/2019

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 address 297 Wallabout Street in the Broadway Triangle section in Brooklyn, New York and is identified as Block 2250 and Lot 45 on the New York City Tax Map. The Site is 6,300-square feet and is bounded by a residential apartment building to the north, a warehouse to the south, Wallabout Street to the east, and a warehouse to the west.

Currently, the Site is vacant undeveloped land with no buildings or other site features.

Summary of Proposed Redevelopment Plan

The proposed development plan includes development of a new seven-story residential apartment building. The building will encompass the entire lot footprint, will include 11 residential units and be equipped with a full cellar to be used for mechanical equipment, refuse and bicycle storage only. The cellar will extend ten feet below grade. Groundwater is encountered at approximately 8 feet below grade. Excavation is anticipated to generate approximately 2,300 cubic yards of soil.

Summary of Past Uses of Site and Areas of Concern

A Phase I Screening Summary was completed by Haley & Aldrich of New York (Haley & Aldrich) in February 2019. Based on historic Sanborn Maps and City Directory Listings, the following site history was established. The site was developed with a three-story dwelling/store from at least the late 1880s through the 1940s. By the late 1940s the dwellings were demolished and a rectangular building encompassing the site and adjoining lots was constructed. The subject site operated as a manufacturing facility used for woodworking and plastics product manufacturing from the 1960s through 2007. By 2012, the facility was demolished and the site remains vacant. Middleton Developers LLC purchased the site from A. Holding LLC in February 2013.

The Areas of Concern (AOCs) for this Site include:

1. The historic usage of the Site as a manufacturing facility used for woodworking and plastic product manufacturing from 1960s through 2007.

Summary of the Work Performed under the Remedial Investigation

Haley & Aldrich performed the following scope of work at the Site on March 18, 2019:

1. Conducted a Site inspection to identify AOCs and physical obstructions (i.e. structures, buildings, etc.);
2. Installed five (5) soil borings across the entire project Site, and collected ten (10) soil samples and one duplicate for chemical analysis from the soil borings to evaluate soil quality;
3. Installed three (3) groundwater monitoring wells throughout the Site to establish groundwater flow and collected three (3) groundwater samples for chemical analysis to evaluate groundwater quality;
4. Installed four (4) soil vapor probes around Site perimeter and collected four (4) samples for chemical analysis.

Summary of Environmental Findings

1. Elevation of the property ranges from 13 to 14 feet.
2. Depth to groundwater ranges from 8.10 to 8.35 feet at the Site.
3. Groundwater flow is generally from northwest to southeast beneath the Site.
4. Depth to bedrock at the Site is greater than 100 feet.
5. The stratigraphy of the site, from the surface down, consists of historic fill material to depths as great as 1 foot, underlain by 4-6 feet of brown medium to fine sand with trace silt. This layer is underlain by 3-5 feet of firm light brown to tan silty clay below which stratigraphy returns to a medium to coarse brown sand layer reaching extending to at least 12 feet below existing grade.

6. Soil/fill samples were compared to NYSDEC 6NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives (UUSCOs) and Restricted Residential Use Soil Cleanup Objectives (RRSCOs). Soil/fill samples collected during the RI showed :

   - One volatile organic compound (VOC), acetone, was detected at 59 µg/kg above the UUSCO of 50 µg/kg in the 0-2 foot interval at SB-1. Trichloroethene (max of 220 µg/kg) was detected in 0-2 foot interval at SB-3, well below the UUSCO of 470 µg/kg.
   - Five semi-volatile organic compounds(SVOC), benz(a)anthracene (2,000 µg/kg), benzo(a)pyrene (1,900 µg/kg), benzo(b)fluoranthene (1,800 µg/kg), dibenz(a,h)anthracene (420 µg/kg) and indeno(1,2,3-cd)pyrene (1,200 µg/kg), were detected above the RRSCOs and two SVOCs, benzo(k)fluoranthene (1,700 µg/kg) and chrysene (2,400 µg/kg), were detected above the UUSCOs in the 0-2 foot interval at SB-5. SVOCs were not detected above the UUSCOs in any other sample.
   - No polychlorinated biphenyls (PCBs) at concentrations exceeding the UUSCOs
   - Six metals, barium (maximum 373 mg/kg), chromium (maximum 62.3 mg/kg), copper (maximum 90.1 mg/kg), nickel (maximum 159 mg/kg) and zinc (maximum 848 mg/kg), were detected above UUSCOs in four of five 0-2 foot interval samples. Two metals, lead (maximum of 796 mg/kg) and mercury (maximum of 1.19 mg/kg) were detected above RRSCOs in the 0-2 foot interval at SB-5.
   - Four pesticides, 4,4'-DDD (maximum 33 µg/kg), 4,4'-DDE (maximum 12 µg/kg), 4,4'-DDT (maximum 60 µg/kg) and dieldrin (maximum 14 µg/kg), were detected above UUSCOs in three of the five 0-2 foot interval samples. No pesticides were detected above UUSCOs in the development depth samples.

7. Groundwater analytical results were compared to New York State Department of Environmental Conservation 6NYCRR Part 703.5 Class GA groundwater standards (NYSDEC GWQS). Groundwater samples collected during the RI showed:

- Two VOCs, cis-1,2-Dichloroethene (maximum 11 µg/L) and vinyl chloride (maximum 6.2 µg/L) were detected above the GWQS in TW-2 and TW-3. A third VOC, trichloroethene, was detected above the GWQS at 6.5 µg/L in TW-2 only.
- Three SVOCs, benz(a)anthracene (0.03 µg/L), benzo(b)fluoranthene (0.02 µg/L), and chrysene (0.03 µg/L), were detected above the GWQS in TW-1.
- No PCBs or pesticides were detected in any groundwater samples.
- Five metals (undissolved), including aluminum (maximum 12 µg/L), antimony (maximum 0.011 µg/L), iron (maximum 35.6 µg/L), manganese (maximum of 2.67 µg/L) and sodium (maximum of 59.5 µg/L), were detected above the GWQS in at least two of the three groundwater samples. Magnesium (undissolved) was detected above the GWQS at 53.5 µg/L in TW-1 only. Two dissolved metals, manganese (maximum of 2.38 µg/L) and sodium (maximum of 65 µg/L), were detected in at least two of the three groundwater samples. Dissolved iron was also detected above the GWQS at 9.72 µg/L in TW-3 only and dissolved magnesium at 52.6 µg/L in TW-1 only.
- TW-3 was analyzed for 1,4-dioxane and per- and polyfluoroalkyl substances (PFOA/PFAS) target analyte list. Several analytes were detected above the detection limit including perfluorobutanesulfonic acid (2.5 ng/L), perfluorohexanoic acid (6.5 ng/L), perfluoroheptanoic acid (3.2 ng/L), perfluoropentnoic acid (7.4 ng/L), perfluorooctanoic acid (12 ng/L), and perfluorooctanesulfonic acid (6.6 ng/L). 1,4-dioxane was not detected above the reporting limit of 0.20 µg/L.

8. Soil vapor analytical results were compared to New York State Department of Health (NYSDOH) Final Guidance on Soil Vapor Intrusion (May 2017) Matrix A, B, and C guidance values. Approximately 24 VOCs were detected above the method detection limits within the four soil vapor samples collected. Based on the VOC concentrations detected and the NYSDOH decision matrices, the concentrations of cis-1,2-dichloroethene, tetrachloroethene, trichloroethene and vinyl chloride exceed the guidance value for no further action and indicate the need for monitoring and/or mitigation if a building was currently present. Cis-1,2-dichloroethene was detected at 14.2 µg/m^3 in SV-2, 64.2 µg/ m^3 in SV-3 and 33.6 µg/ m^3 in SV-4 exceeding the no

further action guidance value of 6 µg/ m^3. Tetrachloroethene was detected at 110 µg/ m^3 in SV-3 exceeding the no further action guidance value of 100 µg/ m^3. Trichloroethene was detected at 53.7 µg/ m^3 in SV-1, 96.1 µg/ m^3 in SV-2, 3,350 µg/ m^3 in SV-3 and 2,620 µg/ m^3 in SV-4 exceeding the no further action guidance value of 6 µg/ m^3. Lastly, vinyl chloride was detected at 11.9 µg/ m^3 in SV-2 also exceeding the no further action guidance value of 6 µg/ m^3. Total concentrations of petroleum-related VOCs (BTEX) within the four soil vapor samples ranged from 7.85 µg/m3 to 210.01 µg/m3.

1.0 SITE BACKGROUND

Middleton Developers has enrolled in the New York City Voluntary Cleanup Program (NYC VCP) to investigate and remediate an approximately 0.15-acre vacant undeveloped site located at 297 Wallabout Street in the Broadway Triangle section of Brooklyn, New York. Residential use is proposed for the property. The RI work was performed on March 18, 2019. 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 297 Wallabout Street in the Broadway Triangle section in Brooklyn, New York and is identified as Block 2250 and Lot 45 on the New York City Tax Map. Figure 1 shows the Site location. The Site is 6,300-square feet and is bounded by a residential apartment building to the north, a warehouse to the south, Wallabout Street to the east, and a warehouse to the west. A map of the site boundary is shown in Figure 2. Currently, the Site is vacant undeveloped land with no buildings or other site features.

1.2 PROPOSED REDEVELOPMENT PLAN

The proposed development plan includes development of a new seven-story residential apartment building. The building will encompass the entire lot footprint, include 11 residential units and be equipped with a full cellar to be used for mechanical equipment, refuse and bicycle storage only. The cellar will extend ten feet below grade. Groundwater is encountered at approximately 8 feet below grade. Excavation is anticipated to generate approximately 2,300 cubic yards of soil. A full architectural set is pending.

1.3 DESCRIPTION OF SURROUNDING PROPERTY

Current uses of the surrounding properties are summarized in the table below:

Direction	Adjoining Property	Surrounding Properties
North	Residential apartment building.	Residential apartment buildings and warehouses.
South	Warehouse/manufacturing building.	Residential apartment buildings, Hebrew school and parking lots.
East	Wallabout Street beyond which there are residential apartment buildings.	Residential apartment buildings and parking lots.
West	Warehouse/manufacturing building.	Intermediate School 318.

One public school, JHS 318, is located at 101 Walton Street approximately 200 feet to the northwest of the Site. No hospitals or daycare facilities are located within 500 ft radius of the Site. The properties immediately surrounding the Site are zoned R7A while the properties to the south adjacent to Harrison Avenue and north adjacent to Throop Avenue are zoned R7A with commercial overlay C2-4. Properties on the north side of Walton street are zoned R6-A. Figure 3 shows the surrounding land usage.

2.0 SITE HISTORY

2.1 PAST USES AND OWNERSHIP

A Phase I Screening Summary was completed by Haley & Aldrich in February 2019 and is included in the Remedial Investigation Work Plan. Based on historic Sanborn Maps and City Directory Listings, the following site history was established. The site was developed with a three-story dwelling/store from at least the late 1880s through the 1940s. By the late 1940s the dwellings were demolished and a rectangular building encompassing the site and adjoining lots was constructed. The subject site operated as a manufacturing facility used for woodworking and plastics product manufacturing from the 1960s through 2007. By 2012, the facility was demolished and the site remains vacant. Middleton Developers LLC purchased the site from A. Holding LLC in February 2013.

2.2 PREVIOUS INVESTIGATIONS

No known previous investigations have been completed at the Site.

2.3 SITE INSPECTION

Haley & Aldrich personnel performed a visual Site inspection of the Site and surrounding properties on March 18, 2019 prior to beginning the remedial investigation. The Site is currently a vacant lot used for storage of a dumpster for the newly developed building to the immediate east. Haley & Aldrich personnel observed no evidence of environmental concerns including spills, aboveground storage tanks, underground storage tanks, transformers, etc.

2.4 AREAS OF CONCERN

Areas of Concerns (AOCs) identified for the Site include:

1. The historic usage of the site as a manufacturing facility used for woodworking and plastic product manufacturing from 1960s through 2007.

3.0 PROJECT MANAGEMENT

3.1 PROJECT ORGANIZATION

The Qualified Environmental Profession (QEP) responsible for preparation of this RIR is James M. Bellew.

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

3.3 MATERIALS MANAGEMENT

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

4.0 REMEDIAL INVESTIGATION ACTIVITIES

Haley & Aldrich of New York, on behalf of Middleton Developers, LLC, performed the following scope of work:

1. Conducted a Site inspection to identify AOCs and physical obstructions (i.e. structures, buildings, etc.);
2. Installed five (5) soil borings across the entire project Site, and collected ten (10) soil samples and one duplicate for chemical analysis from the soil borings to evaluate soil quality;
3. Installed three (3) groundwater monitoring wells throughout the Site to establish groundwater flow and collected three (3) groundwater samples for chemical analysis to evaluate groundwater quality;
4. Installed four (4) soil vapor probes around Site perimeter and collected four (4) samples for chemical analysis.

4.1 GEOPHYSICAL INVESTIGATION

A geophysical survey was not performed across the entire site as evidence of historic underground storage tanks or subsurface anomalies was not found in the review of the historic Sanborn maps, during site reconnaissance, etc.

4.2 BORINGS AND MONITORING WELLS

Drilling and Soil Logging

On March 18, 2019, five soil borings were installed. Borings were installed using a direct-push geoprobe track mounted rig (Geoprobe 6610DT) operated by Coastal Environmental Solutions, Inc. Soil was collected continuously from grade to approximately 12 feet below existing grade. Borings were installed with 5-foot long steel macro-core samplers with disposable acetate liners. Soil borings were continuously screened with a calibrated photoionization detector (PID) and inspected for visual and olfactory evidence of impact. Elevated PID readings were detected in the 0-5 foot below grade interval with a maximum reading o 12.5 parts per millions (ppm). Soil samples were collected from each boring at the 0-2 foot interval and below proposed developed net depth at 10-12 feet.

Boring logs were prepared by a geologist and are included in Appendix B. A map showing the location of soil borings and monitor wells is shown in Figure 2.

Groundwater Monitoring Well Construction

Three 2-inch diameter temporary PCV monitoring wells (TW-1 through TW-3) were installed in the soil borings to 12-13 feet below grade with ten feet of 0.010 slot screen the approximate locations shown on Figure 2. Monitoring well sampling details are provided in Table 1.

Survey

Soil borings, temporary well points and soil vapor sampling locations were located with respect to two or more permanent site features and with reference to the architectural survey dated April 28, 2018.

Water Level Measurement

Approximate groundwater level measurements were collected using a Solinst water level meter. No free product was observed in the three monitoring wells. Groundwater was encountered between 8.10 and 8.35 feet below grade. Water level data is included in Table 1.

4.3 SAMPLE COLLECTION AND CHEMICAL ANALYSIS

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

All samples were collected into laboratory provided containers and transported under proper chain of custody protocol to Phoenix Environmental Laboratories at 587 Middle Turnpike, Manchester, CT, (New York State ELAP Certification No. 11301).

Soil Sampling

Ten 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, is reported in Table 2. Figure 2 shows the location of samples collected in this investigation.

All soil samples were analyzed for VOCs (EPA Method 8260), SVOCs (EPA Method 8260), target analyte list (TAL) metals (EPA Methods 6010/7471) and pesticides/PCBs (EPA Methods 081/8082). One duplicate sample was collected and analyzed for the same parameters.

Groundwater Sampling

Three groundwater samples were collected for chemical analysis during this RI. Groundwater sample collection data is reported in Table 3. Sampling logs with information on purging and sampling of groundwater monitor wells is included in Appendix C. Figure 2 shows the location of groundwater sampling.

All groundwater samples were analyzed for VOCs (EPA Method 8260), SVOCs (EPA Method 8260), TAL metals both filtered and non-filtered (EPA Methods 6010/7471) and pesticides/PCBs (EPA Methods 081/8082). One groundwater sample from temporary well point TW-3 was also sampled for per- and polyfluoroalkyl substances (PFAS) and 1,4-dioxane. Sampling from TW-3 was completed using PFAS free equipment such as high-density polyethylene and silicon tubing.

Soil Vapor Sampling

Four soil vapor probes were installed and four soil vapor samples were collected for chemical analysis during this RI. Soil vapor sampling locations are shown in Figure 1. Soil vapor sample collection data is reported in Table 4. Soil vapor sampling logs are included in Appendix D. Methodologies used for soil vapor assessment conform to the *NYS DOH Final Guidance on Soil Vapor Intrusion, October 2006*.

The soil vapor probes were installed by a direct-push drilling rig to advance the stainless-steel probe to the desired sample depth, between one and two feet above the groundwater interface. Sampling occurred for the duration of two (2) hours. Soil vapor probes and polyethylene tubing were sealed with 7-ft of bentonite with the 0-1 foot interval sealed with wetted bentonite. One to three volumes of air was purged from the implant prior to verifying seal integrity with a tracer gas (helium) test. Flow rates did not exceed 0.2 L/min. Sampling details are provide in Appendix D. All soil vapor samples were analyzed for VOCs by using UEPA Method TO-15.

Chemical Analysis

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

Factor	Description
Quality Assurance Officer	The chemical analytical quality assurance is directed by Phoenix Environmental Laboratory
Chemical Analytical Laboratory	Chemical analytical laboratory(s) used in the RI is NYS ELAP certified and was Phoenix Environmental Laboratory
Chemical Analytical Methods	Soil analytical methods: • TAL Metals by EPA Method 6010C (rev. 2007); • VOCs by EPA Method 8260C (rev. 2006); • SVOCs by EPA Method 8270D (rev. 2007); • Pesticides by EPA Method 8081B (rev. 2000); • PCBs by EPA Method 8082A (rev. 2000); Groundwater analytical methods: • TAL Metals by EPA Method 6010C (filtered and unfiltered; rev. 2007); • VOCs by EPA Method 8260C (rev. 2006); • SVOCs by EPA Method 8270D (rev. 2007);

	• Pesticides by EPA Method 8081B (rev. 2000); • PCBs by EPA Method 8082A (rev. 2000); • PFAS and 1,4-dioxane by EPA Method 537 and EPA Method 8270DSIM Soil vapor analytical methods: • VOCs by TO-15 VOC parameters.

Results of Chemical Analyses

Laboratory data for soil, groundwater and soil vapor are summarized in Table 2-4, 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

The stratigraphy of the Site, from the surface down, consists of 0-1 foot of urban fill material underlain by 4-6 feet of brown medium to fine sand with trace silt. One test boring, SB-1, contained a layer of tan to off white medium sand with some medium to fine gravel and pebbles from 0-5 feet below existing grade. The fill layer is underlain by 3-5 feet of firm light brown to tan silty clay in the majority of the borings, below which the stratigraphy returns to a medium brown sand layer extending to at least 12 feet below existing grade.

Hydrogeology

A table of water level data for all monitor wells is included in Table 1. The average depth to groundwater is 8.23 feet and the range in depth is 8.10 to 8.35 feet below grade. A map of groundwater level elevations with groundwater contours and inferred flow lines is shown in Figure 8. Groundwater flow is from northwest to southeast.

5.2 SOIL CHEMISTRY

Data collected during the RI is sufficient to delineate the vertical and horizontal distribution of contaminants in soil/fill at the Site. A summary table of data for chemical analyses performed on soil samples is included in Section 4.3.

VOCs

Acetone was detected (59 µg/kg) above the UUSCO in SB-1(0-2). No other VOCs were detected above the RRSCOs or UUSCOs. Trichloroethene (max of 220 µg/kg) was detected in 0-2 foot interval at SB-3, well below the UUSCO of 470 µg/kg.

SVOCs

Five semi-volatile organic compounds, benz(a)anthracene (2,000 µg/kg), benzo(a)pyrene (1,900 µg/kg), benzo(b)fluoranthene (1,800 µg/kg), dibenz(a,h)anthracene (420 µg/kg) and indeno(1,2,3-cd)pyrene (1,200 µg/kg), were detected above the RRSCOs and two SVOCs, benzo(k)fluoranthene (1,700 µg/kg) and chrysene (2,400 µg/kg), were detected above the UUSCOs in SB-5(0-2). SVOCs were not detected above the UUSCOs in any other boring or sample.

Total Metals

Six metals, barium (maximum 373 mg/kg), chromium (maximum 62.3 mg/kg), copper (maximum 90.1 mg/kg), nickel (maximum 159 mg/kg) and zinc (maximum 848 mg/kg), were detected above UUSCOs in SB-1(0-2), SB-3(0-2), SB-4(0-2) and SB-5(0-2). Lead was detected above the RRSCO in SB-5(0-2) at 796 mg/kg and in SB-1(0-2) at 420 mg/kg. Mercury was detected above the RRSCO at 1.19 mg/kg in SB-5(0-2). No metals were detected above the UUSCOs in SB-3(0-2) or in the development depth samples with the exception of the slight exceedance of chromium (detected at 39.4 mg/kg) in the 10-12 foot interval at SB-5.

PCBs

There were no exceedances of the UUSCOs or RRSCOs for PCBs at the site.

Pesticides

Four pesticides, 4,4'-DDD (maximum 33 µg/kg), 4,4'-DDE (maximum 12 µg/kg), 4,4'-DDT (maximum 60 µg/kg) and dieldrin (maximum 14 µg/kg), were detected above UUSCOs in three of the five 0-2 foot interval samples. No pesticides were detected above UUSCOs in the development depth samples.

Figure 4 shows the location and posts the values for soil/fill that exceed the 6NYCRR Part 375 UUSCOs and RRSCOs.

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 Section 4.3.

VOCs

Two VOCs, cis-1,2-Dichloroethene (maximum 11 µg/L) and vinyl chloride (maximum 6.2 µg/L) were detected above the GWQS in TW-2 and TW-3. A third VOC, trichloroethene, was detected above the GWQS at 6.5 µg/L in TW-2 only.

SVOCs

Three SVOCs, benz(a)anthracene (0.03 µg/L), benzo(b)fluoranthene (0.02 µg/L), and chrysene (0.03 µg/L), were detected above the GWQS in TW-1.

Total Metals

Five metals (undissolved), including aluminum (maximum 12 µg/L), antimony (maximum 0.011 µg/L), iron (maximum 35.6 µg/L), manganese (maximum of 2.67 µg/L) and sodium (maximum of 59.5 µg/L), were detected above the GWQS in at least two of the three groundwater samples. Magnesium (undissolved) was detected above the GWQS at 53.5 µg/L in TW-1 only.

Dissolved Metals

Two dissolved metals, manganese (maximum of 2.38 µg/L) and sodium (maximum of 65 µg/L), were detected in at least two of the three groundwater samples. Dissolved iron was also detected above the GWQS at 9.72 µg/L in TW-3 only and dissolved magnesium at 52.6 µg/L in TW-1 only.

PCBs

No PCBs were detected in any groundwater samples.

Pesticides

No pesticides were detected in any groundwater samples. *1,4-dioxane*

TW-3 was analyzed for 1,4-dioxane which was not detected above the reporting limit of 0.20 µg/L.

PFOA/PFAS

TW-3 was analyzed for PFOA/PFAS target analyte list. Several analytes were detected above the detection limit including perfluorobutanesulfonic acid (2.5 ng/L), perfluorohexanoic acid (6.5 ng/L), perfluoroheptanoic acid (3.2 ng/L), perfluoropentnoic acid (7.4 ng/L), perfluorooctanoic acid (12 ng/L), and perfluorooctanesulfonic acid (6.6 ng/L).

Figure 5 shows the location and posts the values for groundwater that exceed the New York State 6NYCRR Part 703.5 Class GA groundwater standards.

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 Section 4.3.

Soil vapor analytical results were compared to New York State Department of Health (NYSDOH) Final Guidance on Soil Vapor Intrusion (May 2017) Matrix A, B, and C guidance values. Based on the VOC concentrations detected and the NYSDOH decision matrices, the concentrations of cis-1,2-dichloroethene, tetrachloroethene, trichloroethene and vinyl chloride exceed the guidance value for no further action and indicate the need for monitoring and/or mitigation.

Cis-1,2-dichloroethene was detected at 14.2 µg/m^3 in SV-2, 64.2 µg/m^3 in SV-3 and 33.6 µg/m^3 in SV-4 exceeding the no further action guidance value of 6 µg/m^3. Tetrachloroethene was detected at 110 µg/m^3 in SV-3 exceeding the no further action guidance value of 100 µg/m^3. Trichloroethene was detected at 53.7 µg/m^3 in SV-1, 96.1 µg/m^3 in SV-2, 3,350 µg/m^3 in SV-3 and 2,620 µg/m^3 in SV-4 exceeding the no further action guidance value of 6 µg/m^3. Lastly, vinyl chloride was detected at 11.9 µg/m^3 in SV-2 also exceeding the no further action guidance value of 6 µg/m^3. Total concentrations of petroleum-related VOCs (BTEX) within the four soil vapor samples ranged from 7.85 µg/m^3 to 210.01 µg/m^3.

Figure 6 shows the location and posts the values for soil vapor samples with concentrations exceeding the no further action guidance value for sub-slab soil vapor.

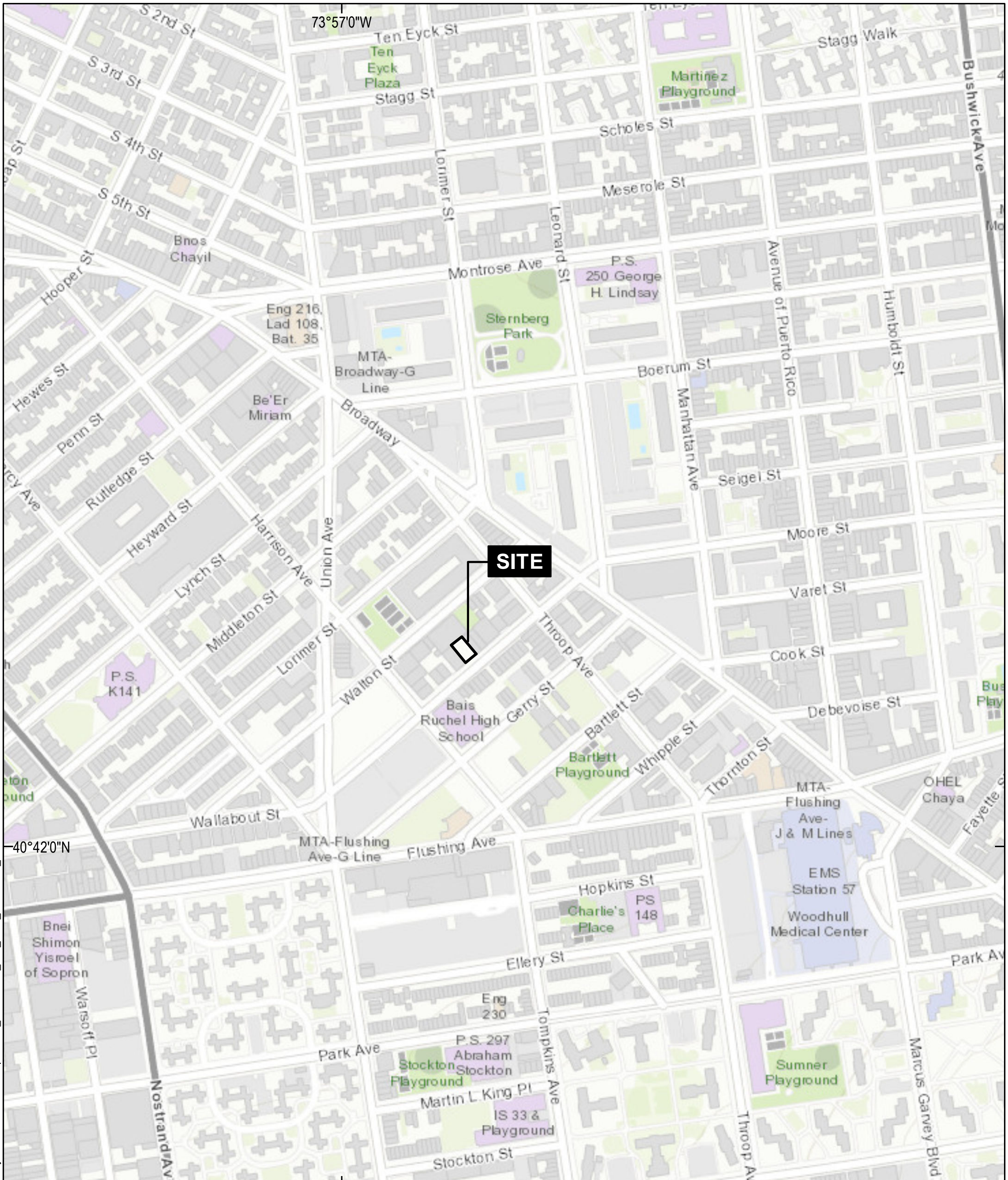
5.5 PRIOR ACTIVITY

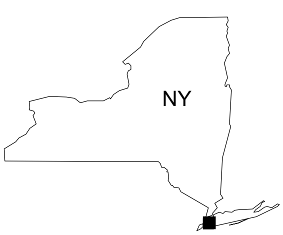
Based on an evaluation of the data and information from the RIR, disposal of significant amounts of hazardous waste is not suspected at this site.

5.6 IMPEDIMENTS TO REMEDIAL ACTION

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

FIGURES





N

MAP SOURCE: ESRI
SITE COORDINATES: 40°42'08"N, 73°56'52"W

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297 WALLABOUT STREET
BROOKLYN, NEW YORK

SITE LOCUS

APPROXIMATE SCALE: 1 IN = 800 FT
FEBRUARY 2019

FIGURE 1

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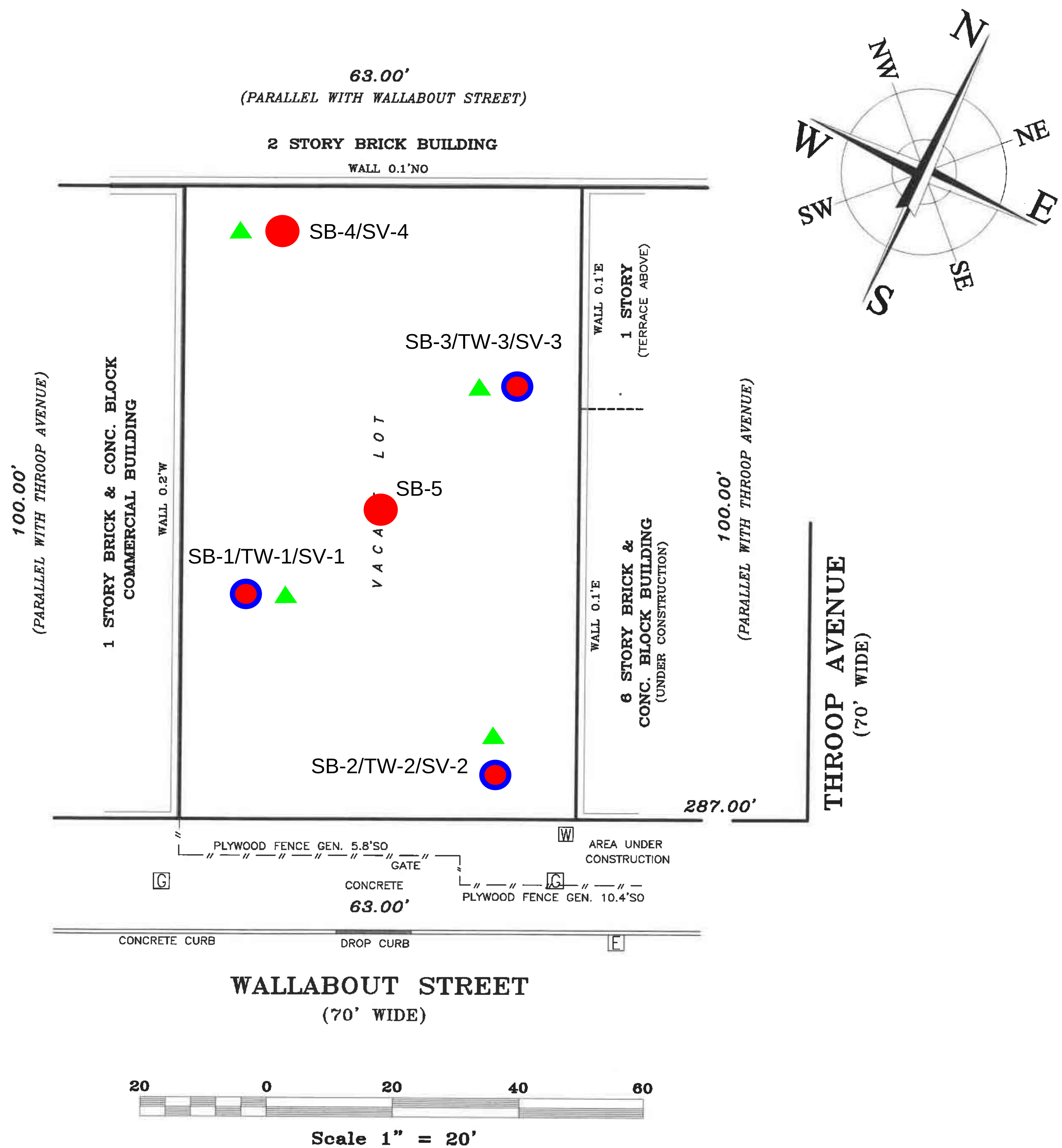

LEGEND

- SITE BOUNDARY
- SOIL BORING
- TEMPORARY WELL POINT
- TEMPORARY SOIL VAPOR POINT

NOTES

1. ALL LOCATIONS ARE APPROXIMATE.
2. IMAGERY FROM MAPY OF SURVEY BY LEONARD J. STRANDBERG AND ASSOCIATES, MARCH 2018

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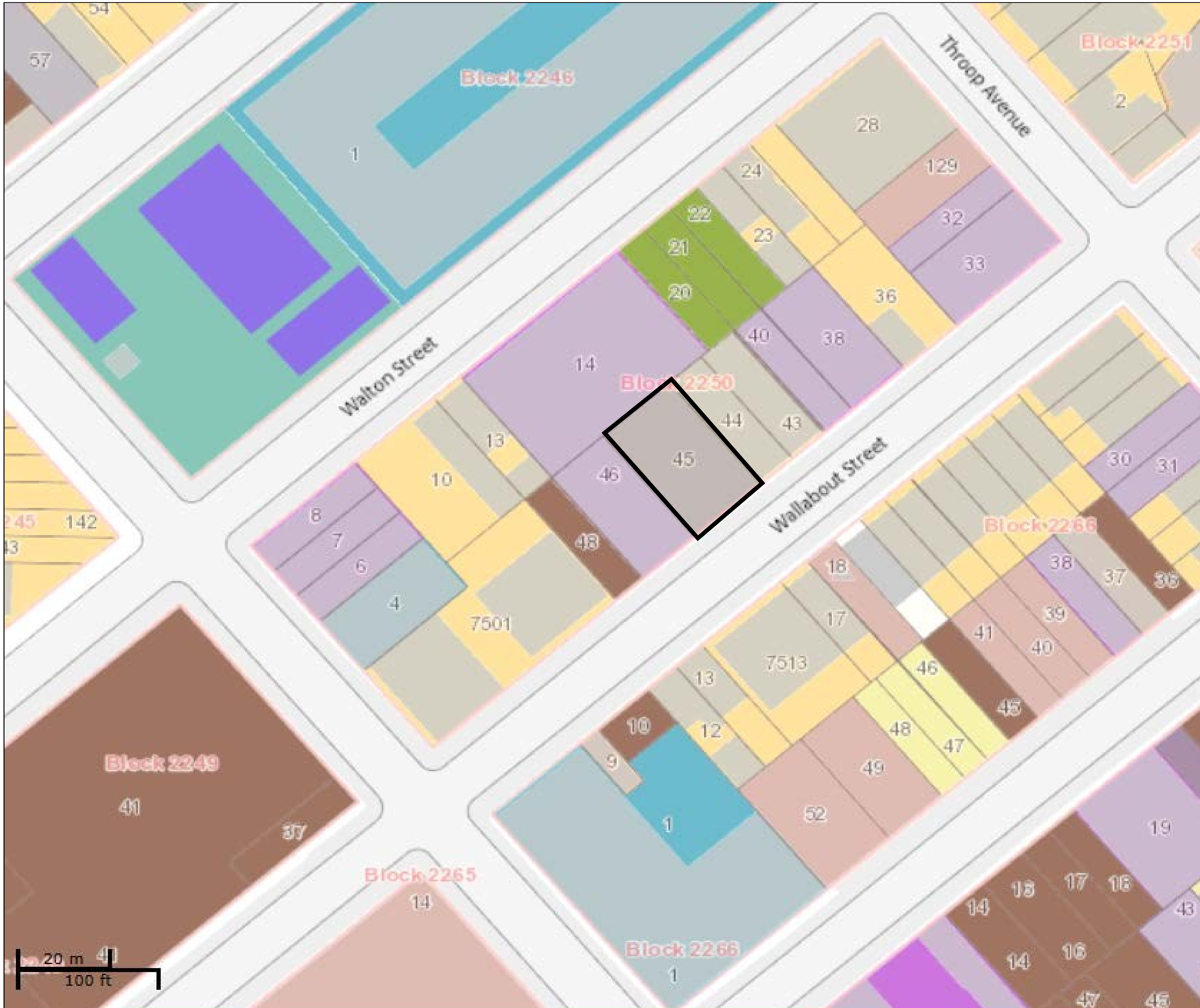
SITE PLAN AND SAMPLE LOCATION MAP

APRIL 2019

FIGURE 2



LEGEND

SITE BOUNDARY

- 1 & 2 Family Residential
- Multi-family Residential
- Mixed Use
- Open space & outdoor recreation
- Commercial
- Institutions
- Industrial
- Parking
- Transportation / Utilities
- Vacant Lots

NOTES

1. ALL LOCATIONS ARE APPROXIMATE
2. IMAGERY FROM NYC OPEN ACCESSIBLE SAPCE INFORMATION SYSTEM (NYC OASIS) GATHERED MARCH 19, 2019.

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SURROUNDING LAND USE MAP

APRIL 2019

FIGURE 3

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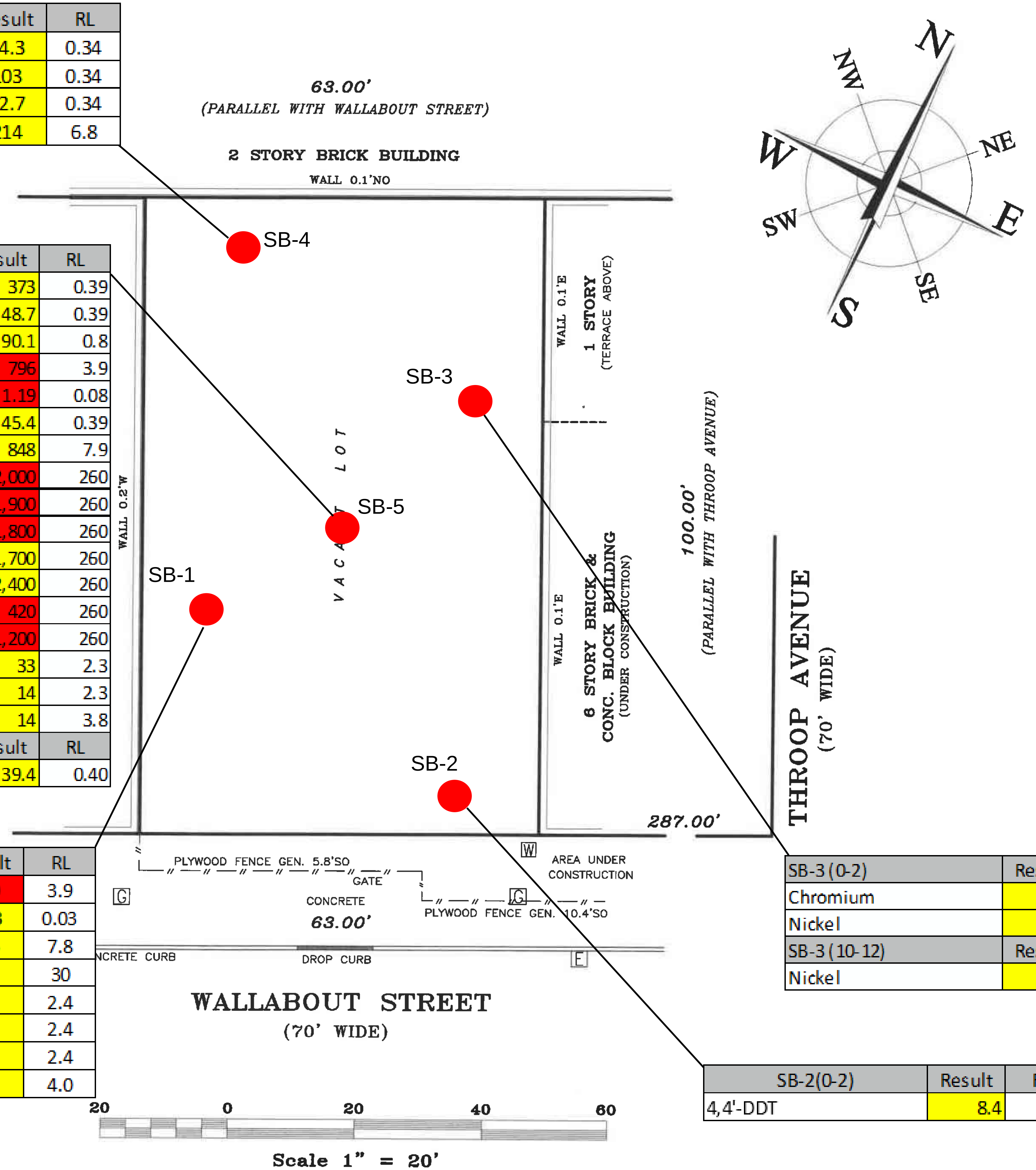
SB-4 (0-2)	Result	RL
Chromium	34.3	0.34
Lead	103	0.34
Nickel	42.7	0.34
Zinc	214	6.8

SB-5 (0-2)	Result	RL
Barium	373	0.39
Chromium	48.7	0.39
Copper	90.1	0.8
Lead	796	3.9
Mercury	1.19	0.08
Nickel	45.4	0.39
Zinc	848	7.9
Benz(a)anthracene	2,000	260
Benzo(a)pyrene	1,900	260
Benzo(b)fluoranthene	1,800	260
Benzo(k)fluoranthene	1,700	260
Chrysene	2,400	260
Dibenz(a,h)anthracene	420	260
Indeno(1,2,3-cd)pyrene	1,200	260
4,4'-DDD	33	2.3
4,4'-DDT	14	2.3
Dieldrin	14	3.8
SB-5(10-12)	Result	RL
Chromium	39.4	0.40

SB-1 (0-2)	Result	RL
Lead	420	3.9
Mercury	0.33	0.03
Zinc	235	7.8
Acetone	59	30
4,4'-DDD	8.8	2.4
4,4'-DDE	12	2.4
4,4'-DDT	60	2.4
Dieldrin	5.6	4.0



LEGEND

SOIL BORING

NYCRR Part 375 Unrestrcited and Restricted Residental SCOs			
ANALYTE	Units	NY-ResRestrict	NY-UnRestricte
Barium	mg/Kg	400	350
Chromium	mg/Kg		30
Copper	mg/kg	270	50
Lead	mg/Kg	400	63
Mercury	mg/Kg	0.81	0.18
Nickel	mg/Kg	310	30
Zinc	mg/Kg	10,000	109
Acetone	ug/Kg	100,000	50
Benz(a)anthracene	ug/Kg	1,000	1,000
Benzo(a)pyrene	ug/Kg	1,000	1,000
Benzo(b)fluoranthene	ug/Kg	1,000	1,000
Benzo(k)fluoranthene	ug/Kg	3,900	800
Chrysene	ug/Kg	3,900	1,000
Dibenz(a,h)anthracene	ug/Kg	330	330
Indeno(1,2,3-cd)pyrene	ug/Kg	500	500
4,4'-DDD	ug/Kg	13,000	3.3
4,4'-DDE	ug/Kg	8,900	3.3
4,4'-DDT	ug/Kg	7,900	3.3
Dieldrin	ug/Kg	200	5

SB-3 (0-2)	Result	RL
Chromium	62.3	0.38
Nickel	159	3.8
SB-3 (10-12)	Result	RL
Nickel	30.3	0.35

SB-2(0-2)	Result	RL
4,4'-DDT	8.4	2.2

NOTES

1. ALL LOCATIONS ARE APPROXIMATE.
2. IMAGERY FROM MAPY OF SURVEY BY LEONARD J. STRANDBERG AND ASSOCIATES, MARCH 2018
3. ALL SAMPLES COLLECTED ON MARCH 18, 2019

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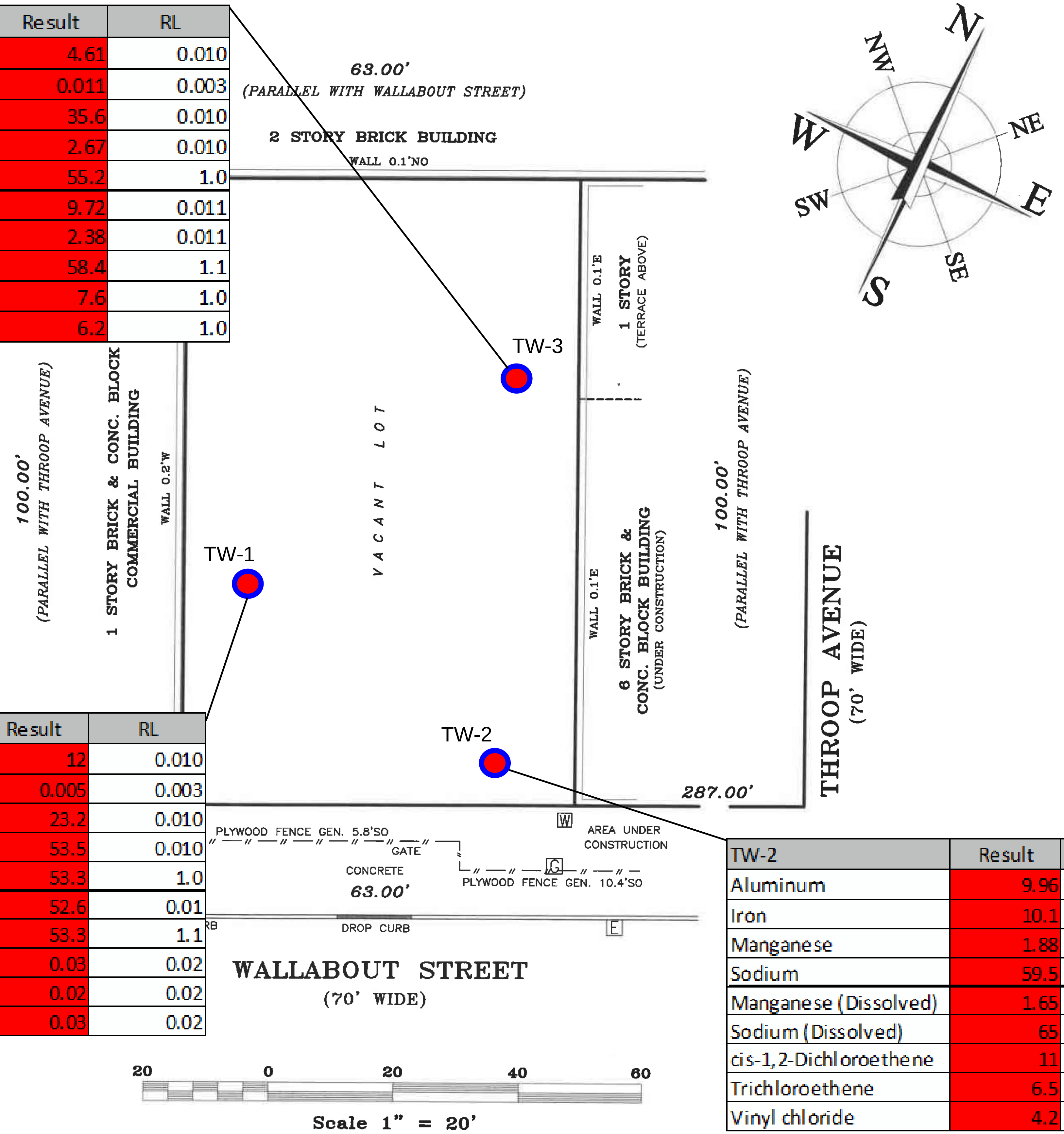
BROOKLYN, NEW YORK

MAP OF SOIL CHEMSITRY

APRIL 2019

FIGURE 4

TW-3	Result	RL
Aluminum	4.61	0.010
Antimony	0.011	0.003
Iron	35.6	0.010
Manganese	2.67	0.010
Sodium	55.2	1.0
Iron (Dissolved)	9.72	0.011
Manganese (Dissolved)	2.38	0.011
Sodium (Dissolved)	58.4	1.1
cis-1,2-Dichloroethene	7.6	1.0
Vinyl chloride	6.2	1.0



LEGEND

TEMPORARY WELL POINT

New York TOGS 111 Ambient Water Quality Standards		
ANALYTE	Units	NY-AWQS
Aluminum	mg/L	0.1
Antimony	mg/L	0.003
Iron	mg/L	0.3
Magnesium	mg/L	35
Manganese	mg/L	0.3
Sodium	mg/L	20
Iron (Dissolved)	mg/L	0.3
Magnesium (Dissolved)	mg/L	35
Manganese (Dissolved)	mg/L	0.3
Sodium (Dissolved)	mg/L	20
cis-1,2-Dichloroethene	ug/L	5
Trichloroethene	ug/L	5
Vinyl chloride	ug/L	2
Benz(a)anthracene	ug/L	0.002
Benzo(b)fluoranthene	ug/L	0.002
Chrysene	ug/L	0.002

TW-1	Result	RL
Aluminum	12	0.010
Antimony	0.005	0.003
Iron	23.2	0.010
Magnesium	53.5	0.010
Sodium	53.3	1.0
Magnesium (Dissolved)	52.6	0.01
Sodium (Dissolved)	53.3	1.1
Benz(a)anthracene	0.03	0.02
Benzo(b)fluoranthene	0.02	0.02
Chrysene	0.03	0.02

TW-2	Result	RL
Aluminum	9.96	0.010
Iron	10.1	0.010
Manganese	1.88	0.001
Sodium	59.5	1.0
Manganese (Dissolved)	1.65	0.001
Sodium (Dissolved)	65	1.1
cis-1,2-Dichloroethene	11	1.0
Trichloroethene	6.5	1.0
Vinyl chloride	4.2	1.0

NOTES

1. ALL LOCATIONS ARE APPROXIMATE.
2. IMAGERY FROM MAPY OF SURVEY BY LEONARD J. STRANDBERG AND ASSOCIATES, MARCH 2018
3. ALL SAMPLES COLLECTED ON MARCH 18, 2019.

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MAP OF GROUNDWATER CHEMISTRY

APRIL 2019

FIGURE 5

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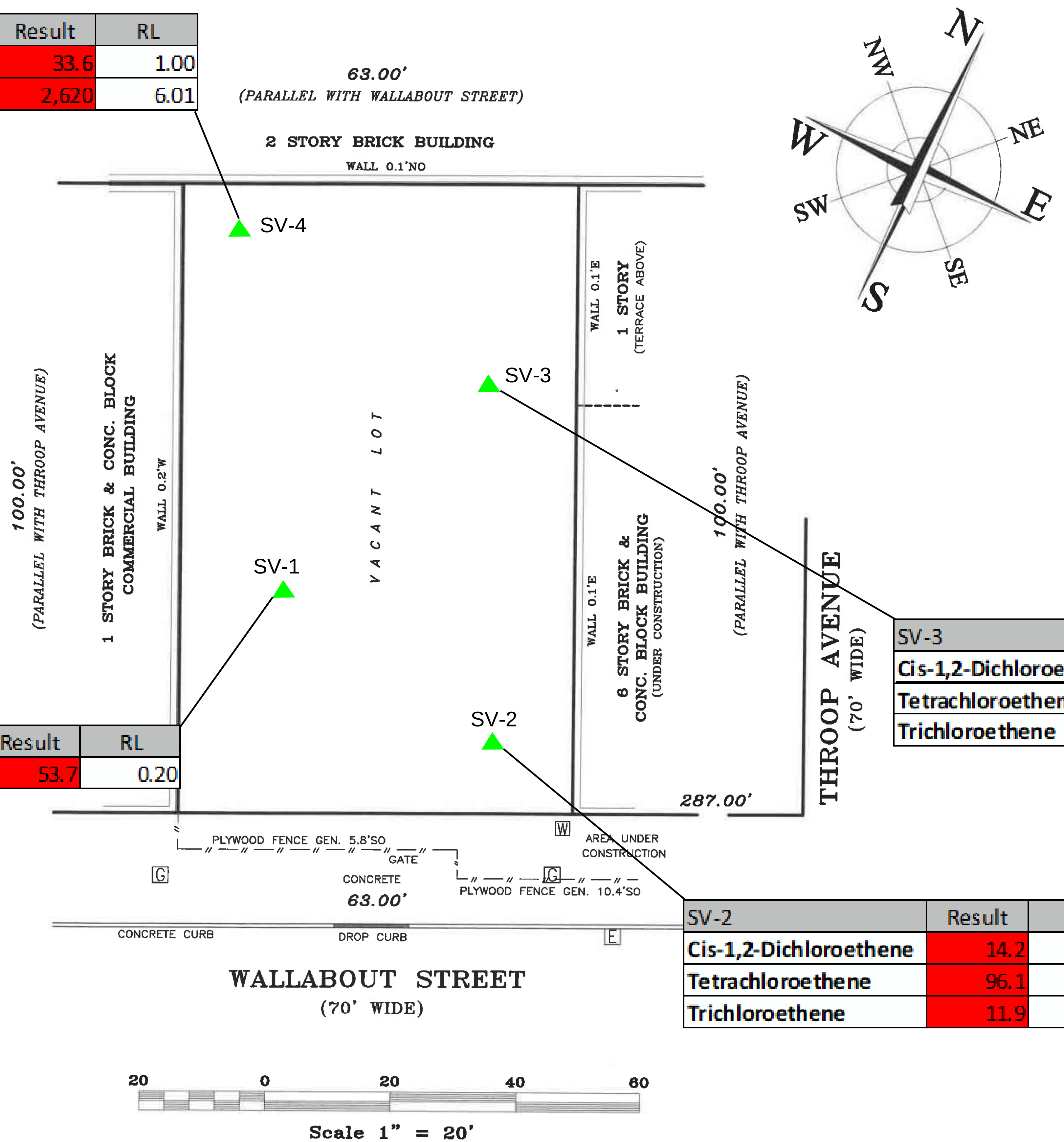
LEGEND

▲ TEMPORARY SOIL VAPOR POINT

2006 NYSDOH Soil Vapor Intrusion Guidance Decision Matrices		
ANALYTE	Units	NYSDOH VI Sub-Slab Vapor Guidance
1,1,1-Trichloroethane	ug/m3	100
1,1-Dichloroethene	ug/m3	6
Carbon Tetrachloride	ug/m3	6
Cis-1,2-Dichloroethene	ug/m3	6
Methylene Chloride	ug/m3	100
Tetrachloroethene	ug/m3	100
Trichloroethene	ug/m3	6
Vinyl Chloride	ug/m3	6



SV-4	Result	RL
Cis-1,2-Dichloroethene	33.6	1.00
Trichloroethene	2,620	6.01

SV-3	Result	RL
Cis-1,2-Dichloroethene	64.2	1.00
Tetrachloroethene	110	1.25
Trichloroethene	3,350	15.0

SV-1	Result	RL
Trichloroethene	53.7	0.20

SV-2	Result	RL
Cis-1,2-Dichloroethene	14.2	0.20
Tetrachloroethene	96.1	0.20
Trichloroethene	11.9	0.20

NOTES

1. ALL LOCATIONS ARE APPROXIMATE.
2. IMAGERY FROM MAPY OF SURVEY BY LEONARD J. STRANDBERG AND ASSOCIATES, MARCH 2018
3. ALL SAMPLES COLLECTED ON MARCH 18, 2019

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MAP OF SOIL VAPOR CHEMISTRY

APRIL 2019

FIGURE 6

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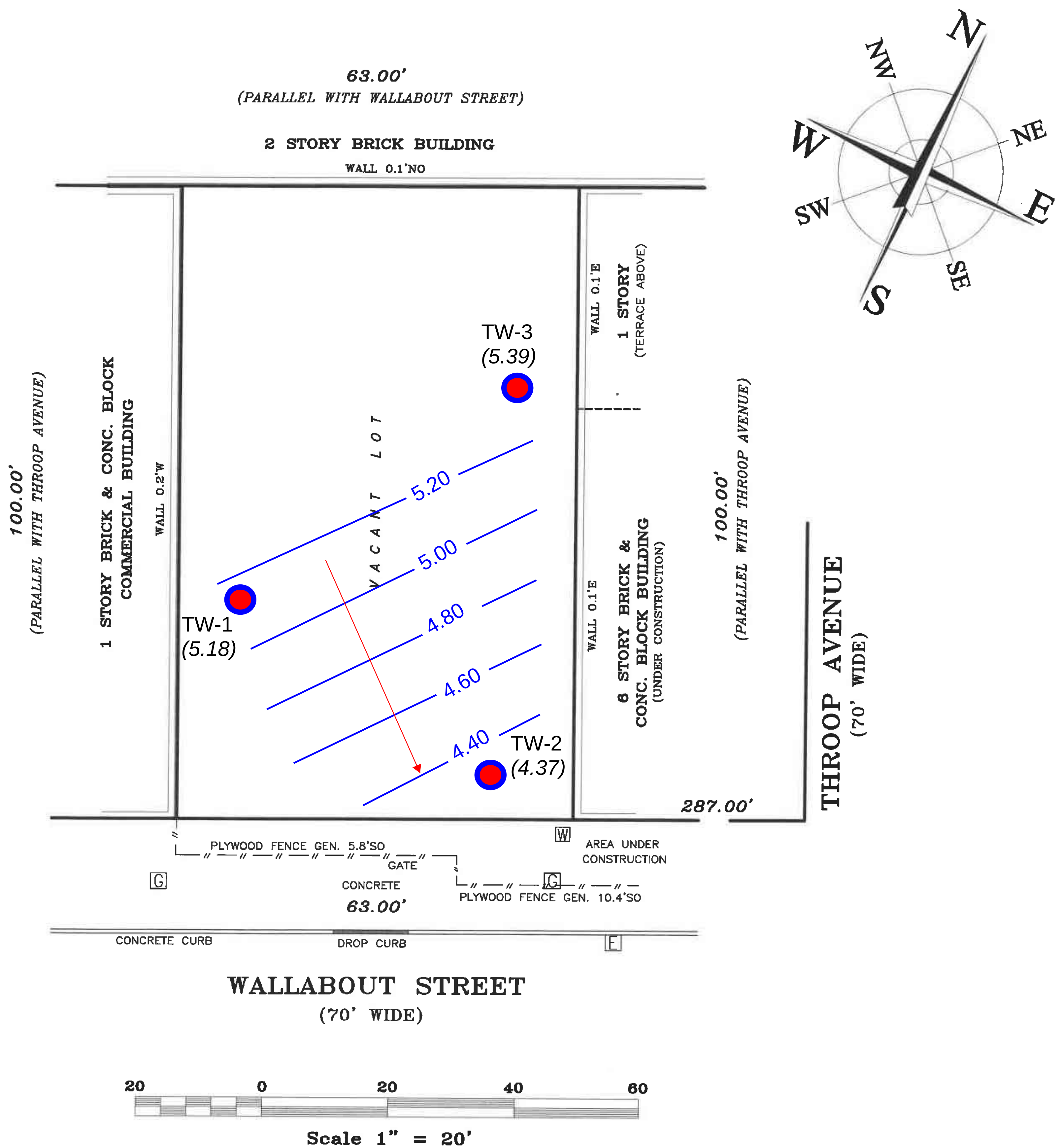

LEGEND

TEMPORARY WELL POINT

(5.39) APPROXIMATE GROUNDWATER ELEVATION (FT ASL)

5.0 GROUNDWATER ELEVATION CONTOUR LINES

GROUNDWATER FLOW DIRECTION

NOTES

1. ALL LOCATIONS ARE APPROXIMATE.
2. IMAGERY FROM MAPY OF SURVEY BY LEONARD J. STRANDBERG AND ASSOCIATES, MARCH 2018
3. APPROXIMATE GROUNDWATER ELEVATIONS DETERMINED FROM ARCHITECTURAL SURVEY BY LEONARD J. STRANDBERG AND ASSOCIATES, APRIL 2018.
4. GROUNDWATER MEASUREMENTS COLLECTED ON MARCH 18, 2019

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BROOKLYN, NEW YORK

GROUNDWATER CONTOUR MAP

APRIL 2019

FIGURE 7

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TABLES

Table 1. Soil Boring/Well Construction Information

297 Wallabout Street, Brooklyn, NY

OER Project #13EH-A304K

INSTALLATION DATE	LOCATION ID	DEPTH (FT)	DIAMETER OF BOREHOLE (IN)	CONSTRUCTION MATERIAL	SCREEN LENGTH (FT)	DEPTH TO WATER (FT)	ELEVATION (FT ASL)	GROUNDWATER ELEVATION (FT ASL)
3/18/2019	SB-1	12	2	Geoprobe	N/A	N/A	N/A	N/A
3/18/2019	SB-2	12	2	Geoprobe	N/A	N/A	N/A	N/A
3/18/2019	SB-3	12	2	Geoprobe	N/A	N/A	N/A	N/A
3/18/2019	SB-4	12	2	Geoprobe	N/A	N/A	N/A	N/A
3/18/2019	SB-5	12	2	Geoprobe	N/A	N/A	N/A	N/A
3/18/2019	TW-1	12	2	PVC	10	8.35	13.53	5.18
3/18/2019	TW-2	13	2	PVC	10	8.23	12.60	4.37
3/18/2019	TW-3	13	2	PVC	10	8.1	13.49	5.39

Notes:

Depth to groundwater collected using a Solinst water level meter

No free product observed in any temporary well point

Geoprobe 6610DT track mounted rig used to install soil borings and groundwater wells

Elevations based on architectural survey dated April 18, 2018

Table 2. Soil Analytical Results
297 Wallabout Street, Brooklyn, NY
OER Project # 19EH-A304K

Lab Sample Id				CC69596		CC69597		CC69598		CC69599		CC69590		CC69591		CC69594		CC69595		CC69592		CC69593		CC69600	
Collection Date				3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019	
Client Id				SB-1 (0-2)		SB-1 (10-12)		SB-2 (0-2)		SB-2 (10-12)		SB-3 (0-2)		SB-3 (10-12)		SB-4 (0-2)		SB-4 (10-12)		SB-5 (0-2)		SB-5 (10-12)		DUP (190318)	
Matrix				Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
	Units	NY-ResRestrict	NY-UnRestricted	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Miscellaneous/Inorganics																									
Percent Solid	%			82		82		91		85		86		93		89		80		87		81		84	
Metals, Total																									
Aluminum	mg/Kg			5,430	59	8,050	62	9,090	52	4,510	59	5,200	57	11,000	53	8,660	51	5,850	59	7,450	59	14,100	59	6,740	55
Antimony	mg/Kg			< 3.9	3.9	< 4.1	4.1	< 3.5	3.5	< 3.9	3.9	< 3.8	3.8	< 3.5	3.5	< 3.4	3.4	< 4.0	4.0	< 3.9	3.9	< 4.0	4.0	< 3.7	3.7
Arsenic	mg/Kg	16	13	2.02	0.78	3.47	0.82	2.08	0.70	1.01	0.78	< 0.76	0.76	3.58	0.71	1.78	0.68	1.71	0.79	8.69	0.79	9.81	0.79	1.36	0.73
Barium	mg/Kg	400	350	190	0.39	44.7	0.41	57.5	0.35	21.1	0.39	17.3	0.38	65.5	0.35	54.4	0.34	27.5	0.40	373	0.39	82.2	0.40	19.8	0.37
Beryllium	mg/Kg	72	7.2	< 0.31	0.31	0.41	0.33	0.47	0.28	< 0.31	0.31	< 0.30	0.30	0.48	0.28	0.38	0.27	0.35	0.32	0.36	0.31	1.07	0.32	0.4	0.29
Cadmium	mg/Kg	4.3	2.5	0.51	0.39	< 0.41	0.41	0.47	0.35	< 0.39	0.39	< 0.38	0.38	0.44	0.35	1.07	0.34	< 0.40	0.40	1.55	0.39	0.67	0.40	< 0.37	0.37
Calcium	mg/Kg			76,300	59	1,470	6.2	14,500	52	1,780	5.9	451	5.7	11,100	53	8,530	5.1	905	5.9	38,300	59	1,390	5.9	1,310	5.5
Chromium	mg/Kg		30	11.1	0.39	20.3	0.41	24.7	0.35	19.2	0.39	62.3	0.38	27.6	0.35	34.3	0.34	12.7	0.40	48.7	0.39	39.4	0.40	31	0.37
Cobalt	mg/Kg			2.72	0.39	7.32	0.41	8.86	0.35	3.37	0.39	5.38	0.38	9.12	0.35	7.5	0.34	6.93	0.40	6.69	0.39	7.83	0.40	4.52	0.37
Copper	mg/kg	270	50	11.6	0.8	11.7	0.8	23.6	0.7	8.6	0.8	9.6	0.8	28.6	0.7	33.1	0.7	10.8	0.8	90.1	0.8	24.9	0.8	9.5	0.7
Iron	mg/Kg			7,200	5.9	12,400	62	22,700	52	6,900	5.9	8,630	5.7	20,500	53	20,800	51	9,970	59	25,500	59	32,800	59	8,970	5.5
Lead	mg/Kg	400	63	420	3.9	8.55	0.41	14.3	0.35	33.2	0.39	2.78	0.38	14.4	0.35	103	0.34	5.4	0.40	796	3.9	13.3	0.40	6.72	0.37
Magnesium	mg/Kg			3,550	5.9	2,520	6.2	3,620	5.2	1,150	5.9	1,530	5.7	5,670	53	4,000	5.1	1,820	5.9	5,700	5.9	4,120	5.9	1,300	5.5
Manganese	mg/Kg	2,000	1,600	155	0.39	134	0.41	413	3.5	80	0.39	81.2	0.38	483	3.5	378	3.4	132	0.40	342	3.9	137	0.40	141	0.37
Mercury	mg/Kg	0.81	0.18	0.33	0.03	< 0.03	0.03	< 0.03	0.03	< 0.03	0.03	< 0.03	0.03	< 0.03	0.03	0.16	0.03	< 0.03	0.03	1.19	0.08	< 0.03	0.03	< 0.03	0.03
Nickel	mg/Kg	310	30	5.9	0.39	14.3	0.41	23.9	0.35	14.7	0.39	159	3.8	30.3	0.35	42.7	0.34	10.8	0.40	45.4	0.39	21.5	0.40	29.5	0.37
Potassium	mg/Kg			1,120	5.9	1,100	6.2	1,520	5.2	481	5.9	731	5.7	2,280	5.3	1,290	5.1	990	5.9	1,250	5.9	2,060	5.9	651	5.5
Selenium	mg/Kg	180	3.9	< 1.6	1.6	< 1.6	1.6	< 1.4	1.4	< 1.6	1.6	< 1.5	1.5	< 1.4	1.4	< 1.4	1.4	< 1.6	1.6	< 1.6	1.6	< 1.6	1.6	< 1.5	1.5
Silver	mg/Kg	180	2	< 0.39	0.39	< 0.41	0.41	< 0.35	0.35	< 0.39	0.39	< 0.38	0.38	< 0.35	0.35	< 0.34	0.34	< 0.40	0.40	< 0.39	0.39	< 0.40	0.40	< 0.37	0.37
Sodium	mg/Kg			1,160	5.9	102	6.2	375	5.2	101	5.9	50.5	5.7	939	5.3	137	5.1	58.7	5.9	426	5.9	111	5.9	79.3	5.5
Thallium	mg/Kg			< 3.5	3.5	< 3.7	3.7	< 3.1	3.1	< 3.5	3.5	< 3.4	3.4	< 3.2	3.2	< 3.0	3.0	< 3.6	3.6	< 3.5	3.5	< 3.6	3.6	< 3.3	3.3
Vanadium	mg/Kg			11.2	0.39	24.7	0.41	29.5	0.35	13.2	0.39	14.3	0.38	34.6	0.35	27.2	0.34	18.5	0.40	24.1	0.39	51.5	0.40	20	0.37
Zinc	mg/Kg	10,000	109	235	7.8	35.5	0.8	45.2	0.7	23.4	0.8	24.1	0.8	73	0.7	214	6.8	25.1	0.8	848	7.9	58.4	0.8	21.4	0.7

Notes:

NY-ResRestrict - NYCRR Part 375 Restricted Use SCOs

NY-UnRestricted - NYCRR Part 375 Unrestrcited Use SCOs

Yellow shaded results exceed Unrestricted Use SCOs

Red shaded results exceed both Unrestricted and Restricted Residential

< - Result not detected above the reporting limit

Table 2. Soil Analytical Results
297 Wallabout Street, Brooklyn, NY
OER Project # 19EH-A304K

Lab Sample Id				CC69596		CC69597		CC69598		CC69599		CC69590		CC69591		CC69594		CC69595		CC69592		CC69593		CC69600	
Collection Date				3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019	
Client Id				SB-1 (0-2)		SB-1 (10-12)		SB-2 (0-2)		SB-2 (10-12)		SB-3 (0-2)		SB-3 (10-12)		SB-4 (0-2)		SB-4 (10-12)		SB-5 (0-2)		SB-5 (10-12)		DUP (190318)	
Matrix				Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
	Units	NY-ResRestrict	NY-UnRestricted	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
PCBs By SW8082A																									
PCB-1016	ug/Kg		100	< 81	81	< 79	79	< 73	73	< 76	76	< 76	76	< 71	71	< 73	73	< 83	83	< 76	76	< 80	80	< 78	78
PCB-1221	ug/Kg		100	< 81	81	< 79	79	< 73	73	< 76	76	< 76	76	< 71	71	< 73	73	< 83	83	< 76	76	< 80	80	< 78	78
PCB-1232	ug/Kg		100	< 81	81	< 79	79	< 73	73	< 76	76	< 76	76	< 71	71	< 73	73	< 83	83	< 76	76	< 80	80	< 78	78
PCB-1242	ug/Kg		100	< 81	81	< 79	79	< 73	73	< 76	76	< 76	76	< 71	71	< 73	73	< 83	83	< 76	76	< 80	80	< 78	78
PCB-1248	ug/Kg		100	< 81	81	< 79	79	< 73	73	< 76	76	< 76	76	< 71	71	< 73	73	< 83	83	< 76	76	< 80	80	< 78	78
PCB-1254	ug/Kg		100	< 81	81	< 79	79	< 73	73	< 76	76	< 76	76	< 71	71	< 73	73	< 83	83	< 76	76	< 80	80	< 78	78
PCB-1260	ug/Kg		100	< 81	81	< 79	79	< 73	73	< 76	76	< 76	76	< 71	71	< 73	73	< 83	83	< 76	76	< 80	80	< 78	78
PCB-1262	ug/Kg		100	< 81	81	< 79	79	< 73	73	< 76	76	< 76	76	< 71	71	< 73	73	< 83	83	< 76	76	< 80	80	< 78	78
PCB-1268	ug/Kg		100	< 81	81	< 79	79	< 73	73	< 76	76	< 76	76	< 71	71	< 73	73	< 83	83	< 76	76	< 80	80	< 78	78
Volatiles By SW8260C																									
1,1,1,2-Tetrachloroethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,1,1-Trichloroethane	ug/Kg	100,000	680	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,1,2,2-Tetrachloroethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,1,2-Trichloroethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,1-Dichloroethane	ug/Kg	26,000	270	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,1-Dichloroethene	ug/Kg	100,000	330	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,1-Dichloropropene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,2,3-Trichlorobenzene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,2,3-Trichloropropane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,2,4-Trichlorobenzene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,2,4-Trimethylbenzene	ug/Kg	52,000	3,600	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,2-Dibromo-3-chloropropane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,2-Dibromoethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,2-Dichlorobenzene	ug/Kg	100,000	1,100	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,2-Dichloroethane	ug/Kg	3,100	20	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,2-Dichloropropane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,3,5-Trimethylbenzene	ug/Kg	52,000	8,400	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,3-Dichlorobenzene	ug/Kg	49,000	2,400	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,3-Dichloropropane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
1,4-Dichlorobenzene	ug/Kg	13,000	1,800	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
2,2-Dichloropropane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
2-Chlorotoluene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
2-Hexanone	ug/Kg			< 30	30	< 30	30	< 27	27	< 31	31	< 29	29	< 27	27	< 29	29	< 31	31	< 32	32	< 31	31	< 29	29
2-Isopropyltoluene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
4-Chlorotoluene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
4-Methyl-2-pentanone	ug/Kg			< 30	30	< 30	30	< 27	27	< 31	31	< 29	29	< 27	27	< 29	29	< 31	31	< 32	32	< 31	31	< 29	29
Acetone	ug/Kg	100,000	50	59	30	< 30	30	< 27	27	< 31	31	< 29	29	< 27	27	< 29	29	< 31	31	< 32	32	< 31	31	< 29	29
Acrylonitrile	ug/Kg			< 12	12	< 12	12	< 11	11	< 12	12	< 12	12	< 11	11	< 11	11	< 12	12	< 13	13	< 12	12	< 12	12
Benzene	ug/Kg	4,800	60	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9

Notes:

NY-ResRestrict - NYCRR Part 375 Restricted Use SCOs

NY-UnRestricted - NYCRR Part 375 Unrestrcited Use SCOs

Yellow shaded results exceed Unrestricted Use SCOs

Unrestricted and Restricted Residential Use SCOs

< - Result not detected above the reporting limit

Table 2. Soil Analytical Results
297 Wallabout Street, Brooklyn, NY
OER Project # 19EH-A304K

Lab Sample Id				CC69596		CC69597		CC69598		CC69599		CC69590		CC69591		CC69594		CC69595		CC69592		CC69593		CC69600	
Collection Date				3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019	
Client Id				SB-1 (0-2)		SB-1 (10-12)		SB-2 (0-2)		SB-2 (10-12)		SB-3 (0-2)		SB-3 (10-12)		SB-4 (0-2)		SB-4 (10-12)		SB-5 (0-2)		SB-5 (10-12)		DUP (190318)	
Matrix				Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
	Units	NY-ResRestrict	NY-UnRestricted	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Bromobenzene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Bromochloromethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Bromodichloromethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Bromoform	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Bromomethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Carbon Disulfide	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Carbon tetrachloride	ug/Kg	2,400	760	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Chlorobenzene	ug/Kg	100,000	1,100	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Chloroethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Chloroform	ug/Kg	49,000	370	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Chloromethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
cis-1,2-Dichloroethene	ug/Kg	100,000	250	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
cis-1,3-Dichloropropene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Dibromochloromethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Dibromomethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Dichlorodifluoromethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Ethylbenzene	ug/Kg	41,000	1,000	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Hexachlorobutadiene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Isopropylbenzene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
m&p-Xylene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Methyl Ethyl Ketone	ug/Kg	100,000	120	< 30	30	< 30	30	< 27	27	< 31	31	< 29	29	< 27	27	< 29	29	< 31	31	< 32	32	< 31	31	< 29	29
Methyl t-butyl ether (MTBE)	ug/Kg	100,000	930	< 12	12	< 12	12	< 11	11	< 12	12	< 12	12	< 11	11	< 11	11	< 12	12	< 13	13	< 12	12	< 12	12
Methylene chloride	ug/Kg	100,000	50	< 12	12	< 12	12	< 11	11	< 12	12	< 12	12	< 11	11	< 11	11	< 12	12	< 13	13	< 12	12	< 12	12
Naphthalene	ug/Kg	100,000	12,000	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
n-Butylbenzene	ug/Kg	100,000	12,000	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
n-Propylbenzene	ug/Kg	100,000	3,900	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
o-Xylene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
p-Isopropyltoluene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
sec-Butylbenzene	ug/Kg	100,000	11,000	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Styrene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
tert-Butylbenzene	ug/Kg	100,000	5,900	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Tetrachloroethene	ug/Kg	19,000	1,300	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Tetrahydrofuran (THF)	ug/Kg			< 12	12	< 12	12	< 11	11	< 12	12	< 12	12	< 11	11	< 11	11	< 12	12	< 13	13	< 12	12	< 12	12
Toluene	ug/Kg	100,000	700	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Total Xylenes	ug/Kg	100,000	260	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
trans-1,2-Dichloroethene	ug/Kg	100,000	190	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
trans-1,3-Dichloropropene	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
trans-1,4-dichloro-2-butene	ug/Kg			< 12	12	< 12	12	< 11	11	< 12	12	< 12	12	< 11	11	< 11	11	< 12	12	< 13	13	< 12	12	< 12	12
Trichloroethene	ug/Kg	21,000	470	7	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	220	200	< 5.4	5.4	12	5.7	12	6.2	160	130	< 6.2	6.2	< 5.9	5.9
Trichlorofluoromethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Trichlorotrifluoroethane	ug/Kg			< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9
Vinyl chloride	ug/Kg	900	20	< 6.0	6.0	< 6.1	6.1	< 5.4	5.4	< 6.2	6.2	< 5.8	5.8	< 5.4	5.4	< 5.7	5.7	< 6.2	6.2	< 6.5	6.5	< 6.2	6.2	< 5.9	5.9

Notes:

NY-ResRestrict - NYCRR Part 375 Restricted Use SCOs

NY-UnRestricted - NYCRR Part 375 Unrestrcited Use SCOs

Yellow shaded results exceed Unrestricted Use SCOs

Unrestricted and Restricted Residential Use SCOs

< - Result not detected above the reporting limit

Table 2. Soil Analytical Results
297 Wallabout Street, Brooklyn, NY
OER Project # 19EH-A304K

Lab Sample Id				CC69596		CC69597		CC69598		CC69599		CC69590		CC69591		CC69594		CC69595		CC69592		CC69593		CC69600	
Collection Date				3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019	
Client Id				SB-1 (0-2)		SB-1 (10-12)		SB-2 (0-2)		SB-2 (10-12)		SB-3 (0-2)		SB-3 (10-12)		SB-4 (0-2)		SB-4 (10-12)		SB-5 (0-2)		SB-5 (10-12)		DUP (190318)	
Matrix				Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
	Units	NY-ResRestrict	NY-UnRestricted	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Semivolatiles By SW8270D																									
1,2,4,5-Tetrachlorobenzene	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
1,2,4-Trichlorobenzene	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
1,2-Dichlorobenzene	ug/Kg	100,000	1,100	< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
1,2-Diphenylhydrazine	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
1,3-Dichlorobenzene	ug/Kg	49,000	2,400	< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
1,4-Dichlorobenzene	ug/Kg	13,000	1,800	< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
2,4,5-Trichlorophenol	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
2,4,6-Trichlorophenol	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
2,4-Dichlorophenol	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
2,4-Dimethylphenol	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
2,4-Dinitrophenol	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
2,4-Dinitrotoluene	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
2,6-Dinitrotoluene	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
2-Chloronaphthalene	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
2-Chlorophenol	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
2-Methylnaphthalene	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
2-Methylphenol (o-cresol)	ug/Kg	100,000	330	< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
2-Nitroaniline	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
2-Nitrophenol	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
3&4-Methylphenol (m&p-cresol)	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
3,3'-Dichlorobenzidine	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
3-Nitroaniline	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
4,6-Dinitro-2-methylphenol	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
4-Bromophenyl phenyl ether	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
4-Chloro-3-methylphenol	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
4-Chloroaniline	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
4-Chlorophenyl phenyl ether	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
4-Nitroaniline	ug/Kg			< 630	630	< 650	650	< 570	570	< 610	610	< 610	610	< 570	570	< 590	590	< 660	660	< 600	600	< 650	650	< 630	630
4-Nitrophenol	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Acenaphthene	ug/Kg	100,000	20,000	< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Acenaphthylene	ug/Kg	100,000	100,000	< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	330	260	< 280	280	< 280	280
Acetophenone	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Aniline	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
Anthracene	ug/Kg	100,000	100,000	< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	440	260	< 280	280	< 280	280
Benz(a)anthracene	ug/Kg	1,000	1,000	450	280	< 280	280	420	250	< 270	270	< 270	270	< 250	250	630	260	< 290	290	2,000	260	< 280	280	< 280	280
Benzidine	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Benzo(a)pyrene	ug/Kg	1,000	1,000	380	280	< 280	280	360	250	< 270	270	< 270	270	< 250	250	600	260	< 290	290	1,900	260	< 280	280	< 280	280
Benzo(b)fluoranthene	ug/Kg	1,000	1,000	310	280	< 280	280	290	250	< 270	270	< 270	270	< 250	250	560	260	< 290	290	1,800	260	< 280	280	< 280	280
Benzo(ghi)perylene	ug/Kg	100,000	100,000	280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	350	260	< 290	290	1,100	260	< 280	280	< 280	280
Benzo(k)fluoranthene	ug/Kg	3,900	800	310	280	< 280	280	280	250	< 270	270	< 270	270	< 250	250	510	260	< 290	290	1,700	260	< 280	280	< 280	280
Benzoic acid	ug/Kg			< 790	790	< 810	810	< 710	710	< 770	770	< 770	770	< 710	710	< 740	740	< 830	830	< 750	750	< 810	810	< 790	790

Notes:

NY-ResRestrict - NYCRR Part 375 Restricted Use SCOs

NY-UnRestricted - NYCRR Part 375 Unrestrcited Use SCOs

Yellow shaded results exceed Unrestricted Use SCOs

Red shaded results exceed both
Unrestricted and Restricted Residential

< - Result not detected above the reporting limit

Table 2. Soil Analytical Results
297 Wallabout Street, Brooklyn, NY
OER Project # 19EH-A304K

Lab Sample Id				CC69596		CC69597		CC69598		CC69599		CC69590		CC69591		CC69594		CC69595		CC69592		CC69593		CC69600	
Collection Date				3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019	
Client Id				SB-1 (0-2)		SB-1 (10-12)		SB-2 (0-2)		SB-2 (10-12)		SB-3 (0-2)		SB-3 (10-12)		SB-4 (0-2)		SB-4 (10-12)		SB-5 (0-2)		SB-5 (10-12)		DUP (190318)	
Matrix				Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
	Units	NY-ResRestrict	NY-UnRestricted	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Benzyl butyl phthalate	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Bis(2-chloroethoxy)methane	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Bis(2-chloroethyl)ether	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
Bis(2-chloroisopropyl)ether	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Bis(2-ethylhexyl)phthalate	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Carbazole	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
Chrysene	ug/Kg	3,900	1,000	500	280	< 280	280	450	250	< 270	270	< 270	270	< 250	250	800	260	< 290	290	2,400	260	< 280	280	< 280	280
Dibenz(a,h)anthracene	ug/Kg	330	330	< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	420	260	< 280	280	< 280	280
Dibenzofuran	ug/Kg	59,000	7,000	< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Diethyl phthalate	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Dimethylphthalate	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Di-n-butylphthalate	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
Di-n-octylphthalate	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Fluoranthene	ug/Kg	100,000	100,000	670	280	< 280	280	900	250	< 270	270	< 270	270	< 250	250	1,300	260	< 290	290	3,600	260	< 280	280	< 280	280
Fluorene	ug/Kg	100,000	30,000	< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Hexachlorobenzene	ug/Kg	1,200		< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Hexachlorobutadiene	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Hexachlorocyclopentadiene	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Hexachloroethane	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Indeno(1,2,3-cd)pyrene	ug/Kg	500	500	< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	390	260	< 290	290	1,200	260	< 280	280	< 280	280
Isophorone	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 380	380	< 280	280	< 280	280
Naphthalene	ug/Kg	100,000	12,000	< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Nitrobenzene	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
N-Nitrosodimethylamine	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
N-Nitrosodi-n-propylamine	ug/Kg			< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
N-Nitrosodiphenylamine	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
Pentachloronitrobenzene	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
Pentachlorophenol	ug/Kg	6,700	800	< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
Phenanthrene	ug/Kg	100,000	100,000	770	280	< 280	280	1,200	250	< 270	270	< 270	270	< 250	250	1,100	260	< 290	290	3,100	260	< 280	280	< 280	280
Phenol	ug/Kg	100,000	330	< 280	280	< 280	280	< 250	250	< 270	270	< 270	270	< 250	250	< 260	260	< 290	290	< 260	260	< 280	280	< 280	280
Pyrene	ug/Kg	100,000	100,000	650	280	< 280	280	870	250	< 270	270	< 270	270	< 250	250	1,300	260	< 290	290	3,500	260	< 280	280	< 280	280
Pyridine	ug/Kg			< 390	390	< 400	400	< 350	350	< 380	380	< 380	380	< 360	360	< 370	370	< 420	420	< 380	380	< 400	400	< 390	390
Pesticides - Soil By SW8081B																									
4,4' -DDD	ug/Kg	13,000	3.3	8.8	2.4	< 2.4	2.4	< 2.2	2.2	< 2.3	2.3	< 2.3	2.3	< 2.1	2.1	< 2.2	2.2	< 2.5	2.5	33	2.3	< 2.4	2.4	< 2.3	2.3
4,4' -DDE	ug/Kg	8,900	3.3	12	2.4	< 2.4	2.4	< 2.2	2.2	< 2.3	2.3	< 2.3	2.3	< 2.1	2.1	< 2.2	2.2	< 2.5	2.5	< 2.3	2.3	< 2.4	2.4	< 2.3	2.3
4,4' -DDT	ug/Kg	7,900	3.3	60	2.4	< 2.4	2.4	8.4	2.2	< 2.3	2.3	< 2.3	2.3	< 2.1	2.1	< 2.2	2.2	< 2.5	2.5	14	2.3	< 2.4	2.4	< 2.3	2.3
a-BHC	ug/Kg	480	20	< 8.1	8.1	< 7.9	7.9	< 7.3	7.3	< 7.6	7.6	< 7.6	7.6	< 7.1	7.1	< 7.3	7.3	< 8.3	8.3	< 7.6	7.6	< 8.0	8.0	< 7.8	7.8
a-Chlordane	ug/Kg	4,200	94	< 4.0	4.0	< 3.9	3.9	< 3.6	3.6	< 3.8	3.8	< 3.8	3.8	< 3.6	3.6	< 3.6	3.6	< 4.2	4.2	15	3.8	< 4.0	4.0	< 3.9	3.9
Aldrin	ug/Kg	97	5	< 4.0	4.0	< 3.9	3.9	< 3.6	3.6	< 3.8	3.8	< 3.8	3.8	< 3.6	3.6	< 3.6	3.6	< 4.2	4.2	< 3.8	3.8	< 4.0	4.0	< 3.9	3.9
b-BHC	ug/Kg	360	36	< 8.1	8.1	< 7.9	7.9	< 7.3	7.3	< 7.6	7.6	< 7.6	7.6	< 7.1	7.1	< 7.3	7.3	< 8.3	8.3	< 7.6	7.6	< 8.0	8.0	< 7.8	7.8
Chlordane	ug/Kg			82	40	< 39	39	< 36	36	< 38	38	< 38	38	< 36	36	< 36	36	< 42	42	86	38	< 40	40	< 39	39
d-BHC	ug/Kg	100,000	40	< 8.1	8.1	< 7.9	7.9	< 7.3	7.3	< 7.6	7.6	< 7.6	7.6	< 7.1	7.1	< 7.3	7.3	< 8.3	8.3	< 7.6	7.6	< 8.0	8.0	< 7.8	7.8

Notes:

NY-ResRestrict - NYCRR Part 375 Restricted Use SCOs

NY-UnRestricted - NYCRR Part 375 Unrestrcited Use SCOs

Yellow shaded results exceed Unrestricted Use SCOs

Red shaded results exceed both
Unrestricted and Restricted Residential

< - Result not detected above the reporting limit

Table 2. Soil Analytical Results
297 Wallabout Street, Brooklyn, NY
OER Project # 19EH-A304K

Lab Sample Id				CC69596		CC69597		CC69598		CC69599		CC69590		CC69591		CC69594		CC69595		CC69592		CC69593		CC69600	
Collection Date				3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019		3/18/2019	
Client Id				SB-1 (0-2)		SB-1 (10-12)		SB-2 (0-2)		SB-2 (10-12)		SB-3 (0-2)		SB-3 (10-12)		SB-4 (0-2)		SB-4 (10-12)		SB-5 (0-2)		SB-5 (10-12)		DUP (190318)	
Matrix				Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
	Units	NY-ResRestrict	NY-UnRestricted	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Dieldrin	ug/Kg	200	5	5.6	4.0	< 3.9	3.9	< 3.6	3.6	< 3.8	3.8	< 3.8	3.8	< 3.6	3.6	< 3.6	3.6	< 4.2	4.2	14	3.8	< 4.0	4.0	< 3.9	3.9
Endosulfan I	ug/Kg	24,000	2,400	< 8.1	8.1	< 7.9	7.9	< 7.3	7.3	< 7.6	7.6	< 7.6	7.6	< 7.1	7.1	< 7.3	7.3	< 8.3	8.3	< 7.6	7.6	< 8.0	8.0	< 7.8	7.8
Endosulfan II	ug/Kg	24,000	2,400	< 8.1	8.1	< 7.9	7.9	< 7.3	7.3	< 7.6	7.6	< 7.6	7.6	< 7.1	7.1	< 7.3	7.3	< 8.3	8.3	< 7.6	7.6	< 8.0	8.0	< 7.8	7.8
Endosulfan sulfate	ug/Kg	24,000	2,400	< 8.1	8.1	< 7.9	7.9	< 7.3	7.3	< 7.6	7.6	< 7.6	7.6	< 7.1	7.1	< 7.3	7.3	< 8.3	8.3	< 7.6	7.6	< 8.0	8.0	< 7.8	7.8
Endrin	ug/Kg	11,000	14	< 8.1	8.1	< 7.9	7.9	< 7.3	7.3	< 7.6	7.6	< 7.6	7.6	< 7.1	7.1	< 7.3	7.3	< 8.3	8.3	< 7.6	7.6	< 8.0	8.0	< 7.8	7.8
Endrin aldehyde	ug/Kg			< 8.1	8.1	< 7.9	7.9	< 7.3	7.3	< 7.6	7.6	< 7.6	7.6	< 7.1	7.1	< 7.3	7.3	< 8.3	8.3	< 7.6	7.6	< 8.0	8.0	< 7.8	7.8
Endrin ketone	ug/Kg			< 8.1	8.1	< 7.9	7.9	< 7.3	7.3	< 7.6	7.6	< 7.6	7.6	< 7.1	7.1	< 7.3	7.3	< 8.3	8.3	< 7.6	7.6	< 8.0	8.0	< 7.8	7.8
g-BHC	ug/Kg	1,300	100	< 1.6	1.6	< 1.6	1.6	< 1.5	1.5	< 1.5	1.5	< 1.5	1.5	< 1.4	1.4	< 1.5	1.5	< 1.7	1.7	< 1.5	1.5	< 1.6	1.6	< 1.6	1.6
g-Chlordane	ug/Kg			14	4.0	< 3.9	3.9	< 3.6	3.6	< 3.8	3.8	< 3.8	3.8	< 3.6	3.6	< 3.6	3.6	< 4.2	4.2	14	3.8	< 4.0	4.0	< 3.9	3.9
Heptachlor	ug/Kg	2,100	42	< 8.1	8.1	< 7.9	7.9	< 7.3	7.3	< 7.6	7.6	< 7.6	7.6	< 7.1	7.1	< 7.3	7.3	< 8.3	8.3	< 7.6	7.6	< 8.0	8.0	< 7.8	7.8
Heptachlor epoxide	ug/Kg			< 8.1	8.1	< 7.9	7.9	< 7.3	7.3	< 7.6	7.6	< 7.6	7.6	< 7.1	7.1	< 7.3	7.3	< 8.3	8.3	< 7.6	7.6	< 8.0	8.0	< 7.8	7.8
Methoxychlor	ug/Kg			< 40	40	< 39	39	< 36	36	< 38	38	< 38	38	< 36	36	< 36	36	< 42	42	< 38	38	< 40	40	< 39	39
Toxaphene	ug/Kg			< 160	160	< 160	160	< 150	150	< 150	150	< 150	150	< 140	140	< 150	150	< 170	170	< 150	150	< 160	160	< 160	160

Notes:

NY-ResRestrict - NYCRR Part 375 Restricted Use SCOs

NY-UnRestricted - NYCRR Part 375 Unrestrcited Use SCOs

Yellow shaded results exceed Unrestricted Use SCOs

Red shaded results exceed both Unrestricted and Restricted Residential Use SCOs

< - Result not detected above the reporting limit

Table 3. Groundwater Analytical Results
297 Wallabout Street, Brooklyn, NY
OER Project # 19EH-A304K

Lab Sample Id / Collection Date / Client Id / Matrix			CC69573 3/18/2019 TW-1 Ground Water		CC69572 3/18/2019 TW-2 Ground Water		CC69571 3/18/2019 TW-3 Ground Water	
	Units	NY-AWQS	Result	RL	Result	RL	Result	RL
Metals, Total								
Aluminum	mg/L	0.1	12	0.010	9.96	0.010	4.61	0.010
Antimony	mg/L	0.003	0.005	0.003	< 0.003	0.003	0.011	0.003
Arsenic	mg/L	0.025	0.013	0.004	< 0.004	0.004	0.008	0.004
Barium	mg/L	1	0.126	0.002	0.078	0.002	0.136	0.002
Beryllium	mg/L	0.003	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001
Cadmium	mg/L	0.005	0.001	0.001	< 0.001	0.001	< 0.001	0.001
Calcium	mg/L		376	0.10	74.5	0.010	194	0.10
Chromium	mg/L	0.05	0.034	0.001	0.041	0.001	0.025	0.001
Cobalt	mg/L		0.007	0.002	0.006	0.002	0.02	0.002
Copper	mg/L	0.2	0.024	0.005	0.017	0.005	0.036	0.005
Iron	mg/L	0.3	23.2	0.010	10.1	0.010	35.6	0.010
Lead	mg/L	0.025	0.016	0.002	0.005	0.002	0.005	0.002
Magnesium	mg/L	35	53.5	0.010	7.36	0.010	12.1	0.010
Manganese	mg/L	0.3	0.158	0.001	1.88	0.001	2.67	0.010
Mercury	mg/L	0.0007	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002
Nickel	mg/L	0.1	0.02	0.001	0.04	0.001	0.069	0.001
Potassium	mg/L		21.8	0.1	7.5	0.1	14.5	0.1
Selenium	mg/L	0.01	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010
Silver	mg/L	0.05	< 0.001	0.001	< 0.001	0.001	< 0.002	0.002
Sodium	mg/L	20	53.3	1.0	59.5	1.0	55.2	1.0
Thallium	mg/L	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005
Vanadium	mg/L		0.032	0.002	0.027	0.002	0.013	0.002
Zinc	mg/L	5	0.119	0.004	0.025	0.004	0.016	0.004
Metals, Dissolved								
Aluminum (Dissolved)	mg/L	0.1	0.089	0.011	0.045	0.011	0.072	0.011
Antimony (Dissolved)	mg/L	0.003	< 0.003	0.003	< 0.003	0.003	< 0.003	0.003
Arsenic (Dissolved)	mg/L	0.025	< 0.004	0.004	< 0.004	0.004	< 0.004	0.004
Barium (Dissolved)	mg/L	1	0.055	0.002	0.029	0.002	0.092	0.002
Beryllium (Dissolved)	mg/L	0.003	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001
Cadmium (Dissolved)	mg/L	0.005	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001
Calcium (Dissolved)	mg/L		330	0.11	68.8	0.01	171	0.11
Chromium (Dissolved)	mg/L	0.05	0.003	0.001	< 0.001	0.001	< 0.001	0.001
Cobalt (Dissolved)	mg/L		< 0.001	0.001	< 0.001	0.001	0.015	0.001
Copper (Dissolved)	mg/L	0.2	0.005	0.005	< 0.005	0.005	< 0.005	0.005
Thallium (Dissolved)	mg/L	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005
Iron (Dissolved)	mg/L	0.3	< 0.011	0.011	< 0.011	0.011	9.72	0.011
Lead (Dissolved)	mg/L	0.025	0.006	0.002	< 0.002	0.002	< 0.002	0.002
Magnesium (Dissolved)	mg/L	35	52.6	0.01	5.92	0.01	11.3	0.01
Manganese (Dissolved)	mg/L	0.3	0.04	0.001	1.65	0.001	2.38	0.011
Mercury (Dissolved)	mg/L	0.0007	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002
Nickel (Dissolved)	mg/L	0.1	0.003	0.001	0.014	0.001	0.044	0.001
Potassium (Dissolved)	mg/L		18.8	0.1	5.6	0.1	12.7	0.1
Selenium (Dissolved)	mg/L	0.01	< 0.01	0.01	< 0.01	0.01	< 0.01	0.01
Silver (Dissolved)	mg/L	0.05	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001
Sodium (Dissolved)	mg/L	20	53.3	1.1	65	1.1	58.4	1.1
Vanadium (Dissolved)	mg/L		< 0.002	0.002	< 0.002	0.002	< 0.002	0.002
Zinc (Dissolved)	mg/L	5	0.007	0.002	< 0.002	0.002	< 0.002	0.002
PCBs By SW8082A								
PCB-1016	ug/L	0.09	< 0.047	0.047	< 0.047	0.047	< 0.047	0.047
PCB-1221	ug/L	0.09	< 0.047	0.047	< 0.047	0.047	< 0.047	0.047

Notes:
NY-AWQS: New York TOGS 111 Ambient Water Quality Standards

Red shaded results exceed the NY-AWQS

< - Result not detected above the reporting limit

Table 3. Groundwater Analytical Results
297 Wallabout Street, Brooklyn, NY
OER Project # 19EH-A304K

Lab Sample Id			CC69573		CC69572		CC69571	
Collection Date			3/18/2019		3/18/2019		3/18/2019	
Client Id			TW-1		TW-2		TW-3	
Matrix			Ground Water		Ground Water		Ground Water	
	Units	NY-AWQS	Result	RL	Result	RL	Result	RL
PCB-1232	ug/L	0.09	< 0.047	0.047	< 0.047	0.047	< 0.047	0.047
PCB-1242	ug/L	0.09	< 0.047	0.047	< 0.047	0.047	< 0.047	0.047
PCB-1248	ug/L	0.09	< 0.047	0.047	< 0.047	0.047	< 0.047	0.047
PCB-1254	ug/L	0.09	< 0.047	0.047	< 0.047	0.047	< 0.047	0.047
PCB-1260	ug/L	0.09	< 0.047	0.047	< 0.047	0.047	< 0.047	0.047
PCB-1262	ug/L		< 0.047	0.047	< 0.047	0.047	< 0.047	0.047
PCB-1268	ug/L		< 0.047	0.047	< 0.047	0.047	< 0.047	0.047
Volatiles By SW8260C								
1,1,1,2-Tetrachloroethane	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1,1-Trichloroethane	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1,2,2-Tetrachloroethane	ug/L	5	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50
1,1,2-Trichloroethane	ug/L	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1-Dichloroethane	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1-Dichloroethene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1-Dichloropropene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2,3-Trichlorobenzene	ug/L		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2,3-Trichloropropane	ug/L	0.04	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2,4-Trichlorobenzene	ug/L		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2,4-Trimethylbenzene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2-Dibromo-3-chloropropane	ug/L	0.04	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2-Dibromoethane	ug/L	0.0006	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2-Dichlorobenzene	ug/L		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2-Dichloroethane	ug/L	0.6	< 0.60	0.60	< 0.60	0.60	< 0.60	0.60
1,2-Dichloropropane	ug/L	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3,5-Trimethylbenzene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3-Dichlorobenzene	ug/L	3	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3-Dichloropropane	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,4-Dichlorobenzene	ug/L		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2,2-Dichloropropane	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2-Chlorotoluene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2-Hexanone	ug/L	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
2-Isopropyltoluene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
4-Chlorotoluene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
4-Methyl-2-pentanone	ug/L		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Acetone	ug/L	50	< 25	25	< 25	25	< 25	25
Acrylonitrile	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Benzene	ug/L	1	< 0.70	0.70	< 0.70	0.70	< 0.70	0.70
Bromobenzene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromochloromethane	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromodichloromethane	ug/L	50	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50
Bromoform	ug/L	50	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromomethane	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Carbon Disulfide	ug/L		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Carbon tetrachloride	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Chlorobenzene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Chloroethane	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Chloroform	ug/L	7	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Chloromethane	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
cis-1,2-Dichloroethene	ug/L	5	< 1.0	1.0	11	1.0	7.6	1.0
cis-1,3-Dichloropropene	ug/L	0.4	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40
Dibromochloromethane	ug/L	50	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50

Notes:
NY-AWQS: New York TOGS 111 Ambient Water Quality Standards

Red shaded results exceed the NY-AWQS

< - Result not detected above the reporting limit

Table 3. Groundwater Analytical Results
297 Wallabout Street, Brooklyn, NY
OER Project # 19EH-A304K

Lab Sample Id / Collection Date / Client Id / Matrix			CC69573 / 3/18/2019 / TW-1 / Ground Water		CC69572 / 3/18/2019 / TW-2 / Ground Water		CC69571 / 3/18/2019 / TW-3 / Ground Water	
	Units	NY-AWQS	Result	RL	Result	RL	Result	RL
Dibromomethane	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Dichlorodifluoromethane	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Ethylbenzene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Hexachlorobutadiene	ug/L	0.5	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40
Isopropylbenzene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
m&p-Xylene	ug/L		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Methyl ethyl ketone	ug/L	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Methyl t-butyl ether (MTBE)	ug/L		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Methylene chloride	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Naphthalene	ug/L	10	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
n-Butylbenzene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
n-Propylbenzene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
o-Xylene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
p-Isopropyltoluene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
sec-Butylbenzene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Styrene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
tert-Butylbenzene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Tetrachloroethene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Tetrahydrofuran (THF)	ug/L	50	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5
Toluene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Total Xylenes	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
trans-1,2-Dichloroethene	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
trans-1,3-Dichloropropene	ug/L	0.4	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40
trans-1,4-dichloro-2-butene	ug/L	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Trichloroethene	ug/L	5	< 1.0	1.0	6.5	1.0	2.6	1.0
Trichlorofluoromethane	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Trichlorotrifluoroethane	ug/L	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Vinyl chloride	ug/L	2	< 1.0	1.0	4.2	1.0	6.2	1.0
Semivolatiles By SW8270D								
1,2,4,5-Tetrachlorobenzene	ug/L		< 3.3	3.3	< 3.3	3.3	< 3.3	3.3
1,2,4-Trichlorobenzene	ug/L		< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
1,2-Dichlorobenzene	ug/L		< 2.4	2.4	< 2.4	2.4	< 2.4	2.4
1,2-Diphenylhydrazine	ug/L		< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
1,3-Dichlorobenzene	ug/L	3	< 2.4	2.4	< 2.4	2.4	< 2.4	2.4
1,4-Dichlorobenzene	ug/L		< 2.4	2.4	< 2.4	2.4	< 2.4	2.4
2,4,5-Trichlorophenol	ug/L	1	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
2,4,6-Trichlorophenol	ug/L	1	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
2,4-Dichlorophenol	ug/L	5	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
2,4-Dimethylphenol	ug/L	1	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
2,4-Dinitrophenol	ug/L	5	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
2,4-Dinitrotoluene	ug/L	5	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
2,6-Dinitrotoluene	ug/L	5	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
2-Chloronaphthalene	ug/L	10	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
2-Chlorophenol	ug/L	1	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
2-Methylphenol (o-cresol)	ug/L	1	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
2-Nitroaniline	ug/L	5	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
2-Nitrophenol	ug/L	1	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
3&4-Methylphenol (m&p-cresol)	ug/L		< 9.4	9.4	< 9.4	9.4	< 9.4	9.4
3,3'-Dichlorobenzidine	ug/L	5	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
3-Nitroaniline	ug/L	5	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
4,6-Dinitro-2-methylphenol	ug/L	1	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94

Notes:
NY-AWQS: New York TOGS 111 Ambient Water Quality Standards
Red shaded results exceed the NY-AWQS
< - Result not detected above the reporting limit

Table 3. Groundwater Analytical Results
297 Wallabout Street, Brooklyn, NY
OER Project # 19EH-A304K

Lab Sample Id			CC69573		CC69572		CC69571	
Collection Date			3/18/2019		3/18/2019		3/18/2019	
Client Id			TW-1		TW-2		TW-3	
Matrix			Ground Water		Ground Water		Ground Water	
	Units	NY-AWQS	Result	RL	Result	RL	Result	RL
4-Bromophenyl phenyl ether	ug/L		< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
4-Chloro-3-methylphenol	ug/L	1	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
4-Chloroaniline	ug/L	5	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
4-Chlorophenyl phenyl ether	ug/L		< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
4-Nitroaniline	ug/L	5	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
4-Nitrophenol	ug/L	1	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
Acetophenone	ug/L		< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
Aniline	ug/L	5	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
Benzidine	ug/L	5	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
Benzoic acid	ug/L		< 47	47	< 47	47	< 47	47
Benzyl butyl phthalate	ug/L	50	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
Bis(2-chloroethoxy)methane	ug/L	5	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
Bis(2-chloroethyl)ether	ug/L	1	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
Bis(2-chloroisopropyl)ether	ug/L		< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
Bis(2-ethylhexyl)phthalate	ug/L	5	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
Carbazole	ug/L		< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
Dibenzofuran	ug/L		< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
Diethyl phthalate	ug/L	50	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
Dimethylphthalate	ug/L	50	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
Di-n-butylphthalate	ug/L	50	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
Di-n-octylphthalate	ug/L	50	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
Hexachloroethane	ug/L	5	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
Isophorone	ug/L	50	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
N-Nitrosodi-n-propylamine	ug/L		< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
N-Nitrosodiphenylamine	ug/L	50	< 4.7	4.7	< 4.7	4.7	< 4.7	4.7
Pentachloronitrobenzene	ug/L		< 2.4	2.4	< 2.4	2.4	< 2.4	2.4
Phenol	ug/L	1	< 0.94	0.94	< 0.94	0.94	< 0.94	0.94
Semivolatiles (SIM) By SW8270D (SIM)								
2-Methylnaphthalene	ug/L		< 0.47	0.47	< 0.47	0.47	< 0.47	0.47
Acenaphthene	ug/L	20	< 0.47	0.47	< 0.47	0.47	< 0.47	0.47
Acenaphthylene	ug/L		< 0.47	0.47	< 0.47	0.47	< 0.47	0.47
Anthracene	ug/L	50	< 0.47	0.47	< 0.47	0.47	< 0.47	0.47
Benz(a)anthracene	ug/L	0.002	0.03	0.02	< 0.02	0.02	< 0.02	0.02
Benzo(a)pyrene	ug/L		< 0.02	0.02	< 0.02	0.02	< 0.02	0.02
Benzo(b)fluoranthene	ug/L	0.002	0.02	0.02	< 0.02	0.02	< 0.02	0.02
Benzo(ghi)perylene	ug/L		< 0.47	0.47	< 0.47	0.47	< 0.47	0.47
Benzo(k)fluoranthene	ug/L	0.002	< 0.02	0.02	< 0.02	0.02	< 0.02	0.02
Chrysene	ug/L	0.002	0.03	0.02	< 0.02	0.02	< 0.02	0.02
Dibenz(a,h)anthracene	ug/L		< 0.47	0.47	< 0.47	0.47	< 0.47	0.47
Fluoranthene	ug/L	50	< 0.47	0.47	< 0.47	0.47	< 0.47	0.47
Fluorene	ug/L	50	< 0.47	0.47	< 0.47	0.47	< 0.47	0.47
Hexachlorobenzene	ug/L	0.04	< 0.04	0.04	< 0.04	0.04	< 0.04	0.04
Hexachlorobutadiene	ug/L	0.5	< 0.47	0.47	< 0.47	0.47	< 0.47	0.47
Hexachlorocyclopentadiene	ug/L	5	< 0.47	0.47	< 0.47	0.47	< 0.47	0.47
Indeno(1,2,3-cd)pyrene	ug/L	0.002	< 0.02	0.02	< 0.02	0.02	< 0.02	0.02
Naphthalene	ug/L	10	0.84	0.47	< 0.47	0.47	< 0.47	0.47
Nitrobenzene	ug/L	0.4	< 0.38	0.38	< 0.38	0.38	< 0.38	0.38
N-Nitrosodimethylamine	ug/L		< 0.47	0.47	< 0.47	0.47	< 0.47	0.47
Pentachlorophenol	ug/L	1	< 0.47	0.47	< 0.47	0.47	< 0.47	0.47
Phenanthrene	ug/L	50	0.87	0.47	< 0.47	0.47	< 0.47	0.47
Pyrene	ug/L	50	< 0.47	0.47	< 0.47	0.47	< 0.47	0.47
Pyridine	ug/L	50	< 0.47	0.47	< 0.47	0.47	< 0.47	0.47

Notes:
NY-AWQS: New York TOGS 111 Ambient Water Quality Standards
Red shaded results exceed the NY-AWQS
< - Result not detected above the reporting limit

Table 3. Groundwater Analytical Results
297 Wallabout Street, Brooklyn, NY
OER Project # 19EH-A304K

Lab Sample Id Collection Date Client Id Matrix			CC69573 3/18/2019 TW-1 Ground Water		CC69572 3/18/2019 TW-2 Ground Water		CC69571 3/18/2019 TW-3 Ground Water	
	Units	NY-AWQS	Result	RL	Result	RL	Result	RL
Pesticides By SW8081B								
4,4' -DDD	ug/L	0.3	< 0.009	0.009	< 0.009	0.009	< 0.009	0.009
4,4' -DDE	ug/L	0.2	< 0.009	0.009	< 0.009	0.009	< 0.009	0.009
4,4' -DDT	ug/L	0.2	< 0.009	0.009	0.017	0.009	< 0.009	0.009
a-BHC	ug/L	0.01	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005
a-chlordane	ug/L		< 0.009	0.009	< 0.009	0.009	< 0.009	0.009
Alachlor	ug/L	0.5	< 0.071	0.071	< 0.071	0.071	< 0.071	0.071
Aldrin	ug/L		< 0.001	0.001	< 0.004	0.004	< 0.001	0.001
b-BHC	ug/L	0.04	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005
Chlordane	ug/L	0.05	< 0.050	0.050	< 0.05	0.05	< 0.05	0.05
d-BHC	ug/L	0.04	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005
Dieldrin	ug/L	0.004	< 0.001	0.001	< 0.004	0.004	< 0.001	0.001
Endosulfan I	ug/L		< 0.009	0.009	< 0.009	0.009	< 0.009	0.009
Endosulfan II	ug/L		< 0.009	0.009	< 0.009	0.009	< 0.009	0.009
Endosulfan Sulfate	ug/L		< 0.009	0.009	< 0.009	0.009	< 0.009	0.009
Endrin	ug/L		< 0.009	0.009	< 0.009	0.009	< 0.009	0.009
Endrin Aldehyde	ug/L	5	< 0.009	0.009	< 0.009	0.009	< 0.009	0.009
Endrin ketone	ug/L	5	< 0.009	0.009	< 0.009	0.009	< 0.009	0.009
g-BHC (Lindane)	ug/L	0.05	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005
g-chlordane	ug/L		< 0.009	0.009	< 0.009	0.009	< 0.009	0.009
Heptachlor	ug/L	0.04	< 0.009	0.009	< 0.009	0.009	< 0.009	0.009
Heptachlor epoxide	ug/L	0.03	< 0.009	0.009	< 0.009	0.009	< 0.009	0.009
Methoxychlor	ug/L	35	< 0.094	0.094	< 0.094	0.094	< 0.094	0.094
Toxaphene	ug/L	0.06	< 0.24	0.24	< 0.24	0.24	< 0.24	0.24
1,4-dioxane By SW8270DSIM								
1,4-dioxane	ug/l		-	-	-	-	< 0.20	0.20
PFOA/PFAS by EPA 537								
Perfluorobutanesulfonic acid (PFBS)	ng/l		-	-	-	-	2.5	<2.0
Perfluorohexanoic acid (PFHxA)	ng/l		-	-	-	-	6.5	<2.0
Perfluoroheptanoic acid (PFHpA)	ng/l		-	-	-	-	3.2	<2.0
Perfluorobutanoic acid (PFBA)	ng/l		-	-	-	-	<2.0	<2.0
Perfluorodecanesulfonic acid (PFDS)	ng/l		-	-	-	-	<2.0	<2.0
Perfluoroheptanesulfonic acid (PFHpS)	ng/l		-	-	-	-	<2.0	<2.0
Perfluorooctanesulfonamide (FOSA)	ng/l		-	-	-	-	<2.0	<2.0
Perfluoropentanoic acid (PFPeA)	ng/l		-	-	-	-	7.4	<2.0
6:2 Fluorotelomersulfonate (6:2 FTS)	ng/l		-	-	-	-	<2.0	<2.0
8:2 Fluorotelomersulfonate (8:2 FTS)	ng/l		-	-	-	-	<2.0	<2.0
Perfluorohexanesulfonic acid (PFHxS)	ng/l		-	-	-	-	<2.0	<2.0
Perfluorooctanoic acid (PFOA)	ng/l		-	-	-	-	12	<2.0
Perfluorooctanesulfonic acid (PFOS)	ng/l		-	-	-	-	6.6	<2.0
Perfluorononanoic acid (PFNA)	ng/l		-	-	-	-	<2.0	<2.0
Perfluorodecanoic acid (PFDA)	ng/l		-	-	-	-	<2.0	<2.0
N-MeFOSAA	ng/l		-	-	-	-	<2.0	<2.0
Perfluoroundecanoic acid (PFUnA)	ng/l		-	-	-	-	<2.0	<2.0
N-EtFOSAA	ng/l		-	-	-	-	<2.0	<2.0
Perfluorododecanoic acid (PFDoA)	ng/l		-	-	-	-	<2.0	<2.0
Perfluorotridecanoic acid (PFTrDA)	ng/l		-	-	-	-	<2.0	<2.0
Perfluorotetradecanoic acid (PFTA)	ng/l		-	-	-	-	<2.0	<2.0

Notes:
NY-AWQS: New York TOGS 111 Ambient Water Quality Standards

Red shaded results exceed the NY-AWQS

< - Result not detected above the reporting limit

Table 4. Soil Vapor Analytical Results

297 Wallabout Street, Brooklyn, NY

OER Project # 19EH-A304K

Lab Sample Id			CC69577		CC69575		CC69576		CC69578	
Collection Date			3/18/2019		3/18/2019		3/18/2019		3/18/2019	
Client Id			SV-1		SV-2		SV-3		SV-4	
Matrix			Air		Air		Air		Air	
Sample Depth			7 ft		7 ft		7 ft		7 ft	
	Units	NYSDOH VI Sub-Slab Vapor Guidance	Result	RL	Result	RL	Result	RL	Result	RL
1,1,1,2-Tetrachloroethane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
1,1,1-Trichloroethane	ug/m3	100	< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
1,1,2,2-Tetrachloroethane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
1,1,2-Trichloroethane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
1,1-Dichloroethane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.02	5.02	< 5.02	5.02
1,1-Dichloroethene	ug/m3	6	< 0.20	0.20	0.27	0.20	< 1.00	1.00	< 1.00	1.00
1,2,4-Trichlorobenzene	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
1,2,4-Trimethylbenzene	ug/m3		3.29	1.00	< 1.00	1.00	< 5.01	5.01	< 5.01	5.01
1,2-Dibromoethane(EDB)	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
1,2-Dichlorobenzene	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
1,2-Dichloroethane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.02	5.02	< 5.02	5.02
1,2-dichloropropane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 4.99	4.99	< 4.99	4.99
1,2-Dichlorotetrafluoroethane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
1,3,5-Trimethylbenzene	ug/m3		1.7	1.00	< 1.00	1.00	< 5.01	5.01	< 5.01	5.01
1,3-Butadiene	ug/m3		< 1.00	1.00	2.52	1.00	< 5.00	5.00	< 5.00	5.00
1,3-Dichlorobenzene	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
1,4-Dichlorobenzene	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
1,4-Dioxane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.01	5.01	< 5.01	5.01
2-Hexanone(MBK)	ug/m3		< 1.00	1.00	< 1.00	1.00	< 4.99	4.99	< 4.99	4.99
4-Ethyltoluene	ug/m3		6.83	1.00	< 1.00	1.00	< 5.01	5.01	< 5.01	5.01
4-Isopropyltoluene	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
4-Methyl-2-pentanone(MIBK)	ug/m3		< 1.00	1.00	< 1.00	1.00	< 4.99	4.99	< 4.99	4.99
Acetone	ug/m3		71.5	1.00	10.2	1.00	62	5.01	94.2	5.01
Acrylonitrile	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.01	5.01	< 5.01	5.01
Benzene	ug/m3		5.52	1.00	2.54	1.00	7.25	5.01	< 5.01	5.01
Benzyl chloride	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
Bromodichloromethane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
Bromoform	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
Bromomethane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.01	5.01	< 5.01	5.01
Carbon Disulfide	ug/m3		1.64	1.00	< 1.00	1.00	5.57	5.01	< 5.01	5.01
Carbon Tetrachloride	ug/m3	6	0.36	0.20	0.4	0.20	< 1.00	1.00	< 1.00	1.00
Chlorobenzene	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.01	5.01	< 5.01	5.01
Chloroethane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.01	5.01	< 5.01	5.01
Chloroform	ug/m3		< 1.00	1.00	2.23	1.00	34.1	4.98	< 4.98	4.98
Chloromethane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 4.99	4.99	< 4.99	4.99
Cis-1,2-Dichloroethene	ug/m3	6	2.34	0.20	14.2	0.20	64.2	1.00	33.6	1.00
cis-1,3-Dichloropropene	ug/m3		< 1.00	1.00	< 1.00	1.00	< 4.99	4.99	< 4.99	4.99
Cyclohexane	ug/m3		19.7	1.00	< 1.00	1.00	< 4.99	4.99	< 4.99	4.99
Dibromochloromethane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
Dichlorodifluoromethane	ug/m3		2.34	1.00	2.63	1.00	< 4.99	4.99	< 4.99	4.99
Ethanol	ug/m3		37.3	1.00	7.57	1.00	35.4	5.01	49.9	5.01
Ethyl acetate	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.01	5.01	< 5.01	5.01
Ethylbenzene	ug/m3		20.4	1.00	< 1.00	1.00	< 4.99	4.99	< 4.99	4.99
Heptane	ug/m3		15.1	1.00	< 1.00	1.00	15.4	5.00	44.2	5.00
Hexachlorobutadiene	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
Hexane	ug/m3		5.53	1.00	1.41	1.00	14.9	5.00	6.06	5.00
Isopropylalcohol	ug/m3		14.7	1.00	1.18	1.00	13.9	5.01	16.6	5.01
Isopropylbenzene	ug/m3		9.73	1.00	< 1.00	1.00	< 5.01	5.01	< 5.01	5.01
m,p-Xylene	ug/m3		25.8	1.00	1.19	1.00	< 4.99	4.99	8.29	4.99
Methyl Ethyl Ketone	ug/m3		22.1	1.00	2.42	1.00	16.5	5.01	22.5	5.01
Methyl tert-butyl ether(MTBE)	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.01	5.01	< 5.01	5.01
Methylene Chloride	ug/m3	100	< 3.00	3.00	< 3.00	3.00	< 15.0	15.0	< 15.0	15.0
n-Butylbenzene	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
o-Xylene	ug/m3		15	1.00	< 1.00	1.00	< 4.99	4.99	184	4.99
Propylene	ug/m3		< 1.00	1.00	18.7	1.00	< 5.01	5.01	< 5.01	5.01
sec-Butylbenzene	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
Styrene	ug/m3		< 1.00	1.00	< 1.00	1.00	< 4.98	4.98	< 4.98	4.98
Tetrachloroethene	ug/m3	100	3.25	0.25	1.9	0.25	110	1.25	63.2	1.25
Tetrahydrofuran	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.01	5.01	< 5.01	5.01
Toluene	ug/m3		24.6	1.00	2.12	1.00	7.87	5.01	7.76	5.01
Trans-1,2-Dichloroethene	ug/m3		< 1.00	1.00	< 1.00	1.00	5.31	4.99	< 4.99	4.99
trans-1,3-Dichloropropene	ug/m3		< 1.00	1.00	< 1.00	1.00	< 4.99	4.99	< 4.99	4.99
Trichloroethene	ug/m3	6	53.7	0.20	96.1	0.20	3,350	15.0	2,620	6.01
Trichlorofluoromethane	ug/m3		1.91	1.00	2.52	1.00	330	5.00	15.9	5.00
Trichlorotrifluoroethane	ug/m3		< 1.00	1.00	< 1.00	1.00	< 5.00	5.00	< 5.00	5.00
Vinyl Chloride	ug/m3	6	< 0.20	0.20	11.9	0.20	< 1.00	1.00	1.66	1.00

Notes:

NYSDOH VI Sub-Slab Vapor Guidance - 2006 NYSDOH Soil Vapor Intrusion Guidance Decision Matrices

Red shaded results exceed NYSDOH sub-slab vapor no further action guidance values

< - Result not detected above the reporting limit

APPENDIX A

HEALTH & SAFETY PLAN

HALEY & ALDRICH, INC.

SITE-SPECIFIC SAFETY PLAN

FOR

297 Wallabout Street
Project/File No. 133156-005

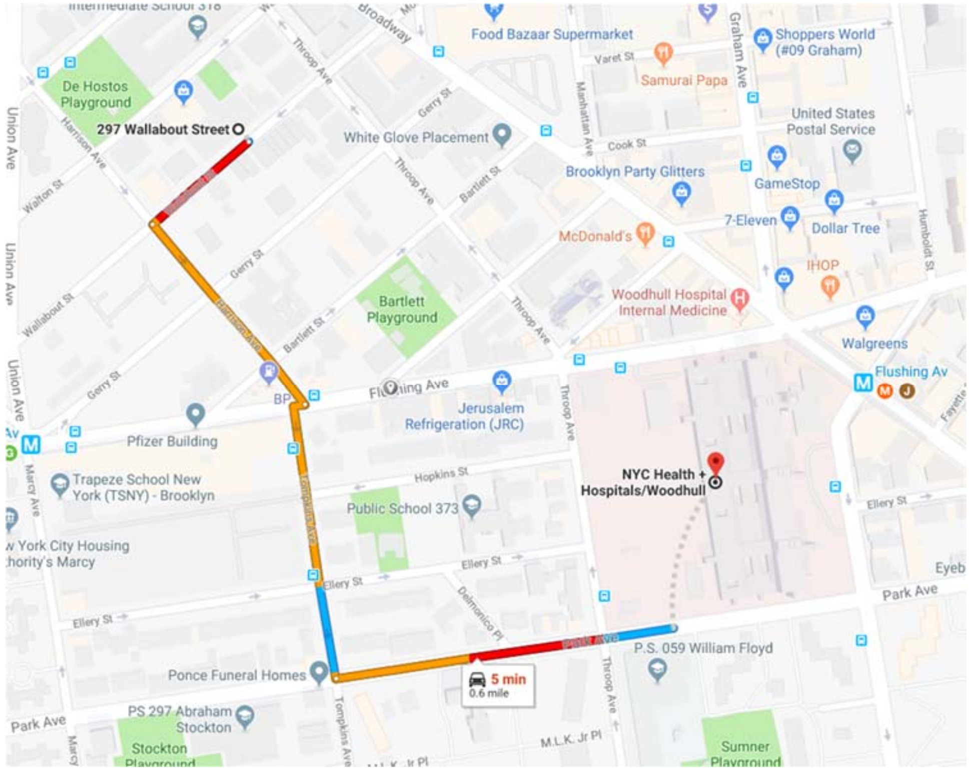
Prepared By: Conlon, Mari	**Date: 03-13-2019**

EMERGENCY INFORMATION

Project Name: 297 Wallabout Street	**H&A File No:** 133156-005
Location: 295-297 Wallabout Street, Brooklyn, NY	
Client/Site Contact: Phone Number: Emergency Phone Number:	Rock Brokerage Moshe Monheit 718-858-6655
Contractor: **Superintendent:** Phone Number:	Coastal Environmental Solutions (under contact by client) Marc Morgenstern 631-319-6536
H&A Project Manager: Office Phone Number: Cell Phone Number:	Conlon, Mari Cate 646.277.5688 347.271.1521
Regional Health & Safety Manager: Office Phone Number: Cell Phone Number:	Ferguson, Brian 617.886.7439 617.908.2761
Nearest Hospital: Address: (see map on next page) Phone Number:	**NYC Health + Hospitals/Woodhull** 760 Broadway, Brooklyn, NY 11206 718-963-8000
Nearest Occ. Health Clinic: Address: (see map on next page) Phone Number	**ModernMD Urgent Care** 68 Graham Avenue, Brooklyn, NY 11206 646-604-8120
Liberty Mutual Claim Policy	**WC7-Z11-254100-039**
Other Local Emergency Response Number:	911
Other Ambulance, Fire, Police, or Environmental Emergency Resources:	911

Emergency Hospital

NYC Health + Hospitals/Woodhull
760 Broadway
Brooklyn, NY 11206
718-963-8000



5 min (0.6 mile)

via Tompkins Ave and Park Ave

Fastest route, despite the usual traffic

---

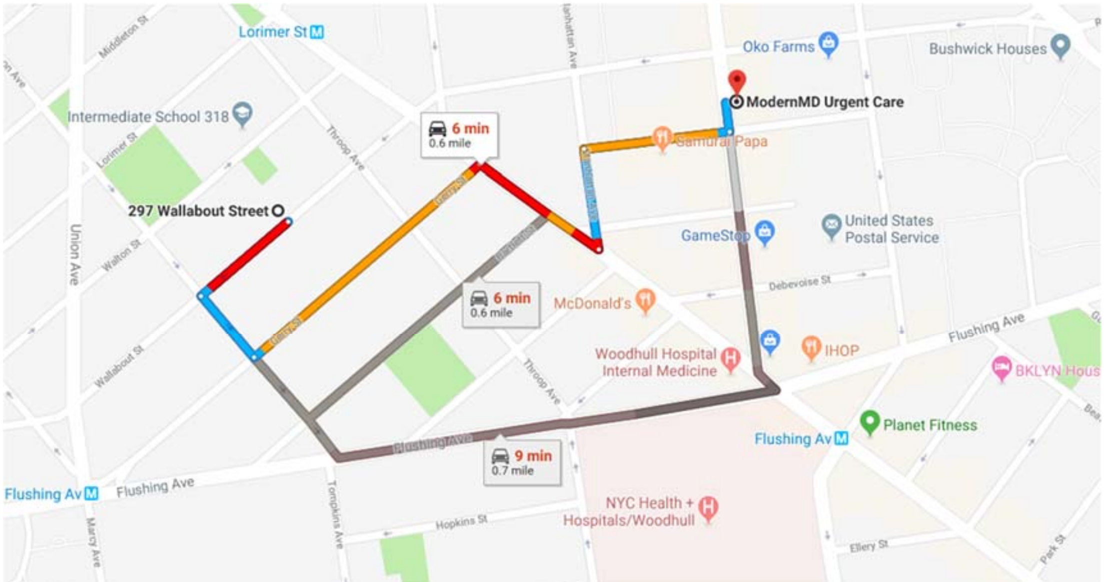
297 Wallabout St
Brooklyn, NY 11206

- Head southwest on Wallabout St toward Harrison Ave
  374 ft
- Turn left at the 1st cross street onto Harrison Ave
  0.1 mi
- Continue onto Tompkins Ave
  0.2 mi
- Turn left onto Park Ave
  0.2 mi

NYC Health + Hospitals/Woodhull
760 Broadway, Brooklyn, NY 11206

Clinic

ModernMD Urgent Care
68 Graham Avenue, Brooklyn, NY 11206
646-604-8120



6 min (0.6 mile)

via Gerry St

Fastest route, despite the usual traffic

297 Wallabout St
Brooklyn, NY 11206

Head southwest on Wallabout St toward Harrison Ave

374 ft

Turn left at the 1st cross street onto Harrison Ave

269 ft

Turn left at the 1st cross street onto Gerry St

0.2 mi

Turn right at the 2nd cross street onto Broadway

479 ft

Turn left onto Manhattan Ave

331 ft

Turn right onto Varet St

479 ft

Turn left after Bank of America Financial Center (on the left)

Destination will be on the right

95 ft

ModernMD Urgent Care
68 Graham Ave, Brooklyn, NY 11206

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.

TABLE OF CONTENTS

ADMINISTRATIVE INFORMATION

Project Name	297 Wallabout Street	**Project Number**	133156-005
Project Start Date	3/18/2019	**Project End Date**	12-31-2019
Client Site/Contact: Phone:	Moshe Monheit 718-858-6655		
H&A Project Manager: Office Phone Number: Cell Phone Number:	Conlon, Mari Cate 646.277.5688 347.271.1521		
H&A Site Safety Officer: Office Phone Number: Cell Phone Number:	Conlon, Mari Cate 646.277.5688 347.271.1521		
Subcontractor: Phone: Emergency Phone number:	Coastal Environmental Solutions 631-319-6536 516-587-9570		

APPROVALS: The following signatures constitute approval of this Health & Safety Plan

Electronic Signature

Site Project Manager — Date 3.14.19

Corporate H&S — Date 3.14.19

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.

PROJECT INFORMATION

Site Overview/History

Site Classification	Vacant	**Site Status**	Vacant/Undeveloped	**Regulatory Authority**	OSHA

Project Summary

The approximately 6,300 square-foot lot is identified as Brooklyn Block 2250, Lot 45. The project is currently within a New York City Office of Environmental Remediation (NYCOER) E Designation area, specifically E-238 Broadway Triangle Rezoning. We understand the planned development will consist of one seven-story residential building with a total footprint at ground level covering the entire lot.

Scope of Work: Remedial Investigation, Waste Characterization, Remedial Oversight

Project Tasks

Task 1	Task Name**: Remedial Investigation**
Oversee installation of 5 soil borings, 3 temporary well points and 4 soil vapor sampling probes by Coastal Environmental Solutions using a direct push geoprobe rig. Collect soil samples, groundwater samples and soil vapor samples into laboratory provided containers. Coastal Environmental Solutions will provide a one call markout prior to drilling. Please note that Coastal Environmental Solutions is under contract by client.	
Start Date: 3-18-2019	End Date: 3-18-2019
H&A Site Supervisor: Conlon, Mari Cate	Subcontractor: Coastal Environmental Solutions

Task 2	Task Name**: Waste Characterization Sampling**
Collect composite waste characterization 5-point grab samples concurrently with the Remedial Investigation.	
Start Date: 3-18-2019	End Date: 3-18-2019
H&A Site Supervisor: Conlon, Mari Cate	Subcontractor: N/A

Task 3	Task Name**: Remedial Oversight**
Perform remedial oversight during implementation of the approved remedy including community air monitoring.	
Start Date: 4-2019	End Date 12-2019
H&A Site Supervisor: Conlon, Mari Cate	Subcontractor: N/A

HAZARD ASSESSMENT AND CONTROLS

The following site and task specific hazards have been identified. Associated controls have been defined and are also listed below.

Site Hazards and Controls

Site Hazard Summary		
Slips, Trips, Falls	SIMOPS	Cold Temperatures
Sun		

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 should also meet the ANSI Z87.1 standard for safety glasses.
- Use natural or artificial shade, where possible.

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

<u>Frostbite</u>: 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 <u>NOT</u>:

- 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

<u>Hypothermia:</u> 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.

Simultaneous Operations (SIMOPS)

SIMOPS are described as the potential class of activities which could bring about an undesired event or set of circumstances, e.g., safety, environment, damage to assets, schedule, commercial, financial, etc. SIMOPS are defined as performing two or more operations concurrently.

It is important that SIMOPS are identified at an early stage before operations commence to understand issues such as schedule clashes, physical clashes, maintenance activities, failure impacts, interferences between vessels, contracts and third part interfaces and environmental impacts.

SIMOPS can occur when H&A projects are executed at active facilities (e.g., installing a monitoring well in a parking lot of a manufacturing plant).
Controls
• Coordinate project with site activities.
• Identify and understand the hazards associated with the host/client's activities.
• Integrate site emergency response protocols where appropriate and communicate to all project staff.
• Integrate site communication protocols and communicate to all project staff.

Slips and Trips
Slip and trip injuries are the most frequent injuries to workers. Statistics show that the majority of falls happen on the same level resulting from slips and trips. 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), awareness of surroundings, selection of proper footwear, and appropriate pace of walking are critical for 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 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
• Keep work areas clean and free of clutter
• Communicate hazards to on-site personnel – remove hazards as appropriate

Task Specific Hazards

TASK 1

Task 1 – Remedial Investigation – Drilling, such as associated with installation of soil borings, temporary wells and soil vapor probes, is conducted for a range of services. Familiarity with basic drilling safety is an essential component of all drilling projects. Potential hazards related to drilling operations include, but are not limited to encountering underground or overhead utilities, traffic and heavy equipment, hoisting heavy tools, steel impacts, open rotation entanglement, and the planned or unexpected encountering of toxic or hazardous substances. While staff members do not operate drilling equipment, they may work in close proximity to operating drilling 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			
Overhead Utilities	Ground Disturbance	Underground Utilities	Noise
Line of Fire	Generated Waste	Ergonomics	Heavy Equipment

TASK 2

Task 2 – Waste Characterization Sampling – Waste characterization sampling 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	Ground Disturbance	Ergonomics	Heavy Equipment
Line of Fire	Generated Waste		

TASK 3

Task 3 – 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

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 OPS1020 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 should 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.

TASK PPE AND SAFETY EQUIPMENT

The personal protective equipment and safety equipment (if listed) is specific to the associated task. The required PPE and equipment listed must be on site during the task being performed. Work shall not commence unless the required PPE is present.

The purpose of PPE is to provide a barrier, which will shield or isolate staff members from the physical, biological, chemical, and/or radiological hazards that may be encountered during task activities.

Required PPE	TASK 1, 2 and 3
Hard hat	**X**
Safety glasses	**X**
Hard-toed Boots	**X**
Gloves	**X**
Long pants and 4" long sleeve shirt	**X**
Safety vest (Class 2)	**X**
Hearing Protection	**X**

TRAINING REQUIREMENTS

The table below lists the training requirements staff must have respective to their assigned tasks and that required to access the site.

<table>
<tr><th colspan="2">Task Specific Training</th></tr>
<tr><td rowspan="4">Required Training: OSHA 40-hour HAZWOPER, On Site training</td><td>TASK 1</td></tr>
<tr><td>Remedial Investigation</td></tr>
<tr><td>TASK 2</td></tr>
<tr><td>Waste Characterization Sampling</td></tr>
<tr><td rowspan="2">Required Training: OSHA 40-hour HAZWOPER, OSHA 10-hr Construction Safety, On Site training</td><td>Task 3</td></tr>
<tr><td>Remedial Oversight</td></tr>
</table>

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.

Communication

Internal

H&A site personnel will communicate with other H&A staff member and/or subcontractors or contractors with:

- Face-to-Face Communication
- Cell Phones

External

H&S site personnel will use the following means to communicate with off-site personnel or emergency services.

- Cell Phones

SPILL CONTAINMENT

An evaluation was conducted to determine the potential for hazardous substance spills at this site. This evaluation indicates that there is no potential for a hazardous spill of sufficient size to require containment planning, equipment, and procedures.

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 SHSO 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 SHSO.
- Comfort the individual until ambulance service arrives.
- While the injured employee is being transported, the H&A SHSO 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 SHSO 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 SHSOs 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 SHSO;
- 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 HEALTH & SAFETY OFFICER

The SHSO, Mari Cate Conlon, is responsible for field implementation of this HASP and enforcement of safety rules and regulations. SHSO 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 SHSO 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 SHSO 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 SHSO 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 SHSO 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 SHSO;
- Complying with the requirements of this safety plan and the requests of the SHSO; 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.

SUBCONTRACTOR

Subcontractor Site Representative

Each ***contractor and subcontractor*** shall designate a ***Contractor Site Representative***. The Contractor Site Representative will interface directly with the Subcontractor Site Safety Manager, with regards to all areas that relate to this safety plan and safety performance of work conducted by the ***contractor and/or subcontractor*** workforce. ***Contractor Site Representatives*** for this site are listed in the Contact Summary Table at the beginning of the Safety Plan.

Subcontractor Site Safety Manager

Each contractor / subcontractor will provide a qualified representative who will act as their Site Safety Manager (Sub-SSM). This person will be responsible for the planning, coordination, and safe execution of subcontractor tasks, including preparation of job hazard analyses (JHA), performing daily safety planning, and coordinating directly with the Haley & Aldrich SHSO for other site safety activities. This person will play a lead role in safety planning for Subcontractor tasks, and in ensuring that all their employees and lower tier subcontractors are in adherence with applicable local, state, and/or federal regulations, and/or industry and project specific safety standards or best management practices.

General contractors / subcontractors are responsible for preparing a site-specific HASP and/or other task specific safety documents (e.g., JHAs), which are, at a minimum, in compliance with local, state, and/or federal other regulations, and/or industry and project specific safety standards or best management practices. The contractors/subcontractors safety documentation will be at least as stringent as the health and safety requirements of the Haley & Aldrich Project specific Health & Safety Plan.

Safety requirements include, but are not limited to: legal requirements, contractual obligations and industry best practices. Contractors/subcontractors will identify a site safety representative during times when contractor/subcontractor personnel are on the Site. All contractor/subcontractor personnel will undergo a field safety orientation conducted by the Haley & Aldrich SHSO and/or PM prior to commencing site work activities. All contractors / subcontractors will participate in Haley & Aldrich site safety meetings and their personnel will be subject to training and monitoring requirements identified in this Safety Plan. If the contractors / subcontractors means and methods deviate from the scope of work described in Section 1 of this Safety Plan, the alternate means and methods must be submitted, reviewed and approved by the Haley & Aldrich SHSO and/or PM prior to the commencement of the work task. Once approved by the Haley & Aldrich SHSO and/or PM, the alternate means and methods submittal will be attached to this Safety Plan as an Addendum.

APPENDICES

Appendix A - Task Hazards Summary (***Task summaries are included only if there is more than one task)***

Task 1

Appendix B – Permits and Forms

Appendix C – HASP Acknowledgement Form

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

APPENDIX B

SOIL BORING GEOLOGIC LOGS

HALEY & ALDRICH

TEST BORING REPORT

BORING NO. **SB-1**

Page 1 of 1

PROJECT	297 Wallabout Street	H&A FILE NO.	133156-005
LOCATION	297 Wallabout Street, Brooklyn, NY	PROJECT MGR.	Mari Conlon
CLIENT	Rock Brokerage	FIELD REP.	Mari Conlon
CONTRACTOR	Coastal Environmental Solutions	DATE STARTED	3/18/2019
DRILLER	Coastal Environmental Solutions	DATE FINISHED	3/18/2019

Elevation 13.72 ft. Datum NAVD-88 Boring Location SB-1

Item	Casing	Sampler	Core Barrel
Type	-		
Inside Diameter (in.)	2		
Hammer Weight (lb.)	-		
Hammer Fall (in.)	-		

Rig Make & Model: 6610DT

- ☐ Truck ☐ Tripod ☐ Cat-Head
- ☐ ATV ☑ Geoprobe ☐ Winch
- ☑ Track ☐ Air Track ☐ Roller Bit
- ☐ Skid ☐ ________ ☐ Cutting Head

Hammer Type: ☐ Safety ☐ Doughnut ☑ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☑ None

Casing Advance — Type Method Depth: -

Drilling Notes:

Depth (ft.)	Recovery (ft.)	Client ID	Sample Depth (ft)	Sample ID	Visual-Manual Identification & Description	PID (ppm)
0	3	SB-1(0-2)	0-2	G	**0-5'** Tan to off-white medium SAND, some medium to fine gravel, trace silt and pebbles up to 0.5 inches diameter, no odor or stain	0.2, 0.2, 0.1, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0
5	5			G	**5-9'** Light brown firm, CLAY and some silt, moist, no odor or stain	0.0, 0.0, 0.0, Wet
					9-12' Brown medium to coarse SAND, trace silt, moist, no odor or stain	
10	2.5	SB-1(10-12)	10-12	G		
12						

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Boring	Water
3/18/2019	855	-	12	7

Sample ID

- **O** Open End Rod
- **T** Thin Wall Tube
- **U** Undisturbed Sample
- **S** Split Spoon Sample
- **G** Geoprobe

Summary

Overburden (Linear ft.)	12
Rock Cored (Linear ft.)	0
Number of Samples	2
BORING NO.	1

***NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.**

NOTE: Soil descriptions based on a modified Burmister method of visual-manual identification as practiced by Haley & Aldrich, Inc.

TEST BORING REPORT

HALEY & ALDRICH

BORING NO. SB-2

Page 1 of 1

PROJECT	297 Wallabout Street	**H&A FILE NO.**	133156-005
LOCATION	297 Wallabout Street, Brooklyn, NY	**PROJECT MGR.**	Mari Conlon
CLIENT	Rock Brokerage	**FIELD REP.**	Mari Conlon
CONTRACTOR	Coastal Environmental Solutions	**DATE STARTED**	3/18/2019
DRILLER	Coastal Environmental Solutions	**DATE FINISHED**	3/18/2019

Elevation 13.55 ft. **Datum** NAVD-88 **Boring Location** SB-2

Item	Casing	Sampler	Core Barrel
Type	-		
Inside Diameter (in.)	2		
Hammer Weight (lb.)	-		
Hammer Fall (in.)	-		

Rig Make & Model: 6610DT

- ☐ Truck ☐ Tripod ☐ Cat-Head
- ☐ ATV ☑ Geoprobe ☐ Winch
- ☑ Track ☐ Air Track ☐ Roller Bit
- ☐ Skid ☐ ________ ☐ Cutting Head

Hammer Type: ☐ Safety ☐ Doughnut ☑ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☑ None

Casing Advance Type Method Depth: -

Drilling Notes:

Depth (ft.)	Recovery (ft.)	Client ID	Sample Depth (ft)	Sample ID	Visual-Manual Identification & Description	PID (ppm)
0	2.5	SB-2(0-2)	0-2	G	**0-1'** Dark brown medium sand and some pebbles and cement fragments up to 0.5 inches diameter; no odor or stain	1.0, 0.0, 0.0
					1-5' Dark brown medium SAND, trace pebbles up to 0.5 inches diameter, no odor or stain	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0
5	5			G	**5-8'** Light brown firm, CLAY and some silt, moist, no odor or stain	0.0, 0.0, 0.0, Wet
					8-12' Brown medium to coarse SAND, trace silt, moist, no odor or stain	
10	3	SB-2(10-12) DUP-190318	10-12	G		
13						

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Boring	Water
3/18/2019	930	-	13	7

Sample ID

- **O** Open End Rod
- **T** Thin Wall Tube
- **U** Undisturbed Sample
- **S** Split Spoon Sample
- **G** Geoprobe

Summary

Overburden (Linear ft.)	13
Rock Cored (Linear ft.)	0
Number of Samples	3

BORING NO. 2

***NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.**

NOTE: Soil descriptions based on a modified Burmister method of visual-manual identification as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

BORING NO. **SB-3**

Page 1 of 1

PROJECT	297 Wallabout Street	H&A FILE NO.	133156-005
LOCATION	297 Wallabout Street, Brooklyn, NY	PROJECT MGR.	Mari Conlon
CLIENT	Rock Brokerage	FIELD REP.	Mari Conlon
CONTRACTOR	Coastal Environmental Solutions	DATE STARTED	3/18/2019
DRILLER	Coastal Environmental Solutions	DATE FINISHED	3/18/2019

Elevation 13.58 ft. Datum NAVD-88 Boring Location SB-3

Item	Casing	Sampler	Core Barrel	Rig Make & Model: 6610DT			Hammer Type	Drilling Mud	Casing Advance
Type	-			☐ Truck	☐ Tripod	☐ Cat-Head	☐ Safety	☐ Bentonite	Type Method Depth
Inside Diameter (in.)	2			☐ ATV	☑ Geoprobe	☐ Winch	☐ Doughnut	☐ Polymer	-
Hammer Weight (lb.)	-			☑ Track	☐ Air Track	☐ Roller Bit	☑ Automatic	☑ None	
Hammer Fall (in.)	-			☐ Skid	☐ _________	☐ Cutting Head	Drilling Notes:		

Depth (ft.)	Recovery (ft.)	Client ID	Sample Depth (ft)	Sample ID	Visual-Manual Identification & Description	PID (ppm)
0	3	SB-3(0-2)	0-2	G	**0-0.5'** Brown medium sand and some pebbles and cement fragments up to 0.5 inches diameter; no odor or stain	0.0 0.0 0.1
					1-4' Brown medium SAND, trace silt and pebbles up to 0.5 inches diameter, no odor or stain	0.0 0.0 0.0 0.0 0.0
					4-5' Brown medium SAND, trace silt and brick fragments up to 1 inch, diameter, no odor or stain	0.0 0.0
5	5			G	**5-11'** Light brown fine to medium SAND, trace silt, no odor or stain	0.0 0.0 0.0 Wet
					11-12' Light brown-gray fine to medium SAND, trace silt, moist, no odor or stain	
10	3	SB-3(10-12)	10-12	G		
13						

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Boring	Water
3/18/2019	740	-	13	7

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Summary

Overburden (Linear ft.) 13
Rock Cored (Linear ft.) 0
Number of Samples 2

BORING NO. 3

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil descriptions based on a modified Burmister method of visual-manual identification as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

BORING NO. **SB-4**

PROJECT	297 Wallabout Street	H&A FILE NO.	133156-005
LOCATION	297 Wallabout Street, Brooklyn, NY	PROJECT MGR.	Mari Conlon
CLIENT	Rock Brokerage	FIELD REP.	Mari Conlon
CONTRACTOR	Coastal Environmental Solutions	DATE STARTED	3/18/2019
DRILLER	Coastal Environmental Solutions	DATE FINISHED	3/18/2019

Elevation 13.35 ft. Datum NAVD-88 Boring Location SB-4

Item	Casing	Sampler	Core Barrel
Type	-		
Inside Diameter (in.)	2		
Hammer Weight (lb.)	-		
Hammer Fall (in.)	-		

Rig Make & Model: 6610DT
- ☐ Truck ☐ Tripod ☐ Cat-Head
- ☐ ATV ☑ Geoprobe ☐ Winch
- ☑ Track ☐ Air Track ☐ Roller Bit
- ☐ Skid ☐ ________ ☐ Cutting Head

Hammer Type: ☐ Safety ☐ Doughnut ☑ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☑ None

Casing Advance Type Method Depth: -

Drilling Notes:

Depth (ft.)	Recovery (ft.)	Client ID	Sample Depth (ft)	Sample ID	Visual-Manual Identification & Description	PID (ppm)
0	2.5	SB-4(0-2)	0-2	G	**0-1'** Brown medium sand and some pebbles and cement fragments up to 0.5 inches diameter; no odor or stain	0.0
						0.0
						12.5
					1-5.5' Brown medium SAND, trace silt and red brick fragments up to 0.5 inches diameter, no odor or stain	11.4
						0.0
						0.0
						0.0
						0.0
						0.0
						0.0
5	5			G	**5.5-12'** Light brown medium to coarse SAND, trace silt, moist, no odor or stain	0.0
						0.0
						Wet
10	3	SB-4(10-12)	10-12	G		
13						

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Boring	Water
3/18/2019	830	-	13	6.5

Sample ID

- **O** Open End Rod
- **T** Thin Wall Tube
- **U** Undisturbed Sample
- **S** Split Spoon Sample
- **G** Geoprobe

Summary

Overburden (Linear ft.)	13
Rock Cored (Linear ft.)	0
Number of Samples	2

BORING NO. 4

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil descriptions based on a modified Burmister method of visual-manual identification as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

BORING NO. **SB-5**

Page 1 of 1

PROJECT	297 Wallabout Street	H&A FILE NO.	133156-005
LOCATION	297 Wallabout Street, Brooklyn, NY	PROJECT MGR.	Mari Conlon
CLIENT	Rock Brokerage	FIELD REP.	Mari Conlon
CONTRACTOR	Coastal Environmental Solutions	DATE STARTED	3/18/2019
DRILLER	Coastal Environmental Solutions	DATE FINISHED	3/18/2019

Elevation 13.67 ft. Datum NAVD-88 Boring Location SB-5

Item	Casing	Sampler	Core Barrel
Type	-		
Inside Diameter (in.)	2		
Hammer Weight (lb.)	-		
Hammer Fall (in.)	-		

Rig Make & Model: 6610DT

- ☐ Truck ☐ Tripod ☐ Cat-Head
- ☐ ATV ☑ Geoprobe ☐ Winch
- ☑ Track ☐ Air Track ☐ Roller Bit
- ☐ Skid ☐ ________ ☐ Cutting Head

Hammer Type	Drilling Mud	Casing Advance
☐ Safety	☐ Bentonite	Type Method Depth
☐ Doughnut	☐ Polymer	-
☑ Automatic	☑ None	

Drilling Notes:

Depth (ft.)	Recovery (ft.)	Client ID	Sample Depth (ft)	Sample ID	Visual-Manual Identification & Description	PID (ppm)
0	2.5	SB-5(0-2)	0-2	G	**0-0.5'** Brown medium sand and some pebbles and cement fragments up to 0.5 inches diameter; no odor or stain	1.2, 0.0, 0.0
					0.5-5' Brown medium SAND, trace silt and pebbles up to 0.5 inches diameter, no odor or stain	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0
5	5			G	**5-12'** Light brown to tan firm CLAY and some silt, moist, no odor or stain	0.0, 0.0, Wet
10	3	SB-5(10-12)	10-12	G		
13						

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Boring	Depth in feet to: Water
3/18/2019	755	-	13	6.5

Sample ID

- **O** Open End Rod
- **T** Thin Wall Tube
- **U** Undisturbed Sample
- **S** Split Spoon Sample
- **G** Geoprobe

Summary

Overburden (Linear ft.)	13
Rock Cored (Linear ft.)	0
Number of Samples	2

BORING NO. 5

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil descriptions based on a modified Burmister method of visual-manual identification as practiced by Haley & Aldrich, Inc.

APPENDIX C

GROUNDWATER PURGE LOGS

297 Wallabout Street, Brooklyn, NY
Well Purge Logs

Well ID:	TW-1	**Date:**	3/18/2019
Well Dept (ft):	12	**Pump:**	Peristaltic
Static Water Level (ft):	8.35	**Personnel:**	M. Conlon
Water Column Height (ft):	3.65		
Well Volume (gal):	0.595		
Flow rate:	250 mL/min		

Time	Time Elapsed (min)	Flow Rate	Gal Removed	Color	Comments
11:30	0	250 mL/min	0.4	Turbid	
11:35	5	250 mL/min	0.7	Turbid	
11:40	10	250 mL/min	1.1	Cloudy	
11:45	15	250 mL/min	1.4	Slightly Cloudy	
11:50	20	250 mL/min	1.8	Slightly Cloudy	
11:55	25	250 mL/min	2.1	Very Slightly Cloudy	
12:00	30	250 mL/min	2.5	Very Slightly Cloudy	Sample

297 Wallabout Street, Brooklyn, NY
Well Purge Logs

Well ID: TW-2

Well Dept (ft): 13

Static Water Level (ft): 8.23

Water Column Height (ft): 4.77

Well Volume (gal): 0.778

Flow rate: 350 mL/min

Date: 3/18/2019

Pump: Peristaltic

Personnel: M. Conlon

Time	Time Elapsed (min)	Flow Rate	Gal Removed	Color	Comments
10:30	0	350 mL/min	0.5	Turbid	
10:35	5	350 mL/min	0.9	Turbid	
10:40	10	350 mL/min	1.4	Turbid	
10:45	15	350 mL/min	1.8	Cloudy	
10:50	20	350 mL/min	2.3	Slightly Cloudy	
10:55	25	350 mL/min	2.7	Very Slightly Cloudy	
11:00	30	350 mL/min	3.2	Very Slightly Cloudy	Sample

297 Wallabout Street, Brooklyn, NY
Well Purge Logs

Well ID:	TW-3	**Date:**	3/18/2019
Well Dept (ft):	13	**Pump:**	Peristaltic
Static Water Level (ft):	8.1	**Personnel:**	M. Conlon
Water Column Height (ft):	4.9		
Well Volume (gal):	0.799		
Flow rate:	350 mL/min		

Time	Time Elapsed (min)	Flow Rate	Gal Removed	Color	Comments
8:05	0	350 mL/min	0.5	Turbid	
8:10	5	350 mL/min	0.9	Turbid	
8:15	10	350 mL/min	1.4	Turbid	
8:20	15	350 mL/min	1.8	Cloudy	
8:25	20	350 mL/min	2.3	Cloudy	
8:30	25	350 mL/min	2.7	Cloudy	
8:35	30	350 mL/min	3.2	Very Slightly Cloudy	
8:40	35	350 mL/min	3.6	Very Slightly Cloudy	Sample

APPENDIX D

SOIL VAPOR SAMPLE LOGS

Soil Vapor Sample Logs

Site: 297 Wallabout Street
Date: 43542
Personnel: M Conlon
Weather: 40 degress, partly cloudy
Humidity: 45%
Atmospheric Pressure: 30.4 in

Sample ID	Canister ID	Canisert Size	Flow Controller ID	Sample Start Time	Canister Start Pressure ("Hg)	Sample End Time	Canister End Pressure ("Hg)	Sample Start Date	Sample Type	Analyses Method
SV-1	28585	6L	2966	9:01	-30	11:08	-4	3/18/2019	Soil Gas	TO-15
SV-2	28579	6L	3501	9:30	-29	11:15	0	3/18/2019	Soil Gas	TO-15
SV-3	28559	6L	5593	8:08	-30	10:10	-5	3/18/2019	Soil Gas	TO-15
SV-4	28556	6L	0161	8:35	-30	10:35	-4	3/18/2019	Soil Gas	TO-15

Notes:
Summas and flow regulators provided by Phoenix Enviornmental Laboratory
Analyses for VOCs by Method TO-15 completed by Phoenix Enviornmental Laboratory

APPENDIX E

LABORATORY DATA DELIVERABLES FOR SOIL, GROUNDWATER AND SOIL VAPOR ANALYTICAL DATA

Wednesday, March 27, 2019

Attn: Moshe Monheit
Rock Brokerage
170 Lee Avenue
Brooklyn NY 11211

Project ID: 297 WALLABOUT
SDG ID: GCC69590
Sample ID#s: CC69590 - CC69600, CC69776 - CC69777

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

Sample Id Cross Reference

March 27, 2019

SDG I.D.: GCC69590

Project ID: 297 WALLABOUT

Client Id	Lab Id	Matrix
SB-3 (0-2)	CC69590	SOIL
SB-3 (10-12)	CC69591	SOIL
SB-5 (0-2)	CC69592	SOIL
SB-5 (10-12)	CC69593	SOIL
SB-4 (0-2)	CC69594	SOIL
SB-4 (10-12)	CC69595	SOIL
SB-1 (0-2)	CC69596	SOIL
SB-1 (10-12)	CC69597	SOIL
SB-2 (0-2)	CC69598	SOIL
SB-2 (10-12)	CC69599	SOIL
DUP (190318)	CC69600	SOIL
TB LL	CC69776	SOIL
TB HL	CC69777	SOIL

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

SDG Comments

March 27, 2019

SDG I.D.: GCC69590

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

CC69590 - The client provided an ENCORE sample. Phoenix prepared sample per method 5035.

CC69591 - The client provided an ENCORE sample. Phoenix prepared sample per method 5035.

CC69592 - The client provided an ENCORE sample. Phoenix prepared sample per method 5035.

CC69593 - The client provided an ENCORE sample. Phoenix prepared sample per method 5035.

CC69594 - The client provided an ENCORE sample. Phoenix prepared sample per method 5035.

CC69595 - The client provided an ENCORE sample. Phoenix prepared sample per method 5035.

CC69596 - The client provided an ENCORE sample. Phoenix prepared sample per method 5035.

CC69597 - The client provided an ENCORE sample. Phoenix prepared sample per method 5035.

CC69598 - The client provided an ENCORE sample. Phoenix prepared sample per method 5035.

CC69599 - The client provided an ENCORE sample. Phoenix prepared sample per method 5035.

CC69600 - The client provided an ENCORE sample. Phoenix prepared sample per method 5035.

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

Analysis Report

March 27, 2019

FOR: Attn: Moshe Monheit
Rock Brokerage
170 Lee Avenue
Brooklyn NY 11211

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/18/19	7:50
Location Code:	ROCKBROKE	Received by:	CP	03/18/19	17:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC69590
Phoenix ID: CC69590

Project ID: 297 WALLABOUT
Client ID: SB-3 (0-2)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.38	0.38	mg/Kg	1	03/19/19	CPP	SW6010D
Aluminum	5200	57	mg/Kg	10	03/19/19	CPP	SW6010D
Arsenic	< 0.76	0.76	mg/Kg	1	03/19/19	CPP	SW6010D
Barium	17.3	0.38	mg/Kg	1	03/19/19	CPP	SW6010D
Beryllium	< 0.30	0.30	mg/Kg	1	03/19/19	CPP	SW6010D
Calcium	451	5.7	mg/Kg	1	03/19/19	EK	SW6010D
Cadmium	< 0.38	0.38	mg/Kg	1	03/19/19	CPP	SW6010D
Cobalt	5.38	0.38	mg/Kg	1	03/19/19	CPP	SW6010D
Chromium	62.3	0.38	mg/Kg	1	03/19/19	CPP	SW6010D
Copper	9.6	0.8	mg/kg	1	03/19/19	CPP	SW6010D
Iron	8630	5.7	mg/Kg	1	03/19/19	CPP	SW6010D
Mercury	< 0.03	0.03	mg/Kg	1	03/20/19	RS	SW7471B
Potassium	731	5.7	mg/Kg	1	03/19/19	EK	SW6010D
Magnesium	1530	5.7	mg/Kg	1	03/19/19	CPP	SW6010D
Manganese	81.2	0.38	mg/Kg	1	03/19/19	CPP	SW6010D
Sodium	50.5	5.7	mg/Kg	1	03/19/19	CPP	SW6010D
Nickel	159	3.8	mg/Kg	10	03/19/19	CPP	SW6010D
Lead	2.78	0.38	mg/Kg	1	03/19/19	CPP	SW6010D
Antimony	< 3.8	3.8	mg/Kg	1	03/19/19	CPP	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	03/19/19	EK	SW6010D
Thallium	< 3.4	3.4	mg/Kg	1	03/19/19	CPP	SW6010D
Vanadium	14.3	0.38	mg/Kg	1	03/19/19	CPP	SW6010D
Zinc	24.1	0.8	mg/Kg	1	03/19/19	CPP	SW6010D
Percent Solid	86		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for Pesticides	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Mercury Digestion	Completed				03/20/19	W/I/I	SW7471B

Ver 1

Project ID: 297 WALLABOUT
Client ID: SB-3 (0-2)

Phoenix I.D.: CC69590

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG/BF	SW3050B
Polychlorinated Biphenyls							
PCB-1016	ND	76	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1221	ND	76	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1232	ND	76	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1242	ND	76	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1248	ND	76	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1254	ND	76	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1260	ND	76	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1262	ND	76	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1268	ND	76	ug/Kg	2	03/19/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	58		%	2	03/19/19	SC	30 - 150 %
% DCBP (Confirmation)	57		%	2	03/19/19	SC	30 - 150 %
% TCMX	70		%	2	03/19/19	SC	30 - 150 %
% TCMX (Confirmation)	67		%	2	03/19/19	SC	30 - 150 %
Pesticides - Soil							
4,4' -DDD	ND	2.3	ug/Kg	2	03/19/19	CW	SW8081B
4,4' -DDE	ND	2.3	ug/Kg	2	03/19/19	CW	SW8081B
4,4' -DDT	ND	2.3	ug/Kg	2	03/19/19	CW	SW8081B
a-BHC	ND	7.6	ug/Kg	2	03/19/19	CW	SW8081B
a-Chlordane	ND	3.8	ug/Kg	2	03/19/19	CW	SW8081B
Aldrin	ND	3.8	ug/Kg	2	03/19/19	CW	SW8081B
b-BHC	ND	7.6	ug/Kg	2	03/19/19	CW	SW8081B
Chlordane	ND	38	ug/Kg	2	03/19/19	CW	SW8081B
d-BHC	ND	7.6	ug/Kg	2	03/19/19	CW	SW8081B
Dieldrin	ND	3.8	ug/Kg	2	03/19/19	CW	SW8081B
Endosulfan I	ND	7.6	ug/Kg	2	03/19/19	CW	SW8081B
Endosulfan II	ND	7.6	ug/Kg	2	03/19/19	CW	SW8081B
Endosulfan sulfate	ND	7.6	ug/Kg	2	03/19/19	CW	SW8081B
Endrin	ND	7.6	ug/Kg	2	03/19/19	CW	SW8081B
Endrin aldehyde	ND	7.6	ug/Kg	2	03/19/19	CW	SW8081B
Endrin ketone	ND	7.6	ug/Kg	2	03/19/19	CW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	03/19/19	CW	SW8081B
g-Chlordane	ND	3.8	ug/Kg	2	03/19/19	CW	SW8081B
Heptachlor	ND	7.6	ug/Kg	2	03/19/19	CW	SW8081B
Heptachlor epoxide	ND	7.6	ug/Kg	2	03/19/19	CW	SW8081B
Methoxychlor	ND	38	ug/Kg	2	03/19/19	CW	SW8081B
Toxaphene	ND	150	ug/Kg	2	03/19/19	CW	SW8081B
QA/QC Surrogates							
% DCBP	66		%	2	03/19/19	CW	30 - 150 %
% DCBP (Confirmation)	70		%	2	03/19/19	CW	30 - 150 %
% TCMX	63		%	2	03/19/19	CW	30 - 150 %
% TCMX (Confirmation)	71		%	2	03/19/19	CW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C

Project ID: 297 WALLABOUT

Client ID: SB-3 (0-2)

Phoenix I.D.: CC69590

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
1,1,2,2-Tetrachloroethane	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1,2-Trichloroethane	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloroethane	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloroethene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloropropene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,3-Trichlorobenzene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,3-Trichloropropane	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,4-Trichlorobenzene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,4-Trimethylbenzene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dibromo-3-chloropropane	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dibromoethane	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichlorobenzene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichloroethane	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichloropropane	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3,5-Trimethylbenzene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3-Dichlorobenzene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3-Dichloropropane	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
1,4-Dichlorobenzene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
2,2-Dichloropropane	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Chlorotoluene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Hexanone	ND	29	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Isopropyltoluene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	1
4-Chlorotoluene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
4-Methyl-2-pentanone	ND	29	ug/Kg	1	03/19/19	JLI	SW8260C	
Acetone	ND	29	ug/Kg	1	03/19/19	JLI	SW8260C	
Acrylonitrile	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	
Benzene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromobenzene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromochloromethane	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromodichloromethane	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromoform	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromomethane	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
Carbon Disulfide	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
Carbon tetrachloride	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
Chlorobenzene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloroethane	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloroform	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloromethane	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
cis-1,2-Dichloroethene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
cis-1,3-Dichloropropene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
Dibromochloromethane	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
Dibromomethane	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
Dichlorodifluoromethane	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
Ethylbenzene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
Hexachlorobutadiene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
Isopropylbenzene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
m&p-Xylene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
Methyl Ethyl Ketone	ND	29	ug/Kg	1	03/19/19	JLI	SW8260C	
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	

Project ID: 297 WALLABOUT
Client ID: SB-3 (0-2)

Phoenix I.D.: CC69590

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Methylene chloride	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	
Naphthalene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
n-Butylbenzene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
n-Propylbenzene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
o-Xylene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
p-Isopropyltoluene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
sec-Butylbenzene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
Styrene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
tert-Butylbenzene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
Tetrachloroethene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
Tetrahydrofuran (THF)	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	1
Toluene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
Total Xylenes	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,2-Dichloroethene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,3-Dichloropropene	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichloroethene	220	200	ug/Kg	50	03/21/19	JLI	SW8260C	
Trichlorofluoromethane	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichlorotrifluoroethane	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
Vinyl chloride	ND	5.8	ug/Kg	1	03/19/19	JLI	SW8260C	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	104		%	1	03/19/19	JLI	70 - 130 %	
% Bromofluorobenzene	90		%	1	03/19/19	JLI	70 - 130 %	
% Dibromofluoromethane	104		%	1	03/19/19	JLI	70 - 130 %	
% Toluene-d8	97		%	1	03/19/19	JLI	70 - 130 %	
% 1,2-dichlorobenzene-d4 (50x)	100		%	50	03/21/19	JLI	70 - 130 %	
% Bromofluorobenzene (50x)	98		%	50	03/21/19	JLI	70 - 130 %	
% Dibromofluoromethane (50x)	98		%	50	03/21/19	JLI	70 - 130 %	
% Toluene-d8 (50x)	99		%	50	03/21/19	JLI	70 - 130 %	

Semivolatiles

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,4,5-Tetrachlorobenzene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2-Chloronaphthalene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2-Chlorophenol	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylnaphthalene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitroaniline	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitrophenol	ND	270	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitroaniline	ND	610	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	770	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Fluorene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	380	ug/Kg	1	03/19/19	WB	SW8270D

Project ID: 297 WALLABOUT
Client ID: SB-3 (0-2)

Phoenix I.D.: CC69590

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Pentachlorophenol	ND	380	ug/Kg	1	03/19/19	WB	SW8270D	
Phenanthrene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D	
Phenol	ND	270	ug/Kg	1	03/19/19	WB	SW8270D	
Pyrene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D	
Pyridine	ND	380	ug/Kg	1	03/19/19	WB	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	49		%	1	03/19/19	WB	30 - 130 %	
% 2-Fluorobiphenyl	44		%	1	03/19/19	WB	30 - 130 %	
% 2-Fluorophenol	39		%	1	03/19/19	WB	30 - 130 %	
% Nitrobenzene-d5	45		%	1	03/19/19	WB	30 - 130 %	
% Phenol-d5	45		%	1	03/19/19	WB	30 - 130 %	
% Terphenyl-d14	42		%	1	03/19/19	WB	30 - 130 %	
Field Extraction	Completed				03/18/19		SW5035A	1

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller

Phyllis Shiller, Laboratory Director
March 27, 2019
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

March 27, 2019

FOR: Attn: Moshe Monheit
Rock Brokerage
170 Lee Avenue
Brooklyn NY 11211

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/18/19	8:00
Location Code:	ROCKBROKE	Received by:	CP	03/18/19	17:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC69590
Phoenix ID: CC69591

Project ID: 297 WALLABOUT
Client ID: SB-3 (10-12)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.35	0.35	mg/Kg	1	03/19/19	CPP	SW6010D
Aluminum	11000	53	mg/Kg	10	03/19/19	CPP	SW6010D
Arsenic	3.58	0.71	mg/Kg	1	03/19/19	CPP	SW6010D
Barium	65.5	0.35	mg/Kg	1	03/19/19	CPP	SW6010D
Beryllium	0.48	0.28	mg/Kg	1	03/19/19	CPP	SW6010D
Calcium	11100	53	mg/Kg	10	03/19/19	EK	SW6010D
Cadmium	0.44	0.35	mg/Kg	1	03/19/19	CPP	SW6010D
Cobalt	9.12	0.35	mg/Kg	1	03/19/19	CPP	SW6010D
Chromium	27.6	0.35	mg/Kg	1	03/19/19	CPP	SW6010D
Copper	28.6	0.7	mg/kg	1	03/19/19	CPP	SW6010D
Iron	20500	53	mg/Kg	10	03/19/19	CPP	SW6010D
Mercury	< 0.03	0.03	mg/Kg	1	03/20/19	RS	SW7471B
Potassium	2280	5.3	mg/Kg	1	03/19/19	EK	SW6010D
Magnesium	5670	53	mg/Kg	10	03/19/19	CPP	SW6010D
Manganese	483	3.5	mg/Kg	10	03/19/19	CPP	SW6010D
Sodium	939	5.3	mg/Kg	1	03/19/19	CPP	SW6010D
Nickel	30.3	0.35	mg/Kg	1	03/19/19	CPP	SW6010D
Lead	14.4	0.35	mg/Kg	1	03/19/19	CPP	SW6010D
Antimony	< 3.5	3.5	mg/Kg	1	03/19/19	CPP	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	03/19/19	EK	SW6010D
Thallium	< 3.2	3.2	mg/Kg	1	03/19/19	CPP	SW6010D
Vanadium	34.6	0.35	mg/Kg	1	03/19/19	CPP	SW6010D
Zinc	73.0	0.7	mg/Kg	1	03/19/19	CPP	SW6010D
Percent Solid	93		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for Pesticides	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Mercury Digestion	Completed				03/20/19	W/I/I	SW7471B

Ver 1

Project ID: 297 WALLABOUT
Client ID: SB-3 (10-12)

Phoenix I.D.: CC69591

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG/BF	SW3050B
Polychlorinated Biphenyls							
PCB-1016	ND	71	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1221	ND	71	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1232	ND	71	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1242	ND	71	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1248	ND	71	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1254	ND	71	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1260	ND	71	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1262	ND	71	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1268	ND	71	ug/Kg	2	03/19/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	58		%	2	03/19/19	SC	30 - 150 %
% DCBP (Confirmation)	55		%	2	03/19/19	SC	30 - 150 %
% TCMX	67		%	2	03/19/19	SC	30 - 150 %
% TCMX (Confirmation)	62		%	2	03/19/19	SC	30 - 150 %
Pesticides - Soil							
4,4' -DDD	ND	2.1	ug/Kg	2	03/19/19	CW	SW8081B
4,4' -DDE	ND	2.1	ug/Kg	2	03/19/19	CW	SW8081B
4,4' -DDT	ND	2.1	ug/Kg	2	03/19/19	CW	SW8081B
a-BHC	ND	7.1	ug/Kg	2	03/19/19	CW	SW8081B
a-Chlordane	ND	3.6	ug/Kg	2	03/19/19	CW	SW8081B
Aldrin	ND	3.6	ug/Kg	2	03/19/19	CW	SW8081B
b-BHC	ND	7.1	ug/Kg	2	03/19/19	CW	SW8081B
Chlordane	ND	36	ug/Kg	2	03/19/19	CW	SW8081B
d-BHC	ND	7.1	ug/Kg	2	03/19/19	CW	SW8081B
Dieldrin	ND	3.6	ug/Kg	2	03/19/19	CW	SW8081B
Endosulfan I	ND	7.1	ug/Kg	2	03/19/19	CW	SW8081B
Endosulfan II	ND	7.1	ug/Kg	2	03/19/19	CW	SW8081B
Endosulfan sulfate	ND	7.1	ug/Kg	2	03/19/19	CW	SW8081B
Endrin	ND	7.1	ug/Kg	2	03/19/19	CW	SW8081B
Endrin aldehyde	ND	7.1	ug/Kg	2	03/19/19	CW	SW8081B
Endrin ketone	ND	7.1	ug/Kg	2	03/19/19	CW	SW8081B
g-BHC	ND	1.4	ug/Kg	2	03/19/19	CW	SW8081B
g-Chlordane	ND	3.6	ug/Kg	2	03/19/19	CW	SW8081B
Heptachlor	ND	7.1	ug/Kg	2	03/19/19	CW	SW8081B
Heptachlor epoxide	ND	7.1	ug/Kg	2	03/19/19	CW	SW8081B
Methoxychlor	ND	36	ug/Kg	2	03/19/19	CW	SW8081B
Toxaphene	ND	140	ug/Kg	2	03/19/19	CW	SW8081B
QA/QC Surrogates							
% DCBP	67		%	2	03/19/19	CW	30 - 150 %
% DCBP (Confirmation)	63		%	2	03/19/19	CW	30 - 150 %
% TCMX	63		%	2	03/19/19	CW	30 - 150 %
% TCMX (Confirmation)	67		%	2	03/19/19	CW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C

Ver 1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
1,1,2,2-Tetrachloroethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1,2-Trichloroethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloroethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloroethene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloropropene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,3-Trichlorobenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,3-Trichloropropane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,4-Trichlorobenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,4-Trimethylbenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dibromo-3-chloropropane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dibromoethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichlorobenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichloroethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichloropropane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3,5-Trimethylbenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3-Dichlorobenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3-Dichloropropane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,4-Dichlorobenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
2,2-Dichloropropane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Chlorotoluene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Hexanone	ND	27	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Isopropyltoluene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	1
4-Chlorotoluene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
4-Methyl-2-pentanone	ND	27	ug/Kg	1	03/19/19	JLI	SW8260C	
Acetone	ND	27	ug/Kg	1	03/19/19	JLI	SW8260C	
Acrylonitrile	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C	
Benzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromobenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromochloromethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromodichloromethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromoform	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromomethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Carbon Disulfide	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Carbon tetrachloride	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Chlorobenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloroethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloroform	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloromethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
cis-1,2-Dichloroethene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
cis-1,3-Dichloropropene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Dibromochloromethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Dibromomethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Dichlorodifluoromethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Ethylbenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Hexachlorobutadiene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Isopropylbenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
m&p-Xylene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Methyl Ethyl Ketone	ND	27	ug/Kg	1	03/19/19	JLI	SW8260C	
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Methylene chloride	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C	
Naphthalene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
n-Butylbenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
n-Propylbenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
o-Xylene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
p-Isopropyltoluene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
sec-Butylbenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Styrene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
tert-Butylbenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Tetrachloroethene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C	1
Toluene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Total Xylenes	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,2-Dichloroethene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,3-Dichloropropene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichloroethene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichlorofluoromethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichlorotrifluoroethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Vinyl chloride	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	100		%	1	03/19/19	JLI	70 - 130 %	
% Bromofluorobenzene	95		%	1	03/19/19	JLI	70 - 130 %	
% Dibromofluoromethane	103		%	1	03/19/19	JLI	70 - 130 %	
% Toluene-d8	101		%	1	03/19/19	JLI	70 - 130 %	

Semivolatiles

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,4,5-Tetrachlorobenzene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	360	ug/Kg	1	03/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	360	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2-Chloronaphthalene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2-Chlorophenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylnaphthalene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitroaniline	ND	360	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitrophenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	360	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	360	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	360	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Bromophenyl phenyl ether	ND	360	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitroaniline	ND	570	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	360	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	710	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	360	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	ND	360	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	360	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Fluorene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	360	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	360	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	360	ug/Kg	1	03/19/19	WB	SW8270D
Pentachlorophenol	ND	360	ug/Kg	1	03/19/19	WB	SW8270D
Phenanthrene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Phenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Pyrene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Pyridine	ND	360	ug/Kg	1	03/19/19	WB	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	83		%	1	03/19/19	WB	30 - 130 %	
% 2-Fluorobiphenyl	69		%	1	03/19/19	WB	30 - 130 %	
% 2-Fluorophenol	57		%	1	03/19/19	WB	30 - 130 %	
% Nitrobenzene-d5	70		%	1	03/19/19	WB	30 - 130 %	
% Phenol-d5	69		%	1	03/19/19	WB	30 - 130 %	
% Terphenyl-d14	62		%	1	03/19/19	WB	30 - 130 %	
Field Extraction	Completed				03/18/19		SW5035A	1

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller

Phyllis Shiller, Laboratory Director

March 27, 2019

Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

Analysis Report

March 27, 2019

FOR: Attn: Moshe Monheit
Rock Brokerage
170 Lee Avenue
Brooklyn NY 11211

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/18/19	8:15
Location Code:	ROCKBROKE	Received by:	CP	03/18/19	17:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC69590
Phoenix ID: CC69592

Project ID: 297 WALLABOUT
Client ID: SB-5 (0-2)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	1	03/19/19	CPP	SW6010D
Aluminum	7450	59	mg/Kg	10	03/19/19	CPP	SW6010D
Arsenic	8.69	0.79	mg/Kg	1	03/19/19	CPP	SW6010D
Barium	373	0.39	mg/Kg	1	03/19/19	CPP	SW6010D
Beryllium	0.36	0.31	mg/Kg	1	03/19/19	CPP	SW6010D
Calcium	38300	59	mg/Kg	10	03/19/19	EK	SW6010D
Cadmium	1.55	0.39	mg/Kg	1	03/19/19	CPP	SW6010D
Cobalt	6.69	0.39	mg/Kg	1	03/19/19	CPP	SW6010D
Chromium	48.7	0.39	mg/Kg	1	03/19/19	CPP	SW6010D
Copper	90.1	0.8	mg/kg	1	03/19/19	CPP	SW6010D
Iron	25500	59	mg/Kg	10	03/19/19	CPP	SW6010D
Mercury	1.19	0.08	mg/Kg	1	03/20/19	RS	SW7471B
Potassium	1250	5.9	mg/Kg	1	03/19/19	EK	SW6010D
Magnesium	5700	5.9	mg/Kg	1	03/19/19	CPP	SW6010D
Manganese	342	3.9	mg/Kg	10	03/19/19	CPP	SW6010D
Sodium	426	5.9	mg/Kg	1	03/19/19	CPP	SW6010D
Nickel	45.4	0.39	mg/Kg	1	03/19/19	CPP	SW6010D
Lead	796	3.9	mg/Kg	10	03/19/19	CPP	SW6010D
Antimony	< 3.9	3.9	mg/Kg	1	03/19/19	CPP	SW6010D
Selenium	< 1.6	1.6	mg/Kg	1	03/19/19	EK	SW6010D
Thallium	< 3.5	3.5	mg/Kg	1	03/19/19	CPP	SW6010D
Vanadium	24.1	0.39	mg/Kg	1	03/19/19	CPP	SW6010D
Zinc	848	7.9	mg/Kg	10	03/19/19	CPP	SW6010D
Percent Solid	87		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for Pesticides	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Mercury Digestion	Completed				03/20/19	W/I/I	SW7471B

Ver 1

Project ID: 297 WALLABOUT
Client ID: SB-5 (0-2)

Phoenix I.D.: CC69592

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG/BF	SW3050B
Polychlorinated Biphenyls							
PCB-1016	ND	76	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1221	ND	76	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1232	ND	76	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1242	ND	76	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1248	ND	76	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1254	ND	76	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1260	ND	76	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1262	ND	76	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1268	ND	76	ug/Kg	2	03/19/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	75		%	2	03/19/19	SC	30 - 150 %
% DCBP (Confirmation)	71		%	2	03/19/19	SC	30 - 150 %
% TCMX	64		%	2	03/19/19	SC	30 - 150 %
% TCMX (Confirmation)	59		%	2	03/19/19	SC	30 - 150 %
Pesticides - Soil							
4,4' -DDD	33	2.3	ug/Kg	2	03/19/19	CW	SW8081B
4,4' -DDE	ND	2.3	ug/Kg	2	03/19/19	CW	SW8081B
4,4' -DDT	14	2.3	ug/Kg	2	03/19/19	CW	SW8081B
a-BHC	ND	7.6	ug/Kg	2	03/19/19	CW	SW8081B
a-Chlordane	15	3.8	ug/Kg	2	03/19/19	CW	SW8081B
Aldrin	ND	3.8	ug/Kg	2	03/19/19	CW	SW8081B
b-BHC	ND	7.6	ug/Kg	2	03/19/19	CW	SW8081B
Chlordane	86	38	ug/Kg	2	03/19/19	CW	SW8081B
d-BHC	ND	7.6	ug/Kg	2	03/19/19	CW	SW8081B
Dieldrin	14	3.8	ug/Kg	2	03/19/19	CW	SW8081B
Endosulfan I	ND	7.6	ug/Kg	2	03/19/19	CW	SW8081B
Endosulfan II	ND	7.6	ug/Kg	2	03/19/19	CW	SW8081B
Endosulfan sulfate	ND	7.6	ug/Kg	2	03/19/19	CW	SW8081B
Endrin	ND	7.6	ug/Kg	2	03/19/19	CW	SW8081B
Endrin aldehyde	ND	7.6	ug/Kg	2	03/19/19	CW	SW8081B
Endrin ketone	ND	7.6	ug/Kg	2	03/19/19	CW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	03/19/19	CW	SW8081B
g-Chlordane	14	3.8	ug/Kg	2	03/19/19	CW	SW8081B
Heptachlor	ND	7.6	ug/Kg	2	03/19/19	CW	SW8081B
Heptachlor epoxide	ND	7.6	ug/Kg	2	03/19/19	CW	SW8081B
Methoxychlor	ND	38	ug/Kg	2	03/19/19	CW	SW8081B
Toxaphene	ND	150	ug/Kg	2	03/19/19	CW	SW8081B
QA/QC Surrogates							
% DCBP	62		%	2	03/19/19	CW	30 - 150 %
% DCBP (Confirmation)	60		%	2	03/19/19	CW	30 - 150 %
% TCMX	44		%	2	03/19/19	CW	30 - 150 %
% TCMX (Confirmation)	51		%	2	03/19/19	CW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C

Project ID: 297 WALLABOUT
Client ID: SB-5 (0-2)

Phoenix I.D.: CC69592

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
1,1,2,2-Tetrachloroethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1,2-Trichloroethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloroethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloroethene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloropropene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,3-Trichlorobenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,3-Trichloropropane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,4-Trichlorobenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,4-Trimethylbenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dibromo-3-chloropropane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dibromoethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichlorobenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichloroethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichloropropane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3,5-Trimethylbenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3-Dichlorobenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3-Dichloropropane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
1,4-Dichlorobenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
2,2-Dichloropropane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Chlorotoluene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Hexanone	ND	32	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Isopropyltoluene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	1
4-Chlorotoluene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
4-Methyl-2-pentanone	ND	32	ug/Kg	1	03/19/19	JLI	SW8260C	
Acetone	ND	32	ug/Kg	1	03/19/19	JLI	SW8260C	
Acrylonitrile	ND	13	ug/Kg	1	03/19/19	JLI	SW8260C	
Benzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromobenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromochloromethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromodichloromethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromoform	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromomethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
Carbon Disulfide	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
Carbon tetrachloride	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
Chlorobenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloroethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloroform	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloromethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
cis-1,2-Dichloroethene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
cis-1,3-Dichloropropene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
Dibromochloromethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
Dibromomethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
Dichlorodifluoromethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
Ethylbenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
Hexachlorobutadiene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
Isopropylbenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
m&p-Xylene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
Methyl Ethyl Ketone	ND	32	ug/Kg	1	03/19/19	JLI	SW8260C	
Methyl t-butyl ether (MTBE)	ND	13	ug/Kg	1	03/19/19	JLI	SW8260C	

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Methylene chloride	ND	13	ug/Kg	1	03/19/19	JLI	SW8260C	
Naphthalene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
n-Butylbenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
n-Propylbenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
o-Xylene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
p-Isopropyltoluene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
sec-Butylbenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
Styrene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
tert-Butylbenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
Tetrachloroethene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
Tetrahydrofuran (THF)	ND	13	ug/Kg	1	03/19/19	JLI	SW8260C	1
Toluene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
Total Xylenes	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,2-Dichloroethene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,3-Dichloropropene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,4-dichloro-2-butene	ND	13	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichloroethene	160	130	ug/Kg	50	03/21/19	JLI	SW8260C	
Trichlorofluoromethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichlorotrifluoroethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
Vinyl chloride	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	107		%	1	03/19/19	JLI	70 - 130 %	
% Bromofluorobenzene	85		%	1	03/19/19	JLI	70 - 130 %	
% Dibromofluoromethane	94		%	1	03/19/19	JLI	70 - 130 %	
% Toluene-d8	96		%	1	03/19/19	JLI	70 - 130 %	
% 1,2-dichlorobenzene-d4 (50x)	100		%	50	03/21/19	JLI	70 - 130 %	
% Bromofluorobenzene (50x)	97		%	50	03/21/19	JLI	70 - 130 %	
% Dibromofluoromethane (50x)	95		%	50	03/21/19	JLI	70 - 130 %	
% Toluene-d8 (50x)	99		%	50	03/21/19	JLI	70 - 130 %	
Semivolatiles								
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D	
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D	
1,2-Dichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D	
1,2-Diphenylhydrazine	ND	380	ug/Kg	1	03/19/19	WB	SW8270D	
1,3-Dichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D	
1,4-Dichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D	
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D	
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D	
2,4-Dichlorophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D	
2,4-Dimethylphenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D	
2,4-Dinitrophenol	ND	380	ug/Kg	1	03/19/19	WB	SW8270D	
2,4-Dinitrotoluene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D	
2,6-Dinitrotoluene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D	
2-Chloronaphthalene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D	
2-Chlorophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D	
2-Methylnaphthalene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D	
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	03/19/19	WB	SW8270D	
2-Nitroaniline	ND	380	ug/Kg	1	03/19/19	WB	SW8270D	
2-Nitrophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D	

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitroaniline	ND	600	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	330	260	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	440	260	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	2000	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	1900	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	1800	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	1100	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	1700	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	750	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	2400	260	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	420	260	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	3600	260	ug/Kg	1	03/19/19	WB	SW8270D
Fluorene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	1200	260	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	380	ug/Kg	1	03/19/19	WB	SW8270D

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Phoenix I.D.: CC69592

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Pentachlorophenol	ND	380	ug/Kg	1	03/19/19	WB	SW8270D	
Phenanthrene	3100	260	ug/Kg	1	03/19/19	WB	SW8270D	
Phenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D	
Pyrene	3500	260	ug/Kg	1	03/19/19	WB	SW8270D	
Pyridine	ND	380	ug/Kg	1	03/19/19	WB	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	94		%	1	03/19/19	WB	30 - 130 %	
% 2-Fluorobiphenyl	79		%	1	03/19/19	WB	30 - 130 %	
% 2-Fluorophenol	50		%	1	03/19/19	WB	30 - 130 %	
% Nitrobenzene-d5	82		%	1	03/19/19	WB	30 - 130 %	
% Phenol-d5	77		%	1	03/19/19	WB	30 - 130 %	
% Terphenyl-d14	63		%	1	03/19/19	WB	30 - 130 %	
Field Extraction	Completed				03/18/19		SW5035A	1

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller

Phyllis Shiller, Laboratory Director
March 27, 2019
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

Analysis Report

March 27, 2019

FOR: Attn: Moshe Monheit
Rock Brokerage
170 Lee Avenue
Brooklyn NY 11211

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/18/19	8:30
Location Code:	ROCKBROKE	Received by:	CP	03/18/19	17:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC69590
Phoenix ID: CC69593

Project ID: 297 WALLABOUT
Client ID: SB-5 (10-12)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.40	0.40	mg/Kg	1	03/19/19	CPP	SW6010D
Aluminum	14100	59	mg/Kg	10	03/19/19	CPP	SW6010D
Arsenic	9.81	0.79	mg/Kg	1	03/19/19	CPP	SW6010D
Barium	82.2	0.40	mg/Kg	1	03/19/19	CPP	SW6010D
Beryllium	1.07	0.32	mg/Kg	1	03/19/19	CPP	SW6010D
Calcium	1390	5.9	mg/Kg	1	03/19/19	EK	SW6010D
Cadmium	0.67	0.40	mg/Kg	1	03/19/19	CPP	SW6010D
Cobalt	7.83	0.40	mg/Kg	1	03/19/19	CPP	SW6010D
Chromium	39.4	0.40	mg/Kg	1	03/19/19	CPP	SW6010D
Copper	24.9	0.8	mg/kg	1	03/19/19	CPP	SW6010D
Iron	32800	59	mg/Kg	10	03/19/19	CPP	SW6010D
Mercury	< 0.03	0.03	mg/Kg	1	03/20/19	RS	SW7471B
Potassium	2060	5.9	mg/Kg	1	03/19/19	EK	SW6010D
Magnesium	4120	5.9	mg/Kg	1	03/19/19	CPP	SW6010D
Manganese	137	0.40	mg/Kg	1	03/19/19	CPP	SW6010D
Sodium	111	5.9	mg/Kg	1	03/19/19	CPP	SW6010D
Nickel	21.5	0.40	mg/Kg	1	03/19/19	CPP	SW6010D
Lead	13.3	0.40	mg/Kg	1	03/19/19	CPP	SW6010D
Antimony	< 4.0	4.0	mg/Kg	1	03/19/19	CPP	SW6010D
Selenium	< 1.6	1.6	mg/Kg	1	03/19/19	EK	SW6010D
Thallium	< 3.6	3.6	mg/Kg	1	03/19/19	CPP	SW6010D
Vanadium	51.5	0.40	mg/Kg	1	03/19/19	CPP	SW6010D
Zinc	58.4	0.8	mg/Kg	1	03/19/19	CPP	SW6010D
Percent Solid	81		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for Pesticides	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Mercury Digestion	Completed				03/20/19	W/I/I	SW7471B

Ver 1

Project ID: 297 WALLABOUT
Client ID: SB-5 (10-12)

Phoenix I.D.: CC69593

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG/BF	SW3050B
Polychlorinated Biphenyls							
PCB-1016	ND	80	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1221	ND	80	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1232	ND	80	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1242	ND	80	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1248	ND	80	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1254	ND	80	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1260	ND	80	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1262	ND	80	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1268	ND	80	ug/Kg	2	03/19/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	50		%	2	03/19/19	SC	30 - 150 %
% DCBP (Confirmation)	45		%	2	03/19/19	SC	30 - 150 %
% TCMX	54		%	2	03/19/19	SC	30 - 150 %
% TCMX (Confirmation)	51		%	2	03/19/19	SC	30 - 150 %
Pesticides - Soil							
4,4' -DDD	ND	2.4	ug/Kg	2	03/19/19	CW	SW8081B
4,4' -DDE	ND	2.4	ug/Kg	2	03/19/19	CW	SW8081B
4,4' -DDT	ND	2.4	ug/Kg	2	03/19/19	CW	SW8081B
a-BHC	ND	8.0	ug/Kg	2	03/19/19	CW	SW8081B
a-Chlordane	ND	4.0	ug/Kg	2	03/19/19	CW	SW8081B
Aldrin	ND	4.0	ug/Kg	2	03/19/19	CW	SW8081B
b-BHC	ND	8.0	ug/Kg	2	03/19/19	CW	SW8081B
Chlordane	ND	40	ug/Kg	2	03/19/19	CW	SW8081B
d-BHC	ND	8.0	ug/Kg	2	03/19/19	CW	SW8081B
Dieldrin	ND	4.0	ug/Kg	2	03/19/19	CW	SW8081B
Endosulfan I	ND	8.0	ug/Kg	2	03/19/19	CW	SW8081B
Endosulfan II	ND	8.0	ug/Kg	2	03/19/19	CW	SW8081B
Endosulfan sulfate	ND	8.0	ug/Kg	2	03/19/19	CW	SW8081B
Endrin	ND	8.0	ug/Kg	2	03/19/19	CW	SW8081B
Endrin aldehyde	ND	8.0	ug/Kg	2	03/19/19	CW	SW8081B
Endrin ketone	ND	8.0	ug/Kg	2	03/19/19	CW	SW8081B
g-BHC	ND	1.6	ug/Kg	2	03/19/19	CW	SW8081B
g-Chlordane	ND	4.0	ug/Kg	2	03/19/19	CW	SW8081B
Heptachlor	ND	8.0	ug/Kg	2	03/19/19	CW	SW8081B
Heptachlor epoxide	ND	8.0	ug/Kg	2	03/19/19	CW	SW8081B
Methoxychlor	ND	40	ug/Kg	2	03/19/19	CW	SW8081B
Toxaphene	ND	160	ug/Kg	2	03/19/19	CW	SW8081B
QA/QC Surrogates							
% DCBP	51		%	2	03/19/19	CW	30 - 150 %
% DCBP (Confirmation)	53		%	2	03/19/19	CW	30 - 150 %
% TCMX	46		%	2	03/19/19	CW	30 - 150 %
% TCMX (Confirmation)	51		%	2	03/19/19	CW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C

Project ID: 297 WALLABOUT
Client ID: SB-5 (10-12)

Phoenix I.D.: CC69593

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
1,1,2,2-Tetrachloroethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1,2-Trichloroethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloroethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloroethene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloropropene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,3-Trichlorobenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,3-Trichloropropane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,4-Trichlorobenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,4-Trimethylbenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dibromo-3-chloropropane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dibromoethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichlorobenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichloroethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichloropropane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3,5-Trimethylbenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3-Dichlorobenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3-Dichloropropane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,4-Dichlorobenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
2,2-Dichloropropane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Chlorotoluene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Hexanone	ND	31	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Isopropyltoluene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	1
4-Chlorotoluene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
4-Methyl-2-pentanone	ND	31	ug/Kg	1	03/19/19	JLI	SW8260C	
Acetone	ND	31	ug/Kg	1	03/19/19	JLI	SW8260C	
Acrylonitrile	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	
Benzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromobenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromochloromethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromodichloromethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromoform	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromomethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Carbon Disulfide	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Carbon tetrachloride	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Chlorobenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloroethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloroform	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloromethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
cis-1,2-Dichloroethene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
cis-1,3-Dichloropropene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Dibromochloromethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Dibromomethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Dichlorodifluoromethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Ethylbenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Hexachlorobutadiene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Isopropylbenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
m&p-Xylene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Methyl Ethyl Ketone	ND	31	ug/Kg	1	03/19/19	JLI	SW8260C	
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	

Project ID: 297 WALLABOUT
Client ID: SB-5 (10-12)

Phoenix I.D.: CC69593

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Methylene chloride	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	
Naphthalene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
n-Butylbenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
n-Propylbenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
o-Xylene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
p-Isopropyltoluene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
sec-Butylbenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Styrene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
tert-Butylbenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Tetrachloroethene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Tetrahydrofuran (THF)	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	1
Toluene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Total Xylenes	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,2-Dichloroethene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,3-Dichloropropene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichloroethene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichlorofluoromethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichlorotrifluoroethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Vinyl chloride	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	100		%	1	03/19/19	JLI	70 - 130 %	
% Bromofluorobenzene	93		%	1	03/19/19	JLI	70 - 130 %	
% Dibromofluoromethane	103		%	1	03/19/19	JLI	70 - 130 %	
% Toluene-d8	99		%	1	03/19/19	JLI	70 - 130 %	

Semivolatiles

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,4,5-Tetrachlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Chloronaphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Chlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylnaphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitroaniline	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitrophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	400	ug/Kg	1	03/19/19	WB	SW8270D

Project ID: 297 WALLABOUT
Client ID: SB-5 (10-12)

Phoenix I.D.: CC69593

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Bromophenyl phenyl ether	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitroaniline	ND	650	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	810	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Fluorene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
Pentachlorophenol	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
Phenanthrene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Phenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Pyrene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Pyridine	ND	400	ug/Kg	1	03/19/19	WB	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	82		%	1	03/19/19	WB	30 - 130 %	
% 2-Fluorobiphenyl	49		%	1	03/19/19	WB	30 - 130 %	
% 2-Fluorophenol	53		%	1	03/19/19	WB	30 - 130 %	
% Nitrobenzene-d5	53		%	1	03/19/19	WB	30 - 130 %	
% Phenol-d5	64		%	1	03/19/19	WB	30 - 130 %	
% Terphenyl-d14	72		%	1	03/19/19	WB	30 - 130 %	
Field Extraction	Completed				03/18/19		SW5035A	1

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller

Phyllis Shiller, Laboratory Director
March 27, 2019
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

March 27, 2019

FOR: Attn: Moshe Monheit
Rock Brokerage
170 Lee Avenue
Brooklyn NY 11211

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/18/19	8:45
Location Code:	ROCKBROKE	Received by:	CP	03/18/19	17:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC69590
Phoenix ID: CC69594

Project ID: 297 WALLABOUT
Client ID: SB-4 (0-2)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.34	0.34	mg/Kg	1	03/19/19	CPP	SW6010D
Aluminum	8660	51	mg/Kg	10	03/19/19	CPP	SW6010D
Arsenic	1.78	0.68	mg/Kg	1	03/19/19	CPP	SW6010D
Barium	54.4	0.34	mg/Kg	1	03/19/19	CPP	SW6010D
Beryllium	0.38	0.27	mg/Kg	1	03/19/19	CPP	SW6010D
Calcium	8530	5.1	mg/Kg	1	03/19/19	EK	SW6010D
Cadmium	1.07	0.34	mg/Kg	1	03/19/19	CPP	SW6010D
Cobalt	7.50	0.34	mg/Kg	1	03/19/19	CPP	SW6010D
Chromium	34.3	0.34	mg/Kg	1	03/19/19	CPP	SW6010D
Copper	33.1	0.7	mg/kg	1	03/19/19	CPP	SW6010D
Iron	20800	51	mg/Kg	10	03/19/19	CPP	SW6010D
Mercury	0.16	0.03	mg/Kg	1	03/20/19	RS	SW7471B
Potassium	1290	5.1	mg/Kg	1	03/19/19	EK	SW6010D
Magnesium	4000	5.1	mg/Kg	1	03/19/19	CPP	SW6010D
Manganese	378	3.4	mg/Kg	10	03/19/19	CPP	SW6010D
Sodium	137	5.1	mg/Kg	1	03/19/19	CPP	SW6010D
Nickel	42.7	0.34	mg/Kg	1	03/19/19	CPP	SW6010D
Lead	103	0.34	mg/Kg	1	03/19/19	CPP	SW6010D
Antimony	< 3.4	3.4	mg/Kg	1	03/19/19	CPP	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	03/19/19	EK	SW6010D
Thallium	< 3.0	3.0	mg/Kg	1	03/19/19	CPP	SW6010D
Vanadium	27.2	0.34	mg/Kg	1	03/19/19	CPP	SW6010D
Zinc	214	6.8	mg/Kg	10	03/19/19	CPP	SW6010D
Percent Solid	89		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for Pesticides	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Mercury Digestion	Completed				03/20/19	W/I/I	SW7471B

Ver 1

Project ID: 297 WALLABOUT

Client ID: SB-4 (0-2)

Phoenix I.D.: CC69594

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG/BF	SW3050B
Polychlorinated Biphenyls							
PCB-1016	ND	73	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1221	ND	73	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1232	ND	73	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1242	ND	73	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1248	ND	73	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1254	ND	73	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1260	ND	73	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1262	ND	73	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1268	ND	73	ug/Kg	2	03/19/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	68		%	2	03/19/19	SC	30 - 150 %
% DCBP (Confirmation)	60		%	2	03/19/19	SC	30 - 150 %
% TCMX	61		%	2	03/19/19	SC	30 - 150 %
% TCMX (Confirmation)	64		%	2	03/19/19	SC	30 - 150 %
Pesticides - Soil							
4,4' -DDD	ND	2.2	ug/Kg	2	03/20/19	CW	SW8081B
4,4' -DDE	ND	2.2	ug/Kg	2	03/20/19	CW	SW8081B
4,4' -DDT	ND	2.2	ug/Kg	2	03/20/19	CW	SW8081B
a-BHC	ND	7.3	ug/Kg	2	03/20/19	CW	SW8081B
a-Chlordane	ND	3.6	ug/Kg	2	03/20/19	CW	SW8081B
Aldrin	ND	3.6	ug/Kg	2	03/20/19	CW	SW8081B
b-BHC	ND	7.3	ug/Kg	2	03/20/19	CW	SW8081B
Chlordane	ND	36	ug/Kg	2	03/20/19	CW	SW8081B
d-BHC	ND	7.3	ug/Kg	2	03/20/19	CW	SW8081B
Dieldrin	ND	3.6	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan I	ND	7.3	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan II	ND	7.3	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan sulfate	ND	7.3	ug/Kg	2	03/20/19	CW	SW8081B
Endrin	ND	7.3	ug/Kg	2	03/20/19	CW	SW8081B
Endrin aldehyde	ND	7.3	ug/Kg	2	03/20/19	CW	SW8081B
Endrin ketone	ND	7.3	ug/Kg	2	03/20/19	CW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
g-Chlordane	ND	3.6	ug/Kg	2	03/20/19	CW	SW8081B
Heptachlor	ND	7.3	ug/Kg	2	03/20/19	CW	SW8081B
Heptachlor epoxide	ND	7.3	ug/Kg	2	03/20/19	CW	SW8081B
Methoxychlor	ND	36	ug/Kg	2	03/20/19	CW	SW8081B
Toxaphene	ND	150	ug/Kg	2	03/20/19	CW	SW8081B
QA/QC Surrogates							
% DCBP	59		%	2	03/20/19	CW	30 - 150 %
% DCBP (Confirmation)	55		%	2	03/20/19	CW	30 - 150 %
% TCMX	57		%	2	03/20/19	CW	30 - 150 %
% TCMX (Confirmation)	59		%	2	03/20/19	CW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C

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Client ID: SB-4 (0-2)

Phoenix I.D.: CC69594

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
1,1,2,2-Tetrachloroethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1,2-Trichloroethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloroethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloroethene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloropropene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,3-Trichlorobenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,3-Trichloropropane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,4-Trichlorobenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,4-Trimethylbenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dibromo-3-chloropropane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dibromoethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichlorobenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichloroethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichloropropane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3,5-Trimethylbenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3-Dichlorobenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3-Dichloropropane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
1,4-Dichlorobenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
2,2-Dichloropropane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Chlorotoluene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Hexanone	ND	29	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Isopropyltoluene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	1
4-Chlorotoluene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
4-Methyl-2-pentanone	ND	29	ug/Kg	1	03/19/19	JLI	SW8260C	
Acetone	ND	29	ug/Kg	1	03/19/19	JLI	SW8260C	
Acrylonitrile	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C	
Benzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromobenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromochloromethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromodichloromethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromoform	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromomethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
Carbon Disulfide	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
Carbon tetrachloride	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
Chlorobenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloroethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloroform	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloromethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
cis-1,2-Dichloroethene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
cis-1,3-Dichloropropene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
Dibromochloromethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
Dibromomethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
Dichlorodifluoromethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
Ethylbenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
Hexachlorobutadiene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
Isopropylbenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
m&p-Xylene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
Methyl Ethyl Ketone	ND	29	ug/Kg	1	03/19/19	JLI	SW8260C	
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C	

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Client ID: SB-4 (0-2)

Phoenix I.D.: CC69594

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Methylene chloride	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C	
Naphthalene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
n-Butylbenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
n-Propylbenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
o-Xylene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
p-Isopropyltoluene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
sec-Butylbenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
Styrene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
tert-Butylbenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
Tetrachloroethene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C	1
Toluene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
Total Xylenes	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,2-Dichloroethene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,3-Dichloropropene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichloroethene	12	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichlorofluoromethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichlorotrifluoroethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
Vinyl chloride	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	101		%	1	03/19/19	JLI	70 - 130 %	
% Bromofluorobenzene	91		%	1	03/19/19	JLI	70 - 130 %	
% Dibromofluoromethane	104		%	1	03/19/19	JLI	70 - 130 %	
% Toluene-d8	98		%	1	03/19/19	JLI	70 - 130 %	

Semivolatiles

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitroaniline	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	370	ug/Kg	1	03/19/19	WB	SW8270D

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Project ID: 297 WALLABOUT
Client ID: SB-4 (0-2)

Phoenix I.D.: CC69594

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitroaniline	ND	590	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	630	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	600	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	560	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	350	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	510	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	740	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	800	260	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	1300	260	ug/Kg	1	03/19/19	WB	SW8270D
Fluorene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	390	260	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
Phenanthrene	1100	260	ug/Kg	1	03/19/19	WB	SW8270D
Phenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Pyrene	1300	260	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Pyridine	ND	370	ug/Kg	1	03/19/19	WB	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	105		%	1	03/19/19	WB	30 - 130 %	
% 2-Fluorobiphenyl	75		%	1	03/19/19	WB	30 - 130 %	
% 2-Fluorophenol	63		%	1	03/19/19	WB	30 - 130 %	
% Nitrobenzene-d5	78		%	1	03/19/19	WB	30 - 130 %	
% Phenol-d5	71		%	1	03/19/19	WB	30 - 130 %	
% Terphenyl-d14	65		%	1	03/19/19	WB	30 - 130 %	
Field Extraction	Completed				03/18/19		SW5035A	1

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller

Phyllis Shiller, Laboratory Director
March 27, 2019
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

March 27, 2019

FOR: Attn: Moshe Monheit
Rock Brokerage
170 Lee Avenue
Brooklyn NY 11211

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/18/19	8:55
Location Code:	ROCKBROKE	Received by:	CP	03/18/19	17:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC69590
Phoenix ID: CC69595

Project ID: 297 WALLABOUT
Client ID: SB-4 (10-12)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.40	0.40	mg/Kg	1	03/19/19	CPP	SW6010D
Aluminum	5850	59	mg/Kg	10	03/19/19	CPP	SW6010D
Arsenic	1.71	0.79	mg/Kg	1	03/19/19	CPP	SW6010D
Barium	27.5	0.40	mg/Kg	1	03/19/19	CPP	SW6010D
Beryllium	0.35	0.32	mg/Kg	1	03/19/19	CPP	SW6010D
Calcium	905	5.9	mg/Kg	1	03/19/19	EK	SW6010D
Cadmium	< 0.40	0.40	mg/Kg	1	03/19/19	CPP	SW6010D
Cobalt	6.93	0.40	mg/Kg	1	03/19/19	CPP	SW6010D
Chromium	12.7	0.40	mg/Kg	1	03/19/19	CPP	SW6010D
Copper	10.8	0.8	mg/kg	1	03/19/19	CPP	SW6010D
Iron	9970	59	mg/Kg	10	03/19/19	CPP	SW6010D
Mercury	< 0.03	0.03	mg/Kg	1	03/20/19	RS	SW7471B
Potassium	990	5.9	mg/Kg	1	03/19/19	EK	SW6010D
Magnesium	1820	5.9	mg/Kg	1	03/19/19	CPP	SW6010D
Manganese	132	0.40	mg/Kg	1	03/19/19	CPP	SW6010D
Sodium	58.7	5.9	mg/Kg	1	03/19/19	CPP	SW6010D
Nickel	10.8	0.40	mg/Kg	1	03/19/19	CPP	SW6010D
Lead	5.40	0.40	mg/Kg	1	03/19/19	CPP	SW6010D
Antimony	< 4.0	4.0	mg/Kg	1	03/19/19	CPP	SW6010D
Selenium	< 1.6	1.6	mg/Kg	1	03/19/19	EK	SW6010D
Thallium	< 3.6	3.6	mg/Kg	1	03/19/19	CPP	SW6010D
Vanadium	18.5	0.40	mg/Kg	1	03/19/19	CPP	SW6010D
Zinc	25.1	0.8	mg/Kg	1	03/19/19	CPP	SW6010D
Percent Solid	80		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for Pesticides	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Mercury Digestion	Completed				03/20/19	W/I/I	SW7471B

Ver 1

Project ID: 297 WALLABOUT
Client ID: SB-4 (10-12)

Phoenix I.D.: CC69595

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG/BF	SW3050B
Polychlorinated Biphenyls							
PCB-1016	ND	83	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1221	ND	83	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1232	ND	83	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1242	ND	83	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1248	ND	83	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1254	ND	83	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1260	ND	83	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1262	ND	83	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1268	ND	83	ug/Kg	2	03/19/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	51		%	2	03/19/19	SC	30 - 150 %
% DCBP (Confirmation)	49		%	2	03/19/19	SC	30 - 150 %
% TCMX	44		%	2	03/19/19	SC	30 - 150 %
% TCMX (Confirmation)	44		%	2	03/19/19	SC	30 - 150 %
Pesticides - Soil							
4,4' -DDD	ND	2.5	ug/Kg	2	03/20/19	CW	SW8081B
4,4' -DDE	ND	2.5	ug/Kg	2	03/20/19	CW	SW8081B
4,4' -DDT	ND	2.5	ug/Kg	2	03/20/19	CW	SW8081B
a-BHC	ND	8.3	ug/Kg	2	03/20/19	CW	SW8081B
a-Chlordane	ND	4.2	ug/Kg	2	03/20/19	CW	SW8081B
Aldrin	ND	4.2	ug/Kg	2	03/20/19	CW	SW8081B
b-BHC	ND	8.3	ug/Kg	2	03/20/19	CW	SW8081B
Chlordane	ND	42	ug/Kg	2	03/20/19	CW	SW8081B
d-BHC	ND	8.3	ug/Kg	2	03/20/19	CW	SW8081B
Dieldrin	ND	4.2	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan I	ND	8.3	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan II	ND	8.3	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan sulfate	ND	8.3	ug/Kg	2	03/20/19	CW	SW8081B
Endrin	ND	8.3	ug/Kg	2	03/20/19	CW	SW8081B
Endrin aldehyde	ND	8.3	ug/Kg	2	03/20/19	CW	SW8081B
Endrin ketone	ND	8.3	ug/Kg	2	03/20/19	CW	SW8081B
g-BHC	ND	1.7	ug/Kg	2	03/20/19	CW	SW8081B
g-Chlordane	ND	4.2	ug/Kg	2	03/20/19	CW	SW8081B
Heptachlor	ND	8.3	ug/Kg	2	03/20/19	CW	SW8081B
Heptachlor epoxide	ND	8.3	ug/Kg	2	03/20/19	CW	SW8081B
Methoxychlor	ND	42	ug/Kg	2	03/20/19	CW	SW8081B
Toxaphene	ND	170	ug/Kg	2	03/20/19	CW	SW8081B
QA/QC Surrogates							
% DCBP	46		%	2	03/20/19	CW	30 - 150 %
% DCBP (Confirmation)	46		%	2	03/20/19	CW	30 - 150 %
% TCMX	40		%	2	03/20/19	CW	30 - 150 %
% TCMX (Confirmation)	45		%	2	03/20/19	CW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C

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Client ID: SB-4 (10-12)

Phoenix I.D.: CC69595

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
1,1,2,2-Tetrachloroethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1,2-Trichloroethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloroethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloroethene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloropropene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,3-Trichlorobenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,3-Trichloropropane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,4-Trichlorobenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,4-Trimethylbenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dibromo-3-chloropropane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dibromoethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichlorobenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichloroethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichloropropane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3,5-Trimethylbenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3-Dichlorobenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3-Dichloropropane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,4-Dichlorobenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
2,2-Dichloropropane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Chlorotoluene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Hexanone	ND	31	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Isopropyltoluene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	1
4-Chlorotoluene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
4-Methyl-2-pentanone	ND	31	ug/Kg	1	03/19/19	JLI	SW8260C	
Acetone	ND	31	ug/Kg	1	03/19/19	JLI	SW8260C	
Acrylonitrile	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	
Benzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromobenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromochloromethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromodichloromethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromoform	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromomethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Carbon Disulfide	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Carbon tetrachloride	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Chlorobenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloroethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloroform	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloromethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
cis-1,2-Dichloroethene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
cis-1,3-Dichloropropene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Dibromochloromethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Dibromomethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Dichlorodifluoromethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Ethylbenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Hexachlorobutadiene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Isopropylbenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
m&p-Xylene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Methyl Ethyl Ketone	ND	31	ug/Kg	1	03/19/19	JLI	SW8260C	
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Methylene chloride	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	
Naphthalene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
n-Butylbenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
n-Propylbenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
o-Xylene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
p-Isopropyltoluene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
sec-Butylbenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Styrene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
tert-Butylbenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Tetrachloroethene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Tetrahydrofuran (THF)	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	1
Toluene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Total Xylenes	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,2-Dichloroethene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,3-Dichloropropene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichloroethene	12	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichlorofluoromethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichlorotrifluoroethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Vinyl chloride	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	100		%	1	03/19/19	JLI	70 - 130 %	
% Bromofluorobenzene	93		%	1	03/19/19	JLI	70 - 130 %	
% Dibromofluoromethane	103		%	1	03/19/19	JLI	70 - 130 %	
% Toluene-d8	98		%	1	03/19/19	JLI	70 - 130 %	

Semivolatiles

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,4,5-Tetrachlorobenzene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	420	ug/Kg	1	03/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	420	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
2-Chloronaphthalene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
2-Chlorophenol	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylnaphthalene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitroaniline	ND	420	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitrophenol	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	420	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	420	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	420	ug/Kg	1	03/19/19	WB	SW8270D

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Bromophenyl phenyl ether	ND	420	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitroaniline	ND	660	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	420	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	830	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	420	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	ND	420	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	420	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Fluorene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	420	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	420	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	420	ug/Kg	1	03/19/19	WB	SW8270D
Pentachlorophenol	ND	420	ug/Kg	1	03/19/19	WB	SW8270D
Phenanthrene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Phenol	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Pyrene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D

Project ID: 297 WALLABOUT

Client ID: SB-4 (10-12)

Phoenix I.D.: CC69595

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Pyridine	ND	420	ug/Kg	1	03/19/19	WB	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	74		%	1	03/19/19	WB	30 - 130 %	
% 2-Fluorobiphenyl	59		%	1	03/19/19	WB	30 - 130 %	
% 2-Fluorophenol	52		%	1	03/19/19	WB	30 - 130 %	
% Nitrobenzene-d5	57		%	1	03/19/19	WB	30 - 130 %	
% Phenol-d5	59		%	1	03/19/19	WB	30 - 130 %	
% Terphenyl-d14	64		%	1	03/19/19	WB	30 - 130 %	
Field Extraction	Completed				03/18/19		SW5035A	1

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller

Phyllis Shiller, Laboratory Director

March 27, 2019

Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

March 27, 2019

FOR: Attn: Moshe Monheit
Rock Brokerage
170 Lee Avenue
Brooklyn NY 11211

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/18/19	9:10
Location Code:	ROCKBROKE	Received by:	CP	03/18/19	17:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC69590
Phoenix ID: CC69596

Project ID: 297 WALLABOUT
Client ID: SB-1 (0-2)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	1	03/19/19	CPP	SW6010D
Aluminum	5430	59	mg/Kg	10	03/19/19	CPP	SW6010D
Arsenic	2.02	0.78	mg/Kg	1	03/19/19	CPP	SW6010D
Barium	190	0.39	mg/Kg	1	03/19/19	CPP	SW6010D
Beryllium	< 0.31	0.31	mg/Kg	1	03/19/19	CPP	SW6010D
Calcium	76300	59	mg/Kg	10	03/19/19	EK	SW6010D
Cadmium	0.51	0.39	mg/Kg	1	03/19/19	CPP	SW6010D
Cobalt	2.72	0.39	mg/Kg	1	03/19/19	CPP	SW6010D
Chromium	11.1	0.39	mg/Kg	1	03/19/19	CPP	SW6010D
Copper	11.6	0.8	mg/kg	1	03/19/19	CPP	SW6010D
Iron	7200	5.9	mg/Kg	1	03/19/19	CPP	SW6010D
Mercury	0.33	0.03	mg/Kg	1	03/20/19	RS	SW7471B
Potassium	1120	5.9	mg/Kg	1	03/19/19	EK	SW6010D
Magnesium	3550	5.9	mg/Kg	1	03/19/19	CPP	SW6010D
Manganese	155	0.39	mg/Kg	1	03/19/19	CPP	SW6010D
Sodium	1160	5.9	mg/Kg	1	03/19/19	CPP	SW6010D
Nickel	5.90	0.39	mg/Kg	1	03/19/19	CPP	SW6010D
Lead	420	3.9	mg/Kg	10	03/19/19	CPP	SW6010D
Antimony	< 3.9	3.9	mg/Kg	1	03/19/19	CPP	SW6010D
Selenium	< 1.6	1.6	mg/Kg	1	03/19/19	EK	SW6010D
Thallium	< 3.5	3.5	mg/Kg	1	03/19/19	CPP	SW6010D
Vanadium	11.2	0.39	mg/Kg	1	03/19/19	CPP	SW6010D
Zinc	235	7.8	mg/Kg	10	03/19/19	CPP	SW6010D
Percent Solid	82		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/19/19	MM/V	SW3545A
Soil Extraction for Pesticides	Completed				03/19/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Mercury Digestion	Completed				03/20/19	W/I/I	SW7471B

Ver 1

Project ID: 297 WALLABOUT
Client ID: SB-1 (0-2)

Phoenix I.D.: CC69596

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG/BF	SW3050B
Polychlorinated Biphenyls							
PCB-1016	ND	81	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1221	ND	81	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1232	ND	81	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1242	ND	81	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1248	ND	81	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1254	ND	81	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1260	ND	81	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1262	ND	81	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1268	ND	81	ug/Kg	2	03/20/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	78		%	2	03/20/19	SC	30 - 150 %
% DCBP (Confirmation)	78		%	2	03/20/19	SC	30 - 150 %
% TCMX	73		%	2	03/20/19	SC	30 - 150 %
% TCMX (Confirmation)	70		%	2	03/20/19	SC	30 - 150 %
Pesticides - Soil							
4,4' -DDD	8.8	2.4	ug/Kg	2	03/21/19	CW	SW8081B
4,4' -DDE	12	2.4	ug/Kg	2	03/21/19	CW	SW8081B
4,4' -DDT	60	2.4	ug/Kg	2	03/21/19	CW	SW8081B
a-BHC	ND	8.1	ug/Kg	2	03/21/19	CW	SW8081B
a-Chlordane	ND	4.0	ug/Kg	2	03/21/19	CW	SW8081B
Aldrin	ND	4.0	ug/Kg	2	03/21/19	CW	SW8081B
b-BHC	ND	8.1	ug/Kg	2	03/21/19	CW	SW8081B
Chlordane	82	40	ug/Kg	2	03/21/19	CW	SW8081B
d-BHC	ND	8.1	ug/Kg	2	03/21/19	CW	SW8081B
Dieldrin	5.6	4.0	ug/Kg	2	03/21/19	CW	SW8081B
Endosulfan I	ND	8.1	ug/Kg	2	03/21/19	CW	SW8081B
Endosulfan II	ND	8.1	ug/Kg	2	03/21/19	CW	SW8081B
Endosulfan sulfate	ND	8.1	ug/Kg	2	03/21/19	CW	SW8081B
Endrin	ND	8.1	ug/Kg	2	03/21/19	CW	SW8081B
Endrin aldehyde	ND	8.1	ug/Kg	2	03/21/19	CW	SW8081B
Endrin ketone	ND	8.1	ug/Kg	2	03/21/19	CW	SW8081B
g-BHC	ND	1.6	ug/Kg	2	03/21/19	CW	SW8081B
g-Chlordane	14	4.0	ug/Kg	2	03/21/19	CW	SW8081B
Heptachlor	ND	8.1	ug/Kg	2	03/21/19	CW	SW8081B
Heptachlor epoxide	ND	8.1	ug/Kg	2	03/21/19	CW	SW8081B
Methoxychlor	ND	40	ug/Kg	2	03/21/19	CW	SW8081B
Toxaphene	ND	160	ug/Kg	2	03/21/19	CW	SW8081B
QA/QC Surrogates							
% DCBP	73		%	2	03/21/19	CW	30 - 150 %
% DCBP (Confirmation)	70		%	2	03/21/19	CW	30 - 150 %
% TCMX	69		%	2	03/21/19	CW	30 - 150 %
% TCMX (Confirmation)	76		%	2	03/21/19	CW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
1,1,2,2-Tetrachloroethane	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1,2-Trichloroethane	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloroethane	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloroethene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloropropene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,3-Trichlorobenzene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,3-Trichloropropane	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,4-Trichlorobenzene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,4-Trimethylbenzene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dibromo-3-chloropropane	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dibromoethane	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichlorobenzene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichloroethane	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichloropropane	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3,5-Trimethylbenzene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3-Dichlorobenzene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3-Dichloropropane	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,4-Dichlorobenzene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
2,2-Dichloropropane	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Chlorotoluene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Hexanone	ND	30	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Isopropyltoluene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	1
4-Chlorotoluene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
4-Methyl-2-pentanone	ND	30	ug/Kg	1	03/19/19	JLI	SW8260C	
Acetone	59 S	30	ug/Kg	1	03/19/19	JLI	SW8260C	
Acrylonitrile	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	
Benzene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromobenzene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromochloromethane	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromodichloromethane	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromoform	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromomethane	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Carbon Disulfide	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Carbon tetrachloride	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Chlorobenzene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloroethane	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloroform	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloromethane	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
cis-1,2-Dichloroethene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
cis-1,3-Dichloropropene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Dibromochloromethane	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Dibromomethane	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Dichlorodifluoromethane	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Ethylbenzene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Hexachlorobutadiene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Isopropylbenzene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
m&p-Xylene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Methyl Ethyl Ketone	ND	30	ug/Kg	1	03/19/19	JLI	SW8260C	
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Methylene chloride	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	
Naphthalene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
n-Butylbenzene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
n-Propylbenzene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
o-Xylene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
p-Isopropyltoluene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
sec-Butylbenzene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Styrene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
tert-Butylbenzene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Tetrachloroethene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Tetrahydrofuran (THF)	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	1
Toluene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Total Xylenes	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,2-Dichloroethene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,3-Dichloropropene	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichloroethene	7.0	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichlorofluoromethane	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichlorotrifluoroethane	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Vinyl chloride	ND	6.0	ug/Kg	1	03/19/19	JLI	SW8260C	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	100		%	1	03/19/19	JLI	70 - 130 %	
% Bromofluorobenzene	90		%	1	03/19/19	JLI	70 - 130 %	
% Dibromofluoromethane	36		%	1	03/19/19	JLI	70 - 130 %	3
% Toluene-d8	98		%	1	03/19/19	JLI	70 - 130 %	

Semivolatiles

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,4,5-Tetrachlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Chloronaphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Chlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylnaphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitroaniline	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitrophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	390	ug/Kg	1	03/19/19	WB	SW8270D

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Bromophenyl phenyl ether	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitroaniline	ND	630	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	450	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	380	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	310	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	280	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	310	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	790	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	500	280	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	670	280	ug/Kg	1	03/19/19	WB	SW8270D
Fluorene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
Pentachlorophenol	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
Phenanthrene	770	280	ug/Kg	1	03/19/19	WB	SW8270D
Phenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Pyrene	650	280	ug/Kg	1	03/19/19	WB	SW8270D

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Phoenix I.D.: CC69596

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Pyridine	ND	390	ug/Kg	1	03/19/19	WB	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	81		%	1	03/19/19	WB	30 - 130 %	
% 2-Fluorobiphenyl	71		%	1	03/19/19	WB	30 - 130 %	
% 2-Fluorophenol	50		%	1	03/19/19	WB	30 - 130 %	
% Nitrobenzene-d5	76		%	1	03/19/19	WB	30 - 130 %	
% Phenol-d5	73		%	1	03/19/19	WB	30 - 130 %	
% Terphenyl-d14	48		%	1	03/19/19	WB	30 - 130 %	
Field Extraction	Completed				03/18/19		SW5035A	1

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
3 = This parameter exceeds laboratory specified limits.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Volatile comment
Sample exhibited matrix interference in the volatile analysis. The Low-level vial was analyzed with one or more poor internal standard responses and/or one or more poor surrogate recoveries. The high level analysis did not exhibit this interference. Had any compounds been detected in the high level analysis, they would have been reported at that dilution. The low level analysis was reported, in order to meet the requested reporting criteria.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

S - Laboratory solvent, contamination is possible.

Phyllis Shiller

Phyllis Shiller, Laboratory Director
March 27, 2019
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

Analysis Report

March 27, 2019

FOR: Attn: Moshe Monheit
Rock Brokerage
170 Lee Avenue
Brooklyn NY 11211

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/18/19	9:20
Location Code:	ROCKBROKE	Received by:	CP	03/18/19	17:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC69590
Phoenix ID: CC69597

Project ID: 297 WALLABOUT
Client ID: SB-1 (10-12)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.41	0.41	mg/Kg	1	03/19/19	CPP	SW6010D
Aluminum	8050	62	mg/Kg	10	03/19/19	CPP	SW6010D
Arsenic	3.47	0.82	mg/Kg	1	03/19/19	CPP	SW6010D
Barium	44.7	0.41	mg/Kg	1	03/19/19	CPP	SW6010D
Beryllium	0.41	0.33	mg/Kg	1	03/19/19	CPP	SW6010D
Calcium	1470	6.2	mg/Kg	1	03/19/19	EK	SW6010D
Cadmium	< 0.41	0.41	mg/Kg	1	03/19/19	CPP	SW6010D
Cobalt	7.32	0.41	mg/Kg	1	03/19/19	CPP	SW6010D
Chromium	20.3	0.41	mg/Kg	1	03/19/19	CPP	SW6010D
Copper	11.7	0.8	mg/kg	1	03/19/19	CPP	SW6010D
Iron	12400	62	mg/Kg	10	03/19/19	CPP	SW6010D
Mercury	< 0.03	0.03	mg/Kg	1	03/20/19	RS	SW7471B
Potassium	1100	6.2	mg/Kg	1	03/19/19	EK	SW6010D
Magnesium	2520	6.2	mg/Kg	1	03/19/19	CPP	SW6010D
Manganese	134	0.41	mg/Kg	1	03/19/19	CPP	SW6010D
Sodium	102	6.2	mg/Kg	1	03/19/19	CPP	SW6010D
Nickel	14.3	0.41	mg/Kg	1	03/19/19	CPP	SW6010D
Lead	8.55	0.41	mg/Kg	1	03/19/19	CPP	SW6010D
Antimony	< 4.1	4.1	mg/Kg	1	03/19/19	CPP	SW6010D
Selenium	< 1.6	1.6	mg/Kg	1	03/19/19	EK	SW6010D
Thallium	< 3.7	3.7	mg/Kg	1	03/19/19	CPP	SW6010D
Vanadium	24.7	0.41	mg/Kg	1	03/19/19	CPP	SW6010D
Zinc	35.5	0.8	mg/Kg	1	03/19/19	CPP	SW6010D
Percent Solid	82		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/19/19	MM/V	SW3545A
Soil Extraction for Pesticides	Completed				03/19/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Mercury Digestion	Completed				03/20/19	W/I/I	SW7471B

Ver 1

Project ID: 297 WALLABOUT
Client ID: SB-1 (10-12)

Phoenix I.D.: CC69597

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG/BF	SW3050B
Polychlorinated Biphenyls							
PCB-1016	ND	79	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1221	ND	79	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1232	ND	79	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1242	ND	79	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1248	ND	79	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1254	ND	79	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1260	ND	79	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1262	ND	79	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1268	ND	79	ug/Kg	2	03/20/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	66		%	2	03/20/19	SC	30 - 150 %
% DCBP (Confirmation)	69		%	2	03/20/19	SC	30 - 150 %
% TCMX	66		%	2	03/20/19	SC	30 - 150 %
% TCMX (Confirmation)	66		%	2	03/20/19	SC	30 - 150 %
Pesticides - Soil							
4,4' -DDD	ND	2.4	ug/Kg	2	03/21/19	CW	SW8081B
4,4' -DDE	ND	2.4	ug/Kg	2	03/21/19	CW	SW8081B
4,4' -DDT	ND	2.4	ug/Kg	2	03/21/19	CW	SW8081B
a-BHC	ND	7.9	ug/Kg	2	03/21/19	CW	SW8081B
a-Chlordane	ND	3.9	ug/Kg	2	03/21/19	CW	SW8081B
Aldrin	ND	3.9	ug/Kg	2	03/21/19	CW	SW8081B
b-BHC	ND	7.9	ug/Kg	2	03/21/19	CW	SW8081B
Chlordane	ND	39	ug/Kg	2	03/21/19	CW	SW8081B
d-BHC	ND	7.9	ug/Kg	2	03/21/19	CW	SW8081B
Dieldrin	ND	3.9	ug/Kg	2	03/21/19	CW	SW8081B
Endosulfan I	ND	7.9	ug/Kg	2	03/21/19	CW	SW8081B
Endosulfan II	ND	7.9	ug/Kg	2	03/21/19	CW	SW8081B
Endosulfan sulfate	ND	7.9	ug/Kg	2	03/21/19	CW	SW8081B
Endrin	ND	7.9	ug/Kg	2	03/21/19	CW	SW8081B
Endrin aldehyde	ND	7.9	ug/Kg	2	03/21/19	CW	SW8081B
Endrin ketone	ND	7.9	ug/Kg	2	03/21/19	CW	SW8081B
g-BHC	ND	1.6	ug/Kg	2	03/21/19	CW	SW8081B
g-Chlordane	ND	3.9	ug/Kg	2	03/21/19	CW	SW8081B
Heptachlor	ND	7.9	ug/Kg	2	03/21/19	CW	SW8081B
Heptachlor epoxide	ND	7.9	ug/Kg	2	03/21/19	CW	SW8081B
Methoxychlor	ND	39	ug/Kg	2	03/21/19	CW	SW8081B
Toxaphene	ND	160	ug/Kg	2	03/21/19	CW	SW8081B
QA/QC Surrogates							
% DCBP	64		%	2	03/21/19	CW	30 - 150 %
% DCBP (Confirmation)	56		%	2	03/21/19	CW	30 - 150 %
% TCMX	63		%	2	03/21/19	CW	30 - 150 %
% TCMX (Confirmation)	66		%	2	03/21/19	CW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C

Project ID: 297 WALLABOUT
Client ID: SB-1 (10-12)

Phoenix I.D.: CC69597

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
1,1,2,2-Tetrachloroethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1,2-Trichloroethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloroethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloroethene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloropropene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,3-Trichlorobenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,3-Trichloropropane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,4-Trichlorobenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,4-Trimethylbenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dibromo-3-chloropropane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dibromoethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichlorobenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichloroethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichloropropane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3,5-Trimethylbenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3-Dichlorobenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3-Dichloropropane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
1,4-Dichlorobenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
2,2-Dichloropropane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Chlorotoluene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Hexanone	ND	30	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Isopropyltoluene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	1
4-Chlorotoluene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
4-Methyl-2-pentanone	ND	30	ug/Kg	1	03/19/19	JLI	SW8260C	
Acetone	ND	30	ug/Kg	1	03/19/19	JLI	SW8260C	
Acrylonitrile	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	
Benzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromobenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromochloromethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromodichloromethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromoform	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromomethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
Carbon Disulfide	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
Carbon tetrachloride	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
Chlorobenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloroethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloroform	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloromethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
cis-1,2-Dichloroethene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
cis-1,3-Dichloropropene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
Dibromochloromethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
Dibromomethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
Dichlorodifluoromethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
Ethylbenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
Hexachlorobutadiene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
Isopropylbenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
m&p-Xylene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
Methyl Ethyl Ketone	ND	30	ug/Kg	1	03/19/19	JLI	SW8260C	
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Methylene chloride	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	
Naphthalene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
n-Butylbenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
n-Propylbenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
o-Xylene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
p-Isopropyltoluene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
sec-Butylbenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
Styrene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
tert-Butylbenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
Tetrachloroethene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
Tetrahydrofuran (THF)	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	1
Toluene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
Total Xylenes	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,2-Dichloroethene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,3-Dichloropropene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichloroethene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichlorofluoromethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichlorotrifluoroethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
Vinyl chloride	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	101		%	1	03/19/19	JLI	70 - 130 %	
% Bromofluorobenzene	93		%	1	03/19/19	JLI	70 - 130 %	
% Dibromofluoromethane	99		%	1	03/19/19	JLI	70 - 130 %	
% Toluene-d8	99		%	1	03/19/19	JLI	70 - 130 %	

Semivolatiles

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,4,5-Tetrachlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Chloronaphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Chlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylnaphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitroaniline	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitrophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	400	ug/Kg	1	03/19/19	WB	SW8270D

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Bromophenyl phenyl ether	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitroaniline	ND	650	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	810	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Fluorene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
Pentachlorophenol	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
Phenanthrene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Phenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Pyrene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D

Project ID: 297 WALLABOUT
Client ID: SB-1 (10-12)

Phoenix I.D.: CC69597

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Pyridine	ND	400	ug/Kg	1	03/19/19	WB	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	71		%	1	03/19/19	WB	30 - 130 %	
% 2-Fluorobiphenyl	53		%	1	03/19/19	WB	30 - 130 %	
% 2-Fluorophenol	46		%	1	03/19/19	WB	30 - 130 %	
% Nitrobenzene-d5	50		%	1	03/19/19	WB	30 - 130 %	
% Phenol-d5	53		%	1	03/19/19	WB	30 - 130 %	
% Terphenyl-d14	63		%	1	03/19/19	WB	30 - 130 %	
Field Extraction	Completed				03/18/19		SW5035A	1

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller

Phyllis Shiller, Laboratory Director
March 27, 2019
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

Analysis Report

March 27, 2019

FOR: Attn: Moshe Monheit
Rock Brokerage
170 Lee Avenue
Brooklyn NY 11211

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/18/19	9:45
Location Code:	ROCKBROKE	Received by:	CP	03/18/19	17:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC69590
Phoenix ID: CC69598

Project ID: 297 WALLABOUT
Client ID: SB-2 (0-2)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.35	0.35	mg/Kg	1	03/19/19	CPP	SW6010D
Aluminum	9090	52	mg/Kg	10	03/19/19	CPP	SW6010D
Arsenic	2.08	0.70	mg/Kg	1	03/19/19	CPP	SW6010D
Barium	57.5	0.35	mg/Kg	1	03/19/19	CPP	SW6010D
Beryllium	0.47	0.28	mg/Kg	1	03/19/19	CPP	SW6010D
Calcium	14500	52	mg/Kg	10	03/19/19	EK	SW6010D
Cadmium	0.47	0.35	mg/Kg	1	03/19/19	CPP	SW6010D
Cobalt	8.86	0.35	mg/Kg	1	03/19/19	CPP	SW6010D
Chromium	24.7	0.35	mg/Kg	1	03/19/19	CPP	SW6010D
Copper	23.6	0.7	mg/kg	1	03/19/19	CPP	SW6010D
Iron	22700	52	mg/Kg	10	03/19/19	CPP	SW6010D
Mercury	< 0.03	0.03	mg/Kg	1	03/20/19	RS	SW7471B
Potassium	1520	5.2	mg/Kg	1	03/19/19	EK	SW6010D
Magnesium	3620	5.2	mg/Kg	1	03/19/19	CPP	SW6010D
Manganese	413	3.5	mg/Kg	10	03/19/19	CPP	SW6010D
Sodium	375	5.2	mg/Kg	1	03/19/19	CPP	SW6010D
Nickel	23.9	0.35	mg/Kg	1	03/19/19	CPP	SW6010D
Lead	14.3	0.35	mg/Kg	1	03/19/19	CPP	SW6010D
Antimony	< 3.5	3.5	mg/Kg	1	03/19/19	CPP	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	03/19/19	EK	SW6010D
Thallium	< 3.1	3.1	mg/Kg	1	03/19/19	CPP	SW6010D
Vanadium	29.5	0.35	mg/Kg	1	03/19/19	CPP	SW6010D
Zinc	45.2	0.7	mg/Kg	1	03/19/19	CPP	SW6010D
Percent Solid	91		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/19/19	MM/V	SW3545A
Soil Extraction for Pesticides	Completed				03/19/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Mercury Digestion	Completed				03/20/19	W/I/I	SW7471B

Ver 1

Project ID: 297 WALLABOUT
Client ID: SB-2 (0-2)

Phoenix I.D.: CC69598

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG/BF	SW3050B
Polychlorinated Biphenyls							
PCB-1016	ND	73	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1221	ND	73	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1232	ND	73	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1242	ND	73	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1248	ND	73	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1254	ND	73	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1260	ND	73	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1262	ND	73	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1268	ND	73	ug/Kg	2	03/20/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	73		%	2	03/20/19	SC	30 - 150 %
% DCBP (Confirmation)	62		%	2	03/20/19	SC	30 - 150 %
% TCMX	68		%	2	03/20/19	SC	30 - 150 %
% TCMX (Confirmation)	62		%	2	03/20/19	SC	30 - 150 %
Pesticides - Soil							
4,4' -DDD	ND	2.2	ug/Kg	2	03/21/19	CW	SW8081B
4,4' -DDE	ND	2.2	ug/Kg	2	03/21/19	CW	SW8081B
4,4' -DDT	8.4	2.2	ug/Kg	2	03/21/19	CW	SW8081B
a-BHC	ND	7.3	ug/Kg	2	03/21/19	CW	SW8081B
a-Chlordane	ND	3.6	ug/Kg	2	03/21/19	CW	SW8081B
Aldrin	ND	3.6	ug/Kg	2	03/21/19	CW	SW8081B
b-BHC	ND	7.3	ug/Kg	2	03/21/19	CW	SW8081B
Chlordane	ND	36	ug/Kg	2	03/21/19	CW	SW8081B
d-BHC	ND	7.3	ug/Kg	2	03/21/19	CW	SW8081B
Dieldrin	ND	3.6	ug/Kg	2	03/21/19	CW	SW8081B
Endosulfan I	ND	7.3	ug/Kg	2	03/21/19	CW	SW8081B
Endosulfan II	ND	7.3	ug/Kg	2	03/21/19	CW	SW8081B
Endosulfan sulfate	ND	7.3	ug/Kg	2	03/21/19	CW	SW8081B
Endrin	ND	7.3	ug/Kg	2	03/21/19	CW	SW8081B
Endrin aldehyde	ND	7.3	ug/Kg	2	03/21/19	CW	SW8081B
Endrin ketone	ND	7.3	ug/Kg	2	03/21/19	CW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	03/21/19	CW	SW8081B
g-Chlordane	ND	3.6	ug/Kg	2	03/21/19	CW	SW8081B
Heptachlor	ND	7.3	ug/Kg	2	03/21/19	CW	SW8081B
Heptachlor epoxide	ND	7.3	ug/Kg	2	03/21/19	CW	SW8081B
Methoxychlor	ND	36	ug/Kg	2	03/21/19	CW	SW8081B
Toxaphene	ND	150	ug/Kg	2	03/21/19	CW	SW8081B
QA/QC Surrogates							
% DCBP	87		%	2	03/21/19	CW	30 - 150 %
% DCBP (Confirmation)	55		%	2	03/21/19	CW	30 - 150 %
% TCMX	96		%	2	03/21/19	CW	30 - 150 %
% TCMX (Confirmation)	66		%	2	03/21/19	CW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C

Project ID: 297 WALLABOUT

Client ID: SB-2 (0-2)

Phoenix I.D.: CC69598

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
1,1,2,2-Tetrachloroethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1,2-Trichloroethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloroethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloroethene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloropropene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,3-Trichlorobenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,3-Trichloropropane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,4-Trichlorobenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,4-Trimethylbenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dibromo-3-chloropropane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dibromoethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichlorobenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichloroethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichloropropane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3,5-Trimethylbenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3-Dichlorobenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3-Dichloropropane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
1,4-Dichlorobenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
2,2-Dichloropropane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Chlorotoluene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Hexanone	ND	27	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Isopropyltoluene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	1
4-Chlorotoluene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
4-Methyl-2-pentanone	ND	27	ug/Kg	1	03/19/19	JLI	SW8260C	
Acetone	ND	27	ug/Kg	1	03/19/19	JLI	SW8260C	
Acrylonitrile	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C	
Benzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromobenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromochloromethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromodichloromethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromoform	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromomethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Carbon Disulfide	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Carbon tetrachloride	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Chlorobenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloroethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloroform	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloromethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
cis-1,2-Dichloroethene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
cis-1,3-Dichloropropene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Dibromochloromethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Dibromomethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Dichlorodifluoromethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Ethylbenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Hexachlorobutadiene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Isopropylbenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
m&p-Xylene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Methyl Ethyl Ketone	ND	27	ug/Kg	1	03/19/19	JLI	SW8260C	
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C	

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Methylene chloride	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C	
Naphthalene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
n-Butylbenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
n-Propylbenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
o-Xylene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
p-Isopropyltoluene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
sec-Butylbenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Styrene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
tert-Butylbenzene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Tetrachloroethene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C	1
Toluene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Total Xylenes	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,2-Dichloroethene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,3-Dichloropropene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichloroethene	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichlorofluoromethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichlorotrifluoroethane	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
Vinyl chloride	ND	5.4	ug/Kg	1	03/19/19	JLI	SW8260C	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	102		%	1	03/19/19	JLI	70 - 130 %	
% Bromofluorobenzene	93		%	1	03/19/19	JLI	70 - 130 %	
% Dibromofluoromethane	76		%	1	03/19/19	JLI	70 - 130 %	
% Toluene-d8	100		%	1	03/19/19	JLI	70 - 130 %	

Semivolatiles

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,4,5-Tetrachlorobenzene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	350	ug/Kg	1	03/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	350	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2-Chloronaphthalene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2-Chlorophenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylnaphthalene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitroaniline	ND	350	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitrophenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	350	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	350	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	350	ug/Kg	1	03/19/19	WB	SW8270D

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Bromophenyl phenyl ether	ND	350	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitroaniline	ND	570	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	350	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	420	250	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	360	250	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	290	250	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	280	250	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	710	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	350	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	ND	350	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	450	250	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	350	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	900	250	ug/Kg	1	03/19/19	WB	SW8270D
Fluorene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	350	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	350	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	350	ug/Kg	1	03/19/19	WB	SW8270D
Pentachlorophenol	ND	350	ug/Kg	1	03/19/19	WB	SW8270D
Phenanthrene	1200	250	ug/Kg	1	03/19/19	WB	SW8270D
Phenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Pyrene	870	250	ug/Kg	1	03/19/19	WB	SW8270D

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Pyridine	ND	350	ug/Kg	1	03/19/19	WB	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	71		%	1	03/19/19	WB	30 - 130 %	
% 2-Fluorobiphenyl	75		%	1	03/19/19	WB	30 - 130 %	
% 2-Fluorophenol	34		%	1	03/19/19	WB	30 - 130 %	
% Nitrobenzene-d5	76		%	1	03/19/19	WB	30 - 130 %	
% Phenol-d5	72		%	1	03/19/19	WB	30 - 130 %	
% Terphenyl-d14	64		%	1	03/19/19	WB	30 - 130 %	
Field Extraction	Completed				03/18/19		SW5035A	1

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller, Laboratory Director
March 27, 2019
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

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ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

Analysis Report

March 27, 2019

FOR: Attn: Moshe Monheit
Rock Brokerage
170 Lee Avenue
Brooklyn NY 11211

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/18/19	9:55
Location Code:	ROCKBROKE	Received by:	CP	03/18/19	17:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC69590
Phoenix ID: CC69599

Project ID: 297 WALLABOUT
Client ID: SB-2 (10-12)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	1	03/19/19	CPP	SW6010D
Aluminum	4510	59	mg/Kg	10	03/19/19	CPP	SW6010D
Arsenic	1.01	0.78	mg/Kg	1	03/19/19	CPP	SW6010D
Barium	21.1	0.39	mg/Kg	1	03/19/19	CPP	SW6010D
Beryllium	< 0.31	0.31	mg/Kg	1	03/19/19	CPP	SW6010D
Calcium	1780	5.9	mg/Kg	1	03/19/19	EK	SW6010D
Cadmium	< 0.39	0.39	mg/Kg	1	03/19/19	CPP	SW6010D
Cobalt	3.37	0.39	mg/Kg	1	03/19/19	CPP	SW6010D
Chromium	19.2	0.39	mg/Kg	1	03/19/19	CPP	SW6010D
Copper	8.6	0.8	mg/kg	1	03/19/19	CPP	SW6010D
Iron	6900	5.9	mg/Kg	1	03/19/19	CPP	SW6010D
Mercury	< 0.03	0.03	mg/Kg	1	03/20/19	RS	SW7471B
Potassium	481	5.9	mg/Kg	1	03/19/19	EK	SW6010D
Magnesium	1150	5.9	mg/Kg	1	03/19/19	CPP	SW6010D
Manganese	80.0	0.39	mg/Kg	1	03/19/19	CPP	SW6010D
Sodium	101	5.9	mg/Kg	1	03/19/19	CPP	SW6010D
Nickel	14.7	0.39	mg/Kg	1	03/19/19	CPP	SW6010D
Lead	33.2	0.39	mg/Kg	1	03/19/19	CPP	SW6010D
Antimony	< 3.9	3.9	mg/Kg	1	03/19/19	CPP	SW6010D
Selenium	< 1.6	1.6	mg/Kg	1	03/19/19	EK	SW6010D
Thallium	< 3.5	3.5	mg/Kg	1	03/19/19	CPP	SW6010D
Vanadium	13.2	0.39	mg/Kg	1	03/19/19	CPP	SW6010D
Zinc	23.4	0.8	mg/Kg	1	03/19/19	CPP	SW6010D
Percent Solid	85		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/19/19	MM/V	SW3545A
Soil Extraction for Pesticides	Completed				03/19/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Mercury Digestion	Completed				03/20/19	W/I/I	SW7471B

Ver 1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG/BF	SW3050B
Polychlorinated Biphenyls							
PCB-1016	ND	76	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1221	ND	76	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1232	ND	76	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1242	ND	76	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1248	ND	76	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1254	ND	76	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1260	ND	76	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1262	ND	76	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1268	ND	76	ug/Kg	2	03/20/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	78		%	2	03/20/19	SC	30 - 150 %
% DCBP (Confirmation)	68		%	2	03/20/19	SC	30 - 150 %
% TCMX	75		%	2	03/20/19	SC	30 - 150 %
% TCMX (Confirmation)	71		%	2	03/20/19	SC	30 - 150 %
Pesticides - Soil							
4,4' -DDD	ND	2.3	ug/Kg	2	03/21/19	CW	SW8081B
4,4' -DDE	ND	2.3	ug/Kg	2	03/21/19	CW	SW8081B
4,4' -DDT	ND	2.3	ug/Kg	2	03/21/19	CW	SW8081B
a-BHC	ND	7.6	ug/Kg	2	03/21/19	CW	SW8081B
a-Chlordane	ND	3.8	ug/Kg	2	03/21/19	CW	SW8081B
Aldrin	ND	3.8	ug/Kg	2	03/21/19	CW	SW8081B
b-BHC	ND	7.6	ug/Kg	2	03/21/19	CW	SW8081B
Chlordane	ND	38	ug/Kg	2	03/21/19	CW	SW8081B
d-BHC	ND	7.6	ug/Kg	2	03/21/19	CW	SW8081B
Dieldrin	ND	3.8	ug/Kg	2	03/21/19	CW	SW8081B
Endosulfan I	ND	7.6	ug/Kg	2	03/21/19	CW	SW8081B
Endosulfan II	ND	7.6	ug/Kg	2	03/21/19	CW	SW8081B
Endosulfan sulfate	ND	7.6	ug/Kg	2	03/21/19	CW	SW8081B
Endrin	ND	7.6	ug/Kg	2	03/21/19	CW	SW8081B
Endrin aldehyde	ND	7.6	ug/Kg	2	03/21/19	CW	SW8081B
Endrin ketone	ND	7.6	ug/Kg	2	03/21/19	CW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	03/21/19	CW	SW8081B
g-Chlordane	ND	3.8	ug/Kg	2	03/21/19	CW	SW8081B
Heptachlor	ND	7.6	ug/Kg	2	03/21/19	CW	SW8081B
Heptachlor epoxide	ND	7.6	ug/Kg	2	03/21/19	CW	SW8081B
Methoxychlor	ND	38	ug/Kg	2	03/21/19	CW	SW8081B
Toxaphene	ND	150	ug/Kg	2	03/21/19	CW	SW8081B
QA/QC Surrogates							
% DCBP	65		%	2	03/21/19	CW	30 - 150 %
% DCBP (Confirmation)	57		%	2	03/21/19	CW	30 - 150 %
% TCMX	65		%	2	03/21/19	CW	30 - 150 %
% TCMX (Confirmation)	68		%	2	03/21/19	CW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C

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Client ID: SB-2 (10-12)

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
1,1,2,2-Tetrachloroethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1,2-Trichloroethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloroethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloroethene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloropropene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,3-Trichlorobenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,3-Trichloropropane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,4-Trichlorobenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,4-Trimethylbenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dibromo-3-chloropropane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dibromoethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichlorobenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichloroethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichloropropane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3,5-Trimethylbenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3-Dichlorobenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3-Dichloropropane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
1,4-Dichlorobenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
2,2-Dichloropropane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Chlorotoluene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Hexanone	ND	31	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Isopropyltoluene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	1
4-Chlorotoluene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
4-Methyl-2-pentanone	ND	31	ug/Kg	1	03/19/19	JLI	SW8260C	
Acetone	ND	31	ug/Kg	1	03/19/19	JLI	SW8260C	
Acrylonitrile	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	
Benzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromobenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromochloromethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromodichloromethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromoform	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromomethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Carbon Disulfide	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Carbon tetrachloride	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Chlorobenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloroethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloroform	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloromethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
cis-1,2-Dichloroethene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
cis-1,3-Dichloropropene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Dibromochloromethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Dibromomethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Dichlorodifluoromethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Ethylbenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Hexachlorobutadiene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Isopropylbenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
m&p-Xylene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Methyl Ethyl Ketone	ND	31	ug/Kg	1	03/19/19	JLI	SW8260C	
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Methylene chloride	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	
Naphthalene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
n-Butylbenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
n-Propylbenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
o-Xylene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
p-Isopropyltoluene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
sec-Butylbenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Styrene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
tert-Butylbenzene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Tetrachloroethene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Tetrahydrofuran (THF)	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	1
Toluene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Total Xylenes	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,2-Dichloroethene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,3-Dichloropropene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichloroethene	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichlorofluoromethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichlorotrifluoroethane	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
Vinyl chloride	ND	6.2	ug/Kg	1	03/19/19	JLI	SW8260C	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	103		%	1	03/19/19	JLI	70 - 130 %	
% Bromofluorobenzene	94		%	1	03/19/19	JLI	70 - 130 %	
% Dibromofluoromethane	87		%	1	03/19/19	JLI	70 - 130 %	
% Toluene-d8	100		%	1	03/19/19	JLI	70 - 130 %	

Semivolatiles

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,4,5-Tetrachlorobenzene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2-Chloronaphthalene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2-Chlorophenol	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylnaphthalene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitroaniline	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitrophenol	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	380	ug/Kg	1	03/19/19	WB	SW8270D

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Bromophenyl phenyl ether	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitroaniline	ND	610	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	770	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Fluorene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Pentachlorophenol	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Phenanthrene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Phenol	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Pyrene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Pyridine	ND	380	ug/Kg	1	03/19/19	WB	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	34		%	1	03/19/19	WB	30 - 130 %	
% 2-Fluorobiphenyl	33		%	1	03/19/19	WB	30 - 130 %	
% 2-Fluorophenol	27		%	1	03/19/19	WB	30 - 130 %	3
% Nitrobenzene-d5	33		%	1	03/19/19	WB	30 - 130 %	
% Phenol-d5	31		%	1	03/19/19	WB	30 - 130 %	
% Terphenyl-d14	31		%	1	03/19/19	WB	30 - 130 %	
Field Extraction	Completed				03/18/19		SW5035A	1

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
3 = This parameter exceeds laboratory specified limits.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Semi-Volatile Comment:
Poor surrogate recovery was observed for one acid and/or one base surrogate. The other surrogates associated with this sample were within QA/QC criteria. No significant bias suspected.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

Phyllis Shiller

Phyllis Shiller, Laboratory Director
March 27, 2019
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

Analysis Report

March 27, 2019

FOR: Attn: Moshe Monheit
Rock Brokerage
170 Lee Avenue
Brooklyn NY 11211

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/18/19	9:55
Location Code:	ROCKBROKE	Received by:	CP	03/18/19	17:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC69590
Phoenix ID: CC69600

Project ID: 297 WALLABOUT
Client ID: DUP (190318)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.37	0.37	mg/Kg	1	03/19/19	CPP	SW6010D
Aluminum	6740	55	mg/Kg	10	03/19/19	CPP	SW6010D
Arsenic	1.36	0.73	mg/Kg	1	03/19/19	CPP	SW6010D
Barium	19.8	0.37	mg/Kg	1	03/19/19	CPP	SW6010D
Beryllium	0.40	0.29	mg/Kg	1	03/19/19	CPP	SW6010D
Calcium	1310	5.5	mg/Kg	1	03/19/19	EK	SW6010D
Cadmium	< 0.37	0.37	mg/Kg	1	03/19/19	CPP	SW6010D
Cobalt	4.52	0.37	mg/Kg	1	03/19/19	CPP	SW6010D
Chromium	31.0	0.37	mg/Kg	1	03/19/19	CPP	SW6010D
Copper	9.5	0.7	mg/kg	1	03/19/19	CPP	SW6010D
Iron	8970	5.5	mg/Kg	1	03/19/19	CPP	SW6010D
Mercury	< 0.03	0.03	mg/Kg	1	03/20/19	RS	SW7471B
Potassium	651	5.5	mg/Kg	1	03/19/19	EK	SW6010D
Magnesium	1300	5.5	mg/Kg	1	03/19/19	CPP	SW6010D
Manganese	141	0.37	mg/Kg	1	03/19/19	CPP	SW6010D
Sodium	79.3	5.5	mg/Kg	1	03/19/19	CPP	SW6010D
Nickel	29.5	0.37	mg/Kg	1	03/19/19	CPP	SW6010D
Lead	6.72	0.37	mg/Kg	1	03/19/19	CPP	SW6010D
Antimony	< 3.7	3.7	mg/Kg	1	03/19/19	CPP	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	03/19/19	EK	SW6010D
Thallium	< 3.3	3.3	mg/Kg	1	03/19/19	CPP	SW6010D
Vanadium	20.0	0.37	mg/Kg	1	03/19/19	CPP	SW6010D
Zinc	21.4	0.7	mg/Kg	1	03/19/19	CPP	SW6010D
Percent Solid	84		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/19/19	MM/V	SW3545A
Soil Extraction for Pesticides	Completed				03/19/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Mercury Digestion	Completed				03/20/19	W/I/I	SW7471B

Ver 1

Project ID: 297 WALLABOUT
Client ID: DUP (190318)

Phoenix I.D.: CC69600

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG/BF	SW3050B
Polychlorinated Biphenyls							
PCB-1016	ND	78	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1221	ND	78	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1232	ND	78	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1242	ND	78	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1248	ND	78	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1254	ND	78	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1260	ND	78	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1262	ND	78	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1268	ND	78	ug/Kg	2	03/20/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	67		%	2	03/20/19	SC	30 - 150 %
% DCBP (Confirmation)	66		%	2	03/20/19	SC	30 - 150 %
% TCMX	80		%	2	03/20/19	SC	30 - 150 %
% TCMX (Confirmation)	71		%	2	03/20/19	SC	30 - 150 %
Pesticides - Soil							
4,4' -DDD	ND	2.3	ug/Kg	2	03/21/19	CW	SW8081B
4,4' -DDE	ND	2.3	ug/Kg	2	03/21/19	CW	SW8081B
4,4' -DDT	ND	2.3	ug/Kg	2	03/21/19	CW	SW8081B
a-BHC	ND	7.8	ug/Kg	2	03/21/19	CW	SW8081B
a-Chlordane	ND	3.9	ug/Kg	2	03/21/19	CW	SW8081B
Aldrin	ND	3.9	ug/Kg	2	03/21/19	CW	SW8081B
b-BHC	ND	7.8	ug/Kg	2	03/21/19	CW	SW8081B
Chlordane	ND	39	ug/Kg	2	03/21/19	CW	SW8081B
d-BHC	ND	7.8	ug/Kg	2	03/21/19	CW	SW8081B
Dieldrin	ND	3.9	ug/Kg	2	03/21/19	CW	SW8081B
Endosulfan I	ND	7.8	ug/Kg	2	03/21/19	CW	SW8081B
Endosulfan II	ND	7.8	ug/Kg	2	03/21/19	CW	SW8081B
Endosulfan sulfate	ND	7.8	ug/Kg	2	03/21/19	CW	SW8081B
Endrin	ND	7.8	ug/Kg	2	03/21/19	CW	SW8081B
Endrin aldehyde	ND	7.8	ug/Kg	2	03/21/19	CW	SW8081B
Endrin ketone	ND	7.8	ug/Kg	2	03/21/19	CW	SW8081B
g-BHC	ND	1.6	ug/Kg	2	03/21/19	CW	SW8081B
g-Chlordane	ND	3.9	ug/Kg	2	03/21/19	CW	SW8081B
Heptachlor	ND	7.8	ug/Kg	2	03/21/19	CW	SW8081B
Heptachlor epoxide	ND	7.8	ug/Kg	2	03/21/19	CW	SW8081B
Methoxychlor	ND	39	ug/Kg	2	03/21/19	CW	SW8081B
Toxaphene	ND	160	ug/Kg	2	03/21/19	CW	SW8081B
QA/QC Surrogates							
% DCBP	69		%	2	03/21/19	CW	30 - 150 %
% DCBP (Confirmation)	62		%	2	03/21/19	CW	30 - 150 %
% TCMX	69		%	2	03/21/19	CW	30 - 150 %
% TCMX (Confirmation)	71		%	2	03/21/19	CW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
1,1,2,2-Tetrachloroethane	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1,2-Trichloroethane	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloroethane	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloroethene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloropropene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,3-Trichlorobenzene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,3-Trichloropropane	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,4-Trichlorobenzene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,4-Trimethylbenzene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dibromo-3-chloropropane	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dibromoethane	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichlorobenzene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichloroethane	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichloropropane	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3,5-Trimethylbenzene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3-Dichlorobenzene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3-Dichloropropane	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
1,4-Dichlorobenzene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
2,2-Dichloropropane	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Chlorotoluene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Hexanone	ND	29	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Isopropyltoluene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	1
4-Chlorotoluene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
4-Methyl-2-pentanone	ND	29	ug/Kg	1	03/19/19	JLI	SW8260C	
Acetone	ND	29	ug/Kg	1	03/19/19	JLI	SW8260C	
Acrylonitrile	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	
Benzene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromobenzene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromochloromethane	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromodichloromethane	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromoform	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromomethane	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
Carbon Disulfide	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
Carbon tetrachloride	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
Chlorobenzene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloroethane	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloroform	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloromethane	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
cis-1,2-Dichloroethene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
cis-1,3-Dichloropropene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
Dibromochloromethane	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
Dibromomethane	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
Dichlorodifluoromethane	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
Ethylbenzene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
Hexachlorobutadiene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
Isopropylbenzene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
m&p-Xylene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
Methyl Ethyl Ketone	ND	29	ug/Kg	1	03/19/19	JLI	SW8260C	
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	

Project ID: 297 WALLABOUT

Client ID: DUP (190318)

Phoenix I.D.: CC69600

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Methylene chloride	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	
Naphthalene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
n-Butylbenzene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
n-Propylbenzene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
o-Xylene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
p-Isopropyltoluene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
sec-Butylbenzene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
Styrene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
tert-Butylbenzene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
Tetrachloroethene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
Tetrahydrofuran (THF)	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	1
Toluene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
Total Xylenes	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,2-Dichloroethene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,3-Dichloropropene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichloroethene	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichlorofluoromethane	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichlorotrifluoroethane	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
Vinyl chloride	ND	5.9	ug/Kg	1	03/19/19	JLI	SW8260C	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	102		%	1	03/19/19	JLI	70 - 130 %	
% Bromofluorobenzene	89		%	1	03/19/19	JLI	70 - 130 %	
% Dibromofluoromethane	106		%	1	03/19/19	JLI	70 - 130 %	
% Toluene-d8	96		%	1	03/19/19	JLI	70 - 130 %	

Semivolatiles

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,4,5-Tetrachlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Chloronaphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Chlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylnaphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitroaniline	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitrophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	390	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Bromophenyl phenyl ether	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitroaniline	ND	630	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	790	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Fluorene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
Pentachlorophenol	ND	390	ug/Kg	1	03/19/19	WB	SW8270D
Phenanthrene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Phenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Pyrene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Pyridine	ND	390	ug/Kg	1	03/19/19	WB	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	76		%	1	03/19/19	WB	30 - 130 %	
% 2-Fluorobiphenyl	57		%	1	03/19/19	WB	30 - 130 %	
% 2-Fluorophenol	52		%	1	03/19/19	WB	30 - 130 %	
% Nitrobenzene-d5	57		%	1	03/19/19	WB	30 - 130 %	
% Phenol-d5	60		%	1	03/19/19	WB	30 - 130 %	
% Terphenyl-d14	66		%	1	03/19/19	WB	30 - 130 %	
Field Extraction	Completed				03/18/19		SW5035A	1

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
March 27, 2019
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

March 27, 2019

FOR: Attn: Mark Kaplan
Rock Brokerage
170 Lee Avenue
Brooklyn NY 11211

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/18/19	
Location Code:	ROCKBROKE	Received by:	B	03/18/19	17:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC69590
Phoenix ID: CC69776

Project ID: 297 WALLABOUT
Client ID: TB LL

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Volatiles								
1,1,1,2-Tetrachloroethane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1,1-Trichloroethane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1,2,2-Tetrachloroethane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1,2-Trichloroethane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloroethane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloroethene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,1-Dichloropropene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,3-Trichlorobenzene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,3-Trichloropropane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,4-Trichlorobenzene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2,4-Trimethylbenzene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dibromoethane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichlorobenzene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichloroethane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,2-Dichloropropane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3,5-Trimethylbenzene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3-Dichlorobenzene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,3-Dichloropropane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
1,4-Dichlorobenzene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
2,2-Dichloropropane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Chlorotoluene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Hexanone	ND	25	ug/Kg	1	03/19/19	JLI	SW8260C	
2-Isopropyltoluene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	1
4-Chlorotoluene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
4-Methyl-2-pentanone	ND	25	ug/Kg	1	03/19/19	JLI	SW8260C	

Ver 1

Project ID: 297 WALLABOUT
Client ID: TB LL

Phoenix I.D.: CC69776

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Acetone	ND	25	ug/Kg	1	03/19/19	JLI	SW8260C	
Acrylonitrile	ND	10	ug/Kg	1	03/19/19	JLI	SW8260C	
Benzene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromobenzene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromochloromethane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromodichloromethane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromoform	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Bromomethane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Carbon Disulfide	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Carbon tetrachloride	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Chlorobenzene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloroethane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloroform	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Chloromethane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
cis-1,2-Dichloroethene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
cis-1,3-Dichloropropene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Dibromochloromethane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Dibromomethane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Dichlorodifluoromethane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Ethylbenzene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Hexachlorobutadiene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Isopropylbenzene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
m&p-Xylene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Methyl Ethyl Ketone	ND	25	ug/Kg	1	03/19/19	JLI	SW8260C	
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	03/19/19	JLI	SW8260C	
Methylene chloride	ND	10	ug/Kg	1	03/19/19	JLI	SW8260C	
Naphthalene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
n-Butylbenzene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
n-Propylbenzene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
o-Xylene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
p-Isopropyltoluene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
sec-Butylbenzene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Styrene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
tert-Butylbenzene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Tetrachloroethene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	03/19/19	JLI	SW8260C	[1]
Toluene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Total Xylenes	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,2-Dichloroethene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,3-Dichloropropene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichloroethene	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichlorofluoromethane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Trichlorotrifluoroethane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
Vinyl chloride	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	100		%	1	03/19/19	JLI	70 - 130 %	
% Bromofluorobenzene	95		%	1	03/19/19	JLI	70 - 130 %	
% Dibromofluoromethane	102		%	1	03/19/19	JLI	70 - 130 %	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% Toluene-d8	100		%	1	03/19/19	JLI	70 - 130 %	
Field Extraction	Completed				03/18/19		SW5035A	1

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

TRIP BLANK INCLUDED.

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
March 27, 2019
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

Analysis Report

March 27, 2019

FOR: Attn: Mark Kaplan
Rock Brokerage
170 Lee Avenue
Brooklyn NY 11211

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/18/19	
Location Code:	ROCKBROKE	Received by:	B	03/18/19	17:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC69590
Phoenix ID: CC69777

Project ID: 297 WALLABOUT
Client ID: TB HL

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Volatiles								
1,1,1,2-Tetrachloroethane	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
1,1,1-Trichloroethane	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
1,1,2,2-Tetrachloroethane	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
1,1,2-Trichloroethane	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
1,1-Dichloroethane	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
1,1-Dichloroethene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
1,1-Dichloropropene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
1,2,3-Trichlorobenzene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
1,2,3-Trichloropropane	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
1,2,4-Trichlorobenzene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
1,2,4-Trimethylbenzene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
1,2-Dibromo-3-chloropropane	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
1,2-Dibromoethane	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
1,2-Dichlorobenzene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
1,2-Dichloroethane	ND	25	ug/Kg	50	03/19/19	JLI	SW8260C	
1,2-Dichloropropane	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
1,3,5-Trimethylbenzene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
1,3-Dichlorobenzene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
1,3-Dichloropropane	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
1,4-Dichlorobenzene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
2,2-Dichloropropane	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
2-Chlorotoluene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
2-Hexanone	ND	1300	ug/Kg	50	03/19/19	JLI	SW8260C	
2-Isopropyltoluene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	1
4-Chlorotoluene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
4-Methyl-2-pentanone	ND	1300	ug/Kg	50	03/19/19	JLI	SW8260C	

Ver 1

Project ID: 297 WALLABOUT
Client ID: TB HL

Phoenix I.D.: CC69777

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Acetone	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
Acrylonitrile	ND	500	ug/Kg	50	03/19/19	JLI	SW8260C	
Benzene	ND	60	ug/Kg	50	03/19/19	JLI	SW8260C	
Bromobenzene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
Bromochloromethane	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
Bromodichloromethane	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
Bromoform	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
Bromomethane	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
Carbon Disulfide	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
Carbon tetrachloride	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
Chlorobenzene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
Chloroethane	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
Chloroform	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
Chloromethane	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
cis-1,2-Dichloroethene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
cis-1,3-Dichloropropene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
Dibromochloromethane	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
Dibromomethane	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
Dichlorodifluoromethane	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
Ethylbenzene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
Hexachlorobutadiene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
Isopropylbenzene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
m&p-Xylene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
Methyl Ethyl Ketone	ND	120	ug/Kg	50	03/19/19	JLI	SW8260C	
Methyl t-butyl ether (MTBE)	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
Methylene chloride	ND	100	ug/Kg	50	03/19/19	JLI	SW8260C	
Naphthalene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
n-Butylbenzene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
n-Propylbenzene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
o-Xylene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
p-Isopropyltoluene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
sec-Butylbenzene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
Styrene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
tert-Butylbenzene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
Tetrachloroethene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
Tetrahydrofuran (THF)	ND	500	ug/Kg	50	03/19/19	JLI	SW8260C	1
Toluene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
Total Xylenes	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
trans-1,2-Dichloroethene	ND	190	ug/Kg	50	03/19/19	JLI	SW8260C	
trans-1,3-Dichloropropene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
trans-1,4-dichloro-2-butene	ND	500	ug/Kg	50	03/19/19	JLI	SW8260C	
Trichloroethene	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
Trichlorofluoromethane	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
Trichlorotrifluoroethane	ND	250	ug/Kg	50	03/19/19	JLI	SW8260C	
Vinyl chloride	ND	25	ug/Kg	50	03/19/19	JLI	SW8260C	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4 (50x)	101		%	50	03/19/19	JLI	70 - 130 %	
% Bromofluorobenzene (50x)	99		%	50	03/19/19	JLI	70 - 130 %	
% Dibromofluoromethane (50x)	93		%	50	03/19/19	JLI	70 - 130 %	

Ver 1

Project ID: 297 WALLABOUT
Client ID: TB HL

Phoenix I.D.: CC69777

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% Toluene-d8 (50x)	99		%	50	03/19/19	JLI	70 - 130 %	
Field Extraction	Completed				03/18/19		SW5035A	1

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

TRIP BLANK INCLUDED.

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

Volatile Comment:
To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller

Phyllis Shiller, Laboratory Director
March 27, 2019
Reviewed and Released by: Bobbi Aloisa, Vice President

Ver 1

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

QA/QC Report

March 27, 2019

QA/QC Data

SDG I.D.: GCC69590

QA/QC Batch 470784 (mg/kg), QC Sample No: CC69287 (CC69590, CC69591, CC69592, CC69593, CC69594, CC69595, CC69596, CC69597, CC69598, CC69599, CC69600)

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	98.7	102	3.3	98.5	98.3	0.2	70 - 130	30	

Comment:

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

QA/QC Batch 470733 (mg/kg), QC Sample No: CC69341 (CC69590, CC69591, CC69592, CC69593, CC69594, CC69595, CC69596, CC69597, CC69598, CC69599, CC69600)

ICP Metals - Soil

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Aluminum	BRL	4.9	6110	4860	22.8	107			NC			75 - 125	30	
Antimony	BRL	3.3	<3.4	<3.3	NC	97.3			88.1			75 - 125	30	
Arsenic	BRL	0.66	1.02	1.02	NC	95.1			87.0			75 - 125	30	
Barium	BRL	0.33	28.9	13.5	72.6	101			81.9			75 - 125	30	r
Beryllium	BRL	0.26	<0.27	<0.27	NC	104			92.5			75 - 125	30	
Cadmium	BRL	0.33	<0.34	<0.33	NC	103			92.5			75 - 125	30	
Calcium	BRL	4.9	491	372	27.6	103			>130			75 - 125	30	m
Chromium	BRL	0.33	7.46	6.98	6.60	102			91.1			75 - 125	30	
Cobalt	BRL	0.33	4.48	3.41	27.1	104			91.5			75 - 125	30	
Copper	BRL	0.66	5.2	5.20	0	101			94.6			75 - 125	30	
Iron	BRL	4.9	7210	6380	12.2	105			NC			75 - 125	30	
Lead	BRL	0.33	1.13	1.02	NC	99.0			91.8			75 - 125	30	
Magnesium	BRL	4.9	2160	1260	52.6	101			NC			75 - 125	30	r
Manganese	BRL	0.33	90.6	63.6	35.0	102			84.5			75 - 125	30	r
Nickel	BRL	0.33	6.21	5.02	21.2	105			90.2			75 - 125	30	
Potassium	BRL	4.9	1090	606	57.1	104			27.9			75 - 125	30	m,r
Selenium	BRL	1.3	<1.4	<1.3	NC	85.8			73.8			75 - 125	30	m
Silver	BRL	0.33	<0.34	<0.33	NC	94.0			90.0			75 - 125	30	
Sodium	BRL	4.9	41.5	45.2	8.50	105			119			75 - 125	30	
Thallium	BRL	3.0	<3.1	<3.0	NC	106			91.1			75 - 125	30	
Vanadium	BRL	0.33	15.9	12.7	22.4	88.4			89.6			75 - 125	30	
Zinc	BRL	0.66	12.5	9.50	27.3	97.0			87.2			75 - 125	30	

m = This parameter is outside laboratory MS/MSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.

PHOENIX
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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

QA/QC Report

March 27, 2019

QA/QC Data

SDG I.D.: GCC69590

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 470678 (ug/Kg), QC Sample No: CC69011 2X (CC69590, CC69591, CC69592, CC69593, CC69594, CC69595)										
Polychlorinated Biphenyls - Soil										
PCB-1016	ND	33	76	74	2.7	52	57	9.2	40 - 140	30
PCB-1221	ND	33							40 - 140	30
PCB-1232	ND	33							40 - 140	30
PCB-1242	ND	33							40 - 140	30
PCB-1248	ND	33							40 - 140	30
PCB-1254	ND	33							40 - 140	30
PCB-1260	ND	33	92	94	2.2	61	68	10.9	40 - 140	30
PCB-1262	ND	33							40 - 140	30
PCB-1268	ND	33							40 - 140	30
% DCBP (Surrogate Rec)	89	%	107	108	0.9	71	81	13.2	30 - 150	30
% DCBP (Surrogate Rec) (Confirm	84	%	100	101	1.0	65	75	14.3	30 - 150	30
% TCMX (Surrogate Rec)	92	%	99	93	6.3	65	74	12.9	30 - 150	30
% TCMX (Surrogate Rec) (Confirm	92	%	99	94	5.2	66	76	14.1	30 - 150	30
QA/QC Batch 470846 (ug/Kg), QC Sample No: CC69599 2X (CC69596, CC69597, CC69598, CC69599, CC69600)										
Polychlorinated Biphenyls - Soil										
PCB-1016	ND	33	100	91	9.4	68	73	7.1	40 - 140	30
PCB-1221	ND	33							40 - 140	30
PCB-1232	ND	33							40 - 140	30
PCB-1242	ND	33							40 - 140	30
PCB-1248	ND	33							40 - 140	30
PCB-1254	ND	33							40 - 140	30
PCB-1260	ND	33	115	92	22.2	70	76	8.2	40 - 140	30
PCB-1262	ND	33							40 - 140	30
PCB-1268	ND	33							40 - 140	30
% DCBP (Surrogate Rec)	89	%	106	105	0.9	76	78	2.6	30 - 150	30
% DCBP (Surrogate Rec) (Confirm	85	%	99	107	7.8	76	81	6.4	30 - 150	30
% TCMX (Surrogate Rec)	92	%	106	104	1.9	75	83	10.1	30 - 150	30
% TCMX (Surrogate Rec) (Confirm	85	%	104	106	1.9	79	88	10.8	30 - 150	30
QA/QC Batch 470680 (ug/Kg), QC Sample No: CC69011 2X (CC69590, CC69591, CC69592, CC69593, CC69594, CC69595)										
Pesticides - Soil										
4,4' -DDD	ND	1.7	104	88	16.7	68	61	10.9	40 - 140	30
4,4' -DDE	ND	1.7	94	83	12.4	62	55	12.0	40 - 140	30
4,4' -DDT	ND	1.7	93	79	16.3	65	63	3.1	40 - 140	30
a-BHC	ND	1.0	93	82	12.6	57	48	17.1	40 - 140	30
a-Chlordane	ND	3.3	95	84	12.3	60	53	12.4	40 - 140	30
Aldrin	ND	1.0	86	76	12.3	59	48	20.6	40 - 140	30
b-BHC	ND	1.0	95	85	11.1	62	58	6.7	40 - 140	30
Chlordane	ND	33	95	85	11.1	66	58	12.9	40 - 140	30
d-BHC	ND	3.3	97	86	12.0	63	62	1.6	40 - 140	30
Dieldrin	ND	1.0	94	83	12.4	61	53	14.0	40 - 140	30

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Endosulfan I	ND	3.3	89	78	13.2	60	54	10.5	40 - 140	30
Endosulfan II	ND	3.3	102	89	13.6	64	58	9.8	40 - 140	30
Endosulfan sulfate	ND	3.3	101	87	14.9	62	56	10.2	40 - 140	30
Endrin	ND	3.3	82	68	18.7	60	58	3.4	40 - 140	30
Endrin aldehyde	ND	3.3	82	69	17.2	47	41	13.6	40 - 140	30
Endrin ketone	ND	3.3	97	84	14.4	61	51	17.9	40 - 140	30
g-BHC	ND	1.0	83	74	11.5	51	43	17.0	40 - 140	30
g-Chlordane	ND	3.3	95	85	11.1	66	58	12.9	40 - 140	30
Heptachlor	ND	3.3	93	82	12.6	62	54	13.8	40 - 140	30
Heptachlor epoxide	ND	3.3	91	82	10.4	58	49	16.8	40 - 140	30
Methoxychlor	ND	3.3	91	77	16.7	63	60	4.9	40 - 140	30
Toxaphene	ND	130	NA	NA	NC	NA	NA	NC	40 - 140	30
% DCBP	78	%	87	71	20.3	61	62	1.6	30 - 150	30
% DCBP (Confirmation)	82	%	92	72	24.4	67	55	19.7	30 - 150	30
% TCMX	88	%	95	81	15.9	65	56	14.9	30 - 150	30
% TCMX (Confirmation)	89	%	99	81	20.0	69	54	24.4	30 - 150	30

QA/QC Batch 470849 (ug/Kg), QC Sample No: CC69599 2X (CC69596, CC69597, CC69598, CC69599, CC69600)

Pesticides - Soil

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
4,4' -DDD	ND	1.7	73			58	61	5.0	40 - 140	30
4,4' -DDE	ND	1.7	75			56	62	10.2	40 - 140	30
4,4' -DDT	ND	1.7	85			64	74	14.5	40 - 140	30
a-BHC	ND	1.0	84			62	68	9.2	40 - 140	30
a-Chlordane	ND	3.3	84			65	69	6.0	40 - 140	30
Aldrin	ND	1.0	81			60	70	15.4	40 - 140	30
b-BHC	ND	1.0	82			63	70	10.5	40 - 140	30
Chlordane	ND	33	86			65	74	12.9	40 - 140	30
d-BHC	ND	3.3	97			74	79	6.5	40 - 140	30
Dieldrin	ND	1.0	79			57	64	11.6	40 - 140	30
Endosulfan I	ND	3.3	86			65	75	14.3	40 - 140	30
Endosulfan II	ND	3.3	84			65	75	14.3	40 - 140	30
Endosulfan sulfate	ND	3.3	85			61	72	16.5	40 - 140	30
Endrin	ND	3.3	94			70	78	10.8	40 - 140	30
Endrin aldehyde	ND	3.3	66			59	67	12.7	40 - 140	30
Endrin ketone	ND	3.3	79			62	67	7.8	40 - 140	30
g-BHC	ND	1.0	86			62	69	10.7	40 - 140	30
g-Chlordane	ND	3.3	86			65	74	12.9	40 - 140	30
Heptachlor	ND	3.3	84			63	70	10.5	40 - 140	30
Heptachlor epoxide	ND	3.3	88			66	74	11.4	40 - 140	30
Methoxychlor	ND	3.3	89			69	76	9.7	40 - 140	30
Toxaphene	ND	130	NA			NA	NA	NC	40 - 140	30
% DCBP	84	%	85			64	73	13.1	30 - 150	30
% DCBP (Confirmation)	72	%	73			55	64	15.1	30 - 150	30
% TCMX	77	%	85			66	75	12.8	30 - 150	30
% TCMX (Confirmation)	77	%	85			65	75	14.3	30 - 150	30

Comment:

This batch consists of a Blank, LCS, MS and MSD.

QA/QC Batch 470742 (ug/kg), QC Sample No: CC69590 (CC69590, CC69591, CC69592, CC69593, CC69594, CC69595, CC69596, CC69597, CC69598, CC69599, CC69600)

Semivolatiles - Soil

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,2,4,5-Tetrachlorobenzene	ND	230	72	76	5.4	54	70	25.8	30 - 130	30
1,2,4-Trichlorobenzene	ND	230	67	71	5.8	50	65	26.1	30 - 130	30
1,2-Dichlorobenzene	ND	180	63	65	3.1	47	61	25.9	30 - 130	30

QA/QC Data

SDG I.D.: GCC69590

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,2-Diphenylhydrazine	ND	230	78	82	5.0	56	73	26.4	30 - 130	30	
1,3-Dichlorobenzene	ND	230	62	63	1.6	46	59	24.8	30 - 130	30	
1,4-Dichlorobenzene	ND	230	61	63	3.2	46	58	23.1	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	89	91	2.2	60	83	32.2	30 - 130	30	r
2,4,6-Trichlorophenol	ND	130	89	92	3.3	63	82	26.2	30 - 130	30	
2,4-Dichlorophenol	ND	130	84	88	4.7	61	79	25.7	30 - 130	30	
2,4-Dimethylphenol	ND	230	85	89	4.6	67	86	24.8	30 - 130	30	
2,4-Dinitrophenol	ND	230	53	52	1.9	42	55	26.8	30 - 130	30	
2,4-Dinitrotoluene	ND	130	90	95	5.4	63	87	32.0	30 - 130	30	r
2,6-Dinitrotoluene	ND	130	86	93	7.8	61	83	30.6	30 - 130	30	r
2-Chloronaphthalene	ND	230	73	78	6.6	54	71	27.2	30 - 130	30	
2-Chlorophenol	ND	230	77	77	0.0	55	73	28.1	30 - 130	30	
2-Methylnaphthalene	ND	230	71	75	5.5	53	69	26.2	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	88	88	0.0	64	84	27.0	30 - 130	30	
2-Nitroaniline	ND	330	110	114	3.6	79	106	29.2	30 - 130	30	
2-Nitrophenol	ND	230	84	83	1.2	61	77	23.2	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	94	94	0.0	67	88	27.1	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	93	88	5.5	79	105	28.3	30 - 130	30	
3-Nitroaniline	ND	330	98	96	2.1	76	102	29.2	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	80	84	4.9	53	74	33.1	30 - 130	30	r
4-Bromophenyl phenyl ether	ND	230	80	85	6.1	58	78	29.4	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	92	96	4.3	65	89	31.2	30 - 130	30	r
4-Chloroaniline	ND	230	70	65	7.4	60	80	28.6	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	79	83	4.9	56	76	30.3	30 - 130	30	
4-Nitroaniline	ND	230	86	92	6.7	62	83	29.0	30 - 130	30	
4-Nitrophenol	ND	230	98	104	5.9	64	89	32.7	30 - 130	30	r
Acenaphthene	ND	230	80	83	3.7	57	76	28.6	30 - 130	30	
Acenaphthylene	ND	130	76	79	3.9	54	72	28.6	30 - 130	30	
Acetophenone	ND	230	74	76	2.7	55	72	26.8	30 - 130	30	
Aniline	ND	330	55	48	13.6	50	64	24.6	30 - 130	30	
Anthracene	ND	230	80	84	4.9	58	77	28.1	30 - 130	30	
Benz(a)anthracene	ND	230	81	85	4.8	58	77	28.1	30 - 130	30	
Benzidine	ND	330	38	35	8.2	53	69	26.2	30 - 130	30	
Benzo(a)pyrene	ND	130	81	85	4.8	57	76	28.6	30 - 130	30	
Benzo(b)fluoranthene	ND	160	83	89	7.0	59	79	29.0	30 - 130	30	
Benzo(ghi)perylene	ND	230	66	72	8.7	49	61	21.8	30 - 130	30	
Benzo(k)fluoranthene	ND	230	81	83	2.4	57	73	24.6	30 - 130	30	
Benzoic Acid	ND	330	<10	25	NC	23	42	58.5	30 - 130	30	l,m,r
Benzyl butyl phthalate	ND	230	87	91	4.5	62	86	32.4	30 - 130	30	r
Bis(2-chloroethoxy)methane	ND	230	77	79	2.6	56	73	26.4	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	63	65	3.1	48	62	25.5	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	59	60	1.7	45	57	23.5	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	88	93	5.5	64	84	27.0	30 - 130	30	
Carbazole	ND	230	80	84	4.9	59	77	26.5	30 - 130	30	
Chrysene	ND	230	81	85	4.8	58	77	28.1	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	78	82	5.0	55	72	26.8	30 - 130	30	
Dibenzofuran	ND	230	77	81	5.1	55	74	29.5	30 - 130	30	
Diethyl phthalate	ND	230	84	88	4.7	59	79	29.0	30 - 130	30	
Dimethylphthalate	ND	230	83	86	3.6	57	77	29.9	30 - 130	30	
Di-n-butylphthalate	ND	670	85	89	4.6	62	80	25.4	30 - 130	30	
Di-n-octylphthalate	ND	230	93	98	5.2	66	87	27.5	30 - 130	30	
Fluoranthene	ND	230	79	83	4.9	57	73	24.6	30 - 130	30	
Fluorene	ND	230	80	84	4.9	58	77	28.1	30 - 130	30	

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Hexachlorobenzene	ND	130	78	81	3.8	54	76	33.8	30 - 130	30	r
Hexachlorobutadiene	ND	230	69	71	2.9	51	66	25.6	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	69	70	1.4	28	46	48.6	30 - 130	30	m,r
Hexachloroethane	ND	130	61	63	3.2	46	60	26.4	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	79	80	1.3	65	84	25.5	30 - 130	30	
Isophorone	ND	130	72	74	2.7	53	69	26.2	30 - 130	30	
Naphthalene	ND	230	69	73	5.6	52	67	25.2	30 - 130	30	
Nitrobenzene	ND	130	74	74	0.0	54	71	27.2	30 - 130	30	
N-Nitrosodimethylamine	ND	230	57	61	6.8	48	62	25.5	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	130	78	79	1.3	58	74	24.2	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	82	87	5.9	58	80	31.9	30 - 130	30	r
Pentachloronitrobenzene	ND	230	81	85	4.8	56	78	32.8	30 - 130	30	r
Pentachlorophenol	ND	230	85	86	1.2	57	73	24.6	30 - 130	30	
Phenanthrene	ND	130	79	83	4.9	57	75	27.3	30 - 130	30	
Phenol	ND	230	82	82	0.0	60	79	27.3	30 - 130	30	
Pyrene	ND	230	79	83	4.9	57	73	24.6	30 - 130	30	
Pyridine	ND	230	43	44	2.3	37	44	17.3	30 - 130	30	
% 2,4,6-Tribromophenol	72	%	83	86	3.6	59	78	27.7	30 - 130	30	
% 2-Fluorobiphenyl	69	%	72	76	5.4	54	70	25.8	30 - 130	30	
% 2-Fluorophenol	63	%	69	70	1.4	51	68	28.6	30 - 130	30	
% Nitrobenzene-d5	71	%	72	74	2.7	55	73	28.1	30 - 130	30	
% Phenol-d5	70	%	78	79	1.3	56	75	29.0	30 - 130	30	
% Terphenyl-d14	65	%	70	75	6.9	51	65	24.1	30 - 130	30	

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 471013 (ug/kg), QC Sample No: CC69405 (CC69590, CC69591, CC69592, CC69593, CC69594, CC69595, CC69596, CC69597, CC69598, CC69599, CC69600, CC69776, CC69777 (50X))

Volatiles - Soil

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,1,1,2-Tetrachloroethane	ND	5.0	100	102	2.0	104	107	2.8	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	96	100	4.1	104	110	5.6	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	105	104	1.0	113	116	2.6	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	99	100	1.0	105	106	0.9	70 - 130	30
1,1-Dichloroethane	ND	5.0	98	104	5.9	108	115	6.3	70 - 130	30
1,1-Dichloroethene	ND	5.0	97	100	3.0	104	110	5.6	70 - 130	30
1,1-Dichloropropene	ND	5.0	100	100	0.0	101	108	6.7	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	104	102	1.9	87	87	0.0	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	99	97	2.0	106	110	3.7	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	105	104	1.0	89	90	1.1	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	101	101	0.0	102	105	2.9	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	105	106	0.9	107	114	6.3	70 - 130	30
1,2-Dibromoethane	ND	5.0	100	101	1.0	107	108	0.9	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	101	100	1.0	100	102	2.0	70 - 130	30
1,2-Dichloroethane	ND	5.0	97	96	1.0	97	98	1.0	70 - 130	30
1,2-Dichloropropane	ND	5.0	101	101	0.0	110	109	0.9	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	102	102	0.0	101	108	6.7	70 - 130	30
1,3-Dichlorobenzene	ND	5.0	103	101	2.0	99	103	4.0	70 - 130	30
1,3-Dichloropropane	ND	5.0	99	101	2.0	106	107	0.9	70 - 130	30
1,4-Dichlorobenzene	ND	5.0	102	101	1.0	99	100	1.0	70 - 130	30
2,2-Dichloropropane	ND	5.0	105	107	1.9	108	113	4.5	70 - 130	30
2-Chlorotoluene	ND	5.0	100	100	0.0	102	109	6.6	70 - 130	30
2-Hexanone	ND	25	102	99	3.0	103	106	2.9	70 - 130	30

QA/QC Data

SDG I.D.: GCC69590

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
2-Isopropyltoluene	ND	5.0	107	108	0.9	103	109	5.7	70 - 130	30	
4-Chlorotoluene	ND	5.0	101	100	1.0	100	106	5.8	70 - 130	30	
4-Methyl-2-pentanone	ND	25	104	103	1.0	111	111	0.0	70 - 130	30	
Acetone	ND	10	66	64	3.1	76	82	7.6	70 - 130	30	l
Acrylonitrile	ND	5.0	102	105	2.9	109	115	5.4	70 - 130	30	
Benzene	ND	1.0	99	99	0.0	106	107	0.9	70 - 130	30	
Bromobenzene	ND	5.0	100	101	1.0	105	106	0.9	70 - 130	30	
Bromochloromethane	ND	5.0	100	104	3.9	109	112	2.7	70 - 130	30	
Bromodichloromethane	ND	5.0	101	101	0.0	104	104	0.0	70 - 130	30	
Bromoform	ND	5.0	103	103	0.0	102	105	2.9	70 - 130	30	
Bromomethane	ND	5.0	98	101	3.0	96	98	2.1	70 - 130	30	
Carbon Disulfide	ND	5.0	104	106	1.9	107	111	3.7	70 - 130	30	
Carbon tetrachloride	ND	5.0	99	101	2.0	101	107	5.8	70 - 130	30	
Chlorobenzene	ND	5.0	100	100	0.0	104	106	1.9	70 - 130	30	
Chloroethane	ND	5.0	100	103	3.0	98	104	5.9	70 - 130	30	
Chloroform	ND	5.0	95	98	3.1	104	105	1.0	70 - 130	30	
Chloromethane	ND	5.0	90	91	1.1	83	87	4.7	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	103	104	1.0	113	116	2.6	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	103	102	1.0	108	106	1.9	70 - 130	30	
Dibromochloromethane	ND	3.0	106	107	0.9	108	111	2.7	70 - 130	30	
Dibromomethane	ND	5.0	102	101	1.0	106	106	0.0	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	84	85	1.2	65	69	6.0	70 - 130	30	m
Ethylbenzene	ND	1.0	100	100	0.0	104	109	4.7	70 - 130	30	
Hexachlorobutadiene	ND	5.0	104	103	1.0	83	85	2.4	70 - 130	30	
Isopropylbenzene	ND	1.0	105	102	2.9	108	114	5.4	70 - 130	30	
m&p-Xylene	ND	2.0	100	101	1.0	104	108	3.8	70 - 130	30	
Methyl ethyl ketone	ND	5.0	101	96	5.1	97	103	6.0	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	100	100	0.0	105	103	1.9	70 - 130	30	
Methylene chloride	ND	5.0	89	90	1.1	97	99	2.0	70 - 130	30	
Naphthalene	ND	5.0	108	108	0.0	103	104	1.0	70 - 130	30	
n-Butylbenzene	ND	1.0	105	104	1.0	97	103	6.0	70 - 130	30	
n-Propylbenzene	ND	1.0	104	103	1.0	105	112	6.5	70 - 130	30	
o-Xylene	ND	2.0	104	107	2.8	110	112	1.8	70 - 130	30	
p-Isopropyltoluene	ND	1.0	105	104	1.0	101	107	5.8	70 - 130	30	
sec-Butylbenzene	ND	1.0	107	108	0.9	106	113	6.4	70 - 130	30	
Styrene	ND	5.0	103	105	1.9	106	107	0.9	70 - 130	30	
tert-Butylbenzene	ND	1.0	102	102	0.0	103	110	6.6	70 - 130	30	
Tetrachloroethene	ND	5.0	103	101	2.0	103	106	2.9	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	101	101	0.0	111	114	2.7	70 - 130	30	
Toluene	ND	1.0	100	100	0.0	106	108	1.9	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	100	101	1.0	106	111	4.6	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	100	100	0.0	103	104	1.0	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	114	114	0.0	114	117	2.6	70 - 130	30	
Trichloroethene	ND	5.0	100	99	1.0	106	109	2.8	70 - 130	30	
Trichlorofluoromethane	ND	5.0	93	95	2.1	86	93	7.8	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	99	101	2.0	97	102	5.0	70 - 130	30	
Vinyl chloride	ND	5.0	92	94	2.2	85	93	9.0	70 - 130	30	
% 1,2-dichlorobenzene-d4	100	%	101	99	2.0	99	99	0.0	70 - 130	30	
% Bromofluorobenzene	97	%	100	100	0.0	98	98	0.0	70 - 130	30	
% Dibromofluoromethane	102	%	102	103	1.0	102	104	1.9	70 - 130	30	
% Toluene-d8	99	%	101	100	1.0	100	99	1.0	70 - 130	30	

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QA/QC Data

SDG I.D.: GCC69590

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 471221 (ug/kg), QC Sample No: CC69590 (CC69590 (50X) , CC69592 (50X))										
Volatiles - Soil										
Trichloroethene	ND	5.0	108	107	0.9	116	119	2.6	70 - 130	30
% 1,2-dichlorobenzene-d4	100	%	99	98	1.0	99	100	1.0	70 - 130	30
% Bromofluorobenzene	95	%	99	101	2.0	102	102	0.0	70 - 130	30
% Dibromofluoromethane	102	%	105	103	1.9	99	100	1.0	70 - 130	30
% Toluene-d8	99	%	102	100	2.0	101	101	0.0	70 - 130	30

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
m = This parameter is outside laboratory MS/MSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller

Phyllis Shiller, Laboratory Director
March 27, 2019

Wednesday, March 27, 2019
Criteria: NY: 375, 375RRS
State: NY

Sample Criteria Exceedances Report
GCC69590 - ROCKBROKE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CC69590	CR-SM	Chromium	NY / 375-6.8 Metals / Unrestricted Use Soil	62.3	0.38	30		mg/Kg
CC69590	NI-SM	Nickel	NY / 375-6.8 Metals / Unrestricted Use Soil	159	3.8	30	30	mg/Kg
CC69591	NI-SM	Nickel	NY / 375-6.8 Metals / Unrestricted Use Soil	30.3	0.35	30	30	mg/Kg
CC69592	$8270-SMR	Dibenz(a,h)anthracene	NY / 375-6.8 Semivolatiles / Residential Restricted	420	260	330	330	ug/Kg
CC69592	$8270-SMR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Residential Restricted	2000	260	1000	1000	ug/Kg
CC69592	$8270-SMR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	1900	260	1000	1000	ug/Kg
CC69592	$8270-SMR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	1200	260	500	500	ug/Kg
CC69592	$8270-SMR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Residential Restricted	1800	260	1000	1000	ug/Kg
CC69592	$8270-SMR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1200	260	500	500	ug/Kg
CC69592	$8270-SMR	Chrysene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	2400	260	1000	1000	ug/Kg
CC69592	$8270-SMR	Benzo(k)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1700	260	800	800	ug/Kg
CC69592	$8270-SMR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1800	260	1000	1000	ug/Kg
CC69592	$8270-SMR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1900	260	1000	1000	ug/Kg
CC69592	$8270-SMR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	2000	260	1000	1000	ug/Kg
CC69592	$8270-SMR	Dibenz(a,h)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	420	260	330	330	ug/Kg
CC69592	$PESTSM_NY	4,4' -DDD	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	33	2.3	3.3	3.3	ug/Kg
CC69592	$PESTSM_NY	4,4' -DDT	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	14	2.3	3.3	3.3	ug/Kg
CC69592	$PESTSM_NY	Dieldrin	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	14	3.8	5	5	ug/Kg
CC69592	BA-SM	Barium	NY / 375-6.8 Metals / Unrestricted Use Soil	373	0.39	350	350	mg/Kg
CC69592	CR-SM	Chromium	NY / 375-6.8 Metals / Unrestricted Use Soil	48.7	0.39	30		mg/Kg
CC69592	CU-SM	Copper	NY / 375-6.8 Metals / Unrestricted Use Soil	90.1	0.8	50	50	mg/kg
CC69592	HG-SM	Mercury	NY / 375-6.8 Metals / Residential Restricted	1.19	0.08	0.81	0.81	mg/Kg
CC69592	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	1.19	0.08	0.18	0.18	mg/Kg
CC69592	NI-SM	Nickel	NY / 375-6.8 Metals / Unrestricted Use Soil	45.4	0.39	30	30	mg/Kg
CC69592	PB-SM	Lead	NY / 375-6.8 Metals / Residential Restricted	796	3.9	400	400	mg/Kg
CC69592	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	796	3.9	63	63	mg/Kg
CC69592	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	848	7.9	109	109	mg/Kg
CC69593	CR-SM	Chromium	NY / 375-6.8 Metals / Unrestricted Use Soil	39.4	0.40	30		mg/Kg
CC69594	CR-SM	Chromium	NY / 375-6.8 Metals / Unrestricted Use Soil	34.3	0.34	30		mg/Kg
CC69594	NI-SM	Nickel	NY / 375-6.8 Metals / Unrestricted Use Soil	42.7	0.34	30	30	mg/Kg
CC69594	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	103	0.34	63	63	mg/Kg
CC69594	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	214	6.8	109	109	mg/Kg
CC69596	$8260SMRNY	Acetone	NY / 375-6.8 Volatiles / Unrestricted Use Soil	59	30	50	50	ug/Kg
CC69596	$PESTSM_NY	4,4' -DDE	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	12	2.4	3.3	3.3	ug/Kg
CC69596	$PESTSM_NY	4,4' -DDT	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	60	2.4	3.3	3.3	ug/Kg
CC69596	$PESTSM_NY	4,4' -DDD	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	8.8	2.4	3.3	3.3	ug/Kg
CC69596	$PESTSM_NY	Dieldrin	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	5.6	4.0	5	5	ug/Kg
CC69596	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	0.33	0.03	0.18	0.18	mg/Kg

Wednesday, March 27, 2019
Criteria: NY: 375, 375RRS
State: NY

Sample Criteria Exceedances Report

GCC69590 - ROCKBROKE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CC69596	PB-SM	Lead	NY / 375-6.8 Metals / Residential Restricted	420	3.9	400	400	mg/Kg
CC69596	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	420	3.9	63	63	mg/Kg
CC69596	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	235	7.8	109	109	mg/Kg
CC69598	$PESTSM_NY	4,4' -DDT	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	8.4	2.2	3.3	3.3	ug/Kg
CC69600	CR-SM	Chromium	NY / 375-6.8 Metals / Unrestricted Use Soil	31.0	0.37	30		mg/Kg
CC69777	$8260MER	Vinyl chloride	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	25	20	20	ug/Kg
CC69777	$8260MER	1,2-Dichloroethane	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	25	20	20	ug/Kg
CC69777	$8260MER	Acetone	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	250	50	50	ug/Kg
CC69777	$8260MER	Methylene chloride	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	100	50	50	ug/Kg

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Comments

March 27, 2019 SDG I.D.: GCC69590

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report:

PEST Narration

AU-ECD4 03/19/19-1: CC69590, CC69591, CC69592, CC69593, CC69594, CC69595

The Endrin and DDT breakdown does not exceed 15% except for the following compounds:
319A021 (CC69592) - Endrin Breakdown (15%)
The Endrin and DDT breakdown does not exceed the maximum of 20% except for the following compounds:None.

The following Continuing Calibration compounds did not meet % deviation criteria:
Samples: CC69590, CC69591, CC69592, CC69593
Preceding CC 319B022 - d-BHC 25%H (20%)
Succeeding CC 319B035 - d-BHC 29%H (20%)
Samples: CC69595
Preceding CC 319B035 - d-BHC 29%H (20%)
Succeeding CC 319B049 - d-BHC 26%H (20%)
Samples: CC69594
Preceding CC 319B049 - d-BHC 26%H (20%)
Succeeding CC 319B060 - d-BHC 31%H (20%)

AU-ECD7 03/20/19-2: CC69596, CC69597, CC69598, CC69599, CC69600

The following Continuing Calibration compounds did not meet % deviation criteria:
Samples: CC69596, CC69597, CC69598, CC69599, CC69600
Preceding CC 320B055 - 4,4'-DDD 48%L (20%), 4,4'-DDE 25%L (20%)
Succeeding CC 320B080 - None.
A low "1A" standard was run after the samples to demonstrate capability to detect any compounds outside of the CC acceptance criteria. All reported samples were ND for the affected compounds.

SVOA Narration

CHEM19 03/19/19-1: CC69590, CC69591, CC69592, CC69593, CC69594, CC69595, CC69596, CC69597, CC69598, CC69599, CC69600

The following Initial Calibration compounds did not meet RSD% criteria: 4,6-Dinitro-2-methylphenol 30% (20%), Benzoic acid 28% (20%), Hexachlorocyclopentadiene 23% (20%)
The following Initial Calibration compounds did not meet maximum RSD% criteria: None.
The following Initial Calibration compounds did not meet recommended response factors: 2,4-Dinitrophenol 0 (0.01), 2-Nitrophenol 0.064 (0.1), Hexachlorobenzene 0.098 (0.1), Pentachlorophenol 0 (0.05)
The following Initial Calibration compounds did not meet minimum response factors: 2,4-Dinitrophenol 0 (0.01), Pentachlorophenol 0 (0.01)

The following Continuing Calibration compounds did not meet recommended response factors: 2-Nitrophenol 0.076 (0.1), Hexachlorobenzene 0.099 (0.1)
The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

CHEM19 03/20/19-1: CC69590, CC69591, CC69592, CC69593, CC69594, CC69595, CC69596, CC69597, CC69598, CC69599, CC69600

PHOENIX

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Comments

March 27, 2019 SDG I.D.: GCC69590

The following Initial Calibration compounds did not meet RSD% criteria: 4,6-Dinitro-2-methylphenol 30% (20%), Benzoic acid 28% (20%), Hexachlorocyclopentadiene 23% (20%)
The following Initial Calibration compounds did not meet maximum RSD% criteria: None.
The following Initial Calibration compounds did not meet recommended response factors: 2,4-Dinitrophenol 0 (0.01), 2-Nitrophenol 0.064 (0.1), Hexachlorobenzene 0.098 (0.1), Pentachlorophenol 0 (0.05)
The following Initial Calibration compounds did not meet minimum response factors: 2,4-Dinitrophenol 0 (0.01), Pentachlorophenol 0 (0.01)

The following Continuing Calibration compounds did not meet recommended response factors: 2-Nitrophenol 0.076 (0.1), Hexachlorobenzene 0.099 (0.1)
The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

VOA Narration

CHEM26 03/19/19-1: CC69590, CC69591, CC69592, CC69593, CC69594, CC69595, CC69596, CC69597, CC69598, CC69599, CC69600, CC69776, CC69777

The following Initial Calibration compounds did not meet RSD% criteria: Acetone 38% (20%)
The following Initial Calibration compounds did not meet maximum RSD% criteria: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

NY Temperature Narration

March 27, 2019

SDG I.D.: GCC69590

The samples in this delivery group were received at 1.8°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes ☐ No ☐
Coolant: IPK ☐ ICE ☐ No ☐
Temp 1.8 °C Pg of

PHOENIX
Environmental Laboratories, Inc.

NY/NJ/PA CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Contact Options:
☐ Phone:
☐ Fax:
☐ Email:

Customer: Rock Brokerage
Address: 170 Lee Ave
Brooklyn, NY

Project: 297 Wallabout
Report to: Moshe Menheit
Invoice to: Moshe Menheit
QUOTE # :

Project P.O:

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification
Sampler's Signature: [signature] Date: 3/18/19

Matrix Code:
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe
OIL=Oil B=Bulk L=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOCs 8260	SVOCs 8270	Pest	PCB	TAL metals	GL Amber 8 oz. w/H3PO4	~~Soil VOA Vials~~ Encore	GL Soil container ( ) oz	GL Soil container (8) oz	40 ml VOA Vial	GL Amber 1000ml [ ] As is [ ] HCl	PL As is [ ] 250ml [ ] As is [ ] H2SO4	PL H2SO4 [ ] 250ml [ ] 500ml [ ] 1000ml	PL NAOH 250ml	PL HNO3 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
69590	SB-3(0-2)	S	3/18/19	0750	X	X	X	X	X	3	3	1 HCl									
69591	SB-3(10-12)	↓	↓	0800	X	X	X	X	X	3	3	1									
69592	SB-5(0-2)	↓	↓	0815	X	X	X	X	X	3		1									
69593	SB-5(10-12)	↓	↓	0830	X	X	X	X	X	3		1									
69594	SB-4(0-2)	↓	↓	0845	X	X	X	X	X	3		1									
69595	SB-4(10-12)	↓	↓	0855	X	X	X	X	X	3		1									
69596	SB-1(0-2)	↓	↓	0910	X	X	X	X	X	3		1									
69597	SB-1(10-12)	↓	↓	0920	X	X	X	X	X	3		1									
69598	SB-2(0-2)	↓	↓	0945	X	X	X	X	X	3		1									
69599	SB-2(10-12)	↓	↓	0955	X	X	X	X	X	3		1									
69600	DUP(20318)	↓	↓	0955	X	X	X	X	X	3		1									

Relinquished by:	Accepted by:	Date:	Time:
M Conlon MCon	[signature]	3/18/19	2:15
[signature]	[signature]	3.18.19	1746

Comments, Special Requirements or Regulations:
pg 1 of 2
TB LL - 69776
TB HL - 69777

Data Format:
☑ ~~Phoenix Std Report~~
☑ Excel
☐ PDF
☐ GIS/Key
☐ EQuIS
☐ NJ Hazsite EDD
☐ NY EZ EDD (ASP)
☐ Other

Turnaround:
☐ 1 Day*
☐ 2 Days*
☐ ~~3 Days*~~
☑ 5 Days
☐ 10 Days
☐ Other
* SURCHARGE

NJ
☐ Res. Criteria
☐ Non-Res. Criteria
☐ Impact to GW Soil Cleanup Criteria
☐ Impact to GW soil screen Criteria
☐ GW Criteria

Data Package:
☐ NJ Reduced Deliv. *
☐ NY Enhanced (ASP B) *
☐ Other

NY
☐ TOGS GW
☐ CP-51 SOIL
☑ 375SCO Unrestricted Soil
☐ 375SCO Residential Soil
☐ 375SCO Residential
☐ 375SCO Commercial Soil
☐ 375SCO Industrial Soil
☐ Subpart 5 DW

PA
☐ Clean Fill Limits
☐ PA-GW
☐ Reg Fill Limits
☐ PA Soil Restricted
☐ PA Soil non-restricted

State Samples Collected? NY

Lisa Arnold

From: Moshe Monheit <moshe@rockbrokerage.com>
Sent: Monday, March 25, 2019 9:13 AM
To: Lisa Arnold
Subject: RE: 1,4-dioxane add on

Good Morning Lisa,

Good morning, please have the lab report provide the data compared to the following:

Soil - NYS Unrestricted Use and NYS Restricted Residential.
Groundwater – NYSDEC AWQS – TOGS
Soil Vapor – NYSDOH Matrix B

Thanks!

THE SOIL REMOVAL ROCKSTARS™

Moshe Monheit, Controller

Tel 718.858.6655 #201
Cell 917.407.5735
Fax 718.858.6656
Email moshe@rockbrokerage.com
Web www.rockbrokerage.com

From: Conlon, Mari <MConlon@haleyaldrich.com>
Sent: Tuesday, March 19, 2019 11:49 AM
To: lisa@phoenixlabs.com
Cc: Moshe Monheit <moshe@rockbrokerage.com>
Subject: 1,4-dioxane add on

Lisa,

As discussed on the phone, we need to add one more analyses that was not on the chain.

Can you please add 1,4-dioxane to groundwater sample TW-3 from 297 Wallabout Street, Brooklyn, NY. Samples picked up at the site yesterday at 14:15.

VOC method is fine.

If not enough volume in TW-3 pelase try one of the other samples is also ok (TW-2 or TW-1). We just need one goundwater sample run for 1,4-dioxane.

Thanks,

Mari Cate Conlon
Project Manager

Thursday, April 04, 2019

Attn: Moshe Monheit
Rock Brokerage
170 Lee Avenue
Brooklyn NY 11211

Project ID: 297 WALLABOUT
SDG ID: GCC69571
Sample ID#s: CC69571 - CC69574

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
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PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

SDG Comments

April 04, 2019

SDG I.D.: GCC69571

8260 Volatile Organics:
1,2-Dibromoethane, 1,2,3 Trichloropropane, and 1,2-Dibromo-3-chloropropane do not meet NY TOGS GA criteria, these compounds are analyzed by GC/ECD method 504 or 8011 to achieve this criteria.

SIM Analysis:
The lowest possible reporting limit under SIM conditions is 0.02 ug/L. The NY TOGS GA criteria for some PAHs is 0.002 ug/L. This level can not be achieved.

8081 Pesticides:
Toxaphene is reported to the lowest possible reporting level. The NY TOGS criteria for this compound can not be achieved.

PHOENIX

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NY # 11301

Sample Id Cross Reference

April 04, 2019

SDG I.D.: GCC69571

Project ID: 297 WALLABOUT

Client Id	Lab Id	Matrix
TW-3	CC69571	GROUND WATER
TW-2	CC69572	GROUND WATER
TW-1	CC69573	GROUND WATER
FIELD BLANK	CC69574	WATER

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NY # 11301

Analysis Report

April 04, 2019

FOR: Attn: Moshe Monheit
Rock Brokerage
170 Lee Avenue
Brooklyn NY 11211

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		03/18/19	8:40
Location Code:	ROCKBROKE	Received by:	CP	03/18/19	17:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC69571
Phoenix ID: CC69571

Project ID: 297 WALLABOUT
Client ID: TW-3

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.002	0.002	mg/L	1	03/21/19	CPP	SW6010D
Aluminum	4.61	0.010	mg/L	1	03/21/19	CPP	SW6010D
Arsenic	0.008	0.004	mg/L	1	03/21/19	CPP	SW6010D
Barium	0.136	0.002	mg/L	1	03/21/19	CPP	SW6010D
Beryllium	< 0.001	0.001	mg/L	1	03/21/19	CPP	SW6010D
Calcium	194	0.10	mg/L	10	03/22/19	TH	SW6010D
Cadmium	< 0.001	0.001	mg/L	1	03/21/19	CPP	SW6010D
Cobalt	0.020	0.002	mg/L	1	03/21/19	CPP	SW6010D
Chromium	0.025	0.001	mg/L	1	03/21/19	CPP	SW6010D
Copper	0.036	0.005	mg/L	1	03/21/19	CPP	SW6010D
Silver (Dissolved)	< 0.001	0.001	mg/L	1	03/20/19	CPP	SW6010D
Aluminum (Dissolved)	0.072	0.011	mg/L	1	03/20/19	CPP	SW6010D
Arsenic (Dissolved)	< 0.004	0.004	mg/L	1	03/20/19	CPP	SW6010D
Barium (Dissolved)	0.092	0.002	mg/L	1	03/20/19	CPP	SW6010D
Beryllium (Dissolved)	< 0.001	0.001	mg/L	1	03/20/19	CPP	SW6010D
Calcium (Dissolved)	171	0.11	mg/L	10	03/22/19	TH	SW6010D
Cadmium (Dissolved)	< 0.001	0.001	mg/L	1	03/20/19	CPP	SW6010D
Cobalt (Dissolved)	0.015	0.001	mg/L	1	03/20/19	CPP	SW6010D
Chromium (Dissolved)	< 0.001	0.001	mg/L	1	03/20/19	CPP	SW6010D
Copper (Dissolved)	< 0.005	0.005	mg/L	1	03/20/19	CPP	SW6010D
Iron (Dissolved)	9.72	0.011	mg/L	1	03/20/19	CPP	SW6010D
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	1	03/20/19	RS	SW7470A
Potassium (Dissolved)	12.7	0.1	mg/L	1	03/20/19	CPP	SW6010D
Magnesium (Dissolved)	11.3	0.01	mg/L	1	03/20/19	CPP	SW6010D
Manganese (Dissolved)	2.38	0.011	mg/L	10	03/22/19	TH	SW6010D
Sodium (Dissolved)	58.4	1.1	mg/L	10	03/22/19	TH	SW6010D
Nickel (Dissolved)	0.044	0.001	mg/L	1	03/20/19	CPP	SW6010D
Lead (Dissolved)	< 0.002	0.002	mg/L	1	03/20/19	CPP	SW6010D

Ver 1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Antimony (Dissolved)	< 0.003	0.003	mg/L	1	03/20/19	CPP	SW6010D	
Selenium (Dissolved)	< 0.01	0.01	mg/L	1	03/20/19	CPP	SW6010D	
Thallium (Dissolved)	< 0.0005	0.0005	mg/L	5	03/21/19	CPP	SW6020B	
Vanadium (Dissolved)	< 0.002	0.002	mg/L	1	03/20/19	CPP	SW6010D	
Zinc (Dissolved)	< 0.002	0.002	mg/L	1	03/20/19	CPP	SW6010D	
Iron	35.6	0.010	mg/L	1	03/21/19	CPP	SW6010D	
Mercury	< 0.0002	0.0002	mg/L	1	03/20/19	RS	SW7470A	
Potassium	14.5	0.1	mg/L	1	03/21/19	CPP	SW6010D	
Magnesium	12.1	0.010	mg/L	1	03/21/19	CPP	SW6010D	
Manganese	2.67	0.010	mg/L	10	03/22/19	TH	SW6010D	
Sodium	55.2	1.0	mg/L	10	03/22/19	TH	SW6010D	
Nickel	0.069	0.001	mg/L	1	03/21/19	CPP	SW6010D	
Lead	0.005	0.002	mg/L	1	03/21/19	CPP	SW6010D	
Antimony	0.011	0.003	mg/L	1	03/21/19	EK	SW6010D	
Selenium	< 0.010	0.010	mg/L	1	03/21/19	CPP	SW6010D	
Thallium	< 0.0005	0.0005	mg/L	5	03/21/19	CPP	SW6020B	
Vanadium	0.013	0.002	mg/L	1	03/21/19	CPP	SW6010D	
Zinc	0.016	0.004	mg/L	1	03/21/19	CPP	SW6010D	
Filtration	Completed				03/19/19	AG	0.45um Filter	
Dissolved Mercury Digestion	Completed				03/19/19	W/W	SW7470A	
Mercury Digestion	Completed				03/19/19	Q/W/W	SW7470A	
PCB Extraction (2 Liter)	Completed				03/18/19	E/N	SW3510C	
Extraction for Pest (2 Liter)	Completed				03/18/19	E/N	SW3510C	
Semi-Volatile Extraction	Completed				03/18/19	P/AK/D	SW3520C	
Dissolved Metals Preparation	Completed				03/19/19	AG	SW3005A	
Dissolved Metals Preparation	Completed				03/19/19	AG	SW3005A	
Total Metals Digestion	Completed				03/20/19	AG		
Total Metals Digestion MS	Completed				03/19/19	AG		
PFAS	Completed				04/01/19	*	SOP 434-PFAAS	C

Polychlorinated Biphenyls

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
PCB-1016	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
PCB-1221	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
PCB-1232	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
PCB-1242	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
PCB-1248	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
PCB-1254	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
PCB-1260	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
PCB-1262	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
PCB-1268	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	61		%	1	03/19/19	SC	30 - 150 %
% DCBP (Confirmation)	50		%	1	03/19/19	SC	30 - 150 %
% TCMX	79		%	1	03/19/19	SC	30 - 150 %
% TCMX (Confirmation)	66		%	1	03/19/19	SC	30 - 150 %

Pesticides

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,4' -DDD	ND	0.009	ug/L	1	03/21/19	CW	SW8081B
4,4' -DDE	ND	0.009	ug/L	1	03/21/19	CW	SW8081B
4,4' -DDT	ND	0.009	ug/L	1	03/21/19	CW	SW8081B

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Client ID: TW-3

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
a-BHC	ND	0.005	ug/L	1	03/21/19	CW	SW8081B	
a-chlordane	ND	0.009	ug/L	1	03/21/19	CW	SW8081B	
Alachlor	ND	0.071	ug/L	1	03/21/19	CW	SW8081B	1
Aldrin	ND	0.001	ug/L	1	03/21/19	CW	SW8081B	
b-BHC	ND	0.005	ug/L	1	03/21/19	CW	SW8081B	
Chlordane	ND	0.05	ug/L	1	03/21/19	CW	SW8081B	
d-BHC	ND	0.005	ug/L	1	03/21/19	CW	SW8081B	
Dieldrin	ND	0.001	ug/L	1	03/21/19	CW	SW8081B	
Endosulfan I	ND	0.009	ug/L	1	03/21/19	CW	SW8081B	
Endosulfan II	ND	0.009	ug/L	1	03/21/19	CW	SW8081B	
Endosulfan Sulfate	ND	0.009	ug/L	1	03/21/19	CW	SW8081B	
Endrin	ND	0.009	ug/L	1	03/21/19	CW	SW8081B	
Endrin Aldehyde	ND	0.009	ug/L	1	03/21/19	CW	SW8081B	
Endrin ketone	ND	0.009	ug/L	1	03/21/19	CW	SW8081B	
g-BHC (Lindane)	ND	0.005	ug/L	1	03/21/19	CW	SW8081B	
g-chlordane	ND	0.009	ug/L	1	03/21/19	CW	SW8081B	
Heptachlor	ND	0.009	ug/L	1	03/21/19	CW	SW8081B	
Heptachlor epoxide	ND	0.009	ug/L	1	03/21/19	CW	SW8081B	
Methoxychlor	ND	0.094	ug/L	1	03/21/19	CW	SW8081B	
Toxaphene	ND	0.24	ug/L	1	03/21/19	CW	SW8081B	
QA/QC Surrogates								
%DCBP (Surrogate Rec)	40		%	1	03/21/19	CW	30 - 150 %	
%DCBP (Surrogate Rec) (Confirmation)	64		%	1	03/21/19	CW	30 - 150 %	
%TCMX (Surrogate Rec)	40		%	1	03/21/19	CW	30 - 150 %	
%TCMX (Surrogate Rec) (Confirmation)	137		%	1	03/21/19	CW	30 - 150 %	
Volatiles								
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,1,1-Trichloroethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	03/19/19	MH	SW8260C	
1,1,2-Trichloroethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,1-Dichloroethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,1-Dichloroethene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,1-Dichloropropene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,2,3-Trichloropropane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,2-Dibromoethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,2-Dichlorobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,2-Dichloroethane	ND	0.60	ug/L	1	03/19/19	MH	SW8260C	
1,2-Dichloropropane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,3-Dichlorobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,3-Dichloropropane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,4-Dichlorobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
2,2-Dichloropropane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
2-Chlorotoluene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
2-Hexanone	ND	5.0	ug/L	1	03/19/19	MH	SW8260C	

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
2-Isopropyltoluene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	1
4-Chlorotoluene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
4-Methyl-2-pentanone	ND	5.0	ug/L	1	03/19/19	MH	SW8260C	
Acetone	ND	25	ug/L	1	03/19/19	MH	SW8260C	
Acrylonitrile	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Benzene	ND	0.70	ug/L	1	03/19/19	MH	SW8260C	
Bromobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Bromochloromethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Bromodichloromethane	ND	0.50	ug/L	1	03/19/19	MH	SW8260C	
Bromoform	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Bromomethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Carbon Disulfide	ND	5.0	ug/L	1	03/19/19	MH	SW8260C	
Carbon tetrachloride	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Chlorobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Chloroethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Chloroform	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Chloromethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
cis-1,2-Dichloroethene	7.6	1.0	ug/L	1	03/19/19	MH	SW8260C	
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	03/19/19	MH	SW8260C	
Dibromochloromethane	ND	0.50	ug/L	1	03/19/19	MH	SW8260C	
Dibromomethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Dichlorodifluoromethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Ethylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Hexachlorobutadiene	ND	0.40	ug/L	1	03/19/19	MH	SW8260C	
Isopropylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
m&p-Xylene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Methyl ethyl ketone	ND	5.0	ug/L	1	03/19/19	MH	SW8260C	
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Methylene chloride	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Naphthalene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
n-Butylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
n-Propylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
o-Xylene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
p-Isopropyltoluene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
sec-Butylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Styrene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
tert-Butylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Tetrachloroethene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	03/19/19	MH	SW8260C	1
Toluene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Total Xylenes	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	03/19/19	MH	SW8260C	
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	03/19/19	MH	SW8260C	
Trichloroethene	2.6	1.0	ug/L	1	03/19/19	MH	SW8260C	
Trichlorofluoromethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Trichlorotrifluoroethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Vinyl chloride	6.2	1.0	ug/L	1	03/19/19	MH	SW8260C	

QA/QC Surrogates

Project ID: 297 WALLABOUT

Client ID: TW-3

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% 1,2-dichlorobenzene-d4	100		%	1	03/19/19	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	03/19/19	MH	70 - 130 %
% Dibromofluoromethane	96		%	1	03/19/19	MH	70 - 130 %
% Toluene-d8	98		%	1	03/19/19	MH	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	3.3	ug/L	1	03/21/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	03/21/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	03/21/19	WB	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	03/21/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	03/21/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
Acetophenone	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Aniline	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Benzidine	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Benzoic acid	ND	47	ug/L	1	03/21/19	WB	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
Carbazole	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Dibenzofuran	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Hexachloroethane	ND	0.94	ug/L	1	03/21/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Isophorone	ND	4.7	ug/L	1	03/21/19	WB	SW8270D	
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	03/21/19	WB	SW8270D	
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	03/21/19	WB	SW8270D	
Pentachloronitrobenzene	ND	2.4	ug/L	1	03/21/19	WB	SW8270D	
Phenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	92		%	1	03/21/19	WB	15 - 110 %	
% 2-Fluorobiphenyl	76		%	1	03/21/19	WB	30 - 130 %	
% 2-Fluorophenol	36		%	1	03/21/19	WB	15 - 110 %	
% Nitrobenzene-d5	66		%	1	03/21/19	WB	30 - 130 %	
% Phenol-d5	49		%	1	03/21/19	WB	15 - 110 %	
% Terphenyl-d14	75		%	1	03/21/19	WB	30 - 130 %	
Semivolatiles (SIM)								
2-Methylnaphthalene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)	
Acenaphthene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)	
Acenaphthylene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)	
Anthracene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)	
Benz(a)anthracene	ND	0.02	ug/L	1	03/20/19	MR	SW8270D (SIM)	
Benzo(a)pyrene	ND	0.02	ug/L	1	03/20/19	MR	SW8270D (SIM)	
Benzo(b)fluoranthene	ND	0.02	ug/L	1	03/20/19	MR	SW8270D (SIM)	
Benzo(ghi)perylene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)	
Benzo(k)fluoranthene	ND	0.02	ug/L	1	03/20/19	MR	SW8270D (SIM)	
Chrysene	ND	0.02	ug/L	1	03/20/19	MR	SW8270D (SIM)	
Dibenz(a,h)anthracene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)	
Fluoranthene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)	
Fluorene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)	
Hexachlorobenzene	ND	0.04	ug/L	1	03/20/19	MR	SW8270D (SIM)	
Hexachlorobutadiene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)	
Hexachlorocyclopentadiene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)	
Indeno(1,2,3-cd)pyrene	ND	0.02	ug/L	1	03/20/19	MR	SW8270D (SIM)	
Naphthalene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)	
Nitrobenzene	ND	0.38	ug/L	1	03/20/19	MR	SW8270D (SIM)	
N-Nitrosodimethylamine	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)	
Pentachlorophenol	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)	
Phenanthrene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)	
Pyrene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)	
Pyridine	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	108		%	1	03/20/19	MR	15 - 110 %	
% 2-Fluorobiphenyl	74		%	1	03/20/19	MR	30 - 130 %	
% 2-Fluorophenol	53		%	1	03/20/19	MR	15 - 110 %	
% Nitrobenzene-d5	77		%	1	03/20/19	MR	30 - 130 %	
% Phenol-d5	70		%	1	03/20/19	MR	15 - 110 %	
% Terphenyl-d14	69		%	1	03/20/19	MR	30 - 130 %	
1,4-dioxane								
1,4-dioxane	ND	0.20	ug/l	1	03/20/19	LA	SW8270DSIM	1
QA/QC Surrogates								
% 1,4-dioxane-d8	91		%	1	03/20/19	LA	30 - 130 %	

Project ID: 297 WALLABOUT
Client ID: TW-3

Phoenix I.D.: CC69571

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for 1,4-Dioxane	Completed				03/20/19	S/S	

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

*See attached

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Pesticide Comment:
Sample was evaluated against an external standard.

PFAS (SOP 434-PFAAS) was analyzed by NY certified lab #10899.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller

Phyllis Shiller, Laboratory Director
April 04, 2019
Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

Analysis Report

April 04, 2019

FOR: Attn: Moshe Monheit
Rock Brokerage
170 Lee Avenue
Brooklyn NY 11211

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		03/18/19	11:00
Location Code:	ROCKBROKE	Received by:	CP	03/18/19	17:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC69571
Phoenix ID: CC69572

Project ID: 297 WALLABOUT
Client ID: TW-2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	03/21/19	CPP	SW6010D
Aluminum	9.96	0.010	mg/L	1	03/21/19	CPP	SW6010D
Arsenic	< 0.004	0.004	mg/L	1	03/21/19	CPP	SW6010D
Barium	0.078	0.002	mg/L	1	03/21/19	CPP	SW6010D
Beryllium	< 0.001	0.001	mg/L	1	03/21/19	CPP	SW6010D
Calcium	74.5	0.010	mg/L	1	03/21/19	CPP	SW6010D
Cadmium	< 0.001	0.001	mg/L	1	03/21/19	CPP	SW6010D
Cobalt	0.006	0.002	mg/L	1	03/21/19	CPP	SW6010D
Chromium	0.041	0.001	mg/L	1	03/21/19	CPP	SW6010D
Copper	0.017	0.005	mg/L	1	03/21/19	CPP	SW6010D
Silver (Dissolved)	< 0.001	0.001	mg/L	1	03/20/19	CPP	SW6010D
Aluminum (Dissolved)	0.045	0.011	mg/L	1	03/20/19	CPP	SW6010D
Arsenic (Dissolved)	< 0.004	0.004	mg/L	1	03/20/19	CPP	SW6010D
Barium (Dissolved)	0.029	0.002	mg/L	1	03/20/19	CPP	SW6010D
Beryllium (Dissolved)	< 0.001	0.001	mg/L	1	03/20/19	CPP	SW6010D
Calcium (Dissolved)	68.8	0.01	mg/L	1	03/20/19	CPP	SW6010D
Cadmium (Dissolved)	< 0.001	0.001	mg/L	1	03/20/19	CPP	SW6010D
Cobalt (Dissolved)	< 0.001	0.001	mg/L	1	03/20/19	CPP	SW6010D
Chromium (Dissolved)	< 0.001	0.001	mg/L	1	03/20/19	CPP	SW6010D
Copper (Dissolved)	< 0.005	0.005	mg/L	1	03/20/19	CPP	SW6010D
Iron (Dissolved)	< 0.011	0.011	mg/L	1	03/20/19	CPP	SW6010D
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	1	03/20/19	RS	SW7470A
Potassium (Dissolved)	5.6	0.1	mg/L	1	03/20/19	CPP	SW6010D
Magnesium (Dissolved)	5.92	0.01	mg/L	1	03/20/19	CPP	SW6010D
Manganese (Dissolved)	1.65	0.001	mg/L	1	03/20/19	CPP	SW6010D
Sodium (Dissolved)	65.0	1.1	mg/L	10	03/22/19	TH	SW6010D
Nickel (Dissolved)	0.014	0.001	mg/L	1	03/20/19	CPP	SW6010D
Lead (Dissolved)	< 0.002	0.002	mg/L	1	03/20/19	CPP	SW6010D

Ver 1

Project ID: 297 WALLABOUT
Client ID: TW-2

Phoenix I.D.: CC69572

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Antimony (Dissolved)	< 0.003	0.003	mg/L	1	03/20/19	CPP	SW6010D
Selenium (Dissolved)	< 0.01	0.01	mg/L	1	03/20/19	CPP	SW6010D
Thallium (Dissolved)	< 0.0005	0.0005	mg/L	5	03/21/19	CPP	SW6020B
Vanadium (Dissolved)	< 0.002	0.002	mg/L	1	03/20/19	CPP	SW6010D
Zinc (Dissolved)	< 0.002	0.002	mg/L	1	03/20/19	CPP	SW6010D
Iron	10.1	0.010	mg/L	1	03/21/19	CPP	SW6010D
Mercury	< 0.0002	0.0002	mg/L	1	03/20/19	RS	SW7470A
Potassium	7.5	0.1	mg/L	1	03/21/19	CPP	SW6010D
Magnesium	7.36	0.010	mg/L	1	03/21/19	CPP	SW6010D
Manganese	1.88	0.001	mg/L	1	03/21/19	CPP	SW6010D
Sodium	59.5	1.0	mg/L	10	03/22/19	TH	SW6010D
Nickel	0.040	0.001	mg/L	1	03/21/19	CPP	SW6010D
Lead	0.005	0.002	mg/L	1	03/21/19	CPP	SW6010D
Antimony	< 0.003	0.003	mg/L	1	03/21/19	CPP	SW6010D
Selenium	< 0.010	0.010	mg/L	1	03/21/19	CPP	SW6010D
Thallium	< 0.0005	0.0005	mg/L	5	03/21/19	CPP	SW6020B
Vanadium	0.027	0.002	mg/L	1	03/21/19	CPP	SW6010D
Zinc	0.025	0.004	mg/L	1	03/21/19	CPP	SW6010D
Filtration	Completed				03/19/19	AG	0.45um Filter
Dissolved Mercury Digestion	Completed				03/19/19	W/W	SW7470A
Mercury Digestion	Completed				03/19/19	Q/W/W	SW7470A
PCB Extraction (2 Liter)	Completed				03/18/19	E/N	SW3510C
Extraction for Pest (2 Liter)	Completed				03/18/19	E/N	SW3510C
Semi-Volatile Extraction	Completed				03/18/19	P/AK/D	SW3520C
Dissolved Metals Preparation	Completed				03/19/19	AG	SW3005A
Dissolved Metals Preparation	Completed				03/19/19	AG	SW3005A
Total Metals Digestion	Completed				03/20/19	AG	
Total Metals Digestion MS	Completed				03/19/19	AG	

Polychlorinated Biphenyls

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
PCB-1016	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
PCB-1221	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
PCB-1232	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
PCB-1242	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
PCB-1248	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
PCB-1254	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
PCB-1260	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
PCB-1262	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
PCB-1268	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	71		%	1	03/19/19	SC	30 - 150 %
% DCBP (Confirmation)	60		%	1	03/19/19	SC	30 - 150 %
% TCMX	74		%	1	03/19/19	SC	30 - 150 %
% TCMX (Confirmation)	62		%	1	03/19/19	SC	30 - 150 %

Pesticides

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4,4' -DDD	ND	0.009	ug/L	1	03/21/19	CW	SW8081B
4,4' -DDE	ND	0.009	ug/L	1	03/21/19	CW	SW8081B
4,4' -DDT	0.017	0.009	ug/L	1	03/21/19	CW	SW8081B
a-BHC	ND	0.005	ug/L	1	03/21/19	CW	SW8081B

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Client ID: TW-2

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
a-chlordane	ND	0.009	ug/L	1	03/21/19	CW	SW8081B	
Alachlor	ND	0.071	ug/L	1	03/21/19	CW	SW8081B	1
Aldrin	ND	0.004	ug/L	1	03/21/19	CW	SW8081B	
b-BHC	ND	0.005	ug/L	1	03/21/19	CW	SW8081B	
Chlordane	ND	0.05	ug/L	1	03/21/19	CW	SW8081B	
d-BHC	ND	0.005	ug/L	1	03/21/19	CW	SW8081B	
Dieldrin	ND	0.004	ug/L	1	03/21/19	CW	SW8081B	
Endosulfan I	ND	0.009	ug/L	1	03/21/19	CW	SW8081B	
Endosulfan II	ND	0.009	ug/L	1	03/21/19	CW	SW8081B	
Endosulfan Sulfate	ND	0.009	ug/L	1	03/21/19	CW	SW8081B	
Endrin	ND	0.009	ug/L	1	03/21/19	CW	SW8081B	
Endrin Aldehyde	ND	0.009	ug/L	1	03/21/19	CW	SW8081B	
Endrin ketone	ND	0.009	ug/L	1	03/21/19	CW	SW8081B	
g-BHC (Lindane)	ND	0.005	ug/L	1	03/21/19	CW	SW8081B	
g-chlordane	ND	0.009	ug/L	1	03/21/19	CW	SW8081B	
Heptachlor	ND	0.009	ug/L	1	03/21/19	CW	SW8081B	
Heptachlor epoxide	ND	0.009	ug/L	1	03/21/19	CW	SW8081B	
Methoxychlor	ND	0.094	ug/L	1	03/21/19	CW	SW8081B	
Toxaphene	ND	0.24	ug/L	1	03/21/19	CW	SW8081B	
QA/QC Surrogates								
%DCBP (Surrogate Rec)	36		%	1	03/21/19	CW	30 - 150 %	
%DCBP (Surrogate Rec) (Confirmation)	21		%	1	03/21/19	CW	30 - 150 %	3
%TCMX (Surrogate Rec)	46		%	1	03/21/19	CW	30 - 150 %	
%TCMX (Surrogate Rec) (Confirmation)	32		%	1	03/21/19	CW	30 - 150 %	
Volatiles								
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,1,1-Trichloroethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	03/19/19	MH	SW8260C	
1,1,2-Trichloroethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,1-Dichloroethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,1-Dichloroethene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,1-Dichloropropene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,2,3-Trichloropropane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,2-Dibromoethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,2-Dichlorobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,2-Dichloroethane	ND	0.60	ug/L	1	03/19/19	MH	SW8260C	
1,2-Dichloropropane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,3-Dichlorobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,3-Dichloropropane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,4-Dichlorobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
2,2-Dichloropropane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
2-Chlorotoluene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
2-Hexanone	ND	5.0	ug/L	1	03/19/19	MH	SW8260C	
2-Isopropyltoluene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	1

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
4-Chlorotoluene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
4-Methyl-2-pentanone	ND	5.0	ug/L	1	03/19/19	MH	SW8260C	
Acetone	ND	25	ug/L	1	03/19/19	MH	SW8260C	
Acrylonitrile	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Benzene	ND	0.70	ug/L	1	03/19/19	MH	SW8260C	
Bromobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Bromochloromethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Bromodichloromethane	ND	0.50	ug/L	1	03/19/19	MH	SW8260C	
Bromoform	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Bromomethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Carbon Disulfide	ND	5.0	ug/L	1	03/19/19	MH	SW8260C	
Carbon tetrachloride	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Chlorobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Chloroethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Chloroform	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Chloromethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
cis-1,2-Dichloroethene	11	1.0	ug/L	1	03/19/19	MH	SW8260C	
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	03/19/19	MH	SW8260C	
Dibromochloromethane	ND	0.50	ug/L	1	03/19/19	MH	SW8260C	
Dibromomethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Dichlorodifluoromethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Ethylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Hexachlorobutadiene	ND	0.40	ug/L	1	03/19/19	MH	SW8260C	
Isopropylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
m&p-Xylene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Methyl ethyl ketone	ND	5.0	ug/L	1	03/19/19	MH	SW8260C	
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Methylene chloride	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Naphthalene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
n-Butylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
n-Propylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
o-Xylene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
p-Isopropyltoluene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
sec-Butylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Styrene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
tert-Butylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Tetrachloroethene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	03/19/19	MH	SW8260C	1
Toluene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Total Xylenes	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	03/19/19	MH	SW8260C	
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	03/19/19	MH	SW8260C	
Trichloroethene	6.5	1.0	ug/L	1	03/19/19	MH	SW8260C	
Trichlorofluoromethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Trichlorotrifluoroethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Vinyl chloride	4.2	1.0	ug/L	1	03/19/19	MH	SW8260C	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	100		%	1	03/19/19	MH	70 - 130 %	

Project ID: 297 WALLABOUT
Client ID: TW-2

Phoenix I.D.: CC69572

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Bromofluorobenzene	97		%	1	03/19/19	MH	70 - 130 %
% Dibromofluoromethane	95		%	1	03/19/19	MH	70 - 130 %
% Toluene-d8	99		%	1	03/19/19	MH	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	3.3	ug/L	1	03/21/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	03/21/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	03/21/19	WB	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	03/21/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	03/21/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
Acetophenone	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Aniline	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Benzidine	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Benzoic acid	ND	47	ug/L	1	03/21/19	WB	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
Carbazole	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Dibenzofuran	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Hexachloroethane	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
Isophorone	ND	4.7	ug/L	1	03/21/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Pentachloronitrobenzene	ND	2.4	ug/L	1	03/21/19	WB	SW8270D
Phenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	85		%	1	03/21/19	WB	15 - 110 %
% 2-Fluorobiphenyl	79		%	1	03/21/19	WB	30 - 130 %
% 2-Fluorophenol	39		%	1	03/21/19	WB	15 - 110 %
% Nitrobenzene-d5	70		%	1	03/21/19	WB	30 - 130 %
% Phenol-d5	42		%	1	03/21/19	WB	15 - 110 %
% Terphenyl-d14	80		%	1	03/21/19	WB	30 - 130 %

Semivolatiles (SIM)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2-Methylnaphthalene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Acenaphthene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Acenaphthylene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Anthracene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Benz(a)anthracene	ND	0.02	ug/L	1	03/20/19	MR	SW8270D (SIM)
Benzo(a)pyrene	ND	0.02	ug/L	1	03/20/19	MR	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.02	ug/L	1	03/20/19	MR	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.02	ug/L	1	03/20/19	MR	SW8270D (SIM)
Chrysene	ND	0.02	ug/L	1	03/20/19	MR	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Fluoranthene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Fluorene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Hexachlorobenzene	ND	0.04	ug/L	1	03/20/19	MR	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.02	ug/L	1	03/20/19	MR	SW8270D (SIM)
Naphthalene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Nitrobenzene	ND	0.38	ug/L	1	03/20/19	MR	SW8270D (SIM)
N-Nitrosodimethylamine	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Pentachlorophenol	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Phenanthrene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Pyrene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	109		%	1	03/20/19	MR	15 - 110 %
% 2-Fluorobiphenyl	77		%	1	03/20/19	MR	30 - 130 %
% 2-Fluorophenol	50		%	1	03/20/19	MR	15 - 110 %
% Nitrobenzene-d5	77		%	1	03/20/19	MR	30 - 130 %
% Phenol-d5	57		%	1	03/20/19	MR	15 - 110 %
% Terphenyl-d14	68		%	1	03/20/19	MR	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
3 = This parameter exceeds laboratory specified limits.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Pesticide Comment:
Sample was evaluated against an external standard.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller

Phyllis Shiller, Laboratory Director
April 04, 2019
Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

April 04, 2019

FOR: Attn: Moshe Monheit
Rock Brokerage
170 Lee Avenue
Brooklyn NY 11211

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		03/18/19	12:00
Location Code:	ROCKBROKE	Received by:	CP	03/18/19	17:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC69571
Phoenix ID: CC69573

Project ID: 297 WALLABOUT
Client ID: TW-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	03/21/19	CPP	SW6010D
Aluminum	12.0	0.010	mg/L	1	03/21/19	CPP	SW6010D
Arsenic	0.013	0.004	mg/L	1	03/21/19	CPP	SW6010D
Barium	0.126	0.002	mg/L	1	03/21/19	CPP	SW6010D
Beryllium	< 0.001	0.001	mg/L	1	03/21/19	CPP	SW6010D
Calcium	376	0.10	mg/L	10	03/22/19	TH	SW6010D
Cadmium	0.001	0.001	mg/L	1	03/21/19	CPP	SW6010D
Cobalt	0.007	0.002	mg/L	1	03/21/19	CPP	SW6010D
Chromium	0.034	0.001	mg/L	1	03/21/19	CPP	SW6010D
Copper	0.024	0.005	mg/L	1	03/21/19	CPP	SW6010D
Silver (Dissolved)	< 0.001	0.001	mg/L	1	03/20/19	CPP	SW6010D
Aluminum (Dissolved)	0.089	0.011	mg/L	1	03/20/19	CPP	SW6010D
Arsenic (Dissolved)	< 0.004	0.004	mg/L	1	03/20/19	CPP	SW6010D
Barium (Dissolved)	0.055	0.002	mg/L	1	03/20/19	CPP	SW6010D
Beryllium (Dissolved)	< 0.001	0.001	mg/L	1	03/20/19	CPP	SW6010D
Calcium (Dissolved)	330	0.11	mg/L	10	03/22/19	TH	SW6010D
Cadmium (Dissolved)	< 0.001	0.001	mg/L	1	03/20/19	CPP	SW6010D
Cobalt (Dissolved)	< 0.001	0.001	mg/L	1	03/20/19	CPP	SW6010D
Chromium (Dissolved)	0.003	0.001	mg/L	1	03/20/19	CPP	SW6010D
Copper (Dissolved)	0.005	0.005	mg/L	1	03/20/19	CPP	SW6010D
Iron (Dissolved)	< 0.011	0.011	mg/L	1	03/20/19	CPP	SW6010D
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	1	03/20/19	RS	SW7470A
Potassium (Dissolved)	18.8	0.1	mg/L	1	03/20/19	CPP	SW6010D
Magnesium (Dissolved)	52.6	0.01	mg/L	1	03/20/19	CPP	SW6010D
Manganese (Dissolved)	0.040	0.001	mg/L	1	03/20/19	CPP	SW6010D
Sodium (Dissolved)	53.3	1.1	mg/L	10	03/22/19	TH	SW6010D
Nickel (Dissolved)	0.003	0.001	mg/L	1	03/20/19	CPP	SW6010D
Lead (Dissolved)	0.006	0.002	mg/L	1	03/20/19	CPP	SW6010D

Ver 1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Antimony (Dissolved)	< 0.003	0.003	mg/L	1	03/20/19	CPP	SW6010D
Selenium (Dissolved)	< 0.01	0.01	mg/L	1	03/20/19	EK	SW6010D
Thallium (Dissolved)	< 0.0005	0.0005	mg/L	5	03/21/19	CPP	SW6020B
Vanadium (Dissolved)	< 0.002	0.002	mg/L	1	03/20/19	CPP	SW6010D
Zinc (Dissolved)	0.007	0.002	mg/L	1	03/20/19	CPP	SW6010D
Iron	23.2	0.010	mg/L	1	03/21/19	CPP	SW6010D
Mercury	< 0.0002	0.0002	mg/L	1	03/20/19	RS	SW7470A
Potassium	21.8	0.1	mg/L	1	03/21/19	CPP	SW6010D
Magnesium	53.5	0.010	mg/L	1	03/21/19	CPP	SW6010D
Manganese	0.158	0.001	mg/L	1	03/21/19	CPP	SW6010D
Sodium	53.3	1.0	mg/L	10	03/22/19	TH	SW6010D
Nickel	0.020	0.001	mg/L	1	03/21/19	CPP	SW6010D
Lead	0.016	0.002	mg/L	1	03/21/19	CPP	SW6010D
Antimony	0.005	0.003	mg/L	1	03/21/19	EK	SW6010D
Selenium	< 0.010	0.010	mg/L	1	03/21/19	CPP	SW6010D
Thallium	< 0.0005	0.0005	mg/L	5	03/21/19	CPP	SW6020B
Vanadium	0.032	0.002	mg/L	1	03/21/19	CPP	SW6010D
Zinc	0.119	0.004	mg/L	1	03/21/19	CPP	SW6010D
Filtration	Completed				03/19/19	AG	0.45um Filter
Dissolved Mercury Digestion	Completed				03/19/19	W/W	SW7470A
Mercury Digestion	Completed				03/19/19	Q/W/W	SW7470A
PCB Extraction (2 Liter)	Completed				03/18/19	E/N	SW3510C
Extraction for Pest (2 Liter)	Completed				03/18/19	E/N	SW3510C
Semi-Volatile Extraction	Completed				03/18/19	P/AK/D	SW3520C
Dissolved Metals Preparation	Completed				03/19/19	AG	SW3005A
Dissolved Metals Preparation	Completed				03/19/19	AG	SW3005A
Total Metals Digestion	Completed				03/20/19	AG	
Total Metals Digestion MS	Completed				03/19/19	AG	
Polychlorinated Biphenyls							
PCB-1016	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
PCB-1221	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
PCB-1232	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
PCB-1242	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
PCB-1248	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
PCB-1254	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
PCB-1260	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
PCB-1262	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
PCB-1268	ND	0.047	ug/L	1	03/19/19	SC	SW8082A
QA/QC Surrogates							
% DCBP	51		%	1	03/19/19	SC	30 - 150 %
% DCBP (Confirmation)	53		%	1	03/19/19	SC	30 - 150 %
% TCMX	63		%	1	03/19/19	SC	30 - 150 %
% TCMX (Confirmation)	63		%	1	03/19/19	SC	30 - 150 %
Pesticides							
4,4' -DDD	ND	0.009	ug/L	1	03/21/19	PS	SW8081B
4,4' -DDE	ND	0.009	ug/L	1	03/21/19	PS	SW8081B
4,4' -DDT	ND	0.009	ug/L	1	03/21/19	PS	SW8081B
a-BHC	ND	0.005	ug/L	1	03/21/19	PS	SW8081B

Project ID: 297 WALLABOUT
Client ID: TW-1

Phoenix I.D.: CC69573

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
a-chlordane	ND	0.009	ug/L	1	03/21/19	PS	SW8081B	
Alachlor	ND	0.071	ug/L	1	03/21/19	PS	SW8081B	1
Aldrin	ND	0.001	ug/L	1	03/21/19	PS	SW8081B	
b-BHC	ND	0.005	ug/L	1	03/21/19	PS	SW8081B	
Chlordane	ND	0.050	ug/L	1	03/21/19	PS	SW8081B	
d-BHC	ND	0.005	ug/L	1	03/21/19	PS	SW8081B	
Dieldrin	ND	0.001	ug/L	1	03/21/19	PS	SW8081B	
Endosulfan I	ND	0.009	ug/L	1	03/21/19	PS	SW8081B	
Endosulfan II	ND	0.009	ug/L	1	03/21/19	PS	SW8081B	
Endosulfan Sulfate	ND	0.009	ug/L	1	03/21/19	PS	SW8081B	
Endrin	ND	0.009	ug/L	1	03/21/19	PS	SW8081B	
Endrin Aldehyde	ND	0.009	ug/L	1	03/21/19	PS	SW8081B	
Endrin ketone	ND	0.009	ug/L	1	03/21/19	PS	SW8081B	
g-BHC (Lindane)	ND	0.005	ug/L	1	03/21/19	PS	SW8081B	
g-chlordane	ND	0.009	ug/L	1	03/21/19	PS	SW8081B	
Heptachlor	ND	0.009	ug/L	1	03/21/19	PS	SW8081B	
Heptachlor epoxide	ND	0.009	ug/L	1	03/21/19	PS	SW8081B	
Methoxychlor	ND	0.094	ug/L	1	03/21/19	PS	SW8081B	
Toxaphene	ND	0.24	ug/L	1	03/21/19	PS	SW8081B	
QA/QC Surrogates								
%DCBP (Surrogate Rec)	47		%	1	03/21/19	PS	30 - 150 %	
%DCBP (Surrogate Rec) (Confirmation)	48		%	1	03/21/19	PS	30 - 150 %	
%TCMX (Surrogate Rec)	66		%	1	03/21/19	PS	30 - 150 %	
%TCMX (Surrogate Rec) (Confirmation)	71		%	1	03/21/19	PS	30 - 150 %	
Volatiles								
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,1,1-Trichloroethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	03/19/19	MH	SW8260C	
1,1,2-Trichloroethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,1-Dichloroethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,1-Dichloroethene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,1-Dichloropropene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,2,3-Trichloropropane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,2-Dibromoethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,2-Dichlorobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,2-Dichloroethane	ND	0.60	ug/L	1	03/19/19	MH	SW8260C	
1,2-Dichloropropane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,3-Dichlorobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,3-Dichloropropane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
1,4-Dichlorobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
2,2-Dichloropropane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
2-Chlorotoluene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
2-Hexanone	ND	5.0	ug/L	1	03/19/19	MH	SW8260C	
2-Isopropyltoluene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	1

Project ID: 297 WALLABOUT

Client ID: TW-1

Phoenix I.D.: CC69573

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
4-Chlorotoluene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
4-Methyl-2-pentanone	ND	5.0	ug/L	1	03/19/19	MH	SW8260C	
Acetone	ND	25	ug/L	1	03/19/19	MH	SW8260C	
Acrylonitrile	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Benzene	ND	0.70	ug/L	1	03/19/19	MH	SW8260C	
Bromobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Bromochloromethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Bromodichloromethane	ND	0.50	ug/L	1	03/19/19	MH	SW8260C	
Bromoform	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Bromomethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Carbon Disulfide	ND	5.0	ug/L	1	03/19/19	MH	SW8260C	
Carbon tetrachloride	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Chlorobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Chloroethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Chloroform	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Chloromethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	03/19/19	MH	SW8260C	
Dibromochloromethane	ND	0.50	ug/L	1	03/19/19	MH	SW8260C	
Dibromomethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Dichlorodifluoromethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Ethylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Hexachlorobutadiene	ND	0.40	ug/L	1	03/19/19	MH	SW8260C	
Isopropylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
m&p-Xylene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Methyl ethyl ketone	ND	5.0	ug/L	1	03/19/19	MH	SW8260C	
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Methylene chloride	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Naphthalene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
n-Butylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
n-Propylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
o-Xylene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
p-Isopropyltoluene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
sec-Butylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Styrene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
tert-Butylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Tetrachloroethene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	03/19/19	MH	SW8260C	1
Toluene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Total Xylenes	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	03/19/19	MH	SW8260C	
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	03/19/19	MH	SW8260C	
Trichloroethene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Trichlorofluoromethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Trichlorotrifluoroethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
Vinyl chloride	ND	1.0	ug/L	1	03/19/19	MH	SW8260C	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	99		%	1	03/19/19	MH	70 - 130 %	

Project ID: 297 WALLABOUT Phoenix I.D.: CC69573
Client ID: TW-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Bromofluorobenzene	96		%	1	03/19/19	MH	70 - 130 %
% Dibromofluoromethane	96		%	1	03/19/19	MH	70 - 130 %
% Toluene-d8	99		%	1	03/19/19	MH	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	3.3	ug/L	1	03/21/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	03/21/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	03/21/19	WB	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	03/21/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	03/21/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
Acetophenone	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Aniline	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Benzidine	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Benzoic acid	ND	47	ug/L	1	03/21/19	WB	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
Carbazole	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Dibenzofuran	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Hexachloroethane	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
Isophorone	ND	4.7	ug/L	1	03/21/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	03/21/19	WB	SW8270D
Pentachloronitrobenzene	ND	2.4	ug/L	1	03/21/19	WB	SW8270D
Phenol	ND	0.94	ug/L	1	03/21/19	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	64		%	1	03/21/19	WB	15 - 110 %
% 2-Fluorobiphenyl	72		%	1	03/21/19	WB	30 - 130 %
% 2-Fluorophenol	55		%	1	03/21/19	WB	15 - 110 %
% Nitrobenzene-d5	86		%	1	03/21/19	WB	30 - 130 %
% Phenol-d5	28		%	1	03/21/19	WB	15 - 110 %
% Terphenyl-d14	83		%	1	03/21/19	WB	30 - 130 %

Semivolatiles (SIM)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2-Methylnaphthalene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Acenaphthene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Acenaphthylene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Anthracene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Benz(a)anthracene	0.03	0.02	ug/L	1	03/20/19	MR	SW8270D (SIM)
Benzo(a)pyrene	ND	0.02	ug/L	1	03/20/19	MR	SW8270D (SIM)
Benzo(b)fluoranthene	0.02	0.02	ug/L	1	03/20/19	MR	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.02	ug/L	1	03/20/19	MR	SW8270D (SIM)
Chrysene	0.03	0.02	ug/L	1	03/20/19	MR	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Fluoranthene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Fluorene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Hexachlorobenzene	ND	0.04	ug/L	1	03/20/19	MR	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.02	ug/L	1	03/20/19	MR	SW8270D (SIM)
Naphthalene	0.84	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Nitrobenzene	ND	0.38	ug/L	1	03/20/19	MR	SW8270D (SIM)
N-Nitrosodimethylamine	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Pentachlorophenol	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Phenanthrene	0.87	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Pyrene	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	03/20/19	MR	SW8270D (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	105		%	1	03/20/19	MR	15 - 110 %
% 2-Fluorobiphenyl	76		%	1	03/20/19	MR	30 - 130 %
% 2-Fluorophenol	59		%	1	03/20/19	MR	15 - 110 %
% Nitrobenzene-d5	90		%	1	03/20/19	MR	30 - 130 %
% Phenol-d5	41		%	1	03/20/19	MR	15 - 110 %
% Terphenyl-d14	72		%	1	03/20/19	MR	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller

Phyllis Shiller, Laboratory Director
April 04, 2019
Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

Analysis Report

April 04, 2019

FOR: Attn: Moshe Monheit
Rock Brokerage
170 Lee Avenue
Brooklyn NY 11211

Sample Information		Custody Information		Date	Time
Matrix:	WATER	Collected by:		03/18/19	7:45
Location Code:	ROCKBROKE	Received by:	CP	03/18/19	17:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC69571
Phoenix ID: CC69574

Project ID: 297 WALLABOUT
Client ID: FIELD BLANK

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
PFAS	Completed				04/01/19	*	SOP 434-PFAAS	C

C = This parameter is subcontracted.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

Comments:

*See attached

PFAS (SOP 434-PFAAS) was analyzed by NY certified lab #10899.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller

Phyllis Shiller, Laboratory Director
April 04, 2019
Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

April 04, 2019

QA/QC Data

SDG I.D.: GCC69571

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 470771 (mg/L), QC Sample No: CC69267 (CC69571, CC69572, CC69573)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	84.8			90.2			80 - 120	20
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 470787 (mg/L), QC Sample No: CC69571 (CC69571, CC69572, CC69573)													
Mercury (Dissolved)	BRL	0.0002	<0.0002	<0.0003	NC	84.0			82.9			80 - 120	20
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 470916 (mg/L), QC Sample No: CC70817 (CC69571, CC69572, CC69573)													
ICP Metals - Dissolved													
Aluminum	BRL	0.011	0.012	0.012	NC	87.9			87.4			75 - 125	20
Antimony	BRL	0.005	0.014	<0.010	NC	93.6			96.7			75 - 125	20
Arsenic	BRL	0.004	<0.004	<0.004	NC	87.3			89.5			75 - 125	20
Barium	BRL	0.002	0.011	0.011	0	92.7			92.3			75 - 125	20
Beryllium	BRL	0.001	<0.001	<0.001	NC	93.1			93.0			75 - 125	20
Cadmium	BRL	0.001	<0.001	<0.001	NC	89.2			90.3			75 - 125	20
Calcium	BRL	0.01	9.90	9.83	0.70	90.2			NC			75 - 125	20
Chromium	BRL	0.001	<0.001	<0.001	NC	87.5			89.9			75 - 125	20
Cobalt	BRL	0.001	<0.001	<0.001	NC	90.0			92.6			75 - 125	20
Copper	BRL	0.005	<0.005	<0.005	NC	90.3			90.5			75 - 125	20
Iron	BRL	0.011	0.012	<0.011	NC	90.0			91.8			75 - 125	20
Lead	BRL	0.002	<0.002	<0.002	NC	86.6			89.1			75 - 125	20
Magnesium	BRL	0.01	1.58	1.57	0.60	93.2			94.3			75 - 125	20
Manganese	BRL	0.001	0.222	0.221	0.50	89.3			91.3			75 - 125	20
Nickel	BRL	0.001	<0.001	<0.001	NC	87.5			89.6			75 - 125	20
Potassium	BRL	0.1	2.8	2.8	0	91.1			84.8			75 - 125	20
Selenium	BRL	0.011	<0.011	<0.011	NC	85.9			87.7			75 - 125	20
Silver	BRL	0.001	<0.001	<0.001	NC	88.8			89.5			75 - 125	20
Sodium	BRL	0.11	3.68	3.68	0	93.7			88.7			75 - 125	20
Vanadium	BRL	0.002	<0.002	<0.002	NC	89.2			90.1			75 - 125	20
Zinc	BRL	0.002	0.002	0.003	NC	88.6			91.2			75 - 125	20
QA/QC Batch 471030 (mg/L), QC Sample No: CC70914 (CC69571, CC69572, CC69573)													
ICP Metals - Aqueous													
Aluminum	BRL	0.010	0.155	0.144	7.40	99.7			105	106	0.9	75 - 125	20
Antimony	BRL	0.005	<0.005	<0.005	NC	110			109	113	3.6	75 - 125	20
Arsenic	BRL	0.004	<0.004	<0.004	NC	99.2			98.8	104	5.1	75 - 125	20
Barium	BRL	0.002	0.043	0.044	2.30	105			107	108	0.9	75 - 125	20
Beryllium	BRL	0.001	<0.001	<0.001	NC	102			104	106	1.9	75 - 125	20
Cadmium	BRL	0.001	<0.001	<0.001	NC	98.4			96.1	102	6.0	75 - 125	20
Calcium	BRL	0.010	30.1	31.0	2.90	99.1			NC	NC	NC	75 - 125	20
Chromium	BRL	0.001	<0.001	<0.001	NC	100			97.2	103	5.8	75 - 125	20
Cobalt	BRL	0.002	<0.002	<0.002	NC	102			99.2	104	4.7	75 - 125	20

QA/QC Data

SDG I.D.: GCC69571

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Copper	BRL	0.005	<0.005	<0.005	NC	103			106	107	0.9	75 - 125	20
Iron	BRL	0.010	0.088	0.083	5.80	103			99.3	105	5.6	75 - 125	20
Lead	BRL	0.002	<0.002	<0.002	NC	98.7			95.4	100	4.7	75 - 125	20
Magnesium	BRL	0.010	6.86	7.04	2.60	105			NC	NC	NC	75 - 125	20
Manganese	BRL	0.001	0.069	0.071	2.90	102			98.7	104	5.2	75 - 125	20
Nickel	BRL	0.001	0.011	0.010	9.50	98.8			95.0	101	6.1	75 - 125	20
Potassium	BRL	0.1	4.2	4.1	2.40	108			119	109	8.8	75 - 125	20
Selenium	BRL	0.010	<0.010	<0.010	NC	97.1			95.3	100	4.8	75 - 125	20
Silver	BRL	0.001	<0.001	<0.001	NC	102			105	107	1.9	75 - 125	20
Sodium	BRL	0.10	167	177	5.80	108			NC	NC	NC	75 - 125	20
Vanadium	BRL	0.002	<0.002	<0.002	NC	101			102	105	2.9	75 - 125	20
Zinc	BRL	0.004	0.017	0.018	NC	100			99.0	105	5.9	75 - 125	20

QA/QC Batch 470866 (mg/L), QC Sample No: CC69264 5X (CC69571, CC69572, CC69573)

ICP MS Metals - Aqueous

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Thallium	BRL	0.0005	<0.0005	<0.0005	NC	104			104			75 - 125	20

QA/QC Batch 470917 (mg/L), QC Sample No: CC69572 (CC69571, CC69572, CC69573)

ICP Metals MS - Dissolved

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Thallium	BRL	0.0003	<0.0005	<0.0016	NC	95.0			90.4			75 - 125	20

Environmental Laboratories, Inc.
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NY # 11301

QA/QC Report

April 04, 2019

QA/QC Data

SDG I.D.: GCC69571

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 470693 (ug/L), QC Sample No: CC69020 (CC69571, CC69572, CC69573)											
Polychlorinated Biphenyls - Ground Water											
PCB-1016	ND	0.050	78	70	10.8				40 - 140	20	
PCB-1221	ND	0.050							40 - 140	20	
PCB-1232	ND	0.050							40 - 140	20	
PCB-1242	ND	0.050							40 - 140	20	
PCB-1248	ND	0.050							40 - 140	20	
PCB-1254	ND	0.050							40 - 140	20	
PCB-1260	ND	0.050	93	81	13.8				40 - 140	20	
PCB-1262	ND	0.050							40 - 140	20	
PCB-1268	ND	0.050							40 - 140	20	
% DCBP (Surrogate Rec)	67	%	92	76	19.0				30 - 150	20	
% DCBP (Surrogate Rec) (Confirm	66	%	90	76	16.9				30 - 150	20	
% TCMX (Surrogate Rec)	62	%	81	74	9.0				30 - 150	20	
% TCMX (Surrogate Rec) (Confirm	61	%	77	70	9.5				30 - 150	20	

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 470694 (ug/L), QC Sample No: CC69020 (CC69571, CC69572, CC69573)											
Pesticides - Ground Water											
4,4' -DDD	ND	0.003	113	120	6.0				40 - 140	20	
4,4' -DDE	ND	0.003	78	101	25.7				40 - 140	20	r
4,4' -DDT	ND	0.003	107	89	18.4				40 - 140	20	
a-BHC	ND	0.002	89	101	12.6				40 - 140	20	
a-Chlordane	ND	0.005	92	96	4.3				40 - 140	20	
Alachlor	ND	0.005	NA	NA	NC				40 - 140	20	
Aldrin	ND	0.002	75	86	13.7				40 - 140	20	
b-BHC	ND	0.010	101	102	1.0				40 - 140	20	
Chlordane	ND	0.050	91	94	3.2				40 - 140	20	
d-BHC	ND	0.005	92	97	5.3				40 - 140	20	
Dieldrin	ND	0.002	95	100	5.1				40 - 140	20	
Endosulfan I	ND	0.005	115	97	17.0				40 - 140	20	
Endosulfan II	ND	0.005	105	121	14.2				40 - 140	20	
Endosulfan sulfate	ND	0.005	105	107	1.9				40 - 140	20	
Endrin	ND	0.005	104	128	20.7				40 - 140	20	r
Endrin aldehyde	ND	0.005	112	118	5.2				40 - 140	20	
Endrin ketone	ND	0.005	114	73	43.9				40 - 140	20	r
g-BHC	ND	0.002	82	94	13.6				40 - 140	20	
g-Chlordane	ND	0.005	91	94	3.2				40 - 140	20	
Heptachlor	ND	0.005	104	101	2.9				40 - 140	20	
Heptachlor epoxide	ND	0.005	94	103	9.1				40 - 140	20	
Methoxychlor	ND	0.005	107	102	4.8				40 - 140	20	
Toxaphene	ND	0.20	NA	NA	NC				40 - 140	20	

QA/QC Data

SDG I.D.: GCC69571

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
% DCBP	57	%	86	84	2.4				30 - 150	20	
% DCBP (Confirmation)	66	%	94	94	0.0				30 - 150	20	
% TCMX	62	%	82	85	3.6				30 - 150	20	
% TCMX (Confirmation)	70	%	100	91	9.4				30 - 150	20	

Comment:

A LCS and LCS duplicate were performed instead of a MS and MSD. Alpha and gamma chlordane were spiked and analyzed instead of technical chlordane. Gamma chlordane recovery is reported as chlordane in the LCS and LCSD

QA/QC Batch 470730 (ug/L), QC Sample No: CC68690 (CC69571, CC69572, CC69573)

Semivolatiles - Ground Water

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,2,4,5-Tetrachlorobenzene	ND	3.5	57	74	26.0				30 - 130	20	r
1,2,4-Trichlorobenzene	ND	3.5	44	63	35.5				30 - 130	20	r
1,2-Dichlorobenzene	ND	1.0	38	62	48.0				30 - 130	20	r
1,2-Diphenylhydrazine	ND	1.6	73	68	7.1				30 - 130	20	
1,3-Dichlorobenzene	ND	1.0	41	64	43.8				30 - 130	20	r
1,4-Dichlorobenzene	ND	1.0	43	61	34.6				30 - 130	20	r
2,4,5-Trichlorophenol	ND	1.0	79	75	5.2				30 - 130	20	
2,4,6-Trichlorophenol	ND	1.0	70	74	5.6				30 - 130	20	
2,4-Dichlorophenol	ND	1.0	57	74	26.0				30 - 130	20	r
2,4-Dimethylphenol	ND	1.0	65	80	20.7				30 - 130	20	r
2,4-Dinitrophenol	ND	1.0	49	64	26.5				30 - 130	20	r
2,4-Dinitrotoluene	ND	3.5	81	80	1.2				30 - 130	20	
2,6-Dinitrotoluene	ND	3.5	79	81	2.5				30 - 130	20	
2-Chloronaphthalene	ND	3.5	66	74	11.4				30 - 130	20	
2-Chlorophenol	ND	1.0	41	64	43.8				30 - 130	20	r
2-Methylphenol (o-cresol)	ND	1.0	53	68	24.8				30 - 130	20	r
2-Nitroaniline	ND	3.5	101	61	49.4				30 - 130	20	r
2-Nitrophenol	ND	1.0	49	76	43.2				30 - 130	20	r
3&4-Methylphenol (m&p-cresol)	ND	1.0	35	44	22.8				30 - 130	20	r
3,3'-Dichlorobenzidine	ND	5.0	70	70	0.0				30 - 130	20	
3-Nitroaniline	ND	5.0	102	64	45.8				30 - 130	20	r
4,6-Dinitro-2-methylphenol	ND	1.0	73	77	5.3				30 - 130	20	
4-Bromophenyl phenyl ether	ND	3.5	75	81	7.7				30 - 130	20	
4-Chloro-3-methylphenol	ND	1.0	75	81	7.7				30 - 130	20	
4-Chloroaniline	ND	3.5	65	41	45.3				30 - 130	20	r
4-Chlorophenyl phenyl ether	ND	1.0	72	74	2.7				30 - 130	20	
4-Nitroaniline	ND	5.0	81	82	1.2				30 - 130	20	
4-Nitrophenol	ND	1.0	76	70	8.2				15 - 130	20	
Acetophenone	ND	3.5	47	66	33.6				30 - 130	20	r
Aniline	ND	3.5	46	31	39.0				30 - 130	20	r
Benzidine	ND	4.5	92	92	0.0				30 - 130	20	
Benzoic acid	ND	10	42	47	11.2				30 - 130	20	
Benzyl butyl phthalate	ND	1.5	83	88	5.8				30 - 130	20	
Bis(2-chloroethoxy)methane	ND	3.5	54	64	16.9				30 - 130	20	
Bis(2-chloroethyl)ether	ND	1.0	35	62	55.7				30 - 130	20	r
Bis(2-chloroisopropyl)ether	ND	1.0	35	59	51.1				30 - 130	20	r
Bis(2-ethylhexyl)phthalate	ND	1.5	89	93	4.4				30 - 130	20	
Carbazole	ND	5.0	84	72	15.4				30 - 130	20	
Dibenzofuran	ND	3.5	73	75	2.7				30 - 130	20	
Diethyl phthalate	ND	1.5	81	80	1.2				30 - 130	20	
Dimethylphthalate	ND	1.5	80	80	0.0				30 - 130	20	
Di-n-butylphthalate	ND	1.5	90	94	4.3				30 - 130	20	
Di-n-octylphthalate	ND	1.5	91	97	6.4				30 - 130	20	

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Hexachloroethane	ND	3.5	42	64	41.5				30 - 130	20	r
Isophorone	ND	3.5	57	70	20.5				30 - 130	20	
N-Nitrosodi-n-propylamine	ND	3.5	62	76	20.3				30 - 130	20	
N-Nitrosodiphenylamine	ND	3.5	69	33	70.6				30 - 130	20	r
Pentachloronitrobenzene	ND	5.0	70	81	14.6				30 - 130	20	
Phenol	ND	1.0	40	51	24.2				15 - 130	20	r
% 2,4,6-Tribromophenol	51	%	77	81	5.1				15 - 110	20	
% 2-Fluorobiphenyl	69	%	62	69	10.7				30 - 130	20	
% 2-Fluorophenol	48	%	31	45	36.8				15 - 110	20	r
% Nitrobenzene-d5	50	%	48	66	31.6				30 - 130	20	r
% Phenol-d5	45	%	37	45	19.5				15 - 110	20	
% Terphenyl-d14	76	%	77	77	0.0				30 - 130	20	

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 471046 (ug/l), QC Sample No: CC69571 (CC69571)

1,4dioxane - Ground Water

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,4-dioxane	ND	0.25	98	103	5.0	96			30 - 130	20	
% 1,4-dioxane-d8	92	%	98	100	2.0	87			30 - 130	20	

QA/QC Batch 470730 (ug/L), QC Sample No: CC68690 (CC69571, CC69572, CC69573)

Semivolatiles (SIM) - Ground Water

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
2-Methylnaphthalene	ND	0.50	55	59	7.0				30 - 130	20	
Acenaphthene	ND	0.50	68	64	6.1				30 - 130	20	
Acenaphthylene	ND	0.50	67	59	12.7				30 - 130	20	
Anthracene	ND	0.50	78	66	16.7				30 - 130	20	
Benz(a)anthracene	ND	0.50	76	64	17.1				30 - 130	20	
Benzo(a)pyrene	ND	0.50	79	67	16.4				30 - 130	20	
Benzo(b)fluoranthene	ND	0.50	84	73	14.0				30 - 130	20	
Benzo(ghi)perylene	ND	0.50	62	57	8.4				30 - 130	20	
Benzo(k)fluoranthene	ND	0.50	83	73	12.8				30 - 130	20	
Chrysene	ND	0.50	78	67	15.2				30 - 130	20	
Dibenz(a,h)anthracene	ND	0.50	76	69	9.7				30 - 130	20	
Fluoranthene	ND	0.50	82	66	21.6				30 - 130	20	r
Fluorene	ND	0.50	79	70	12.1				30 - 130	20	
Hexachlorobenzene	ND	0.50	71	63	11.9				30 - 130	20	
Hexachlorobutadiene	ND	0.50	36	47	26.5				30 - 130	20	r
Hexachlorocyclopentadiene	ND	0.50	26	31	17.5				30 - 130	20	l
Indeno(1,2,3-cd)pyrene	ND	0.50	73	65	11.6				30 - 130	20	
Naphthalene	ND	0.50	43	51	17.0				30 - 130	20	
Nitrobenzene	ND	0.50	53	57	7.3				30 - 130	20	
N-Nitrosodimethylamine	ND	0.05	42	52	21.3				30 - 130	20	r
Pentachlorophenol	ND	0.50	85	70	19.4				30 - 130	20	
Phenanthrene	ND	0.50	75	64	15.8				30 - 130	20	
Pyrene	ND	0.50	80	66	19.2				30 - 130	20	
Pyridine	ND	0.50	32	57	56.2				30 - 130	20	r
% 2,4,6-Tribromophenol	92	%	90	76	16.9				15 - 110	20	
% 2-Fluorobiphenyl	67	%	57	57	0.0				30 - 130	20	
% 2-Fluorophenol	63	%	32	39	19.7				15 - 110	20	
% Nitrobenzene-d5	81	%	50	60	18.2				30 - 130	20	
% Phenol-d5	72	%	40	42	4.9				15 - 110	20	

QA/QC Data

SDG I.D.: GCC69571

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
% Terphenyl-d14	75	%	70	58	18.8				30 - 130	20

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 470999 (ug/L), QC Sample No: CC69338 (CC69571, CC69572, CC69573)

Volatiles - Ground Water

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,1,1,2-Tetrachloroethane	ND	1.0	92	94	2.2				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	97	100	3.0				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	96	95	1.0				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	92	93	1.1				70 - 130	30
1,1-Dichloroethane	ND	1.0	92	95	3.2				70 - 130	30
1,1-Dichloroethene	ND	1.0	97	99	2.0				70 - 130	30
1,1-Dichloropropene	ND	1.0	97	99	2.0				70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	106	107	0.9				70 - 130	30
1,2,3-Trichloropropane	ND	1.0	96	96	0.0				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	97	98	1.0				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	92	93	1.1				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	106	108	1.9				70 - 130	30
1,2-Dibromoethane	ND	1.0	95	97	2.1				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	91	93	2.2				70 - 130	30
1,2-Dichloroethane	ND	1.0	91	91	0.0				70 - 130	30
1,2-Dichloropropane	ND	1.0	89	90	1.1				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	94	97	3.1				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	91	93	2.2				70 - 130	30
1,3-Dichloropropane	ND	1.0	92	95	3.2				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	90	92	2.2				70 - 130	30
2,2-Dichloropropane	ND	1.0	91	93	2.2				70 - 130	30
2-Chlorotoluene	ND	1.0	92	95	3.2				70 - 130	30
2-Hexanone	ND	5.0	103	95	8.1				70 - 130	30
2-Isopropyltoluene	ND	1.0	94	97	3.1				70 - 130	30
4-Chlorotoluene	ND	1.0	91	93	2.2				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	92	93	1.1				70 - 130	30
Acetone	ND	5.0	89	91	2.2				70 - 130	30
Acrylonitrile	ND	5.0	97	94	3.1				70 - 130	30
Benzene	ND	0.70	92	94	2.2				70 - 130	30
Bromobenzene	ND	1.0	91	93	2.2				70 - 130	30
Bromochloromethane	ND	1.0	91	92	1.1				70 - 130	30
Bromodichloromethane	ND	0.50	92	93	1.1				70 - 130	30
Bromoform	ND	1.0	101	101	0.0				70 - 130	30
Bromomethane	ND	1.0	94	95	1.1				70 - 130	30
Carbon Disulfide	ND	1.0	96	99	3.1				70 - 130	30
Carbon tetrachloride	ND	1.0	101	104	2.9				70 - 130	30
Chlorobenzene	ND	1.0	91	93	2.2				70 - 130	30
Chloroethane	ND	1.0	92	94	2.2				70 - 130	30
Chloroform	ND	1.0	89	94	5.5				70 - 130	30
Chloromethane	ND	1.0	91	93	2.2				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	91	94	3.2				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	90	90	0.0				70 - 130	30
Dibromochloromethane	ND	0.50	96	97	1.0				70 - 130	30
Dibromomethane	ND	1.0	92	94	2.2				70 - 130	30
Dichlorodifluoromethane	ND	1.0	98	100	2.0				70 - 130	30

QA/QC Data

SDG I.D.: GCC69571

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Ethylbenzene	ND	1.0	94	96	2.1				70 - 130	30
Hexachlorobutadiene	ND	0.40	101	101	0.0				70 - 130	30
Isopropylbenzene	ND	1.0	96	99	3.1				70 - 130	30
m&p-Xylene	ND	1.0	93	95	2.1				70 - 130	30
Methyl ethyl ketone	ND	5.0	98	100	2.0				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	90	92	2.2				70 - 130	30
Methylene chloride	ND	1.0	84	84	0.0				70 - 130	30
Naphthalene	ND	1.0	107	110	2.8				70 - 130	30
n-Butylbenzene	ND	1.0	96	98	2.1				70 - 130	30
n-Propylbenzene	ND	1.0	96	99	3.1				70 - 130	30
o-Xylene	ND	1.0	92	94	2.2				70 - 130	30
p-Isopropyltoluene	ND	1.0	96	98	2.1				70 - 130	30
sec-Butylbenzene	ND	1.0	97	100	3.0				70 - 130	30
Styrene	ND	1.0	92	93	1.1				70 - 130	30
tert-Butylbenzene	ND	1.0	96	98	2.1				70 - 130	30
Tetrachloroethene	ND	1.0	95	98	3.1				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	82	83	1.2				70 - 130	30
Toluene	ND	1.0	92	93	1.1				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	94	96	2.1				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	91	93	2.2				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	96	99	3.1				70 - 130	30
Trichloroethene	ND	1.0	95	96	1.0				70 - 130	30
Trichlorofluoromethane	ND	1.0	106	107	0.9				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	108	112	3.6				70 - 130	30
Vinyl chloride	ND	1.0	99	101	2.0				70 - 130	30
% 1,2-dichlorobenzene-d4	96	%	99	100	1.0				70 - 130	30
% Bromofluorobenzene	95	%	100	100	0.0				70 - 130	30
% Dibromofluoromethane	92	%	99	99	0.0				70 - 130	30
% Toluene-d8	98	%	99	99	0.0				70 - 130	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller

Phyllis Shiller, Laboratory Director
April 04, 2019

Thursday, April 04, 2019

Criteria: NY: 375GWP, GW

State: NY

Sample Criteria Exceedances Report

GCC69571 - ROCKBROKE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CC69571	$8260GWR	Vinyl chloride	NY / TAGM - Volatile Organics / Groundwater Standards	6.2	1.0	2	2	ug/L
CC69571	$8260GWR	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria	ND	1.0	0.04	0.04	ug/L
CC69571	$8260GWR	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria	ND	1.0	0.04	0.04	ug/L
CC69571	$8260GWR	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria	ND	1.0	0.0006	0.0006	ug/L
CC69571	$8260GWR	cis-1,2-Dichloroethene	NY / TOGS - Water Quality / GA Criteria	7.6	1.0	5	5	ug/L
CC69571	$8260GWR	Vinyl chloride	NY / TOGS - Water Quality / GA Criteria	6.2	1.0	2	2	ug/L
CC69571	$8270-SIMR	Indeno(1,2,3-cd)pyrene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CC69571	$8270-SIMR	Benz(a)anthracene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CC69571	$8270-SIMR	Benzo(a)pyrene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CC69571	$8270-SIMR	Benzo(b)fluoranthene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CC69571	$8270-SIMR	Chrysene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CC69571	$8270-SIMR	Benzo(k)fluoranthene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CC69571	$8270-SIMR	Chrysene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CC69571	$8270-SIMR	Benzo(b)fluoranthene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CC69571	$8270-SIMR	Indeno(1,2,3-cd)pyrene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CC69571	$8270-SIMR	Benz(a)anthracene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CC69571	$8270-SIMR	Benzo(k)fluoranthene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CC69571	$PEST_GAWN	Toxaphene	NY / TOGS - Water Quality / GA Criteria	ND	0.24	0.06	0.06	ug/L
CC69571	AL-WM	Aluminum	NY / TOGS - Water Quality / GA Criteria	4.61	0.010	0.1	0.1	mg/L
CC69571	D-FE	Iron (Dissolved)	NY / TOGS - Water Quality / GA Criteria	9.72	0.011	0.3	0.3	mg/L
CC69571	D-MN	Manganese (Dissolved)	NY / TOGS - Water Quality / GA Criteria	2.38	0.011	0.3	0.3	mg/L
CC69571	D-NA	Sodium (Dissolved)	NY / TOGS - Water Quality / GA Criteria	58.4	1.1	20	20	mg/L
CC69571	FE-WM	Iron	NY / TOGS - Water Quality / GA Criteria	35.6	0.010	0.3	0.3	mg/L
CC69571	MN-WM	Manganese	NY / TOGS - Water Quality / GA Criteria	2.67	0.010	0.3	0.3	mg/L
CC69571	NA-WM	Sodium	NY / TOGS - Water Quality / GA Criteria	55.2	1.0	20	20	mg/L
CC69571	SB-WM	Antimony	NY / TOGS - Water Quality / GA Criteria	0.011	0.003	0.003	0.003	mg/L
CC69572	$8260GWR	Vinyl chloride	NY / TAGM - Volatile Organics / Groundwater Standards	4.2	1.0	2	2	ug/L
CC69572	$8260GWR	Trichloroethene	NY / TAGM - Volatile Organics / Groundwater Standards	6.5	1.0	5	5	ug/L
CC69572	$8260GWR	cis-1,2-Dichloroethene	NY / TOGS - Water Quality / GA Criteria	11	1.0	5	5	ug/L
CC69572	$8260GWR	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria	ND	1.0	0.04	0.04	ug/L
CC69572	$8260GWR	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria	ND	1.0	0.0006	0.0006	ug/L
CC69572	$8260GWR	Trichloroethene	NY / TOGS - Water Quality / GA Criteria	6.5	1.0	5	5	ug/L
CC69572	$8260GWR	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria	ND	1.0	0.04	0.04	ug/L
CC69572	$8260GWR	Vinyl chloride	NY / TOGS - Water Quality / GA Criteria	4.2	1.0	2	2	ug/L
CC69572	$8270-SIMR	Chrysene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CC69572	$8270-SIMR	Benz(a)anthracene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CC69572	$8270-SIMR	Benzo(a)pyrene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CC69572	$8270-SIMR	Benzo(b)fluoranthene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CC69572	$8270-SIMR	Indeno(1,2,3-cd)pyrene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CC69572	$8270-SIMR	Benzo(k)fluoranthene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CC69572	$8270-SIMR	Indeno(1,2,3-cd)pyrene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L

Thursday, April 04, 2019

Criteria: NY: 375GWP, GW

State: NY

Sample Criteria Exceedances Report

GCC69571 - ROCKBROKE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CC69572	$8270-SIMR	Benzo(k)fluoranthene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CC69572	$8270-SIMR	Benzo(b)fluoranthene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CC69572	$8270-SIMR	Benz(a)anthracene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CC69572	$8270-SIMR	Chrysene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CC69572	$PEST_GAWN	4,4' -DDT	NY / TAGM - Pest/Herb/PCBs / Groundwater Standards	0.017	0.009	0.01	0.01	ug/L
CC69572	$PEST_GAWN	Toxaphene	NY / TOGS - Water Quality / GA Criteria	ND	0.24	0.06	0.06	ug/L
CC69572	AL-WM	Aluminum	NY / TOGS - Water Quality / GA Criteria	9.96	0.010	0.1	0.1	mg/L
CC69572	D-MN	Manganese (Dissolved)	NY / TOGS - Water Quality / GA Criteria	1.65	0.001	0.3	0.3	mg/L
CC69572	D-NA	Sodium (Dissolved)	NY / TOGS - Water Quality / GA Criteria	65.0	1.1	20	20	mg/L
CC69572	FE-WM	Iron	NY / TOGS - Water Quality / GA Criteria	10.1	0.010	0.3	0.3	mg/L
CC69572	MN-WM	Manganese	NY / TOGS - Water Quality / GA Criteria	1.88	0.001	0.3	0.3	mg/L
CC69572	NA-WM	Sodium	NY / TOGS - Water Quality / GA Criteria	59.5	1.0	20	20	mg/L
CC69573	$8260GWR	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria	ND	1.0	0.04	0.04	ug/L
CC69573	$8260GWR	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria	ND	1.0	0.0006	0.0006	ug/L
CC69573	$8260GWR	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria	ND	1.0	0.04	0.04	ug/L
CC69573	$8270-SIMR	Benzo(k)fluoranthene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CC69573	$8270-SIMR	Indeno(1,2,3-cd)pyrene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CC69573	$8270-SIMR	Benz(a)anthracene	NY / TAGM - Semi-Volatiles / Groundwater Standards	0.03	0.02	0.002	0.002	ug/L
CC69573	$8270-SIMR	Benzo(a)pyrene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CC69573	$8270-SIMR	Benzo(b)fluoranthene	NY / TAGM - Semi-Volatiles / Groundwater Standards	0.02	0.02	0.002	0.002	ug/L
CC69573	$8270-SIMR	Chrysene	NY / TAGM - Semi-Volatiles / Groundwater Standards	0.03	0.02	0.002	0.002	ug/L
CC69573	$8270-SIMR	Indeno(1,2,3-cd)pyrene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CC69573	$8270-SIMR	Chrysene	NY / TOGS - Water Quality / GA Criteria	0.03	0.02	0.002	0.002	ug/L
CC69573	$8270-SIMR	Benzo(b)fluoranthene	NY / TOGS - Water Quality / GA Criteria	0.02	0.02	0.002	0.002	ug/L
CC69573	$8270-SIMR	Benz(a)anthracene	NY / TOGS - Water Quality / GA Criteria	0.03	0.02	0.002	0.002	ug/L
CC69573	$8270-SIMR	Benzo(k)fluoranthene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CC69573	$PEST_GAWN	Toxaphene	NY / TOGS - Water Quality / GA Criteria	ND	0.24	0.06	0.06	ug/L
CC69573	AL-WM	Aluminum	NY / TOGS - Water Quality / GA Criteria	12.0	0.010	0.1	0.1	mg/L
CC69573	D-MG	Magnesium (Dissolved)	NY / TOGS - Water Quality / GA Criteria	52.6	0.01	35	35	mg/L
CC69573	D-NA	Sodium (Dissolved)	NY / TOGS - Water Quality / GA Criteria	53.3	1.1	20	20	mg/L
CC69573	FE-WM	Iron	NY / TOGS - Water Quality / GA Criteria	23.2	0.010	0.3	0.3	mg/L
CC69573	MG-WM	Magnesium	NY / TOGS - Water Quality / GA Criteria	53.5	0.010	35	35	mg/L
CC69573	NA-WM	Sodium	NY / TOGS - Water Quality / GA Criteria	53.3	1.0	20	20	mg/L
CC69573	SB-WM	Antimony	NY / TOGS - Water Quality / GA Criteria	0.005	0.003	0.003	0.003	mg/L

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Comments

April 04, 2019 SDG I.D.: GCC69571

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report:

PEST Narration

AU-ECD35 03/20/19-1: CC69571, CC69572, CC69573

The following Continuing Calibration compounds did not meet % deviation criteria:
Samples: CC69571, CC69572, CC69573
Preceding CC 320A020 - 4,4'-DDE 26%L (20%)
Succeeding CC 320A033 - None.
A low "1A" standard was run after the samples to demonstrate capability to detect any compounds outside of the CC acceptance criteria. All reported samples were ND for the affected compounds.

SVOA Narration

CHEM29 03/20/19-2: CC69571, CC69572, CC69573

The following Initial Calibration compounds did not meet recommended response factors: Bis(2-chloroethyl)ether 0.634 (0.7)
The following Initial Calibration compounds did not meet minimum response factors: None.

The following Continuing Calibration compounds did not meet recommended response factors: Bis(2-chloroethyl)ether 0.619 (0.7)
The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

VOA Narration

CHEM02 03/19/19-1: CC69571, CC69572, CC69573

The following Initial Calibration compounds did not meet RSD% criteria: Acetone 29% (20%), Methylene chloride 22% (20%), Tetrahydrofuran (THF) 30% (20%)
The following Initial Calibration compounds did not meet maximum RSD% criteria: None.
The following Initial Calibration compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.027 (0.05), 2-Hexanone 0.070 (0.1), 4-Methyl-2-pentanone 0.094 (0.1), Acetone 0.044 (0.1), Bromoform 0.073 (0.1), Methyl ethyl ketone 0.058 (0.1), Tetrahydrofuran (THF) 0.049 (0.05)
The following Initial Calibration compounds did not meet minimum response factors: None.

The following Continuing Calibration compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.025 (0.05), Bromoform 0.074 (0.1), Tetrahydrofuran (THF) 0.039 (0.05)
The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

NY Temperature Narration

April 04, 2019

SDG I.D.: GCC69571

The samples in this delivery group were received at 1.8°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes ☑ No ☐
Coolant: IPK ☑ ICE ☐ No ☐
Temp 1.8 Pg of

NY/NJ/PA CHAIN OF CUSTODY RECORD

PHOENIX *Environmental Laboratories, Inc.*

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Contact Options:
☐ Phone:
☐ Fax:
☐ Email:

Customer: Rock Brokerage
Address: 170 Lee Ave
Brooklyn, NY

Project: 297 Wallabout
Report to: Moshe Menheit
Invoice to: Moshe Menheit
QUOTE # :

Project P.O:

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 3/18/19

Matrix Code:
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe
OIL=Oil B=Bulk L=Liquid BW-Blank water

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOC 8260	SVOC 8270	Pest	PCB	TAL Metals	TAL Metals (Dissolved)	TAL PFAS				GL Amber 8 oz. w/H3PO4	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container ( )oz	GL Soil container ( )oz	40 ml VOA Vial [ ] As is [X] HCl	GL Amber 1000ml [X] As is [ ] H2SO4	PL As is [X] 250ml [●] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL NAOH 250ml	PL HNO3 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
109571	TW-3	GW	3/18/19	0840	X	X	X	X	X	X	X								3	4	3			1		
109572	TW-2	↓	↓	1100	X	X	X	X	X	X									3	4	1			1		
109573	TW-1	↓	↓	1200	X	X	X	X	X	X									3	4	1			1		
109574	Field Blank	BW	3/18/19	0745							X										2					

MC

Relinquished by:	Accepted by:	Date:	Time:
M Conlon [signature]	[signature]	3/18/19	2:15
[signature]	[signature]	3/18/19	1746

Turnaround:
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☑ 5 Days
☐ 10 Days
☐ Other
* SURCHARGE

NJ
☐ Res. Criteria
☐ Non-Res. Criteria
☐ Impact to GW Soil Cleanup Criteria
☐ Impact to GW soil screen Criteria
☐ GW Criteria

NY
☑ TOGS GW
☐ CP-51 SOIL
☐ 375SCO Unrestricted Soil
☐ 375SCO Residential Soil
☐ 375SCO Residential
☐ 375SCO Commercial Soil
☐ 375SCO Industrial Soil
☐ Subpart 5 DW

PA
☐ Clean Fill Limits
☐ PA-GW
☐ Reg Fill Limits
☐ PA Soil Restricted
☐ PA Soil non-restricted

State Samples Collected? NY

Comments, Special Requirements or Regulations:
Lab to filter dissolved
TAL metal samples

pg 1 of 2

Data Format:
☑ Phoenix Std Report
☑ Excel
☐ PDF
☐ GIS/Key
☐ EQuIS
☐ NJ Hazsite EDD
☐ NY EZ EDD (ASP)
☐ Other

Data Package:
☐ NJ Reduced Deliv. *
☐ Other
☐ NY Enhanced (ASP B) *

GCC 69571

Shannon Wilhelm

Subject: FW: 1,4-dioxane add on

From: Conlon, Mari [mailto:MConlon@haleyaldrich.com]
Sent: Tuesday, March 19, 2019 11:49 AM
To: Lisa Arnold
Cc: Moshe Monheit
Subject: 1,4-dioxane add on

Lisa,

As discussed on the phone, we need to add one more analyses that was not on the chain.

Can you please add 1,4-dioxane to groundwater sample TW-3 from 297 Wallabout Street, Brooklyn, NY. Samples picked up at the site yesterday at 14:15.

VOC method is fine.

If not enough volume in TW-3 pelase try one of the other samples is also ok (TW-2 or TW-1). We just need one goundwater sample run for 1,4-dioxane.

Thanks,

Mari Cate Conlon
Project Manager

Haley & Aldrich of New York
1441 Broadway, Suite 6031
New York, NY

T: 646-277-5688
M: 347-271-1521

www.haleyaldrich.com

Lisa Arnold

From:	Moshe Monheit <moshe@rockbrokerage.com>
Sent:	Monday, March 25, 2019 9:13 AM
To:	Lisa Arnold
Subject:	RE: 1,4-dioxane add on

Good Morning Lisa,

Good morning, please have the lab report provide the data compared to the following:

Soil - NYS Unrestricted Use and NYS Restricted Residential.
Groundwater – NYSDEC AWQS – TOGS
Soil Vapor – NYSDOH Matrix B

Thanks!

THE SOIL REMOVAL ROCKSTARS™

Moshe Monheit, Controller

Tel 718.858.6655 #201
Cell 917.407.5735
Fax 718.858.6656
Email moshe@rockbrokerage.com
Web www.rockbrokerage.com

From: Conlon, Mari <MConlon@haleyaldrich.com>
Sent: Tuesday, March 19, 2019 11:49 AM
To: lisa@phoenixlabs.com
Cc: Moshe Monheit <moshe@rockbrokerage.com>
Subject: 1,4-dioxane add on

Lisa,

As discussed on the phone, we need to add one more analyses that was not on the chain.

Can you please add 1,4-dioxane to groundwater sample TW-3 from 297 Wallabout Street, Brooklyn, NY. Samples picked up at the site yesterday at 14:15.

VOC method is fine.

If not enough volume in TW-3 pelase try one of the other samples is also ok (TW-2 or TW-1). We just need one goundwater sample run for 1,4-dioxane.

Thanks,

Mari Cate Conlon
Project Manager

con-test®
ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

April 3, 2019

Bobbi Aloisa
Phoenix Laboratory
587 Middle Turnpike East
Manchester, CT 06040

Project Location: NY
Client Job Number:
Project Number: B-20190301 PFAS - Wallabout
Laboratory Work Order Number: 19C0977

Enclosed are results of analyses for samples received by the laboratory on March 20, 2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jessica Hoffman

Jessica L. Hoffman
Project Manager

Table of Contents

con-test®
ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Phoenix Laboratory
587 Middle Turnpike East
Manchester, CT 06040
ATTN: Bobbi Aloisa

REPORT DATE: 4/3/2019

PURCHASE ORDER NUMBER:

PROJECT NUMBER: B-20190301 PFAS - Wallabout

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 19C0977

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: NY

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
CC69571	19C0977-01	Ground Water		SOP 434-PFAAS	
CC69574	19C0977-02	Ground Water		SOP 434-PFAAS	

con-test®
ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa Worthington

Lisa A. Worthington
Project Manager

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: NY Sample Description: Work Order: 19C0977

Date Received: 3/20/2019

Field Sample #: CC69571 Sampled: 3/18/2019 08:40

Sample ID: 19C0977-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	2.5	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:07	KAF
Perfluorohexanoic acid (PFHxA)	6.5	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:07	KAF
Perfluoroheptanoic acid (PFHpA)	3.2	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:07	KAF
Perfluorobutanoic acid (PFBA)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:07	KAF
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:07	KAF
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:07	KAF
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:07	KAF
Perfluoropentanoic acid (PFPeA)	7.4	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:07	KAF
6:2 Fluorotelomersulfonate (6:2 FTS)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:07	KAF
8:2 Fluorotelomersulfonate (8:2 FTS)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:07	KAF
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:07	KAF
Perfluorooctanoic acid (PFOA)	12	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:07	KAF
Perfluorooctanesulfonic acid (PFOS)	6.6	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:07	KAF
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:07	KAF
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:07	KAF
N-MeFOSAA	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:07	KAF
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:07	KAF
N-EtFOSAA	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:07	KAF
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:07	KAF
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:07	KAF
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:07	KAF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	Date/Time Analyzed
13C-PFHxA	92.4	70-130		4/1/19 15:07
13C-PFDA	91.1	70-130		4/1/19 15:07
d5-NEtFOSAA	84.3	70-130		4/1/19 15:07

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: NY
Sample Description:
Work Order: 19C0977
Date Received: 3/20/2019
Field Sample #: CC69574
Sampled: 3/18/2019 07:45
Sample ID: 19C0977-02
Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:20	KAF
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:20	KAF
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:20	KAF
Perfluorobutanoic acid (PFBA)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:20	KAF
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:20	KAF
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:20	KAF
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:20	KAF
Perfluoropentanoic acid (PFPeA)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:20	KAF
6:2 Fluorotelomersulfonate (6:2 FTS)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:20	KAF
8:2 Fluorotelomersulfonate (8:2 FTS)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:20	KAF
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:20	KAF
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:20	KAF
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:20	KAF
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:20	KAF
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:20	KAF
N-MeFOSAA	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:20	KAF
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:20	KAF
N-EtFOSAA	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:20	KAF
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:20	KAF
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:20	KAF
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1		SOP 434-PFAAS	3/28/19	4/1/19 15:20	KAF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	Date/Time Analyzed
13C-PFHxA	97.3	70-130		4/1/19 15:20
13C-PFDA	84.5	70-130		4/1/19 15:20
d5-NEtFOSAA	83.0	70-130		4/1/19 15:20

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Sample Extraction Data

Prep Method: SOP 434-PFAAS-SOP 434-PFAAS

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
19C0977-01 [CC69571]	B226857	250	1.00	03/28/19
19C0977-02 [CC69574]	B226857	250	1.00	03/28/19

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QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B226857 - SOP 434-PFAAS										
Blank (B226857-BLK1)				Prepared: 03/28/19 Analyzed: 04/01/19						
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							
Perfluorobutanoic acid (PFBA)	ND	2.0	ng/L							
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L							
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0	ng/L							
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L							
Perfluoropentanoic acid (PFPeA)	ND	2.0	ng/L							
6:2 Fluorotelomersulfonate (6:2 FTS)	ND	2.0	ng/L							
8:2 Fluorotelomersulfonate (8:2 FTS)	ND	2.0	ng/L							
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							
N-MeFOSAA	ND	2.0	ng/L							
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							
N-EtFOSAA	ND	2.0	ng/L							
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							
Surrogate: 13C-PFHxA	*40.3*		ng/L	40.0		101	70-130			
Surrogate: 13C-PFDA	*38.3*		ng/L	40.0		95.8	70-130			
Surrogate: d5-NEtFOSAA	*142*		ng/L	160		88.6	70-130			
LCS (B226857-BS1)				Prepared: 03/28/19 Analyzed: 04/01/19						
Perfluorobutanesulfonic acid (PFBS)	1.71	2.0	ng/L	1.77		96.4	50-150			
Perfluorohexanoic acid (PFHxA)	2.39	2.0	ng/L	2.00		119	50-150			
Perfluoroheptanoic acid (PFHpA)	2.03	2.0	ng/L	2.00		102	50-150			
Perfluorobutanoic acid (PFBA)	0.739	2.0	ng/L	2.00		36.9	30-110			
Perfluorodecanesulfonic acid (PFDS)	2.32	2.0	ng/L	1.93		120	50-150			
Perfluoroheptanesulfonic acid (PFHpS)	2.39	2.0	ng/L	1.90		126	50-150			
Perfluorooctanesulfonamide (FOSA)	0.961	2.0	ng/L	2.00		48.1	30-110			
Perfluoropentanoic acid (PFPeA)	2.33	2.0	ng/L	2.00		117	50-150			
6:2 Fluorotelomersulfonate (6:2 FTS)	2.16	2.0	ng/L	1.90		114	50-150			
8:2 Fluorotelomersulfonate (8:2 FTS)	2.71	2.0	ng/L	1.92		141	50-150			
Perfluorohexanesulfonic acid (PFHxS)	1.66	2.0	ng/L	1.82		91.4	50-150			
Perfluorooctanoic acid (PFOA)	2.17	2.0	ng/L	2.00		108	50-150			
Perfluorooctanesulfonic acid (PFOS)	1.34	2.0	ng/L	1.85		72.2	50-150			
Perfluorononanoic acid (PFNA)	1.56	2.0	ng/L	2.00		77.8	50-150			
Perfluorodecanoic acid (PFDA)	1.90	2.0	ng/L	2.00		95.1	50-150			
N-MeFOSAA	2.11	2.0	ng/L	2.00		106	50-150			
Perfluoroundecanoic acid (PFUnA)	1.94	2.0	ng/L	2.00		96.8	50-150			
N-EtFOSAA	2.10	2.0	ng/L	2.00		105	50-150			
Perfluorododecanoic acid (PFDoA)	1.89	2.0	ng/L	2.00		94.6	50-150			
Perfluorotridecanoic acid (PFTrDA)	1.81	2.0	ng/L	2.00		90.3	50-150			
Perfluorotetradecanoic acid (PFTA)	1.98	2.0	ng/L	2.00		98.8	50-150			
Surrogate: 13C-PFHxA	*36.5*		ng/L	40.0		91.3	70-130			
Surrogate: 13C-PFDA	*34.5*		ng/L	40.0		86.2	70-130			
Surrogate: d5-NEtFOSAA	*139*		ng/L	160		86.8	70-130			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA 537 in Drinking Water	
Perfluorobutanesulfonic acid (PFBS)	NH,VT-DW,ME,RI,NJ
Perfluorohexanoic acid (PFHxA)	NH,VT-DW,ME,RI,NJ
Perfluoroheptanoic acid (PFHpA)	NH,VT-DW,ME,RI,NJ
Perfluorobutanoic acid (PFBA)	NH
Perfluorohexanesulfonic acid (PFHxS)	NH,VT-DW,ME,RI,NJ
Perfluorooctanoic acid (PFOA)	NH,NY,VT-DW,ME,RI,NJ
Perfluorooctanesulfonic acid (PFOS)	NH,NY,VT-DW,ME,RI,NJ
Perfluorononanoic acid (PFNA)	NH,VT-DW,ME,RI,NJ
Perfluorodecanoic acid (PFDA)	NH,VT-DW,ME,RI,NJ
N-MeFOSAA	NH,VT-DW,RI,NJ
Perfluoroundecanoic acid (PFUnA)	NH,VT-DW,ME,RI,NJ
N-EtFOSAA	NH,VT-DW,RI,NJ
Perfluorododecanoic acid (PFDoA)	NH,VT-DW,ME,RI,NJ
Perfluorotridecanoic acid (PFTrDA)	NH,VT-DW,ME,RI,NJ
Perfluorotetradecanoic acid (PFTA)	VT-DW,ME,RI,NJ
SOP 434-PFAAS in Water	
Perfluorobutanesulfonic acid (PFBS)	NH-P
Perfluorohexanoic acid (PFHxA)	NH-P
Perfluoroheptanoic acid (PFHpA)	NH-P
Perfluorobutanoic acid (PFBA)	NH-P
Perfluoropentanoic acid (PFPeA)	NH-P
6:2 Fluorotelomersulfonate (6:2 FTS)	NH-P
8:2 Fluorotelomersulfonate (8:2 FTS)	NH-P
Perfluorohexanesulfonic acid (PFHxS)	NH-P
Perfluorooctanoic acid (PFOA)	NH-P
Perfluorooctanesulfonic acid (PFOS)	NH-P
Perfluorononanoic acid (PFNA)	NH-P
Perfluorodecanoic acid (PFDA)	NH-P
N-MeFOSAA	NH-P
Perfluoroundecanoic acid (PFUnA)	NH-P
N-EtFOSAA	NH-P
Perfluorododecanoic acid (PFDoA)	NH-P
Perfluorotridecanoic acid (PFTrDA)	NH-P
Perfluorotetradecanoic acid (PFTA)	NH-P

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The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2005	100033	03/1/2020
MA	Massachusetts DEP	M-MA100	06/30/2019
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2019
NY	New York State Department of Health	10899 NELAP	04/1/2020
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2020
RI	Rhode Island Department of Health	LAO00112	12/30/2019
NC	North Carolina Div. of Water Quality	652	12/31/2019
NJ	New Jersey DEP	MA007 NELAP	06/30/2019
FL	Florida Department of Health	E871027 NELAP	06/30/2019
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2019
ME	State of Maine	2011028	06/9/2019
VA	Commonwealth of Virginia	460217	12/14/2019
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2019
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2019
NC-DW	North Carolina Department of Health	25703	07/31/2019

JLH 1900977

Cooler: Yes ☐ No ☐
Coolant: IPK ☐ ICE ☐ No ☐
Temp °C Pg of

PHOENIX Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Data Delivery/Contact Options:
☐ Fax:
☐ Phone:
☐ Email:

~~Customer~~ TO: Con-Test
Address:

Project:
Report to: Bobbi Aloisa
Invoice to:
QUOTE #

Project P.O:

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature ______ Date: ______

Matrix Code:
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe OIL=Oil
B=Bulk L=Liquid X = ______(Other)

Analysis Request

Bottle types: GL Amber 8 oz w/H3PO4; Soil VOA Vials [ ] methanol [ ] H2O; GL Soil container ( ) oz; GL Soil container ( ) oz; 40 ml VOA Vial [ ] As is [ ] HCl; GL Amber 1000ml [ ] As is [ ] H2SO4; PL As is [ ] 250ml [ ] 500ml [ ] 1000ml; PL H2SO4 [ ] 250ml [ ] 500ml; PL HNO3 250ml; PL NaOH 250ml; Bacteria Bottle w/thio; Bacteria Bottle as is

	PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	PFA
1)	CC69571		GW	3-18-19	08:40	X
2)	CC69574		W	3-18-19	07:45	X

Relinquished by:	Accepted by:	Date:	Time:
Lyla Bailey	[illegible]	3-20-19	07:00
[illegible]	[illegible] 5.9 C	3-20-19	11:00

Comments, Special Requirements or Regulations:
2 = Blank
Please reference the attached quote.

Turnaround Time:
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☒ Standard
☐ Other
* SURCHARGE APPLIES

RI
☐ Direct Exposure (Residential)
☐ GW
☐ Other

CT
☐ RCP Cert
☐ GW Protection
☐ SW Protection
☐ GA Mobility
☐ GB Mobility
☐ Residential DEC
☐ I/C DEC
☐ Other

MA
☐ MCP Certification
☐ GW-1
☐ GW-2
☐ GW-3
☐ S-1 GW-1 ☐ S-1 GW-2 ☐ S-1 GW-3
☐ S-2 GW-1 ☐ S-2 GW-2 ☐ S-2 GW-3
☐ S-3 GW-1 ☐ S-3 GW-2 ☐ S-3 GW-3
☐ MWRA eSMART ☐ Other

State where samples were collected: NY

Data Format
☐ Excel
☐ PDF
☐ GIS/Key
☐ EQuIS
☐ Other

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☐ Phoenix Std Report
☐ Other
* SURCHARGE APPLIES

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples______________

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Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client Phoenix

Received By ____ Date 3/29/19 Time 11:00

How were the samples received? In Cooler T No Cooler ____ On Ice T No Ice ____

Direct from Sampling ____ Ambient ____ Melted Ice ____

Were samples within Temperature? 2-6°C T By Gun # 5 Actual Temp - 3.9

By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? N/A Were Samples Tampered with? N/A

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis T Sampler Name F

Project F ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? ____

Are there Rushes? F Who was notified? ____

Are there Short Holds? F Who was notified? ____

Is there enough Volume? T

Is there Headspace where applicable? N/A MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? N/A Acid ____ Base ____

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	4	4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

Wednesday, March 27, 2019

Attn: Moshe Monheit
Rock Brokerage
170 Lee Avenue
Brooklyn NY 11211

Project ID: 297 WALLABOUT
SDG ID: GCC69575
Sample ID#s: CC69575 - CC69578

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

Sample Id Cross Reference

March 27, 2019

SDG I.D.: GCC69575

Project ID: 297 WALLABOUT

Client Id	Lab Id	Matrix
SV-2	CC69575	AIR
SV-3	CC69576	AIR
SV-1	CC69577	AIR
SV-4	CC69578	AIR

PHOENIX

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

March 27, 2019

FOR: Attn: Moshe Monheit
Rock Brokerage
170 Lee Avenue
Brooklyn NY 11211

Sample Information		Custody Information		Date	Time
Matrix:	AIR	Collected by:	MC	03/18/19	11:15
Location Code:	ROCKBROKE	Received by:	LB	03/18/19	17:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					
Canister Id:	28579				

Laboratory Data

SDG ID: GCC69575
Phoenix ID: CC69575

Project ID: 297 WALLABOUT
Client ID: SV-2

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution	
Volatiles (TO15)								
1,1,1,2-Tetrachloroethane	ND	*0.146*	ND	*1.00*	03/19/19	KCA	1	1
1,1,1-Trichloroethane	ND	*0.183*	ND	*1.00*	03/19/19	KCA	1	
1,1,2,2-Tetrachloroethane	ND	*0.146*	ND	*1.00*	03/19/19	KCA	1	
1,1,2-Trichloroethane	ND	*0.183*	ND	*1.00*	03/19/19	KCA	1	
1,1-Dichloroethane	ND	*0.247*	ND	*1.00*	03/19/19	KCA	1	
1,1-Dichloroethene	0.069	*0.051*	0.27	*0.20*	03/19/19	KCA	1	
1,2,4-Trichlorobenzene	ND	*0.135*	ND	*1.00*	03/19/19	KCA	1	
1,2,4-Trimethylbenzene	ND	*0.204*	ND	*1.00*	03/19/19	KCA	1	
1,2-Dibromoethane(EDB)	ND	*0.130*	ND	*1.00*	03/19/19	KCA	1	
1,2-Dichlorobenzene	ND	*0.166*	ND	*1.00*	03/19/19	KCA	1	
1,2-Dichloroethane	ND	*0.247*	ND	*1.00*	03/19/19	KCA	1	
1,2-dichloropropane	ND	*0.217*	ND	*1.00*	03/19/19	KCA	1	
1,2-Dichlorotetrafluoroethane	ND	*0.143*	ND	*1.00*	03/19/19	KCA	1	
1,3,5-Trimethylbenzene	ND	*0.204*	ND	*1.00*	03/19/19	KCA	1	
1,3-Butadiene	1.14	*0.452*	2.52	*1.00*	03/19/19	KCA	1	
1,3-Dichlorobenzene	ND	*0.166*	ND	*1.00*	03/19/19	KCA	1	
1,4-Dichlorobenzene	ND	*0.166*	ND	*1.00*	03/19/19	KCA	1	
1,4-Dioxane	ND	*0.278*	ND	*1.00*	03/19/19	KCA	1	
2-Hexanone(MBK)	ND	*0.244*	ND	*1.00*	03/19/19	KCA	1	1
4-Ethyltoluene	ND	*0.204*	ND	*1.00*	03/19/19	KCA	1	1
4-Isopropyltoluene	ND	*0.182*	ND	*1.00*	03/19/19	KCA	1	1
4-Methyl-2-pentanone(MIBK)	ND	*0.244*	ND	*1.00*	03/19/19	KCA	1	
Acetone	4.28	*0.421*	10.2	*1.00*	03/19/19	KCA	1	
Acrylonitrile	ND	*0.461*	ND	*1.00*	03/19/19	KCA	1	
Benzene	0.796	*0.313*	2.54	*1.00*	03/19/19	KCA	1	
Benzyl chloride	ND	*0.193*	ND	*1.00*	03/19/19	KCA	1	

Ver 1

Project ID: 297 WALLABOUT

Client ID: SV-2

Phoenix I.D.: CC69575

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution	
Bromodichloromethane	ND	*0.149*	ND	*1.00*	03/19/19	KCA	1	
Bromoform	ND	*0.097*	ND	*1.00*	03/19/19	KCA	1	
Bromomethane	ND	*0.258*	ND	*1.00*	03/19/19	KCA	1	
Carbon Disulfide	ND	*0.321*	ND	*1.00*	03/19/19	KCA	1	
Carbon Tetrachloride	0.064	*0.032*	0.40	*0.20*	03/19/19	KCA	1	
Chlorobenzene	ND	*0.217*	ND	*1.00*	03/19/19	KCA	1	
Chloroethane	ND	*0.379*	ND	*1.00*	03/19/19	KCA	1	
Chloroform	0.458	*0.205*	2.23	*1.00*	03/19/19	KCA	1	
Chloromethane	ND	*0.485*	ND	*1.00*	03/19/19	KCA	1	
Cis-1,2-Dichloroethene	3.58	*0.051*	14.2	*0.20*	03/19/19	KCA	1	
cis-1,3-Dichloropropene	ND	*0.221*	ND	*1.00*	03/19/19	KCA	1	
Cyclohexane	ND	*0.291*	ND	*1.00*	03/19/19	KCA	1	
Dibromochloromethane	ND	*0.118*	ND	*1.00*	03/19/19	KCA	1	
Dichlorodifluoromethane	0.533	*0.202*	2.63	*1.00*	03/19/19	KCA	1	
Ethanol	4.02	*0.531*	7.57	*1.00*	03/19/19	KCA	1	1
Ethyl acetate	ND	*0.278*	ND	*1.00*	03/19/19	KCA	1	1
Ethylbenzene	ND	*0.230*	ND	*1.00*	03/19/19	KCA	1	
Heptane	ND	*0.244*	ND	*1.00*	03/19/19	KCA	1	
Hexachlorobutadiene	ND	*0.094*	ND	*1.00*	03/19/19	KCA	1	
Hexane	0.399	*0.284*	1.41	*1.00*	03/19/19	KCA	1	
Isopropylalcohol	0.481	*0.407*	1.18	*1.00*	03/19/19	KCA	1	
Isopropylbenzene	ND	*0.204*	ND	*1.00*	03/19/19	KCA	1	
m,p-Xylene	0.275	*0.230*	1.19	*1.00*	03/19/19	KCA	1	
Methyl Ethyl Ketone	0.820	*0.339*	2.42	*1.00*	03/19/19	KCA	1	
Methyl tert-butyl ether(MTBE)	ND	*0.278*	ND	*1.00*	03/19/19	KCA	1	
Methylene Chloride	ND	*0.864*	ND	*3.00*	03/19/19	KCA	1	
n-Butylbenzene	ND	*0.182*	ND	*1.00*	03/19/19	KCA	1	1
o-Xylene	ND	*0.230*	ND	*1.00*	03/19/19	KCA	1	
Propylene	10.9	*0.581*	18.7	*1.00*	03/19/19	KCA	1	1
sec-Butylbenzene	ND	*0.182*	ND	*1.00*	03/19/19	KCA	1	1
Styrene	ND	*0.235*	ND	*1.00*	03/19/19	KCA	1	
Tetrachloroethene	0.281	*0.037*	1.90	*0.25*	03/19/19	KCA	1	
Tetrahydrofuran	ND	*0.339*	ND	*1.00*	03/19/19	KCA	1	1
Toluene	0.562	*0.266*	2.12	*1.00*	03/19/19	KCA	1	
Trans-1,2-Dichloroethene	ND	*0.252*	ND	*1.00*	03/19/19	KCA	1	
trans-1,3-Dichloropropene	ND	*0.221*	ND	*1.00*	03/19/19	KCA	1	
Trichloroethene	17.9	*0.037*	96.1	*0.20*	03/19/19	KCA	1	
Trichlorofluoromethane	0.449	*0.178*	2.52	*1.00*	03/19/19	KCA	1	
Trichlorotrifluoroethane	ND	*0.131*	ND	*1.00*	03/19/19	KCA	1	
Vinyl Chloride	4.66	*0.078*	11.9	*0.20*	03/19/19	KCA	1	
QA/QC Surrogates/Internals								
% Bromofluorobenzene	100	*%*	100	*%*	03/19/19	KCA	1	
% IS-1,4-Difluorobenzene	119	*%*	119	*%*	03/19/19	KCA	1	
% IS-Bromochloromethane	130	*%*	130	*%*	03/19/19	KCA	1	
% IS-Chlorobenzene-d5	133	*%*	133	*%*	03/19/19	KCA	1	

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The canister was received under no vacuum, therefore sample results may not be representative.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller

Phyllis Shiller, Laboratory Director
March 27, 2019
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

Analysis Report

March 27, 2019

FOR: Attn: Moshe Monheit
Rock Brokerage
170 Lee Avenue
Brooklyn NY 11211

Sample Information		Custody Information		Date	Time
Matrix:	AIR	Collected by:	MC	03/18/19	10:10
Location Code:	ROCKBROKE	Received by:	LB	03/18/19	17:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					
Canister Id:	28559				

Laboratory Data

SDG ID: GCC69575
Phoenix ID: CC69576

Project ID: 297 WALLABOUT
Client ID: SV-3

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution	
Volatiles (TO15)								
1,1,1,2-Tetrachloroethane	ND	*0.729*	ND	*5.00*	03/19/19	KCA	5	1
1,1,1-Trichloroethane	ND	*0.917*	ND	*5.00*	03/19/19	KCA	5	
1,1,2,2-Tetrachloroethane	ND	*0.729*	ND	*5.00*	03/19/19	KCA	5	
1,1,2-Trichloroethane	ND	*0.917*	ND	*5.00*	03/19/19	KCA	5	
1,1-Dichloroethane	ND	*1.24*	ND	*5.02*	03/19/19	KCA	5	
1,1-Dichloroethene	ND	*0.252*	ND	*1.00*	03/19/19	KCA	5	
1,2,4-Trichlorobenzene	ND	*0.674*	ND	*5.00*	03/19/19	KCA	5	
1,2,4-Trimethylbenzene	ND	*1.02*	ND	*5.01*	03/19/19	KCA	5	
1,2-Dibromoethane(EDB)	ND	*0.651*	ND	*5.00*	03/19/19	KCA	5	
1,2-Dichlorobenzene	ND	*0.832*	ND	*5.00*	03/19/19	KCA	5	
1,2-Dichloroethane	ND	*1.24*	ND	*5.02*	03/19/19	KCA	5	
1,2-dichloropropane	ND	*1.08*	ND	*4.99*	03/19/19	KCA	5	
1,2-Dichlorotetrafluoroethane	ND	*0.716*	ND	*5.00*	03/19/19	KCA	5	
1,3,5-Trimethylbenzene	ND	*1.02*	ND	*5.01*	03/19/19	KCA	5	
1,3-Butadiene	ND	*2.26*	ND	*5.00*	03/19/19	KCA	5	
1,3-Dichlorobenzene	ND	*0.832*	ND	*5.00*	03/19/19	KCA	5	
1,4-Dichlorobenzene	ND	*0.832*	ND	*5.00*	03/19/19	KCA	5	
1,4-Dioxane	ND	*1.39*	ND	*5.01*	03/19/19	KCA	5	
2-Hexanone(MBK)	ND	*1.22*	ND	*4.99*	03/19/19	KCA	5	1
4-Ethyltoluene	ND	*1.02*	ND	*5.01*	03/19/19	KCA	5	1
4-Isopropyltoluene	ND	*0.911*	ND	*5.00*	03/19/19	KCA	5	1
4-Methyl-2-pentanone(MIBK)	ND	*1.22*	ND	*4.99*	03/19/19	KCA	5	
Acetone	26.1	*2.11*	62.0	*5.01*	03/19/19	KCA	5	
Acrylonitrile	ND	*2.31*	ND	*5.01*	03/19/19	KCA	5	
Benzene	2.27	*1.57*	7.25	*5.01*	03/19/19	KCA	5	
Benzyl chloride	ND	*0.966*	ND	*5.00*	03/19/19	KCA	5	

Project ID: 297 WALLABOUT
Client ID: SV-3

Phoenix I.D.: CC69576

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution	
Bromodichloromethane	ND	*0.747*	ND	*5.00*	03/19/19	KCA	5	
Bromoform	ND	*0.484*	ND	*5.00*	03/19/19	KCA	5	
Bromomethane	ND	*1.29*	ND	*5.01*	03/19/19	KCA	5	
Carbon Disulfide	1.79	*1.61*	5.57	*5.01*	03/19/19	KCA	5	
Carbon Tetrachloride	ND	*0.159*	ND	*1.00*	03/19/19	KCA	5	
Chlorobenzene	ND	*1.09*	ND	*5.01*	03/19/19	KCA	5	
Chloroethane	ND	*1.90*	ND	*5.01*	03/19/19	KCA	5	
Chloroform	6.98	*1.02*	34.1	*4.98*	03/19/19	KCA	5	
Chloromethane	ND	*2.42*	ND	*4.99*	03/19/19	KCA	5	
Cis-1,2-Dichloroethene	16.2	*0.252*	64.2	*1.00*	03/19/19	KCA	5	
cis-1,3-Dichloropropene	ND	*1.10*	ND	*4.99*	03/19/19	KCA	5	
Cyclohexane	ND	*1.45*	ND	*4.99*	03/19/19	KCA	5	
Dibromochloromethane	ND	*0.587*	ND	*5.00*	03/19/19	KCA	5	
Dichlorodifluoromethane	ND	*1.01*	ND	*4.99*	03/19/19	KCA	5	
Ethanol	18.8	*2.66*	35.4	*5.01*	03/19/19	KCA	5	1
Ethyl acetate	ND	*1.39*	ND	*5.01*	03/19/19	KCA	5	1
Ethylbenzene	ND	*1.15*	ND	*4.99*	03/19/19	KCA	5	
Heptane	3.77	*1.22*	15.4	*5.00*	03/19/19	KCA	5	
Hexachlorobutadiene	ND	*0.469*	ND	*5.00*	03/19/19	KCA	5	
Hexane	4.22	*1.42*	14.9	*5.00*	03/19/19	KCA	5	
Isopropylalcohol	5.64	*2.04*	13.9	*5.01*	03/19/19	KCA	5	
Isopropylbenzene	ND	*1.02*	ND	*5.01*	03/19/19	KCA	5	
m,p-Xylene	ND	*1.15*	ND	*4.99*	03/19/19	KCA	5	
Methyl Ethyl Ketone	5.61	*1.70*	16.5	*5.01*	03/19/19	KCA	5	
Methyl tert-butyl ether(MTBE)	ND	*1.39*	ND	*5.01*	03/19/19	KCA	5	
Methylene Chloride	ND	*4.32*	ND	*15.0*	03/19/19	KCA	5	
n-Butylbenzene	ND	*0.911*	ND	*5.00*	03/19/19	KCA	5	1
o-Xylene	ND	*1.15*	ND	*4.99*	03/19/19	KCA	5	
Propylene	ND	*2.91*	ND	*5.01*	03/19/19	KCA	5	1
sec-Butylbenzene	ND	*0.911*	ND	*5.00*	03/19/19	KCA	5	1
Styrene	ND	*1.17*	ND	*4.98*	03/19/19	KCA	5	
Tetrachloroethene	16.2	*0.184*	110	*1.25*	03/19/19	KCA	5	
Tetrahydrofuran	ND	*1.70*	ND	*5.01*	03/19/19	KCA	5	1
Toluene	2.09	*1.33*	7.87	*5.01*	03/19/19	KCA	5	
Trans-1,2-Dichloroethene	1.34	*1.26*	5.31	*4.99*	03/19/19	KCA	5	
trans-1,3-Dichloropropene	ND	*1.10*	ND	*4.99*	03/19/19	KCA	5	
Trichloroethene	623	*2.79*	3350	*15.0*	03/19/19	KCA	75	
Trichlorofluoromethane	58.8	*0.891*	330	*5.00*	03/19/19	KCA	5	
Trichlorotrifluoroethane	ND	*0.653*	ND	*5.00*	03/19/19	KCA	5	
Vinyl Chloride	ND	*0.391*	ND	*1.00*	03/19/19	KCA	5	
QA/QC Surrogates/Internals								
% Bromofluorobenzene (5x)	105	*%*	105	*%*	03/19/19	KCA	5	
% IS-1,4-Difluorobenzene (5x)	74	*%*	74	*%*	03/19/19	KCA	5	
% IS-Bromochloromethane (5x)	99	*%*	99	*%*	03/19/19	KCA	5	
% IS-Chlorobenzene-d5 (5x)	103	*%*	103	*%*	03/19/19	KCA	5	
% Bromofluorobenzene (75x)	104	*%*	104	*%*	03/19/19	KCA	75	
% IS-1,4-Difluorobenzene (75x)	131	*%*	131	*%*	03/19/19	KCA	75	
% IS-Bromochloromethane (75x)	145	*%*	145	*%*	03/19/19	KCA	75	3
% IS-Chlorobenzene-d5 (75x)	131	*%*	131	*%*	03/19/19	KCA	75	

Ver 1

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
3 = This parameter exceeds laboratory specified limits.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller

Phyllis Shiller, Laboratory Director
March 27, 2019
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

March 27, 2019

FOR: Attn: Moshe Monheit
Rock Brokerage
170 Lee Avenue
Brooklyn NY 11211

Sample Information		Custody Information		Date	Time
Matrix:	AIR	Collected by:	MC	03/18/19	11:08
Location Code:	ROCKBROKE	Received by:	LB	03/18/19	17:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					
Canister Id:	28585				

Laboratory Data

SDG ID: GCC69575
Phoenix ID: CC69577

Project ID: 297 WALLABOUT
Client ID: SV-1

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution	
Volatiles (TO15)								
1,1,1,2-Tetrachloroethane	ND	*0.146*	ND	*1.00*	03/19/19	KCA	1	1
1,1,1-Trichloroethane	ND	*0.183*	ND	*1.00*	03/19/19	KCA	1	
1,1,2,2-Tetrachloroethane	ND	*0.146*	ND	*1.00*	03/19/19	KCA	1	
1,1,2-Trichloroethane	ND	*0.183*	ND	*1.00*	03/19/19	KCA	1	
1,1-Dichloroethane	ND	*0.247*	ND	*1.00*	03/19/19	KCA	1	
1,1-Dichloroethene	ND	*0.051*	ND	*0.20*	03/19/19	KCA	1	
1,2,4-Trichlorobenzene	ND	*0.135*	ND	*1.00*	03/19/19	KCA	1	
1,2,4-Trimethylbenzene	0.669	*0.204*	3.29	*1.00*	03/19/19	KCA	1	
1,2-Dibromoethane(EDB)	ND	*0.130*	ND	*1.00*	03/19/19	KCA	1	
1,2-Dichlorobenzene	ND	*0.166*	ND	*1.00*	03/19/19	KCA	1	
1,2-Dichloroethane	ND	*0.247*	ND	*1.00*	03/19/19	KCA	1	
1,2-dichloropropane	ND	*0.217*	ND	*1.00*	03/19/19	KCA	1	
1,2-Dichlorotetrafluoroethane	ND	*0.143*	ND	*1.00*	03/19/19	KCA	1	
1,3,5-Trimethylbenzene	0.345	*0.204*	1.70	*1.00*	03/19/19	KCA	1	
1,3-Butadiene	ND	*0.452*	ND	*1.00*	03/19/19	KCA	1	
1,3-Dichlorobenzene	ND	*0.166*	ND	*1.00*	03/19/19	KCA	1	
1,4-Dichlorobenzene	ND	*0.166*	ND	*1.00*	03/19/19	KCA	1	
1,4-Dioxane	ND	*0.278*	ND	*1.00*	03/19/19	KCA	1	
2-Hexanone(MBK)	ND	*0.244*	ND	*1.00*	03/19/19	KCA	1	1
4-Ethyltoluene	1.39	*0.204*	6.83	*1.00*	03/19/19	KCA	1	1
4-Isopropyltoluene	ND	*0.182*	ND	*1.00*	03/19/19	KCA	1	1
4-Methyl-2-pentanone(MIBK)	ND	*0.244*	ND	*1.00*	03/19/19	KCA	1	
Acetone	30.1	*0.421*	71.5	*1.00*	03/19/19	KCA	1	
Acrylonitrile	ND	*0.461*	ND	*1.00*	03/19/19	KCA	1	
Benzene	1.73	*0.313*	5.52	*1.00*	03/19/19	KCA	1	
Benzyl chloride	ND	*0.193*	ND	*1.00*	03/19/19	KCA	1	

Ver 1

Project ID: 297 WALLABOUT

Client ID: SV-1

Phoenix I.D.: CC69577

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution	
Bromodichloromethane	ND	*0.149*	ND	*1.00*	03/19/19	KCA	1	
Bromoform	ND	*0.097*	ND	*1.00*	03/19/19	KCA	1	
Bromomethane	ND	*0.258*	ND	*1.00*	03/19/19	KCA	1	
Carbon Disulfide	0.526	*0.321*	1.64	*1.00*	03/19/19	KCA	1	
Carbon Tetrachloride	0.057	*0.032*	0.36	*0.20*	03/19/19	KCA	1	
Chlorobenzene	ND	*0.217*	ND	*1.00*	03/19/19	KCA	1	
Chloroethane	ND	*0.379*	ND	*1.00*	03/19/19	KCA	1	
Chloroform	ND	*0.205*	ND	*1.00*	03/19/19	KCA	1	
Chloromethane	ND	*0.485*	ND	*1.00*	03/19/19	KCA	1	
Cis-1,2-Dichloroethene	0.591	*0.051*	2.34	*0.20*	03/19/19	KCA	1	
cis-1,3-Dichloropropene	ND	*0.221*	ND	*1.00*	03/19/19	KCA	1	
Cyclohexane	5.74	*0.291*	19.7	*1.00*	03/19/19	KCA	1	
Dibromochloromethane	ND	*0.118*	ND	*1.00*	03/19/19	KCA	1	
Dichlorodifluoromethane	0.474	*0.202*	2.34	*1.00*	03/19/19	KCA	1	
Ethanol	19.8	*0.531*	37.3	*1.00*	03/19/19	KCA	1	1
Ethyl acetate	ND	*0.278*	ND	*1.00*	03/19/19	KCA	1	1
Ethylbenzene	4.70	*0.230*	20.4	*1.00*	03/19/19	KCA	1	
Heptane	3.68	*0.244*	15.1	*1.00*	03/19/19	KCA	1	
Hexachlorobutadiene	ND	*0.094*	ND	*1.00*	03/19/19	KCA	1	
Hexane	1.57	*0.284*	5.53	*1.00*	03/19/19	KCA	1	
Isopropylalcohol	5.98	*0.407*	14.7	*1.00*	03/19/19	KCA	1	
Isopropylbenzene	1.98	*0.204*	9.7	*1.00*	03/19/19	KCA	1	
m,p-Xylene	5.94	*0.230*	25.8	*1.00*	03/19/19	KCA	1	
Methyl Ethyl Ketone	7.51	*0.339*	22.1	*1.00*	03/19/19	KCA	1	
Methyl tert-butyl ether(MTBE)	ND	*0.278*	ND	*1.00*	03/19/19	KCA	1	
Methylene Chloride	ND	*0.864*	ND	*3.00*	03/19/19	KCA	1	
n-Butylbenzene	ND	*0.182*	ND	*1.00*	03/19/19	KCA	1	1
o-Xylene	3.45	*0.230*	15.0	*1.00*	03/19/19	KCA	1	
Propylene	ND	*0.581*	ND	*1.00*	03/19/19	KCA	1	1
sec-Butylbenzene	ND	*0.182*	ND	*1.00*	03/19/19	KCA	1	1
Styrene	ND	*0.235*	ND	*1.00*	03/19/19	KCA	1	
Tetrachloroethene	0.479	*0.037*	3.25	*0.25*	03/19/19	KCA	1	
Tetrahydrofuran	ND	*0.339*	ND	*1.00*	03/19/19	KCA	1	1
Toluene	6.54	*0.266*	24.6	*1.00*	03/19/19	KCA	1	
Trans-1,2-Dichloroethene	ND	*0.252*	ND	*1.00*	03/19/19	KCA	1	
trans-1,3-Dichloropropene	ND	*0.221*	ND	*1.00*	03/19/19	KCA	1	
Trichloroethene	10.0	*0.037*	53.7	*0.20*	03/19/19	KCA	1	
Trichlorofluoromethane	0.340	*0.178*	1.91	*1.00*	03/19/19	KCA	1	
Trichlorotrifluoroethane	ND	*0.131*	ND	*1.00*	03/19/19	KCA	1	
Vinyl Chloride	ND	*0.078*	ND	*0.20*	03/19/19	KCA	1	
QA/QC Surrogates/Internals								
% Bromofluorobenzene	92	*%*	92	*%*	03/19/19	KCA	1	
% IS-1,4-Difluorobenzene	105	*%*	105	*%*	03/19/19	KCA	1	
% IS-Bromochloromethane	116	*%*	116	*%*	03/19/19	KCA	1	
% IS-Chlorobenzene-d5	121	*%*	121	*%*	03/19/19	KCA	1	

Project ID: 297 WALLABOUT
Client ID: SV-1

Phoenix I.D.: CC69577

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
March 27, 2019
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

March 27, 2019

FOR: Attn: Moshe Monheit
Rock Brokerage
170 Lee Avenue
Brooklyn NY 11211

Sample Information		Custody Information		Date	Time
Matrix:	AIR	Collected by:	MC	03/18/19	10:35
Location Code:	ROCKBROKE	Received by:	LB	03/18/19	17:46
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					
Canister Id:	28556				

Laboratory Data

SDG ID: GCC69575
Phoenix ID: CC69578

Project ID: 297 WALLABOUT
Client ID: SV-4

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution	
Volatiles (TO15)								
1,1,1,2-Tetrachloroethane	ND	*0.729*	ND	*5.00*	03/19/19	KCA	5	1
1,1,1-Trichloroethane	ND	*0.917*	ND	*5.00*	03/19/19	KCA	5	
1,1,2,2-Tetrachloroethane	ND	*0.729*	ND	*5.00*	03/19/19	KCA	5	
1,1,2-Trichloroethane	ND	*0.917*	ND	*5.00*	03/19/19	KCA	5	
1,1-Dichloroethane	ND	*1.24*	ND	*5.02*	03/19/19	KCA	5	
1,1-Dichloroethene	ND	*0.252*	ND	*1.00*	03/19/19	KCA	5	
1,2,4-Trichlorobenzene	ND	*0.674*	ND	*5.00*	03/19/19	KCA	5	
1,2,4-Trimethylbenzene	ND	*1.02*	ND	*5.01*	03/19/19	KCA	5	
1,2-Dibromoethane(EDB)	ND	*0.651*	ND	*5.00*	03/19/19	KCA	5	
1,2-Dichlorobenzene	ND	*0.832*	ND	*5.00*	03/19/19	KCA	5	
1,2-Dichloroethane	ND	*1.24*	ND	*5.02*	03/19/19	KCA	5	
1,2-dichloropropane	ND	*1.08*	ND	*4.99*	03/19/19	KCA	5	
1,2-Dichlorotetrafluoroethane	ND	*0.716*	ND	*5.00*	03/19/19	KCA	5	
1,3,5-Trimethylbenzene	ND	*1.02*	ND	*5.01*	03/19/19	KCA	5	
1,3-Butadiene	ND	*2.26*	ND	*5.00*	03/19/19	KCA	5	
1,3-Dichlorobenzene	ND	*0.832*	ND	*5.00*	03/19/19	KCA	5	
1,4-Dichlorobenzene	ND	*0.832*	ND	*5.00*	03/19/19	KCA	5	
1,4-Dioxane	ND	*1.39*	ND	*5.01*	03/19/19	KCA	5	
2-Hexanone(MBK)	ND	*1.22*	ND	*4.99*	03/19/19	KCA	5	1
4-Ethyltoluene	ND	*1.02*	ND	*5.01*	03/19/19	KCA	5	1
4-Isopropyltoluene	ND	*0.911*	ND	*5.00*	03/19/19	KCA	5	1
4-Methyl-2-pentanone(MIBK)	ND	*1.22*	ND	*4.99*	03/19/19	KCA	5	
Acetone	39.7	*2.11*	94.2	*5.01*	03/19/19	KCA	5	
Acrylonitrile	ND	*2.31*	ND	*5.01*	03/19/19	KCA	5	
Benzene	ND	*1.57*	ND	*5.01*	03/19/19	KCA	5	
Benzyl chloride	ND	*0.966*	ND	*5.00*	03/19/19	KCA	5	

Project ID: 297 WALLABOUT
Client ID: SV-4

Phoenix I.D.: CC69578

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution	
Bromodichloromethane	ND	0.747	ND	5.00	03/19/19	KCA	5	
Bromoform	ND	0.484	ND	5.00	03/19/19	KCA	5	
Bromomethane	ND	1.29	ND	5.01	03/19/19	KCA	5	
Carbon Disulfide	ND	1.61	ND	5.01	03/19/19	KCA	5	
Carbon Tetrachloride	ND	0.159	ND	1.00	03/19/19	KCA	5	
Chlorobenzene	ND	1.09	ND	5.01	03/19/19	KCA	5	
Chloroethane	ND	1.90	ND	5.01	03/19/19	KCA	5	
Chloroform	ND	1.02	ND	4.98	03/19/19	KCA	5	
Chloromethane	ND	2.42	ND	4.99	03/19/19	KCA	5	
Cis-1,2-Dichloroethene	8.48	0.252	33.6	1.00	03/19/19	KCA	5	
cis-1,3-Dichloropropene	ND	1.10	ND	4.99	03/19/19	KCA	5	
Cyclohexane	ND	1.45	ND	4.99	03/19/19	KCA	5	
Dibromochloromethane	ND	0.587	ND	5.00	03/19/19	KCA	5	
Dichlorodifluoromethane	ND	1.01	ND	4.99	03/19/19	KCA	5	
Ethanol	26.5	2.66	49.9	5.01	03/19/19	KCA	5	1
Ethyl acetate	ND	1.39	ND	5.01	03/19/19	KCA	5	1
Ethylbenzene	ND	1.15	ND	4.99	03/19/19	KCA	5	
Heptane	10.8	1.22	44.2	5.00	03/19/19	KCA	5	
Hexachlorobutadiene	ND	0.469	ND	5.00	03/19/19	KCA	5	
Hexane	1.72	1.42	6.06	5.00	03/19/19	KCA	5	
Isopropylalcohol	6.74	2.04	16.6	5.01	03/19/19	KCA	5	
Isopropylbenzene	ND	1.02	ND	5.01	03/19/19	KCA	5	
m,p-Xylene	1.91	1.15	8.29	4.99	03/19/19	KCA	5	
Methyl Ethyl Ketone	7.65	1.70	22.5	5.01	03/19/19	KCA	5	
Methyl tert-butyl ether(MTBE)	ND	1.39	ND	5.01	03/19/19	KCA	5	
Methylene Chloride	ND	4.32	ND	15.0	03/19/19	KCA	5	
n-Butylbenzene	ND	0.911	ND	5.00	03/19/19	KCA	5	1
o-Xylene	42.4	1.15	184	4.99	03/19/19	KCA	5	
Propylene	ND	2.91	ND	5.01	03/19/19	KCA	5	1
sec-Butylbenzene	ND	0.911	ND	5.00	03/19/19	KCA	5	1
Styrene	ND	1.17	ND	4.98	03/19/19	KCA	5	
Tetrachloroethene	9.32	0.184	63.2	1.25	03/19/19	KCA	5	
Tetrahydrofuran	ND	1.70	ND	5.01	03/19/19	KCA	5	1
Toluene	2.06	1.33	7.76	5.01	03/19/19	KCA	5	
Trans-1,2-Dichloroethene	ND	1.26	ND	4.99	03/19/19	KCA	5	
trans-1,3-Dichloropropene	ND	1.10	ND	4.99	03/19/19	KCA	5	
Trichloroethene	487	1.12	2620	6.01	03/19/19	KCA	30	
Trichlorofluoromethane	2.83	0.891	15.9	5.00	03/19/19	KCA	5	
Trichlorotrifluoroethane	ND	0.653	ND	5.00	03/19/19	KCA	5	
Vinyl Chloride	0.650	0.391	1.66	1.00	03/19/19	KCA	5	
QA/QC Surrogates/Internals								
% Bromofluorobenzene (5x)	86	%	86	%	03/19/19	KCA	5	
% IS-1,4-Difluorobenzene (5x)	83	%	83	%	03/19/19	KCA	5	
% IS-Bromochloromethane (5x)	120	%	120	%	03/19/19	KCA	5	
% IS-Chlorobenzene-d5 (5x)	102	%	102	%	03/19/19	KCA	5	
% Bromofluorobenzene (30x)	90	%	90	%	03/19/19	KCA	30	
% IS-1,4-Difluorobenzene (30x)	93	%	93	%	03/19/19	KCA	30	
% IS-Bromochloromethane (30x)	109	%	109	%	03/19/19	KCA	30	
% IS-Chlorobenzene-d5 (30x)	95	%	95	%	03/19/19	KCA	30	

Ver 1

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Phyllis Shiller, Laboratory Director
March 27, 2019
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Canister Sampling Information

March 27, 2019

FOR: Attn: Moshe Monheit
Rock Brokerage
170 Lee Avenue
Brooklyn NY 11211

Location Code: ROCKBROKE

Project ID: 297 WALLABOUT

SDG I.D.: GCC69575

						Laboratory					Field			
Client Id	Lab Id	Canister Id	Canister Type	Reg. Id	Chk Out Date	Out Hg	In Hg	Out Flow	In Flow	Flow RPD	Start Hg	End Hg	Sampling Start Date	Sampling End Date
SV-2	CC69575	28579	6.0L	3501	03/14/19	-30	0	43	44	2.3	-29	0	03/18/19 9:30	03/18/19 11:15
SV-3	CC69576	28559	6.0L	5593	03/14/19	-30	-1	43	42	2.4	-30	-5	03/18/19 8:08	03/18/19 10:10
SV-1	CC69577	28585	6.0L	2966	03/14/19	-30	-3	43	42	2.4	-30	-4	03/18/19 9:01	03/18/19 11:08
SV-4	CC69578	28556	6.0L	0161	03/14/19	-30	-4	43	43	0.0	-30	-4	03/18/19 8:35	03/18/19 10:35

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

QA/QC Report

March 27, 2019

QA/QC Data

SDG I.D.: GCC69575

Parameter	Blk ppbv	Blk RL ppbv	Blk ug/m3	Blk RL ug/m3	LCS %	Sample Result ug/m3	Sample Dup ug/m3	Sample Result ppbv	Sample Dup ppbv	DUP RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 470807 (ppbv), QC Sample No: CC69366 (CC69575, CC69576 (5X, 75X) , CC69577, CC69578 (5X))													
Volatiles													
1,1,1,2-Tetrachloroethane	ND	0.500	ND	3.43	101	ND	ND	ND	ND	NC	70 - 130	25	
1,1,1-Trichloroethane	ND	0.500	ND	2.73	96	ND	ND	ND	ND	NC	70 - 130	25	
1,1,2,2-Tetrachloroethane	ND	0.500	ND	3.43	102	ND	ND	ND	ND	NC	70 - 130	25	
1,1,2-Trichloroethane	ND	0.500	ND	2.73	102	ND	ND	ND	ND	NC	70 - 130	25	
1,1-Dichloroethane	ND	0.500	ND	2.02	94	ND	ND	ND	ND	NC	70 - 130	25	
1,1-Dichloroethene	ND	0.500	ND	1.98	103	ND	ND	ND	ND	NC	70 - 130	25	
1,2,4-Trichlorobenzene	ND	0.500	ND	3.71	169	ND	ND	ND	ND	NC	70 - 130	25	l
1,2,4-Trimethylbenzene	ND	0.500	ND	2.46	115	ND	ND	ND	ND	NC	70 - 130	25	
1,2-Dibromoethane(EDB)	ND	0.500	ND	3.84	108	ND	ND	ND	ND	NC	70 - 130	25	
1,2-Dichlorobenzene	ND	0.500	ND	3.00	122	ND	ND	ND	ND	NC	70 - 130	25	
1,2-Dichloroethane	ND	0.500	ND	2.02	98	ND	ND	ND	ND	NC	70 - 130	25	
1,2-dichloropropane	ND	0.500	ND	2.31	114	ND	ND	ND	ND	NC	70 - 130	25	
1,2-Dichlorotetrafluoroethane	ND	0.500	ND	3.49	100	ND	ND	ND	ND	NC	70 - 130	25	
1,3,5-Trimethylbenzene	ND	0.500	ND	2.46	113	ND	ND	ND	ND	NC	70 - 130	25	
1,3-Butadiene	ND	0.500	ND	1.11	101	ND	ND	ND	ND	NC	70 - 130	25	
1,3-Dichlorobenzene	ND	0.500	ND	3.00	106	ND	ND	ND	ND	NC	70 - 130	25	
1,4-Dichlorobenzene	ND	0.500	ND	3.00	111	ND	ND	ND	ND	NC	70 - 130	25	
1,4-Dioxane	ND	0.500	ND	1.80	108	ND	ND	ND	ND	NC	70 - 130	25	
2-Hexanone(MBK)	ND	0.500	ND	2.05	120	ND	ND	ND	ND	NC	70 - 130	25	
4-Ethyltoluene	ND	0.500	ND	2.46	112	ND	ND	ND	ND	NC	70 - 130	25	
4-Isopropyltoluene	ND	0.500	ND	2.74	121	ND	ND	ND	ND	NC	70 - 130	25	
4-Methyl-2-pentanone(MIBK)	ND	0.500	ND	2.05	118	ND	ND	ND	ND	NC	70 - 130	25	
Acetone	ND	0.500	ND	1.19	91	107	102	44.9	42.8	4.8	70 - 130	25	
Acrylonitrile	ND	0.500	ND	1.08	96	ND	ND	ND	ND	NC	70 - 130	25	
Benzene	ND	0.500	ND	1.60	96	ND	ND	ND	ND	NC	70 - 130	25	
Benzyl chloride	ND	0.500	ND	2.59	134	ND	ND	ND	ND	NC	70 - 130	25	l
Bromodichloromethane	ND	0.500	ND	3.35	106	ND	ND	ND	ND	NC	70 - 130	25	
Bromoform	ND	0.500	ND	5.17	83	ND	ND	ND	ND	NC	70 - 130	25	
Bromomethane	ND	0.500	ND	1.94	98	ND	ND	ND	ND	NC	70 - 130	25	
Carbon Disulfide	ND	0.500	ND	1.56	102	ND	ND	ND	ND	NC	70 - 130	25	
Carbon Tetrachloride	ND	0.500	ND	3.14	98	ND	ND	ND	ND	NC	70 - 130	25	
Chlorobenzene	ND	0.500	ND	2.30	105	ND	ND	ND	ND	NC	70 - 130	25	
Chloroethane	ND	0.500	ND	1.32	90	ND	ND	ND	ND	NC	70 - 130	25	
Chloroform	ND	0.500	ND	2.44	105	ND	ND	ND	ND	NC	70 - 130	25	
Chloromethane	ND	0.500	ND	1.03	88	1.30	1.40	0.631	0.676	NC	70 - 130	25	
Cis-1,2-Dichloroethene	ND	0.256	ND	1.01	104	ND	ND	ND	ND	NC	70 - 130	25	
cis-1,3-Dichloropropene	ND	0.220	ND	1.00	116	ND	ND	ND	ND	NC	70 - 130	25	
Cyclohexane	ND	0.500	ND	1.72	107	ND	ND	ND	ND	NC	70 - 130	25	
Dibromochloromethane	ND	0.500	ND	4.26	104	ND	ND	ND	ND	NC	70 - 130	25	
Dichlorodifluoromethane	ND	0.500	ND	2.47	104	ND	ND	ND	ND	NC	70 - 130	25	
Ethanol	ND	0.500	ND	0.94	126	144 E	143	76.4 E	76.2	0.3	70 - 130	25	

QA/QC Data

SDG I.D.: GCC69575

Parameter	Blk ppbv	Blk RL ppbv	Blk ug/m3	Blk RL ug/m3	LCS %	Sample Result ug/m3	Sample Dup ug/m3	Sample Result ppbv	Sample Dup ppbv	DUP RPD	% Rec Limits	% RPD Limits
Ethyl acetate	ND	0.500	ND	1.80	91	ND	ND	ND	ND	NC	70 - 130	25
Ethylbenzene	ND	0.500	ND	2.17	105	2.41	2.43	0.555	0.560	NC	70 - 130	25
Heptane	ND	0.500	ND	2.05	113	26.2	24.3	6.39	5.94	7.3	70 - 130	25
Hexachlorobutadiene	ND	0.500	ND	5.33	117	ND	ND	ND	ND	NC	70 - 130	25
Hexane	ND	0.500	ND	1.76	90	13.6	13.3	3.85	3.77	2.1	70 - 130	25
Isopropylalcohol	ND	0.500	ND	1.23	93	ND	1.80	ND	0.734	NC	70 - 130	25
Isopropylbenzene	ND	0.500	ND	2.46	113	ND	ND	ND	ND	NC	70 - 130	25
m,p-Xylene	ND	1.00	ND	4.34	111	9.33	9.46	2.15	2.18	NC	70 - 130	25
Methyl Ethyl Ketone	ND	0.500	ND	1.47	98	2.92	2.74	0.989	0.928	NC	70 - 130	25
Methyl tert-butyl ether(MTBE)	ND	0.500	ND	1.80	98	ND	ND	ND	ND	NC	70 - 130	25
Methylene Chloride	ND	0.500	ND	1.74	88	2.58	2.74	0.744	0.789	NC	70 - 130	25
n-Butylbenzene	ND	0.500	ND	2.74	124	ND	ND	ND	ND	NC	70 - 130	25
o-Xylene	ND	0.500	ND	2.17	112	2.58	2.58	0.594	0.595	NC	70 - 130	25
Propylene	ND	0.500	ND	0.86	105	ND	ND	ND	ND	NC	70 - 130	25
sec-Butylbenzene	ND	0.500	ND	2.74	116	ND	ND	ND	ND	NC	70 - 130	25
Styrene	ND	0.500	ND	2.13	111	ND	ND	ND	ND	NC	70 - 130	25
Tetrachloroethene	ND	0.200	ND	1.36	109	ND	ND	ND	ND	NC	70 - 130	25
Tetrahydrofuran	ND	0.500	ND	1.47	103	ND	ND	ND	ND	NC	70 - 130	25
Toluene	ND	0.500	ND	1.88	107	50.1	50.1	13.3	13.3	0.0	70 - 130	25
Trans-1,2-Dichloroethene	ND	0.500	ND	1.98	97	ND	ND	ND	ND	NC	70 - 130	25
trans-1,3-Dichloropropene	ND	0.500	ND	2.27	115	ND	ND	ND	ND	NC	70 - 130	25
Trichloroethene	ND	0.200	ND	1.07	112	ND	ND	ND	ND	NC	70 - 130	25
Trichlorofluoromethane	ND	0.500	ND	2.81	96	ND	ND	ND	ND	NC	70 - 130	25
Trichlorotrifluoroethane	ND	0.500	ND	3.83	94	ND	ND	ND	ND	NC	70 - 130	25
Vinyl Chloride	ND	0.500	ND	1.28	99	ND	ND	ND	ND	NC	70 - 130	25
% Bromofluorobenzene	100	%	100	%	100	98	93	98	93	NC	70 - 130	25
% IS-1,4-Difluorobenzene	126	%	126	%	101	104	109	104	109	NC	60 - 140	25
% IS-Bromochloromethane	129	%	129	%	102	99	106	99	106	NC	60 - 140	25
% IS-Chlorobenzene-d5	116	%	116	%	105	111	116	111	116	NC	60 - 140	25

QA/QC Batch 471164 (ppbv), QC Sample No: CC69578 (CC69578 (30X))

Volatiles

Parameter	Blk ppbv	Blk RL ppbv	Blk ug/m3	Blk RL ug/m3	LCS %	Sample Result ug/m3	Sample Dup ug/m3	Sample Result ppbv	Sample Dup ppbv	DUP RPD	% Rec Limits	% RPD Limits
Trichloroethene	ND	1.11	ND	5.96	110	2620	2650	487	494	1.4	70 - 130	25
% Bromofluorobenzene	93	%	93	%	96	90	77	90	77	NC	70 - 130	25
% IS-1,4-Difluorobenzene	118	%	118	%	94	93	100	93	100	NC	60 - 140	25
% IS-Bromochloromethane	118	%	118	%	88	109	115	109	115	NC	60 - 140	25
% IS-Chlorobenzene-d5	119	%	119	%	95	95	105	95	105	NC	60 - 140	25

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller

Phyllis Shiller, Laboratory Director
March 27, 2019

Wednesday, March 27, 2019
Criteria: NY: AIRIA, DOH
State: NY

Sample Criteria Exceedances Report

GCC69575 - ROCKBROKE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CC69575	$AIR_NYTO15	Carbon Tetrachloride	NY / Air Guideline Values / Indor Air	0.40	0.20	0.2	0.2	ug/m3
CC69575	$AIR_NYTO15	Cis-1,2-Dichloroethene	NY / Air Guideline Values / Indor Air	14.2	0.20	0.2	0.2	ug/m3
CC69575	$AIR_NYTO15	Trichloroethene	NY / Air Guideline Values / Indor Air	96.1	0.20	0.2	0.2	ug/m3
CC69575	$AIR_NYTO15	Vinyl Chloride	NY / Air Guideline Values / Indor Air	11.9	0.20	0.2	0.2	ug/m3
CC69575	$AIR_NYTO15	1,1-Dichloroethene	NY / Air Guideline Values / Indor Air	0.27	0.20	0.2	0.2	ug/m3
CC69576	$AIR_NYTO15	Vinyl Chloride	NY / Air Guideline Values / Indor Air	ND	1.00	0.2	0.2	ug/m3
CC69576	$AIR_NYTO15	1,1,1-Trichloroethane	NY / Air Guideline Values / Indor Air	ND	5.00	3	3	ug/m3
CC69576	$AIR_NYTO15	1,1-Dichloroethene	NY / Air Guideline Values / Indor Air	ND	1.00	0.2	0.2	ug/m3
CC69576	$AIR_NYTO15	Carbon Tetrachloride	NY / Air Guideline Values / Indor Air	ND	1.00	0.2	0.2	ug/m3
CC69576	$AIR_NYTO15	Cis-1,2-Dichloroethene	NY / Air Guideline Values / Indor Air	64.2	1.00	0.2	0.2	ug/m3
CC69576	$AIR_NYTO15	Methylene Chloride	NY / Air Guideline Values / Indor Air	ND	15.0	3	3	ug/m3
CC69576	$AIR_NYTO15	Tetrachloroethene	NY / Air Guideline Values / Indor Air	110	1.25	3	3	ug/m3
CC69576	$AIR_NYTO15	Trichloroethene	NY / Air Guideline Values / Indor Air	3350	15.0	0.2	0.2	ug/m3
CC69577	$AIR_NYTO15	Cis-1,2-Dichloroethene	NY / Air Guideline Values / Indor Air	2.34	0.20	0.2	0.2	ug/m3
CC69577	$AIR_NYTO15	Tetrachloroethene	NY / Air Guideline Values / Indor Air	3.25	0.25	3	3	ug/m3
CC69577	$AIR_NYTO15	Trichloroethene	NY / Air Guideline Values / Indor Air	53.7	0.20	0.2	0.2	ug/m3
CC69577	$AIR_NYTO15	Carbon Tetrachloride	NY / Air Guideline Values / Indor Air	0.36	0.20	0.2	0.2	ug/m3
CC69578	$AIR_NYTO15	Vinyl Chloride	NY / Air Guideline Values / Indor Air	1.66	1.00	0.2	0.2	ug/m3
CC69578	$AIR_NYTO15	1,1,1-Trichloroethane	NY / Air Guideline Values / Indor Air	ND	5.00	3	3	ug/m3
CC69578	$AIR_NYTO15	1,1-Dichloroethene	NY / Air Guideline Values / Indor Air	ND	1.00	0.2	0.2	ug/m3
CC69578	$AIR_NYTO15	Carbon Tetrachloride	NY / Air Guideline Values / Indor Air	ND	1.00	0.2	0.2	ug/m3
CC69578	$AIR_NYTO15	Cis-1,2-Dichloroethene	NY / Air Guideline Values / Indor Air	33.6	1.00	0.2	0.2	ug/m3
CC69578	$AIR_NYTO15	Methylene Chloride	NY / Air Guideline Values / Indor Air	ND	15.0	3	3	ug/m3
CC69578	$AIR_NYTO15	Tetrachloroethene	NY / Air Guideline Values / Indor Air	63.2	1.25	3	3	ug/m3
CC69578	$AIR_NYTO15	Trichloroethene	NY / Air Guideline Values / Indor Air	2620	6.01	0.2	0.2	ug/m3

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Comments

March 27, 2019 SDG I.D.: GCC69575

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report:

AIRSIM

CHEM24 03/18/19-1: CC69575, CC69576, CC69577, CC69578

The following Initial Calibration compounds did not meet recommended response factors: 1,4-Difluorobenzene 0 (0.01), Bromochloromethane 0 (0.01), Chlorobenzene-d5 0 (0.01)
The following Initial Calibration compounds did not meet minimum response factors: 1,4-Difluorobenzene 0 (0.01), Bromochloromethane 0 (0.01), Chlorobenzene-d5 0 (0.01)

The following Continuing Calibration compounds did not meet % deviation criteria: Ethanol 36%H (30%), n-Butylbenzene(sim) 33%H (30%)
The following Continuing Calibration compounds did not meet Maximum % deviation criteria: Ethanol 36%H (30%), n-Butylbenzene(sim) 33%H (30%)

PHOENIX Environmental Laboratories, Inc.
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CHAIN OF CUSTODY RECORD
AIR ANALYSES

800-827-5426
email: greg@phoenixlabs.com

P.O. #
Page 1 of 1

Data Delivery:
☐ Fax #:
☐ Email:
☐ Phone #:

Report to: ~~Mark K~~ Moshe
Customer: Rock Brokerage
Address:

Invoice to: Moshe Menkit
Rock Brokerage
170 Lee Ave, Brooklyn, NY
Sampled by: M. Conlon

Project Name: 297 wallabout
Requested Deliverable: RCP ☐ ASP CAT B ☐ MCP ☐ NJ Deliverables ☐
State where samples collected: NY

Phoenix ID #	Client Sample ID	Canister ID #	Canister Size (L)	Outgoing Canister Pressure (" Hg)	Incoming Canister Pressure ("Hg)	Flow Regulator ID #	Flow Controller Setting (mL/min)	Sampling Start Time	Sampling End Time	Sample Start Date	Canister Pressure at Start (" Hg)	Canister Pressure at End ("Hg)	MATRIX: Ambient/Indoor Air	MATRIX: Soil Gas	MATRIX: Grab (G) Composite (C)	ANALYSES: TO-14	ANALYSES: TO-15
			THIS SECTION FOR LAB USE ONLY														
109575	SV-2	28579	6.0	-30	0	3501	43	0930	1115	3/18/19	-29	0		X			X
109576	SV-3	28559	↓	↓	-1	5593	↓	0808	1010	3/18/19	-30	-5		X			X
109577	SV-1	28585	↓	↓	-3	2966	↓	0901	1108	3/18/19	-30	-4		X			X
109578	SV-4	28556	↓	↓	-4	0161	↓	0835	1035	3/18/19	-30	-4		X			X

Relinquished by:	Accepted by:	Date:	Time:
M Conlon	~~3/18/19~~	3/18/19	2:18
[illegible]	[illegible]		1746

Data Format: Excel ☑ Equis ☐ Other ☐ (   )

Turnaround Time:
☐ 24 Hour ☐ 48 Hour ☐ 72 Hour ☑ Standard

SPECIAL INSTRUCTIONS, QC REQUIREMENTS, REGULATORY INFORMATION:
SV-2 reached 0 "Hg befor 2 hrs
[illegible] (4)(6.0)(2HR)

Requested Criteria
NYSDOH guidance 2006 - Vapor Intrusion

Quote Number:

I attest that all media released by Phoenix Environmental Laboratories, Inc. have been received in good working condition and agree to the terms and conditions as listed on the back of this document:

Signature: [signature] Date: 3/18/19

Lisa Arnold

From: Moshe Monheit <moshe@rockbrokerage.com>
Sent: Monday, March 25, 2019 9:13 AM
To: Lisa Arnold
Subject: RE: 1,4-dioxane add on

Good Morning Lisa,

Good morning, please have the lab report provide the data compared to the following:

Soil - NYS Unrestricted Use and NYS Restricted Residential.
Groundwater – NYSDEC AWQS – TOGS
Soil Vapor – NYSDOH Matrix B

Thanks!

THE SOIL REMOVAL ROCKSTARS™

Moshe Monheit, Controller

Tel 718.858.6655 #201
Cell 917.407.5735
Fax 718.858.6656
Email moshe@rockbrokerage.com
Web www.rockbrokerage.com

From: Conlon, Mari <MConlon@haleyaldrich.com>
Sent: Tuesday, March 19, 2019 11:49 AM
To: lisa@phoenixlabs.com
Cc: Moshe Monheit <moshe@rockbrokerage.com>
Subject: 1,4-dioxane add on

Lisa,

As discussed on the phone, we need to add one more analyses that was not on the chain.

Can you please add 1,4-dioxane to groundwater sample TW-3 from 297 Wallabout Street, Brooklyn, NY. Samples picked up at the site yesterday at 14:15.

VOC method is fine.

If not enough volume in TW-3 pelase try one of the other samples is also ok (TW-2 or TW-1). We just need one goundwater sample run for 1,4-dioxane.

Thanks,

Mari Cate Conlon
Project Manager

APPENDIX B

Field Sampling Plan

www.haleyaldrich.com

FIELD SAMPLING PLAN
297 WALLABOUT 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. 133156-005
September 2019

Table of Contents

Table of Contents

1. Introduction

This Field Sampling Plan (FSP) has been prepared as a component of the Remedial Investigation Work Plan (RIWP) for the portion of 297 Wallabout Street (Site) in Brooklyn, New York. This document was prepared to establish field procedures for field data collection to be performed in support of the RIWP for the Site.

The RIWP includes this Field Sampling Plan, a Quality Assurance Project Plan (QAPP), Health and Safety Plan (HASP), and Community Air Monitoring Plan (CAMP), which are included as part of this plan by reference.

The standard operating procedures (SOP) included as components of this plan will provide the procedures necessary to meet the project objectives. The SOPs will be used as reference for the methods to be employed for field sample collection and handling and the management of field data collected in the execution of the approved RIWP. The SOPs include numerous methods to execute the tasks of the RIWP. The Project Manager will select the appropriate method as required by field conditions and/or the objective the respective project task at the time of sample collection. Field procedures will be conducted in general accordance with the New York State Department of Conservation (NYSDEC) Technical Guidance for Site Investigation and Remediation (DER-10) when applicable.

2. Field Program

This FSP provides the general purpose of sampling as well as procedural information. The RIWP contains the details on sampling and analysis (locations, depths, frequency, analyte lists, etc.).

The field program has been designed to acquire the necessary data to comply with the RIWP, and includes the following tasks:

- Soil sampling;
- Groundwater sampling;
- Soil vapor sampling;
- Sampling of investigation of derived wastes (IDW) as needed for disposal.

A Phase II Investigation/Remedial Investigation (Ph II/RI) was performed at the Site on 18 March 2019 as part of the New York City Office of Environmental Remediation (NYC OER) E-Designation Program for the anticipated contaminants based on the Site's uses and has determined the nature and extent of volatile organic compound (VOC), semi-volatile organic compound (SVOC), pesticide and metals contaminants. The site characterization did not identify a source of contamination on the Site, therefore additional targeted soil, groundwater and soil vapor sampling is proposed.

These SOPs presented herein may be changed as required, dependent on-site conditions, or equipment limitations, at the time of sample collection. If the procedures employed differ from the SOP, the deviations will be documented in the associated sampling report.

3. Utility Clearance

Invasive remedial activities such as excavation or remedial construction activities require location of underground utilities prior to initiating work. Such clearance is sound practice in that it minimizes the potential for damage to underground facilities and more importantly, is protective of the health and safety of personnel. Under no circumstances will invasive activities be allowed to proceed without obtaining proper utility clearance by the appropriate public agencies and/or private entities. This clearance requirement applies to all work on both public and private property, whether located in a dense urban area or a seemingly out-of-the-way rural location.

The field staff or drilling contractor performing the work will be responsible for obtaining utility clearance.

Utility clearance is required by law, and obtaining clearance includes contacting a public or private central clearance agency via a “one-call” telephone service and providing the proposed exploration location information. It is important to note that public utility agencies may not, and usually do not have information regarding utility locations on private property.

Before beginning subsurface work at any proposed exploration locations, it is critical that all readily-available information on underground utilities and structures be obtained. This includes publicly-available information as well as information in the possession of private landowners. Any drawings obtained must be reviewed in detail for information pertaining to underground utilities.

Using the information obtained, the site should be viewed in detail for physical evidence of buried lines or structures, including pavement cuts and patches, variation in or lack of vegetation, variations in grading, etc. Care must also be taken to avoid overhead utilities as well. Presence of surface elements of buried utilities should be documented, such as manholes, gas or water service valves, catch basins, monuments or other evidence.

Overhead utility lines must be taken into account when choosing exploration and excavation locations. Most states require a minimum of 10 ft of clearance between equipment and energized wires. Such separation requirements may also be voltage-based and may vary depending on state or municipality regulations. In evaluating clearance from overhead lines, the same restrictions may apply to “drops”, or wires on a utility pole connecting overhead and underground lines.

Using the information obtained and observations made, proposed exploration or construction locations should be marked in the field. Marking locations can be accomplished using spray paint on the ground, stakes, or other means. All markings of proposed locations should be made in white, in accordance with the generally-accepted universal color code for facilities identification (AWMA 4/99):

- White: Proposed Excavation or Drilling location
- Pink: Temporary Survey Markings
- Red: Electrical Power Lines, Cables, Conduit and Lighting Cables
- Yellow: Gas, Oil, Steam, Petroleum or Gaseous Materials
- Orange: Communication, Alarm or Signal Lines, Cables or Conduits
- Blue: Potable Water
- Purple: Reclaimed Water, Irrigation and Slurry Lines
- Green: Sewers and Drain Lines

In order to effectively evaluate the proposed locations with these entities, detailed, accurate measurements between the proposed locations and existing surface features should be obtained. Such features can be buildings, street intersections, utility poles, guardrails, etc.

Obtaining the utility clearance generally involves the designated "One-Call" underground facilities protection organization for the area and the landowner and one or both following entities:

- A third-party utility locator company will be utilized to locate underground utilities outside of the public right-of-way; and/or
- "Soft dig" excavation techniques to confirm or deny the presence of underground utilities in the area.

The proposed locations should be evaluated in light of information available for existing underground facilities. The detailed measurement information described above will be required by the "one call" agency. The owners of the applicable, participating underground utilities are obligated to mark their respective facilities at the site in the colors described above. Utility stake-out activities will typically not commence for approximately 72 hours after the initial request is made.

The public and private utility entities generally only mark the locations of their respective underground facilities within public rights-of-way. Determination of the locations of these facilities on private property will be the responsibility of the property owner or Contractor. If available information does not contain sufficient detail to locate underground facilities with a reasonable amount of confidence, alternate measures may be appropriate, as described below. In some cases, the memory of a long-time employee of a facility on private property may be the best or only source of information. It is incumbent on the Consultant or Contractor to exercise caution and use good judgement when faced with uncertainty.

Note: It is important to note that not all utilities are participants in the "one-call" agency or process. As such, inquiries must be made with the "one-call" agency to determine which entities do not participate, so they can be contacted independently.

Most utility stake-outs have a limited time period for which they remain valid, typically two to three weeks. It is critical that this time period be taken into account to prevent expiration of clearance prior to completion of the invasive activities, and the need to repeat the stake-out process.

Care must be exercised to document receipt of notice from the involved agencies of the presence or absence of utilities in the vicinity of the proposed locations.

Most agencies will generally provide a telephone or fax communication indicating the lack of facilities in the project area. If contact is not made by all of the agencies identified by the "one-call" process, do not assume that such utilities are not present. Re-contact the "one-call" agency to determine the status.

For complicated sites with multiple proposed locations and multiple utilities, it is advisable to arrange an on-site meeting with utility representatives. This will minimize the potential for miscommunication amongst the involved parties.

Completion of the utility stake out process is not a guarantee that underground facilities will not be encountered in excavations or boreholes; in fact, most "one-call" agencies and individual utilities do not offer guarantees, nor do they accept liability for damage that might occur. In areas outside the public right-of-way, a utility locating service will be utilized to locate underground utilities. It is advisable that any invasive activities proceed with extreme caution in the upper four to five feet in the event the clearance has failed to identify an existing facility. This may necessitate hand-excavation or probing to confirm potential presence of shallow utilities. If uncertainty exists for any given utility, extra activities can be initiated to solve utility clearance concerns. These options include:

- Screening the proposed work areas with utility locating devices, and/or hiring a utility locating service to perform this task.
- Hand digging, augering or probing to expose or reveal shallow utilities and confirm presence and location. In northern climates, this may require advancing to below frost line, typically at least four feet.
- Using "soft dig" techniques that utilize specialized tools and compressed air to excavate soils and locate utilities. This technique is effective in locating utilities to a depth of four to five feet.

Equipment/Materials:

- White Spray paint
- Wooden stakes, painted white or containing white flagging
- Color-code key
- Available drawings

References:

1. New York State Code Rule 753
2. American Public Works Association, April 1999, Uniform Color Code (http://www.apwa.net/)

4. Field Data Recording

This procedure describes protocol for documenting the investigation activities in the field. Field data serves as the cornerstone for an environmental project, not only for site characterization but for additional phases of investigation or remedial design. Producing defensible data includes proper and appropriate recording of field data as it is obtained in a manner to preserve the information for future use. This procedure provides guidelines for accurate, thorough collection and preservation of written and electronic field data.

Field data to be recorded during the project generally includes, but is not limited to, the following:

- general field observations;
- numeric field measurements and instrument readings;
- quantity estimates;
- sample locations and corresponding sample numbers;
- relevant comments and details pertaining to the samples collected;
- documentation of activities, procedures and progress achieved;
- contractor pay item quantities;
- weather conditions;
- a listing of personnel involved in site-related activities;
- a log of conversations, site meetings and other communications; and,
- field decisions and pertinent information associated with the decisions.

4.1 Written Field Data

Written field data will be collected using a standardized, pre-printed field log form. In general, use of a field log form is preferable as it prompts field personnel to make appropriate observations and record data in a standardized format. This promotes completeness and consistency from one person to the next. Otherwise, electronic data collection using a handheld device produces equal completeness and consistency using a preformatted log form.

In the absence of an appropriate pre-printed form, the data should be recorded in an organized and structured manner in a dedicated project field log book. Log books must be hard-cover, bound so that pages cannot be added or removed, and should be made from high-grade 50% rag paper with a water-resistant surface.

The following are guidelines for use of field log forms and log books:

1. Information must be factual and complete. Do not abbreviate.
2. All entries will be made in black indelible ink with a ballpoint pen and will be written legibly. Do not use “rollerball” or felt tip-style pens, since the water-soluble ink can run or smear in the presence of moisture.
3. All pages in a log book must be consecutively numbered. Field log forms should also be consecutively numbered.
4. Each day’s work must start a new log book page.
5. At the end of each day, the current log book page must be signed and dated by the field personnel making the entries.
6. When using field log forms, they must also be signed and dated.

7. Make data entries immediately upon obtaining the data. Do not make temporary notes in other locations for later transfer to log forms or log books; this only increases the potential for error or loss of data.
8. Entry errors are to be crossed out with a single line, dated and initialed by the person making the correction.
9. Do not leave blanks on log forms, if no entry is applicable for a given data field, indicate so with "NA" or a dash ("--").
10. At the earliest practical time, photocopies or typed versions of log forms and log book pages should be made and placed in the project file as a backup in the event the book or forms are lost or damaged.
11. Log books should be dedicated to one project only, i.e., do not record data from multiple projects in one log book.

4.2 Electronic Data

Electronic data recording involves electronic measurement of field information through the use of monitoring instruments, sensors, gauges, and equipment controls. The following is a list of guidelines for proper recording and management of electronic field data:

1. Field data management should follow requirements of a project-specific data management plan (DMP), if applicable.
2. Use only instruments that have been calibrated in accordance with manufacturer's recommendations.
3. Usage of instruments, controls and computers for the purpose of obtaining field data should only be performed by personnel properly trained and experienced in the use of the equipment and software.
4. Use only fully-licensed software on personal computers and laptops.
5. Loss of electronic files may mean loss of irreplaceable data. Every effort should be made to back up electronic files obtained in the field as soon as practical. A backup file placed on the file server will minimize the potential for loss.
6. Electronic files, once transferred from field instruments or laptops to office computers, should be protected if possible, to prevent unwanted or inadvertent manipulation or modification of data. Several levels of protection are usually available for spreadsheets, including making a file "read-only" or assigning a password to access the file.
7. Protect CD disks from exposure to moisture, excessive heat or cold, magnetic fields, or other potentially damaging conditions.
8. Remote monitoring is often used to obtain stored electronic data from site environmental systems. A thorough discussion of this type of electronic field data recording is beyond the scope of this Section. Such on-site systems are generally capable of storing a limited amount of data as a comma-delimited or spreadsheet file. Users must remotely access the monitoring equipment files via modem or other access and download the data. In order to minimize the potential for loss of data, access and downloading of data should be performed frequently enough to ensure the data storage capacity of the remote equipment is not exceeded.

Equipment/Materials:

- Appropriate field log forms, or iPad® or equivalent with preformatted log forms.
- Indelible ball point pen (do not use “rollerball” or felt-tip style pens);
- Straight edge;
- Pocket calculator; and
- Laptop computer (if required).

5. Aquifer Characterization

This procedure describes measurement of water levels in groundwater monitoring.

Water levels in monitoring wells will be measured prior to the sampling event. Water levels will be acquired in a manner that provides accurate data that can be used to calculate vertical and horizontal hydraulic gradients and other hydrogeologic parameters. Accuracy in obtaining the measurements is critical to ensure the usability of the data.

5.1 Procedure

In order to provide reliable data, water level monitoring events should be collected over as short a period of time as practical. Barometric pressure can affect groundwater levels and, therefore, observation of significant weather changes during the period of water level measurements must be noted. Rainfall events and groundwater pumping can also affect groundwater level measurements. Personnel collecting water level data must note if any of these controls are in effect during the groundwater level collection period. Due to possible changes during the groundwater level collection period, it is imperative that the time of data collection at each station be accurately recorded.

The depth to groundwater will be measured with an electronic depth-indicating probe. Prior to obtaining a measurement, a fixed reference point on the well casing will be established for each well to be measured. Unless otherwise established, the reference point is typically established and marked on the north side of the well casing. Do not use protective casings or flush-mounted road boxes as a reference, due to the potential for damage or settlement. The elevation of the reference point shall be obtained by accepted surveying methods, to the nearest 0.01 ft.

The water level probe will be lowered into the well until the meter indicates (via indicator light or tone) the water is reached. The probe will be raised above water level and slowly lowered again until water is indicated. The cable will be held against the side of the inner protective casing at the point designated for water level measurements and a depth reading taken. This procedure will be followed three times or until a consistent value is obtained. The value will be recorded to the nearest 0.01 feet on the Groundwater Level Monitoring Report form.

Upon completion, the probe will be raised to the surface and together with the amount of cable that entered the well casing, will be decontaminated in accordance with methods described in Equipment Decontamination Procedure.

Equipment/Materials:

- Battery-operated, non-stretch electronic water level probe with permanent markings at 0.01 ft. increments (traceable to national measurement standards), such as the Solinst Model 101 or equivalent.
- The calibrated cable on the depth indicator will be checked against a surveyor's steel tape once per quarter year. A new cable will be installed if the cable has changed by more than 0.01% (0.01 feet for a 100-foot cable). See also the Field Instruments – Use and Calibration Procedure.
- Groundwater Level Monitoring Report form.

References:

1. ASTM 4750 Test Method for Determining Subsurface Liquid Levels in a Borehole or Monitoring Well (Observation Well)
2. ASTM D6000 Guide for Presentation of Water Level Information from Ground Water Sites

6. Sample Collection for Laboratory Analysis

6.1 SOIL SAMPLE COLLECTION FOR LABORATORY ANALYSIS

The following procedure is an introduction to soil sampling techniques and an outline of field staff responsibilities. All samples will be collected with dedicated sampling equipment.

6.1.1 Preparatory Requirements

Prior to the beginning of any remedial investigation or remedial measures activities, staff must attend a project briefing for the purpose of reviewing the project work plan, site and utility plans, drawings, applicable regulations, sampling location, depth, and criteria, site contacts, and other related documents. Health and safety concerns will be documented in a site-specific Health & Safety Plan.

A file folder for the field activities should be created and maintained such that all relevant documents and log forms likely to be useful for the completion of field activities by others are readily available in the event of personnel changes.

6.1.2 Soil Classification

The stratigraphic log is a factual description of the soil at the borehole location and is relied upon to interpret the soil characteristics, and their influence and significance in the subsurface environment. The accuracy of the stratigraphic log is to be verified by the person responsible for interpreting subsurface conditions. An accurate description of the soil stratigraphy is essential for a reasonable understanding of the subsurface conditions. Confirmation of the field description by examination of representative soil samples by the project geologist, hydrogeologist, or geotechnical engineer (whenever practicable) is recommended.

The ability to describe and classify soil correctly is a skill that is learned from a person with experience and by systematic training and comparison of laboratory results to field descriptions.

6.1.2.1 Data Recording

Several methods for classifying and describing soils or unconsolidated sediments are in relatively widespread use. The Unified Soil Classification System (USCS) is the most common. With the USCS, a soil is first classified according to whether it is predominantly coarse-grained or fine-grained.

The description of fill soil is similar to that of natural undisturbed soil except that it is identified as fill and not classified by USCS group, relative density, or consistency. Those logging soils must attempt to distinguish between soils that have been placed (i.e., fill) and not naturally present; or soils that have been naturally present but disturbed (i.e., disturbed native).

It is necessary to identify and group soil samples consistently to determine the subsurface pattern or changes and non-conformities in soil stratigraphy in the field at the time of drilling. The stratigraphy in each borehole during drilling is to be compared to the stratigraphy found at the previously completed boreholes to ensure that pattern or changes in soil stratigraphy are noted and that consistent terminology is used.

Visual examination, physical observations and manual tests (adapted from ASTM D2488, visual-manual procedures) are used to classify and group soil samples in the field and are summarized in this subsection. ASTM D2488 should be reviewed for detailed explanations of the procedures. Visual-manual procedures used for soil identification and classification include:

- visual determination of grain size, soil gradation, and percentage fines;
- dry strength, dilatancy, toughness, and plasticity (thread or ribbon test) tests for identification of inorganic fine-grained soil (e.g., CL, CH, ML, or MH); and
- soil compressive strength and consistency estimates based on thumb indent and pocket penetrometer (preferred) methods.

Soil characteristics like plasticity, strength and dilatancy should be determined using the Haley & Aldrich Soil Identification Field Form.

6.1.2.2 Field Sample Screening

Upon the collection of soil samples, the soil is screened with a photoionization detector (PID) for the presence of organic vapor. This is accomplished by running the PID across the soil sample. The highest reading and sustained readings are recorded.

Note: The PID measurement must be done upwind of the excavating equipment or any running engines so that exhaust fumes will not affect the measurements.

Another method of field screening is head space measurements. This consists of placing a portion of the soil sample in a sealable glass jar, placing aluminum foil over the jar top, and tightening the lid. Alternatively, plastic sealable bags may be utilized for field screen in lieu of glass containers. The jar should only be partially filled. Shake the jar and set aside for at least 30 minutes. After the sample has equilibrated, the lid of the jar can be opened; the foil is punctured with the PID probe and the air (headspace) above the soil sample is monitored. This headspace reading on the field form or in the field book is recorded. All head space measurements must be completed under similar conditions to allow comparability of results. Soil classification and PID readings will be recorded in the daily field report.

Equipment/Materials:

- Pocket knife or small spatula
- Small handheld lens
- Stratigraphic Log (Overburden) (Form 2001)
- Tape Measure

References:

1. American Society for Testing and Materials (1991), Standard D1452-80, “Practice for Soil Investigation and Sampling by Auger Borings”, Annual Book of ASTM Standard, Section 4, Volume 04.08.
2. ASTM Standards on Environmental Sampling (1995), Standard D 2488-93, “Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)”
3. ASTM Standards on Environmental Sampling (1995), Standard D 4700-91, “Guide for Soil Sampling from the Vadose Zone”.

4. ASTM Standards on Environmental Sampling (1995), Standard D 1586-92, "Test Method for Penetration Test and Split-Barrel Sampling of Soils".
5. ASTM Standard D 2487, "Classification of Soils for Engineering Purposes (Unified Soil Classification System)".
6. Geotechnical Gauge, Manufactured by W.F. McCollough, Beltsville, MD.
7. Sand Grading Chart, by Geological Specialty Company, Northport, Alabama.

6.1.3 Soil Sampling

Soil samples will be collected from acetate liners installed by a track-mounted direct push drill rig (Geoprobe®) operated by a licensed operator. Soil samples will be collected using a stainless-steel trowel or sampling spoon into laboratory provided sample containers. If it is necessary to relocate any proposed sampling location due to terrain, utilities, access, etc., the Project Manager must be notified, and an alternate location will be selected.

Prior to use and between each sampling location at an environmental site, the sampling equipment must be decontaminated. All decontamination must be conducted in accordance with the project specific plans or the methods presented in SOP 7.0.

6.1.4 Sampling Techniques

The following procedure describes typical soil sample collection methods for submission of samples to a laboratory for chemical analysis. The primary goal of soil sampling is to collect representative samples for examination and chemical analysis (if required).

Environmental soil samples obtained for chemical analyses are collected with special attention given to the rationale behind determining the precise zone to sample, the specifics of the method of soil extraction and the requisite decontamination procedures. Preservation, handling and glassware for environmental soil samples varies considerably depending upon several factors including the analytical method to be conducted, and the analytical laboratory being used.

6.1.4.1 Grab Versus Composite Samples

A grab sample is collected to identify and quantify conditions at a specific location or interval. The sample is comprised of the minimum amount of soil necessary to make up the volume of sample dictated by the required sample analyses. Composite samples may be obtained from several locations or along a linear trend (in a test pit or excavation). Sampling may occur within or across stratification.

6.2 GROUNDWATER SAMPLE COLLECTION FOR LABORATORY ANALYSIS

The following section describes two techniques for groundwater sampling: "Low Stress/Low Flow Methods" and "Typical Sampling Methods."

"Low Stress/Low Flow" methods will be employed when collecting groundwater samples for the evaluation of volatile constituents (i.e. dissolved oxygen (DO)) or in fine-grained formations where sediment/colloid transport is possible. Analyses typically sensitive to colloidal transport issues include polychlorinated biphenyls (PCBs), polyaromatic hydrocarbons (PAHs) and metals.

The "Typical Sampling Methods" will be employed where the collection of parameters less sensitive to turbidity/sediment issues are being collected (general chemistry, pesticides and other semi-volatile organic compounds (SVOCs)).

NOTE: If non-aqueous phase liquids (NAPL) (light or dense) are detected in a monitoring well, groundwater sample collection will not be conducted, and the Project Manager must be contacted to determine a course of action.

6.2.1 Preparatory Requirements

- Verify well identification and location using borehole log details and location layout figures. Note the condition of the well and record any necessary repair work required.

- Prior to opening the well cap, measure the breathing space above the well casing with a handheld organic vapor analyzer to establish baseline breathing space VOC levels. Repeat this measurement once the well cap is opened. If either of these measurements exceeds the air quality criteria in the HASP, field personnel should adjust their PPE accordingly.

- Prior to commencing the groundwater purging/sampling, a water level must be obtained to determine the well volume for hydraulic purposes. In some settings, it may be necessary to allow the water level time to equilibrate. This condition exists if a water tight seal exists at the well cap and the water level has fluctuated above the top of screen; creating a vacuum or pressurized area in this air space. Three water level checks will verify static water level conditions have been achieved.

- Calculate the volume of water in the well. Typically overburden well volumes consider only the quantity of water standing in the well screen and riser; bedrock well volumes are calculated on the quantity of water within the open core hole and within the overburden casing.

6.2.2 Well Development

Well development is completed to remove fine grained materials from the well but in such a manner as to not introduce fines from the formation into the sand pack. Well development continues until the well responds to water level changes in the formation (i.e., a good hydraulic connection is established between the well and formation) and the well produces clear, sediment-free water to the extent practical.

- Attach appropriate pump and lower tubing into well.
- Gauge well and calculate one well volume. Turn on pump. If well runs dry, shut off pump and allow to recover.
- Surging will be performed by raising and lowering the pump several times to pull fine-grained material from the well. Periodically measure turbidity level using a La Motte turbidity reader.
- The second and third steps will be repeated until turbidity is less than 50 nephelometric turbidity units (NTU) or when 10 well volumes have been removed.
- All water generated during cleaning and development procedures will be collected and contained on site in 55-gallon drums for future analysis and appropriate disposal.

Equipment:

- Appropriate health and safety equipment
- Knife
- Power source (generator)
- Field book
- Well Development Form (Form 3006)
- Well keys
- Graduated pails
- Pump and tubing
- Cleaning supplies (including non-phosphate soap, buckets, brushes, laboratory-supplied distilled/deionized water, tap water, cleaning solvent, aluminum foil, plastic sheeting, etc.) Water level meter
- PH/temperature/conductivity meter
- Clear glass jars (e.g., drillers' jars)

References:

1. Environmental Protection Agency (1986), RCRA Ground-Water Monitoring Technical Enforcement Guidance Document, OSWER-9950.1.

2. Environmental Protection Agency (1987), A Compendium of Superfund Field Operations Methods, EPA/540/P-87/001.

3. Environmental Protection Agency (1988), Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, OSWER-9950.1.

6.2.3 Well Purging and Stabilization Monitoring (Low Stress/Low Flow Method)

The preferred method for groundwater sampling will be the low stress/low flow method described below.

- Slowly lower the pump, safety cable, tubing and electrical lines into the well to the depth specified by the project requirements. The pump intake must be at the midpoint of the well screen to prevent disturbance and resuspension of any sediment in the screen base.

- Before starting the pump, measure the water level again with the pump in the well leaving the water level measuring device in the well when completed.

- Purge the well at 100 to a maximum of 500 milliliters per minute (mL/min). During purging, the water level should be monitored approximately every 5 minutes, or as appropriate. A steady flow rate should be maintained that results in drawdown of 0.3 feet or less. The rate of pumping should not exceed the natural flow rate conditions of the well. Care should be taken to maintain pump suction and to avoid entrainment of air in the tubing. Record adjustments made to the pumping rates and water levels immediately after each adjustment.

- During the purging of the well, monitor and record the field indicator parameters (pH, temperature, conductivity, oxidation-reduction (redox) reaction potential (ORP), dissolved oxygen (DO), and turbidity) approximately every five minutes. Stabilization is considered to be achieved when the final groundwater flow rate is achieved, and three consecutive readings for each parameter are within the following limits:

- pH: 0.1 pH units of the average value of the three readings;
- Temperature: 3 percent of the average value of the three readings;
- Conductivity: 0.005 milliSiemen per centimeter (mS/cm) of the average value of the three readings for conductivity <1 mS/cm and 0.01 mS/cm of the average value of the three readings for conductivity >1 mS/cm;
- ORP: 10 millivolts (mV) of the average value of the three readings;
- DO: 10 percent of the average value of the three readings; and
- Turbidity: 10 percent of the average value of the three readings, or a final value of less than 50 nephelometric turbidity units (NTU).

- The pump must not be removed from the well between purging and sampling.

6.2.4 Sampling Techniques

- If an alternate pump is utilized, the first pump discharge volumes should be discarded to allow the equipment a period of acclimation to the groundwater.

- Samples are collected directly from the pump with the groundwater being discharged directly into the appropriate sample container. Avoid handling the interior of the bottle or bottle cap and don new gloves for each well sampled to avoid contamination of the sample.

- Order of sample collection:

  - Polyfluoroalkyl substances (PFAS)
  - Volatile organic compounds (VOC)
  - 1,4-Dioxane
  - Semi-volatile organic compounds (SVOC)
  - Total Analyte List (TAL) metals

- For low stress/low flow sampling, samples should be collected at a flow rate between 100 and 500 mL/min and such that drawdown of the water level within the well does not exceed the maximum allowable drawdown of 0.3 feet.

- The pumping rate used to collect a sample for VOC should not exceed 100 mL/min. Samples should be transferred directly to the final container 40 mL glass vials completely full and topped with a Teflon cap. Once capped the vial must be inverted and tapped to check for headspace/air presence (bubbles). If air is present, the sample will be discarded, and recollected until free of air.

- All samples must be labeled with:

  - A unique sample number
  - Date and time
  - Parameters to be analyzed
  - Project Reference ID
  - Samplers initials

- Labels should be written in indelible ink and secured to the bottle with clear tape.

Equipment/Materials:

- pH meter, conductivity meter, DO meter, ORP meter, nephelometer, temperature gauge
- Field filtration units (if required)
- Purging/sampling equipment
  - Peristaltic Pump
- Water level probe
- Sampling materials (containers, log book/forms, coolers, chain of custody)
- Work Plan
- Health and Safety Plan

Note: Peristaltic pump use for VOC collection is not acceptable on NYSDEC/EPA/RCRA sites; this technique has gained acceptance in select areas where it is permissible to collect VOCs using a peristaltic pump at a low flow rate (e.g. Michigan).

Note: 1,4-Dioxane and PFAS purge and sample techniques will be conducted following the NYSDEC guidance documents (see Appendix C of the RIWP).

Field Notes:

- Field notes must document all the events, equipment used, and measurements collected during the sampling activities. Section 2.0 describes the data/recording procedure for field activities.
- The log book should document the following for each well sampled:
  - Identification of well
  - Well depth
  - Static water level depth and measurement technique
  - Sounded well depth
  - Presence of immiscible layers and detection/collection method
  - Well yield – high or low
  - Purge volume and pumping rate
  - Time well purged
  - Measured field parameters
  - Purge/sampling device used
  - Well sampling sequence
  - Sampling appearance
  - Sample odors
  - Sample volume
  - Types of sample containers and sample identification
  - Preservative(s) used
  - Parameters requested for analysis
  - Field analysis data and method(s)
  - Sample distribution and transporter
  - Laboratory shipped to
  - Chain of custody number for shipment to laboratory
  - Field observations on sampling event
  - Name collector(s)

- Climatic conditions including air temperature
- Problems encountered and any deviations made from the established sampling protocol.

A standard log form for documentation and reporting groundwater purging and sampling events are presented on the Groundwater Sampling Record, Low Flow Groundwater Sampling Form, and Low Flow Monitored Natural Attenuation (MNA) Field Sampling Form. Refer to Appendix A for example field forms.

Groundwater/Decon Fluid Disposal:

- Groundwater disposal methods will vary on a case-by-case basis but may range from:
  - Off-site treatment at private treatment/disposal facilities or public owned treatment facilities
  - On-site treatment at Facility operated facilities
  - Direct discharge to the surrounding ground surface, allowing groundwater infiltration to the underlying subsurface regime
- Decontamination fluids should be segregated and collected separately from wash waters/groundwater containers.

References:

1. ASTM D5474: Guide for Selection of Data Elements for Groundwater Investigations
2. ASTM D4696: Guide for Pore-liquid Sampling from the Vadose Zone
3. ASTM D5979: Guide for Conceptualization and Characterization of Groundwater Systems
4. ASTM D5903: Guide for Planning and Preparing for a Groundwater Sampling Event
5. ASTM D4448: Standard Guide for Sampling Groundwater Wells
6. ASTM D6001: Standard Guide for Direct Push Water Sampling for Geo-environmental Investigations.
7. USEPA: Low-flow (Minimal Drawdown) Groundwater Sampling Procedures (EPA/540/S-95/504)
8. USEPALL: RCRA Groundwater Monitoring: Draft Technical guidance (EPA/530 R 93 001)

6.3 SOIL VAPOR SAMPLING

The following procedure is an introduction to soil vapor sampling techniques and an outline of field staff responsibilities.

6.3.1 Preparatory Requirements

Prior to collecting the field sample, ensure the stainless steel oil vapor probe has been installed to the desired depth and sealed completely to the surface using a material such as bentonite. As part of the vapor intrusion evaluation, a tracer gas should be used in accordance with NYSDOH protocols to serve as a quality assurance/quality control (QA/QC) device to verify the integrity of the soil vapor probe seal. A container (box, plastic pail, etc.) will serve to keep the tracer gas in contact with the probe during testing. A portable monitoring device will be used to analyze a sample of soil vapor for the tracer gas prior to sampling. If the tracer sample results show a significant presence of the tracer, the probe seals will be adjusted to prevent infiltration. At the conclusion of the sampling round, tracer monitoring should be performed a second time to confirm the integrity of the probe seals.

6.3.2 Sampling Techniques

Samples will be collected in appropriate sized Summa canisters that have been certified clean by the laboratory and samples will be analyzed by using USEPA Method TO-15. Flow rate for both purging and sampling will not exceed 0.2 L/min. One to three implant volumes shall be purged prior to the collection of any soil-gas samples. A sample log sheet will be maintained summarizing sample identification, date and time of sample collection, sampling depth, identity of samplers, sampling methods and devices, soil vapor purge volumes, volume of the soil vapor extracted, vacuum of canisters before and after the samples are collected, apparent moisture content of the sampling zone, and chain of custody protocols.

6.4 SAMPLE HANDLING AND SHIPPING

Sample management is the continuous care given to each sample from the point of collection to receipt at the analytical laboratory. Good sample management ensures that samples are properly recorded, properly labeled, and not lost, broken, or exposed to conditions which may affect the sample's integrity.

All sample submissions must be accompanied with a chain of custody (COC) document to record sample collection and submission. Personnel performing sampling tasks must check the sample preparation and preservation requirements to ensure compliance with the Quality Assurance Project Plan.

The following sections provide the minimum standards for sample management.

6.4.1 Sample Handling

Prior to entering the field area where sampling is to be conducted, especially at sites with defined exclusion zones, the sampler should ensure that all materials necessary to complete the sampling are on hand. If samples must be maintained at a specified temperature after collection, dedicated coolers and ice must be available for use. Conversely, when sampling in cold weather, proper protection of water samples, trip blanks, and field blanks must be considered. Sample preservation will involve pH adjustment, cooling to 4°C, and sample filtration and preservation.

6.4.2 Sample Labeling

Samples must be properly labeled immediately upon collection.

Note that the data shown on the sample label is the minimum data required. The sample label data requirements are listed below for clarity.

- Project name
- Sample name/number/unique identifier
- Sampler's initials
- Date of sample collection
- Time of sample collection
- Analysis required
- Preservatives

To ensure that samples are not confused, a clear notation should be made on the container with a permanent marker. If the containers are too soiled for marking, the container can be put into a "zip lock" bag which can then be labeled.

All sample names will be as follows:

- Sample unique identifier: Enter the sample name or number. There should be NO slashes, spaces or periods in the date.
- Date: Enter the six-digit date when the sample was collected. Note that for one-digit days, months, and/or years, add zeros so that the format is MMDDYY (050210). There should be NO slashes, dashes, or periods in the date.

The QA/QC samples will be numbered consecutively as collected with a sample name, date and number of sample collected throughout the day (i.e. when multiple QA/QC samples are collected in one day).

Examples of this naming convention are as follows:

Sample Name:	Comments
TB-050202-0001	TRIP BLANK
TB-050202-0002	TRIP BLANK
FD-050202-0001	FIELD DUPLICATE
FD-050202-0002	FIELD DUPLICATE

NOTE: The QA/QC Sample # resets to 0001 EACH DAY, this will avoid having to look back to the previous day for the correct sequential number.

6.4.3 Field Code

The field code will be written in the 'Comments' field on the chain of custody for EVERY sample but will not be a part of the actual sample name. Enter the one/two-character code for type of sample (must be in CAPITALS):

N	Normal Field Sample
FD	Field Duplicate (note sample number (i.e. 0001) substituted for time)
TB	Trip Blank (note sample number (i.e. 0001) substituted for time)
EB	Equipment Blank (note sample number (i.e. 0001) substituted for time)
FB	Field Blank (note sample number (i.e. 0001) substituted for time)
KD	Known Duplicate
FS	Field Spike Sample
MS	Matrix Spike Sample (note on ‘Comments’ field of COC – laboratory to spike matrix.
MD	Matrix Spike Duplicate Sample (note on ‘Comments’ field of COC – laboratory to spike matrix.
RM	Reference Material

The sample labeling – both chain and sample bottles must be EXACTLY as detailed above. In addition, the Field Sample Key for each sample collected must be filled out.

6.4.4 Packaging

Sample container preparation and packing for shipment should be completed in a well-organized and clean area, free of any potential cross contamination. The following is a list of standard guidelines which must be followed when packing samples for shipment.

- Double bag ice in "Zip Lock" bags.
- Double check to ensure trip and temperature blanks have been included for all shipments containing VOCs, or where otherwise specified in the QAPP.
- Enclose the Chain of Custody form in a "Zip Lock" bag.
- Ensure custody seals (two, minimum) are placed on each cooler. Coolers with hinged lids should have both seals placed on the opening edge of the lid. Coolers with "free" lids should have seals placed on opposite diagonal corners of the lid. Place clear tape over custody seals.
- Containers should be wiped clean of all debris/water using paper towels (paper towels must be disposed of with other contaminated materials).
- Clear, wide packing tape should be placed over the sample label for protection.
- Do not bulk pack. Each sample must be individually padded.
- Large glass containers (1 liter and up) require much more space between containers.
- Ice is not a packing material due to the reduction in volume when it melts.

Note: Never store sterile sample containers in enclosures containing equipment which use any form of fuel or volatile petroleum-based product. When conducting sampling in freezing conditions at sites without a heated storage area (free of potential cross contaminants), unused trip blanks should be isolated from coolers immediately after receipt. Trip blanks should be double bagged and kept from freezing.

6.4.5 Chain-of-Custody Records

Chain of custody (COC) forms will be completed for all samples collected. The form documents the transfer of sample containers. The COC record, completed at the time of sampling, will contain, but not be limited to, the sample number, date and time of sampling, and the name of the sampler. The COC document will be signed and dated by the sampler when transferring the samples.

Each sample cooler being shipped to the laboratory will contain a COC form. The cooler will be sealed properly for shipment. The laboratory will maintain a copy for their records. One copy will be returned with the data deliverables package.

The following list provides guidance for the completion and handling of all COCs:

- COCs used should be a Haley & Aldrich standard form or supplied by the analytical laboratory.
- COCs must be completed in black ball point ink only.
- COCs must be completed neatly using printed text.
- If a simple mistake is made, cross out the error with a single line and initial and date the correction.
- Each separate sample entry must be sequentially numbered.
- If numerous repetitive entries must be made in the same column, place a continuous vertical arrow between the first entry and the next different entry.
- When more than one COC form is used for a single shipment, each form must be consecutively numbered using the "Page ___ of ___" format.
- If necessary, place additional instructions directly onto the COC in the Comment Section. Do not enclose separate instructions.
- Include a contact name and phone number on the COC in case there is a problem with the shipment.

- Before using an acronym on a COC, define clearly the full interpretation of your designation [i.e., polychlorinated biphenyls (PCBs)].

6.4.6 Shipment

Prior to the start of the field sampling, the carrier should be contacted to determine if pickup will be at the field site location. If pick-up is not available at the Site, the nearest pick-up or drop off location should be determined. Sample shipments must not be left at unsecured drop locations.

Copies of all shipment manifests must be maintained in the field file.

7. Field Instruments – Use and Calibration

A significant number of field activities involve usage of electronic instruments to monitor for environmental conditions and health and safety purposes. It is imperative the instruments are used and maintained properly to optimize their performance and minimize the potential for inaccuracies in the data obtained. This section provides guidance on the usage, maintenance and calibration of electronic field equipment.

- All monitoring equipment will be in proper working order and operated in accordance with manufacturer's recommendations.

- Field personnel will be responsible for ensuring that the equipment is maintained and calibrated in the field in accordance with manufacturer's recommendations.

- Instruments will be operated only by personnel trained in the proper usage and calibration.

- Personnel must be aware of the range of conditions such as temperature and humidity for instrument operation. Usage of instruments in conditions outside these ranges will only proceed with approval of the Project Manager and/or Health and Safety Officer as appropriate.

- Instruments that contain radioactive source material, such as x-ray fluorescence (XRF) analyzers or moisture-density gauges require specific transportation, handling and usage procedures that are generally associated with a license from the Nuclear Regulatory Commission (NRC) or an NRC-Agreement State. Under no circumstance will operation of such instruments be allowed on site unless by properly authorized and trained personnel, using the proper personal dosimetry badges or monitoring instruments.

7.1 GENERAL PROCEDURE DISCUSSION

Care must be taken to minimize the potential for transfer of contaminated materials to the ground or onto other materials. Regardless of the size or nature of the equipment being decontaminated, the process will utilize a series of steps that involve removal of gross material (dirt, grease, oil etc.), washing with a detergent, and multiple rinsing steps. In lieu of a series of washes and rinse steps, steam cleaning with low-volume, high-pressure equipment (i.e., steam cleaner) is acceptable.

Exploration equipment, and all monitoring equipment in contact with the sampling media must be decontaminated prior to initiating site activities, in between exploration locations to minimize cross-contamination, and prior to mobilizing off site after completion of site work.

The following specific decontamination procedure is recommended for sampling equipment and tools:

- Brush loose soil off equipment;
- Wash equipment with laboratory grade detergent (i.e., Alconox or equivalent);
- Rinse with tap water;
- Rinse equipment with distilled water;
- Allow water to evaporate before reusing equipment; and
- Wrap equipment in aluminum foil when not being used.

7.2 DECONTAMINATION OF MONITORING EQUIPMENT

Because monitoring equipment is difficult to decontaminate, care should be exercised to prevent contamination. Sensitive monitoring instruments should be protected when they are at risk of exposure to contaminants. This may include enclosing them in plastic bags allowing an opening for the sample intake. Ventilation ports should not be covered.

If contamination does occur, decontamination of the equipment will be required; however, immersion in decontamination fluids is not possible. As such, care must be taken to wipe the instruments down with detergent-wetted wipes or sponges, and then with de-ionized water-wetted wipes or sponges.

7.3 DISPOSAL OF WASH SOLUTIONS AND CONTAMINATED EQUIPMENT

All contaminated wash water, rinses, solids and materials used in the decontamination process that cannot be effectively decontaminated (such as polyethylene sheeting) will be containerized and disposed of in accordance with applicable regulations. All containers will be labeled with an indelible marker as to contents and date of placement in the container, and any appropriate stickers required (such as PCBs). Storage of decontamination wastes on site will not exceed 90 days under any circumstances.

Equipment/Materials:

Decontamination equipment and solutions are generally selected based on ease of decontamination and disposability.

- Polyethylene sheeting;
- Metal racks to hold equipment;
- Soft-bristle scrub brushes or long-handle brushes for removing gross contamination and scrubbing with wash solutions;
- Large galvanized wash tubs, stock tanks, or wading pools for wash and rinse solutions;
- Plastic buckets or garden sprayers for rinse solutions;
- Large plastic garbage cans or other similar containers lined with plastic bags can be used to store contaminated clothing;
- Contaminated liquids and solids should be segregated and containerized in DOT-approved plastic or metal drums, appropriate for offsite shipping/disposal if necessary.

Reference:

1. ASTM D5088 - Practice for Decontamination of Field Equipment Used at Non-Radioactive Waste Sites

8. Investigation Derived Waste Disposal

8.1 RATIONALE/ASSUMPTIONS

This procedure applies to the disposition of investigation derived waste (IDW) including soils and/or groundwater. IDW is dealt with the following "Best Management Practices" and is not considered a listed waste due to the lack of generator knowledge concerning chemical source, chemical origin, and timing of chemical introduction to the subsurface.

Consequently, waste sampling and characterization is performed to determine if the wastes exhibit a characteristic of hazardous waste. The disposal of soil cuttings, test pit soils and/or purged groundwater will be reviewed on a case by case basis prior to initiation of field activities. Two scenarios typically exist:

- When no information is available in the area of activity or investigation, and impacted media/soils are identified. Activities such as new construction and /or maintenance below grade may encounter environmental conditions that were unknown.
- Disposal Required/Containerization Required – When sufficient Site information regarding the investigative Site conditions warrant that all materials handled will be contained and disposed.

If a known listed hazardous and/or characteristically hazardous waste/contaminated environmental media is being handled, then handling must be performed in accordance with RCRA Subtitle C (reference 2, Part V, Section 1(a),(b),(c)).

The following outlines the waste characterization procedures to be employed when IDW disposal is required.

The following procedure describes the techniques for characterization of IDW for disposal purposes. IDW may consist of soil cuttings (augering, boring, well installation soils, test pit soils), rock core or rock flour (from coring, reaming operations), groundwater (from well development, purging and sampling activities), decontamination fluids, personal protective equipment (PPE), and disposal equipment (DE).

8.2 PROCEDURE

The procedures for handling and characterization of field activity generated wastes are:

A.) Soil Cuttings - Soils removed from boring activities will be contained within an approved container, suitable for transportation and disposal.

- Once placed into the approved container, any free - liquids (i.e., groundwater) will be removed for disposal as waste fluids or solidified within the approved container using a solidification agent such as Speedy Dri (or equivalent).
- Contained soils will be screened for the presence of Volatile Organic Compounds (VOCs), using a Photo ionization detector (PID); this data will be logged for future reference.
- Once screened, full and closed; the container will be labeled and placed into the container storage area. At a minimum, the following information will be shown on each container label: date of filling/generation, Site name, source of soils (i.e., borehole or well), and contact.

- Prior to container closure, representative samples from the containers will be collected for waste characterization purposes and submitted to the project laboratory.
- Typically, at a location where an undetermined site-specific parameter group exists, sampling and analysis may consist of the full RCRA Waste Characterization (ignitability, corrosivity, reactivity, toxicity), or a subset of the above based upon data collected, historical information, and generator knowledge.

B.) Groundwater - purging, and sampling groundwater, which requires disposal, will be contained.

- Containment may be performed in 55-gallon drums, tanks suitable for temporary storage (i.e., Nalgene tanks 500 to 1,000 gallons) or if large volumes of groundwater are anticipated, tanker trailer (5,000 to 10,000 gallons ±), or drilling "Frac" tanks may be utilized (20,000 gallons ±). In all cases the container/tank used for groundwater storage must be clean before use such that cross contamination does not occur.

C.) Decon Waters/Decon Fluids - Decon waters and/or fluids will be segregated, contained, and disposed accordingly.

- Decon waters may be disposed of with the containerized groundwater once analytical results have been acquired.

D.) PPE/DE – A number of disposal options exists for spent PPE/DE generated from investigation tasks. The options typically employed are:

- Immediately disposed of within on-Site dumpster/municipal trash; or
- If known to be contaminated with RCRA hazardous waste, dispose off-Site at a RCRA Subtitle C facility.
- Spent Solvent/Acid Rinses - The need for sampling must be determined in consultation with the waste management organization handling the materials. If known that only the solvent and/or acids are present, then direct disposal/treatment using media specific options may be possible without sampling (i.e., incineration).
- PPE/DE – Typically not sampled and included with the disposal of the solid wastes.

Equipment/Materials:

- Sample spoons, trier, auger,
- Sample mixing bowl,
- Sampling bailer, or pump,
- Sample glassware.

References:

1. New York State Department of Environmental Conservation Technical Guidance for Site Investigation and Remediation, DER-10, (3 May 2010).
2. USEPA RCRA - Guidance and Policies: Management of Remediation Waste Under RCRA (October 1998).
3. USEPA RCRA - Management of Contaminated Media (October 1998).
4. USEPA CERCLA Guidance (Options Relevant to RCRA Facilities): Guide to Management of Investigation - Derived Wastes (January 1992).

5. USEPA Office of Solid Waste- SW846 Chapter 9 Sampling Plan, Chapter 10 Sampling Methods (September 1986).
6. The Occupational Safety and Health Administration's (OSHA) Excavation and Trenching Standard Title 29 of the Code of Federal Regulation (CFR) Part 1926.650.

APPENDIX A

Field Forms

EQUIPMENT CALIBRATION LOG

Project: ______________________________
Location: ______________________________
Model Name: ______________________________
Model Number: ______________________________ **Serial Number:** ______________________________
Cal. Standards: ______________________________

Instruments will be calibrated in accordance with manufacturer's recommendations at least once per day.

Date	Time	Calibration Satandard Solution	Calibration Result	Calibrated by

Other Comments: ______________________________

Groundwater Field Sampling Form

Location:

Job Number: ____________________
Well ID: ____________________
Field Sampling Crew: ____________

Date: ____________________
Start Time: ____________________
Finished Time: ____________________

Initial Depth to Water: ____________________
Well Depth: ____________________
Depth to top of screen: ____________________
Depth to bottom of screen: ____________________
Depth of Pump Intake: ____________________

Purging Device:________________
Tubing present in well? __________
Tubing type: __________________

Time Elapsed (24 hour)	Depth to Water (from casing)	Pump Setting (ml/min or gal/min)	Purge Rate (ml/min or gal/min)	Cumulative Purge Volume (liters or gallons)	Temperature (degrees Celsius)	pH	Conductivity us/cm	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments

Comments:

SAMPLE IDENTIFICATION KEY

HALEY ALDRICH

PROJECT ______________________ **H&A FILE NO.** ______________

LOCATION ______________________ **PROJECT MGR.** ______________

CLIENT ______________________

CONTRACTOR ______________________

Sample ID	Parent Sample ID	Location ID	Sample Date	Sample Time (military)	Sample Type Code	Filtered (Water Only T/D/N)	Composite Y/N	Soil Type	Depth To Top Of Sample	Depth To Bottom Of Sample	C.O.C. Number	Notes	Collected By

Notes:

Common Sample Type Codes:

N Normal Environmental Samp	WG Groundwater	WS Surface Water	SO Soil	GS Soil Gas	SE Sediment
WQ Water for Quality Control	FD Field Duplicate	EB Equipment Blank	TB Trip Blank	MS Matris Spike	MSD Matrix Spike Duplicate

see Memorandum dated 08/08/05 from Melanie Satanek "Sample Labeling for Submission to Analytical Laboratory" for less common codes

HALEY ALDRICH

DAILY FIELD REPORT

Page of

Project		Report No.	
Location		Date	
Client		Page	of
Contractor		File No.	
Weather		Temperature	

Field Representative(s)	Time on site	Report/Travel/Other	Total hours

Distribution:

Haley & Aldrich, Inc.

Form 4004

GEOPROBE BORING REPORT

BORING NO.	
Page 1 of	

PROJECT			
LOCATION		PROJECT MGR.	
CLIENT		FIELD REP.	
CONTRACTOR		DATE STARTED	
DRILLER		DATE FINISHED	

Elevation ft.	Datum	Boring Location

Item	Casing	Sampler	Core Barrel	Rig Make & Model			Hammer Type	Drilling Mud	Casing Advance
Type				☐ Truck	☐ Tripod	☐ Cat-Head	☐ Safety	☐ Bentonite	Type Method Depth
Inside Diameter (in.)				☐ ATV	☐ Geoprobe	☐ Winch	☐ Doughnut	☐ Polymer	
Hammer Weight (lb.)				☐ Track	☐ Air Track	☐ Roller Bit	☐ Automatic	☐ None	
Hammer Fall (in.)				☐ Skid	☐ ______	☐ Cutting Head	Drilling Notes:		

Depth (ft.)	Casing Blows	Sampler Blows per 6 in.	Sample No. & Recovery (in.)	Sample Depth (ft)	Elev./ Depth (ft)	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)

Water Level Data						Sample ID	Summary
			Depth in feet to:				
Date	Time	Elapsed Time (hr.)	Bottom of Casing	Bottom of Hole	Water	O Open End Rod T Thin Wall Tube U Undisturbed Sample S Split Spoon Sample G Geoprobe	Overburden (Linear ft.) ______ Rock Cored (Linear ft.) ______ Number of Samples ______
Date							BORING NO.

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil descriptions based on a modified Burmister method of visual-manual identification

Form #3000

APPENDIX C

Quality Assurance and Performance Plan

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QUALITY ASSURANCE PROJECT PLAN
297 WALLABOUT 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. 133156-005
September 2019

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 Investigation Work Plan (RIWP) for the portion of 297 Wallabout 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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1. Project Description

This Quality Assurance Project Plan (QAPP) has been prepared as a component of the RIWP for the 297 Wallabout Street (Site) 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 groundwater and 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 RIWP appended to the Brownfield Cleanup Program application for the Site and incorporated herein by reference.

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
- Herbicides using EPA method 8151

The laboratory parameter for groundwater include:

- Target Compound List VOCs using EPA method 8260C
- Target Compound List SVOCs using EPA method 8270C

Select monitoring well analyses include:

- Per- and polyfluoroalkyl substances (PFAS) using EPA method 537
- 1,4-Dioxane using EPA method 8260B

Note: 1,4-Dioxane and PFAS sampling techniques will be conducted following the NYSDEC Collection of Groundwater Samples for Per- and Polyfluoroalkyl Substances (PFAS) from Monitoring Wells Sample Protocol.

During the collection of groundwater samples, pH, specific conductivity, temperature, dissolved oxygen (DO), and oxidation/reduction potential (ORP) will be measured.

Laboratory parameters for disposal samples will be determined by the disposal facility after an approved facility has been determined.

1.4 SAMPLING LOCATIONS

The RIWP provides the locations of soil samples and groundwater monitoring wells that will be sampled.

2. Project Organization and Responsibilities

This section defines the roles and responsibilities of the individuals who will perform the RIWP 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 RIWP 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 RIWP 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 RIWP 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 RIWP and in compliance with the Field Sampling Plan (FSP) and 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

The FSP provides the SOPs for sampling of soil and groundwater required by the RIWP.

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.

Refer to the FSP for the sample labeling procedures.

3.3 FIELD QC SAMPLE COLLECTION

3.3.1 Field Duplicate Sample Collection

3.3.1.1 Water Samples

Field duplicate samples will be collected by filling the first sample container to the proper level and sealing and then repeated for the second set of sample container.

1. The samples are properly labeled as specified in Section 3.2.
2. Steps 1 through 4 are repeated for the bottles for each analysis. The samples are collected in order of decreasing analyte volatility as detailed in Section 3.3.1.
3. Chain-of-custody documents are executed.
4. The samples will be handled as specified in Table I.

3.3.1.2 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 the FSP.
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. Refer to the FSP for sample packaging procedures.

- Samples will be assigned a unique sample number and will be affixed to a sample label. Refer to the FSP for sample labeling procedures.

- 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 measurement of pH, temperature, ORP, DO and specific conductivity during sampling of groundwater, and 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 RIWP. 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.

$$\% \, Recovery = \frac{Spiked \; Sample - Background}{Known \; Value \; of \; Spike} \times 100\%$$

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 RIWP 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) and matrix spike and matrix spike duplicate (MS/MSD) samples for groundwater and soil samples and the analysis of laboratory duplicate samples for air and soil vapor samples. Air and soil vapor laboratory duplicate sample analyses will be performed by analyzing the same SUMMA canister twice. The RPD criteria for the air/soil vapor laboratory duplicate samples will be +/- 35 % for parameters of analysis detected at concentrations greater than 5 times (5X) the laboratory reporting limit (RL).

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 groundwater samples for the analysis of VOC. Trip blank samples will be analyzed for each VOC for which groundwater samples have been collected for analysis.

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 provided with the sample containers to be used for the collection of groundwater samples for the analysis of VOC. 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.

- 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 A and 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.

$$\frac{\text{Number of Valid Sample Results}}{\text{Total Number of Samples Planned}} X\ 100 = \%\ \text{Complete}$$

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.

References

1. United States Environmental Protection Agency, (1999). EPA Requirements for Quality Assurance Project Plans for Environmental Data Operations. EPA QA/R-5 Interim Final, November 1999.

2. United States Environmental Protection Agency (1991). Preparation Aids for the Development of Category I Quality Assurance Project Plans. U.S. EPA/600/8-91/003, Risk Reduction Engineering Laboratory, Office of Research and Development, Cincinnati, Ohio, February 1991.

3. United States Environmental Protection Agency, (1993). Data Quality Objectives Process for Superfund Interim Final Guidance. U.S. EPA/540/R-93-071, Office of Solid Waste and Emergency Response (OSWER), September 1993.

4. United States Environmental Protection Agency, (1992). Specifications and Guidance for Contaminant-Free Sample Containers. OSWER Directive 9240.0-05A, April 1992.

5. United States Environmental Protection Agency. U.S. EPA National Functional Guidelines for Organic Data Review. U.S. EPA 540/R-2017-002.

6. United States Environmental Protection Agency. U.S. EPA National Functional Guidelines for Organic Data Review. U.S. EPA 540/R-2017-001.

7. United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste, Office of Solid Waste, U.S. EPA, SW-846, November 1986, with updates.

8. New York State Department of Environmental Conservation, NYSDEC Analytical Services Protocol (ASP), Bureau of Environmental Investigation, 1991 with updates.

9. New York State Department of Environmental Conservation, NYSDEC, Division of Environmental Remediation, Technical Guidance for Site Investigation and Remediation, DER-10, May 2010.

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TABLES

TABLE I

SUMMARY OF ANALYSIS METHOD, PRESERVATION METHOD, HOLDING TIME, SAMPLE SIZE REQUIREMENTS AND SAMPLE CONTAINERS

297 Wallabout Street
Brooklyn, NY

Analysis/Method	Sample Type	Preservation	Holding Time	Volume/Weight	Container
Volatile Organic Compounds/8260C	Soil	1 - 1 Vial MeOH/2 Vial Water	14 days	120 mL	3 - 40ml glass vials
Semivolatile Organic Compounds/8270D	Soil	Cool, 4 ± 2 °C	14 days	250 mL	1 - 8 oz Glass
Pesticides/8081B	Soil	Cool, 4 ± 2 °C	14 days	250 mL	1 - 8 oz Glass
Herbicides/8151A	Soil	Cool, 4 ± 2 °C	14 days	250 mL	1 - 8 oz Glass
Polychlorinated Biphenyls/8082A	Soil	Cool, 4 ± 2 °C	14 days	250 mL	1 - 8 oz Glass
Metals/6010D	Soil	Cool, 4 ± 2 °C	180 days	60 mL	1 - 2 oz Glass
Volatile Organic Compounds/8260C	Groundwater	HCl, Cool, 4 ± 2 ^{o}C	14 days	120 mL	3 - 40ml glass vials
1,4-Dioxane	Groundwater	Cool, 4 ± 2 °C	7 days	120 mL	3 - 40ml glass vials
Semivolatile Organic Compounds/8270D	Groundwater	Cool, 4 ± 2 °C	7 days	500 mL	2 - 250 mL amber glass
TAL Metals 6020	Groundwater	HNO_3Cool, 4 ± 2 ^{o}C	180 days	500 mL	1 - 500 mL plastic bottle
PFAS 537	Groundwater	H2O Cool, 4 ± 2 °C	14 days	500 mL	2 - teflon free 250 ml plastic containers
Volatile Organic Compounds/TO-15	Soil Vapor	N/A	30 days	2.7 - 6 L	1 2.7 or 6 L Summa Canister

Notes:
1. Refer to text for additional information.

APPENDIX D

NYSDEC Emerging Contaminant Field Sampling Guidance

HALEY ALDRICH

Issue: NYSDEC has committed to analyzing representative groundwater samples at remediation sites for emerging contaminants (1,4-dioxane and PFAS) as described in the below guidance.

Implementation

NYSDEC project managers will be contacting site owners to schedule sampling for these chemicals. Only groundwater sampling is required. The number of samples required will be similar to the number of samples where “full TAL/TCL sampling” would typically be required in a remedial investigation. If sampling is not feasible (e.g., the site no longer has any monitoring wells in place), sampling may be waived on a site-specific basis after first considering potential sources of these chemicals and whether there are water supplies nearby.

Upon a new site being brought into any program (i.e., SSF, BCP), PFAS and 1,4-dioxane will be incorporated into the investigation of groundwater as part of the standard “full TAL/TCL” sampling. Until an SCO is established for PFAS, soil samples do not need to be analyzed for PFAS unless groundwater contamination is detected. Separate guidance will be developed to address sites where emerging contaminants are found in the groundwater. The analysis currently performed for SVOCs in soil is adequate for evaluation of 1,4-dioxane, which already has an established SCO.

Analysis and Reporting

Labs should provide a full category B deliverable, and a DUSR should be prepared by an independent 3rd party data validator. QA/QC samples should be collected as required in DER-10, Section 2.3(c). The electronic data submission should meet the requirements provided at: https://www.dec.ny.gov/chemical/62440.html ,

The work plan should explicitly describe analysis and reporting requirements.

PFAS sample analysis: Currently, ELAP does not offer certification for PFAS compounds in matrices other than finished drinking water. However, laboratories analyzing environmental samples (ex. soil, sediments, and groundwater) are required, by DER, to hold ELAP certification for PFOA and PFOS in drinking water by EPA Method 537 or ISO 25101.

Modified EPA Method 537 is the preferred method to use for groundwater samples due to the ability to achieve 2 ng/L (ppt) reporting limits. If contract labs or work plans submitted by responsible parties indicate that they are not able to achieve similar reporting limits, the project manager should discuss this with a DER chemist. Note: Reporting limits for PFOA and PFOS should not exceed 2 ng/L.

PFAS sample reporting: DER has developed a PFAS target analyte list (below) with the intent of achieving reporting consistency between labs for commonly reportable analytes. It is expected that reported results for PFAS will include, at a minimum, all the compounds listed. This list may be updated in the future as new information is learned and as labs develop new capabilities. If lab and/or matrix specific issues are encountered for any particular compounds, the NYSDEC project manager will make case-by-case decisions as to whether particular analytes may be temporarily or permanently discontinued from analysis for each site. Any technical lab issues should be brought to the attention of a NYSDEC chemist.

Some sampling using this full PFAS target analyte list is needed to understand the nature of contamination. It may also be critical to differentiate PFAS compounds associated with a site from other sources of these chemicals. Like routine refinements to parameter lists based on investigative findings, the full PFAS target analyte list may not be needed for all sampling intended to define the extent of contamination. Project managers may approve a shorter analyte list (e.g., just the UCMR3 list) for some reporting on a case by case basis.

1,4-Dioxane Analysis and Reporting: The method detection limit (MDL) for 1,4-dioxane should be no higher than 0.35 µg/l (ppb). Although ELAP offers certification for both EPA Method 8260 SIM and EPA Method 8270 SIM, DER is advising the use of method 8270 SIM. EPA Method 8270 SIM provides a more robust extraction procedure, uses a larger sample volume, and is less vulnerable to interference from chlorinated solvents.

Full PFAS Target Analyte List

Group	Chemical Name	Abbreviation	CAS Number
Perfluoroalkyl sulfonates	**Perfluorobutanesulfonic acid**	**PFBS**	**375-73-5**
	Perfluorohexanesulfonic acid	**PFHxS**	**355-46-4**
	Perfluoroheptanesulfonic acid	PFHpS	375-92-8
	Perfluorooctanessulfonic acid	**PFOS**	**1763-23-1**
	Perfluorodecanesulfonic acid	PFDS	335-77-3
Perfluoroalkyl carboxylates	Perfluorobutanoic acid	PFBA	375-22-4
	Perfluoropentanoic acid	PFPeA	2706-90-3
	Perfluorohexanoic acid	PFHxA	307-24-4
	Perfluoroheptanoic acid	**PFHpA**	**375-85-9**
	Perfluorooctanoic acid	**PFOA**	**335-67-1**
	Perfluorononanoic acid	**PFNA**	**375-95-1**
	Perfluorodecanoic acid	PFDA	335-76-2
	Perfluoroundecanoic acid	PFUA/PFUdA	2058-94-8
	Perfluorododecanoic acid	PFDoA	307-55-1
	Perfluorotridecanoic acid	PFTriA/PFTrDA	72629-94-8
	Perfluorotetradecanoic acid	PFTA/PFTeDA	376-06-7
Fluorinated Telomer Sulfonates	6:2 Fluorotelomer sulfonate	6:2 FTS	27619-97-2
	8:2 Fluorotelomer sulfonate	8:2 FTS	39108-34-4
Perfluorooctane-sulfonamides	Perfluroroctanesulfonamide	FOSA	754-91-6
Perfluorooctane-sulfonamidoacetic acids	N-methyl perfluorooctanesulfonamidoacetic acid	N-MeFOSAA	2355-31-9
	N-ethyl perfluorooctanesulfonamidoacetic acid	N-EtFOSAA	2991-50-6

Bold entries depict the 6 original UCMR3 chemicals

Collection of Groundwater Samples for Per- and Polyfluoroalkyl Substances (PFAS) from Monitoring Wells Sample Protocol

Samples collected using this protocol are intended to be analyzed for perfluorooctanoic acid (PFOA) and other perfluorinated compounds by Modified (Low Level) Test Method 537.

The sampling procedure used must be consistent with the NYSDEC March 1991 Sampling Guidelines and Protocols http://www.dec.ny.gov/docs/remediation_hudson_pdf/sgpsect5.pdf with the following materials limitations.

At this time acceptable materials for sampling include: stainless steel, high density polyethylene (HDPE) and polypropylene. Additional materials may be acceptable if proven not to contain PFAS. **NOTE: Grunfos pumps and some bladder pumps are known to contain PFAS materials (e.g. Teflon™ washers for Grunfos pumps and LDPE bladders for bladder pumps).** All sampling equipment components and sample containers should not come in contact with aluminum foil, low density polyethylene (LDPE), glass or polytetrafluoroethylene (PTFE, Teflon™) materials including sample bottle cap liners with a PTFE layer. Standard two step decontamination using detergent and clean water rinse will be performed for equipment that does come in contact with PFAS materials. Clothing that contains PTFE material (including GORE-TEX®) or that have been waterproofed with PFAS materials must be avoided. Many food and drink packaging materials and "plumbers thread seal tape" contain PFAS.

All clothing worn by sampling personnel must have been laundered multiple times. The sampler must wear nitrile gloves while filling and sealing the sample bottles.

Pre-cleaned sample bottles with closures, coolers, ice, sample labels and a chain of custody form will be provided by the laboratory.

1. Fill two pre-cleaned 250 mL HDPE or polypropylene bottle with the sample.
2. Cap the bottles with an acceptable cap and liner closure system.
3. Label the sample bottles.
4. Fill out the chain of custody.
5. Place in a cooler maintained at 4 ± 2º Celsius.

Collect one equipment blank for every sample batch, not to exceed 20 samples.

Collect one field duplicate for every sample batch, not to exceed 20 samples.

Collect one matrix spike / matrix spike duplicate (MS/MSD) for every sample batch, not to exceed 20 samples.

Request appropriate data deliverable (Category A or B) and an electronic data deliverable.

APPENDIX E

Health and Safety Plan

HALEY & ALDRICH, INC.

SITE-SPECIFIC SAFETY PLAN

FOR

297 Wallabout Street
Project/File No. 133156-005

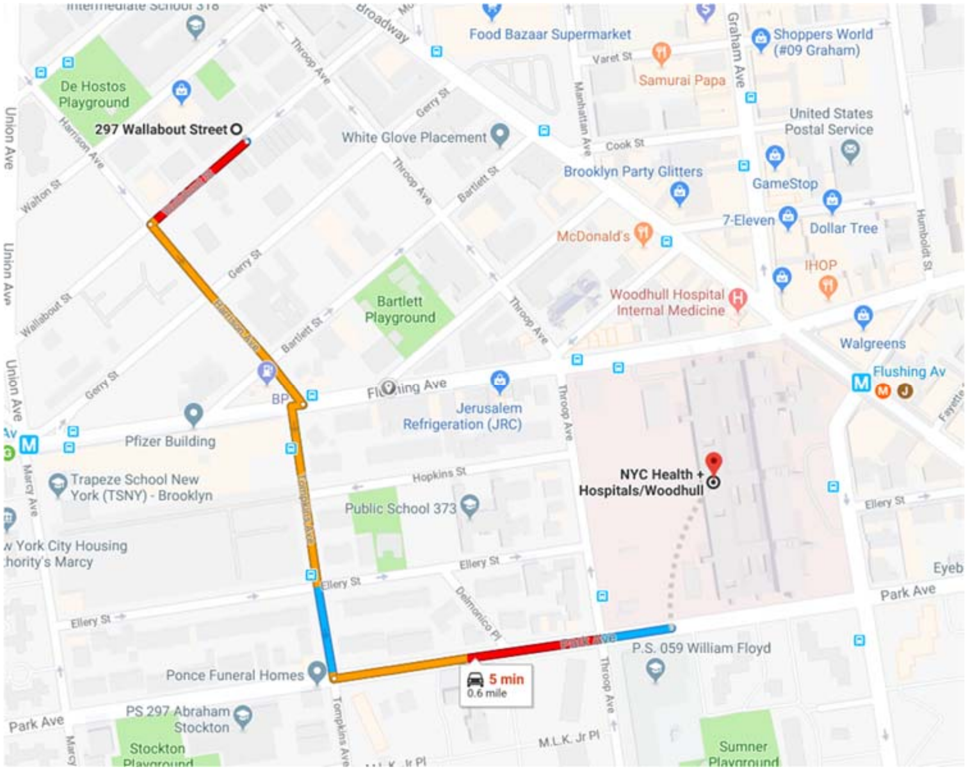
Prepared By: Conlon, Mari	**Date: 03-13-2019**

EMERGENCY INFORMATION

Project Name: 297 Wallabout Street	**H&A File No:** 133156-005
Location: 295-297 Wallabout Street, Brooklyn, NY	
Client/Site Contact: Phone Number: Emergency Phone Number:	Rock Brokerage Moshe Monheit 718-858-6655
Contractor: **Superintendent:** Phone Number:	Coastal Environmental Solutions (under contact by client) Marc Morgenstern 631-319-6536
H&A Project Manager: Office Phone Number: Cell Phone Number:	Conlon, Mari Cate 646.277.5688 347.271.1521
Regional Health & Safety Manager: Office Phone Number: Cell Phone Number:	Ferguson, Brian 617.886.7439 617.908.2761
Nearest Hospital: Address: (see map on next page) Phone Number:	**NYC Health + Hospitals/Woodhull** 760 Broadway, Brooklyn, NY 11206 718-963-8000
Nearest Occ. Health Clinic: Address: (see map on next page) Phone Number	**ModernMD Urgent Care** 68 Graham Avenue, Brooklyn, NY 11206 646-604-8120
Liberty Mutual Claim Policy	**WC7-Z11-254100-039**
Other Local Emergency Response Number:	911
Other Ambulance, Fire, Police, or Environmental Emergency Resources:	911

Emergency Hospital

NYC Health + Hospitals/Woodhull
760 Broadway
Brooklyn, NY 11206
718-963-8000



5 min (0.6 mile)

via Tompkins Ave and Park Ave

Fastest route, despite the usual traffic

297 Wallabout St
Brooklyn, NY 11206

Head southwest on Wallabout St toward Harrison Ave

374 ft

Turn left at the 1st cross street onto Harrison Ave

0.1 mi

Continue onto Tompkins Ave

0.2 mi

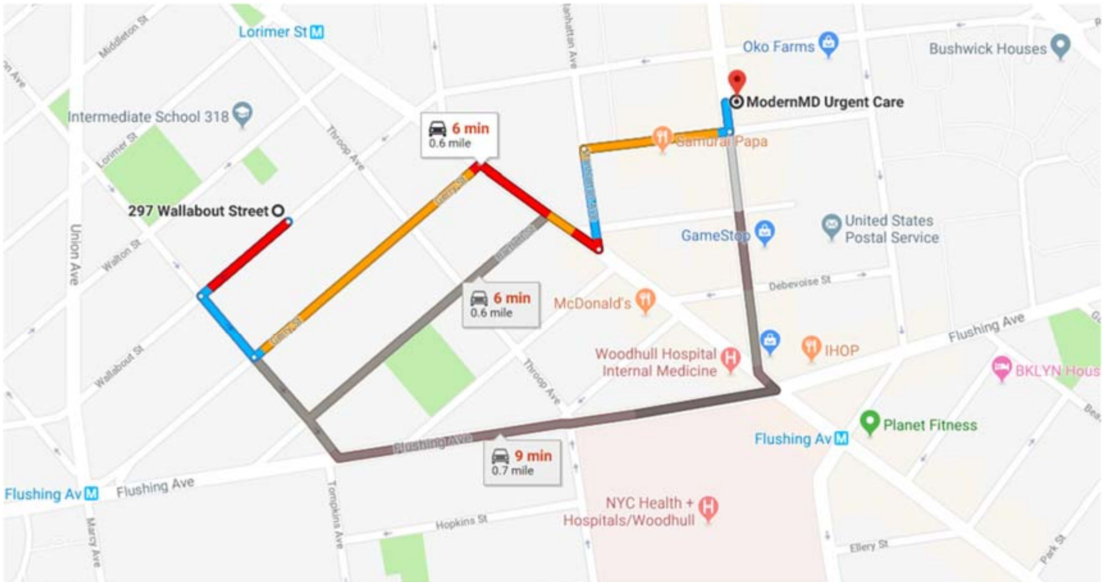
Turn left onto Park Ave

0.2 mi

NYC Health + Hospitals/Woodhull
760 Broadway, Brooklyn, NY 11206

Clinic

ModernMD Urgent Care
68 Graham Avenue, Brooklyn, NY 11206
646-604-8120



6 min (0.6 mile)

via Gerry St

Fastest route, despite the usual traffic

---

297 Wallabout St
Brooklyn, NY 11206

- Head southwest on Wallabout St toward Harrison Ave
  374 ft
- Turn left at the 1st cross street onto Harrison Ave
  269 ft
- Turn left at the 1st cross street onto Gerry St
  0.2 mi
- Turn right at the 2nd cross street onto Broadway
  479 ft
- Turn left onto Manhattan Ave
  331 ft
- Turn right onto Varet St
  479 ft
- Turn left after Bank of America Financial Center (on the left)
  Destination will be on the right
  95 ft

ModernMD Urgent Care
68 Graham Ave, Brooklyn, NY 11206

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.

TABLE OF CONTENTS

ADMINISTRATIVE INFORMATION

Project Name	297 Wallabout Street	**Project Number**	133156-005
Project Start Date	3/18/2019	**Project End Date**	12-31-2021
Client Site/Contact: Phone:	Moshe Monheit 718-858-6655		
H&A Project Manager: Office Phone Number: Cell Phone Number:	Conlon, Mari Cate 646.277.5688 347.271.1521		
H&A Site Safety Officer: Office Phone Number: Cell Phone Number:	Conlon, Mari Cate 646.277.5688 347.271.1521		
Subcontractor: Phone: Emergency Phone number:	Coastal Environmental Solutions 631-319-6536 516-587-9570		

APPROVALS: The following signatures constitute approval of this Health & Safety Plan

Electronic Signature

Mari Cate Conlon

Site Project Manager

Date 3.14.19

Corporate H&S

Date 3.14.19

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.

PROJECT INFORMATION

Site Overview/History

Site Classification	Vacant	**Site Status**	Vacant/Undeveloped	**Regulatory Authority**	OSHA

Project Summary

The approximately 6,300 square-foot lot is identified as Brooklyn Block 2250, Lot 45. The project is currently within a New York City Office of Environmental Remediation (NYCOER) E Designation area, specifically E-238 Broadway Triangle Rezoning. We understand the planned development will consist of one seven-story residential building with a total footprint at ground level covering the entire lot.

Scope of Work: Remedial Investigation, Waste Characterization, Remedial Oversight

Project Tasks

Task 1	Task Name**: Remedial Investigation**
Oversee installation soil borings, permanent well points and soil vapor sampling probes by Coastal Environmental Solutions using a direct push geoprobe rig. Collect soil samples, groundwater samples and soil vapor samples into laboratory provided containers. Coastal Environmental Solutions will provide a one call markout prior to drilling. Please note that Coastal Environmental Solutions is under contract by client.	
Start Date: 3-18-2019	End Date: 12-31-2020
H&A Site Supervisor: Conlon, Mari Cate	Subcontractor: Coastal Environmental Solutions
Task 2	Task Name**: Waste Characterization Sampling**
Collect composite waste characterization 5-point grab samples concurrently with the Remedial Investigation.	
Start Date: 3-18-2019	End Date: 3-18-2019
H&A Site Supervisor: Conlon, Mari Cate	Subcontractor: N/A
Task 3	Task Name**: Remedial Oversight**
Perform remedial oversight during implementation of the approved remedy including community air monitoring.	
Start Date: 4-2019	End Date 12-2021
H&A Site Supervisor: Conlon, Mari Cate	Subcontractor: N/A

HAZARD ASSESSMENT AND CONTROLS

The following site and task specific hazards have been identified. Associated controls have been defined and are also listed below.

Site Hazards and Controls

Site Hazard Summary		
Slips, Trips, Falls	SIMOPS	Cold Temperatures
Sun		

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 should also meet the ANSI Z87.1 standard for safety glasses.
- Use natural or artificial shade, where possible.

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.

Simultaneous Operations (SIMOPS)

SIMOPS are described as the potential class of activities which could bring about an undesired event or set of circumstances, e.g., safety, environment, damage to assets, schedule, commercial, financial, etc. SIMOPS are defined as performing two or more operations concurrently.

It is important that SIMOPS are identified at an early stage before operations commence to understand issues such as schedule clashes, physical clashes, maintenance activities, failure impacts, interferences between vessels, contracts and third part interfaces and environmental impacts.

SIMOPS can occur when H&A projects are executed at active facilities (e.g., installing a monitoring well in a parking lot of a manufacturing plant).
Controls
• Coordinate project with site activities.
• Identify and understand the hazards associated with the host/client's activities.
• Integrate site emergency response protocols where appropriate and communicate to all project staff.
• Integrate site communication protocols and communicate to all project staff.

Slips and Trips
Slip and trip injuries are the most frequent injuries to workers. Statistics show that the majority of falls happen on the same level resulting from slips and trips. 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), awareness of surroundings, selection of proper footwear, and appropriate pace of walking are critical for 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 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
• Keep work areas clean and free of clutter
• Communicate hazards to on-site personnel – remove hazards as appropriate

Task Specific Hazards

TASK 1

Task 1 – Remedial Investigation – Drilling, such as associated with installation of soil borings, temporary wells and soil vapor probes, is conducted for a range of services. Familiarity with basic drilling safety is an essential component of all drilling projects. Potential hazards related to drilling operations include, but are not limited to encountering underground or overhead utilities, traffic and heavy equipment, hoisting heavy tools, steel impacts, open rotation entanglement, and the planned or unexpected encountering of toxic or hazardous substances. While staff members do not operate drilling equipment, they may work in close proximity to operating drilling 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			
Overhead Utilities	Ground Disturbance	Underground Utilities	Noise
Line of Fire	Generated Waste	Ergonomics	Heavy Equipment

TASK 2

Task 2 – Waste Characterization Sampling – Waste characterization sampling 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	Ground Disturbance	Ergonomics	Heavy Equipment
Line of Fire	Generated Waste		

TASK 3

Task 3 – 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

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 OPS1020 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 should 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.

TASK PPE AND SAFETY EQUIPMENT

The personal protective equipment and safety equipment (if listed) is specific to the associated task. The required PPE and equipment listed must be on site during the task being performed. Work shall not commence unless the required PPE is present.

The purpose of PPE is to provide a barrier, which will shield or isolate staff members from the physical, biological, chemical, and/or radiological hazards that may be encountered during task activities.

Required PPE	**TASK 1, 2 and 3**
Hard hat	**X**
Safety glasses	**X**
Hard-toed Boots	**X**
Gloves	**X**
Long pants and 4" long sleeve shirt	**X**
Safety vest (Class 2)	**X**
Hearing Protection	**X**

TRAINING REQUIREMENTS

The table below lists the training requirements staff must have respective to their assigned tasks and that required to access the site.

<table>
<tr><th colspan="2">Task Specific Training</th></tr>
<tr><td rowspan="4">Required Training: OSHA 40-hour HAZWOPER, On Site training</td><td>TASK 1</td></tr>
<tr><td>Remedial Investigation</td></tr>
<tr><td>TASK 2</td></tr>
<tr><td>Waste Characterization Sampling</td></tr>
<tr><td rowspan="2">Required Training: OSHA 40-hour HAZWOPER, OSHA 10-hr Construction Safety, On Site training</td><td>Task 3</td></tr>
<tr><td>Remedial Oversight</td></tr>
</table>

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.

Communication
Internal H&A site personnel will communicate with other H&A staff member and/or subcontractors or contractors with: • Face-to-Face Communication • Cell Phones
External H&S site personnel will use the following means to communicate with off-site personnel or emergency services. • Cell Phones

SPILL CONTAINMENT

An evaluation was conducted to determine the potential for hazardous substance spills at this site. This evaluation indicates that there is no potential for a hazardous spill of sufficient size to require containment planning, equipment, and procedures.

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 SHSO 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 SHSO.
- Comfort the individual until ambulance service arrives.
- While the injured employee is being transported, the H&A SHSO 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 SHSO 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 SHSOs 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 SHSO;
- 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 HEALTH & SAFETY OFFICER

The SHSO, Mari Cate Conlon, is responsible for field implementation of this HASP and enforcement of safety rules and regulations. SHSO 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 SHSO 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 SHSO 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 SHSO 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 SHSO 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 SHSO;
- Complying with the requirements of this safety plan and the requests of the SHSO; 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.

SUBCONTRACTOR

Subcontractor Site Representative

Each ***contractor and subcontractor*** shall designate a ***Contractor Site Representative***. The Contractor Site Representative will interface directly with the Subcontractor Site Safety Manager, with regards to all areas that relate to this safety plan and safety performance of work conducted by the ***contractor and/or subcontractor*** workforce. ***Contractor Site Representatives*** for this site are listed in the Contact Summary Table at the beginning of the Safety Plan.

Subcontractor Site Safety Manager

Each contractor / subcontractor will provide a qualified representative who will act as their Site Safety Manager (Sub-SSM). This person will be responsible for the planning, coordination, and safe execution of subcontractor tasks, including preparation of job hazard analyses (JHA), performing daily safety planning, and coordinating directly with the Haley & Aldrich SHSO for other site safety activities. This person will play a lead role in safety planning for Subcontractor tasks, and in ensuring that all their employees and lower tier subcontractors are in adherence with applicable local, state, and/or federal regulations, and/or industry and project specific safety standards or best management practices.

General contractors / subcontractors are responsible for preparing a site-specific HASP and/or other task specific safety documents (e.g., JHAs), which are, at a minimum, in compliance with local, state, and/or federal other regulations, and/or industry and project specific safety standards or best management practices. The contractors/subcontractors safety documentation will be at least as stringent as the health and safety requirements of the Haley & Aldrich Project specific Health & Safety Plan.

Safety requirements include, but are not limited to: legal requirements, contractual obligations and industry best practices. Contractors/subcontractors will identify a site safety representative during times when contractor/subcontractor personnel are on the Site. All contractor/subcontractor personnel will undergo a field safety orientation conducted by the Haley & Aldrich SHSO and/or PM prior to commencing site work activities. All contractors / subcontractors will participate in Haley & Aldrich site safety meetings and their personnel will be subject to training and monitoring requirements identified in this Safety Plan. If the contractors / subcontractors means and methods deviate from the scope of work described in Section 1 of this Safety Plan, the alternate means and methods must be submitted, reviewed and approved by the Haley & Aldrich SHSO and/or PM prior to the commencement of the work task. Once approved by the Haley & Aldrich SHSO and/or PM, the alternate means and methods submittal will be attached to this Safety Plan as an Addendum.

APPENDICES

Appendix A - Task Hazards Summary (***Task summaries are included only if there is more than one task)***

Task 1

Appendix B – Permits and Forms

Appendix C – HASP Acknowledgement Form

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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