DRAFT REMEDIAL INVESTIGATION REPORT

556 BALTIC STREET SITE
NYSDEC BCP SITE C224375
556 BALTIC STREET
BROOKLYN, NEW YORK

PREPARED ON BEHALF OF

159 THIRD REALTY LLC, 159 THIRD RESIDENCE LLC AND BALTIC RESIDENCE LLC 199 LEE AVENUE, BROOKLYN, NY 11211

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File No. 0204520
March 2023

Certification

This report documents remedial investigation activities conducted at the Site at 556 Baltic Street, Brooklyn, New York.

I, James M. Bellew, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Remedial Investigation Report[1] was prepared in accordance with all statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan(s) and any DER-approved modifications.

Final Version to be Certified

James M. Bellew

[1] Certification applies to remedial investigation activities conducted after the execution of the Brownfield Cleanup Agreement dated [15 December 2022].

Table of Contents

Table of Contents

Page

List of Tables

List of Figures

List of Appendices

Appendix	Title
A	Remedial Investigation Work Plan
B	Ground Penetrating Radar Survey Report
C	Soil Boring Logs
D	Well Construction Diagram
E	Groundwater Sampling Logs
F	Monitoring Well Survey
G	Synoptic Monitoring Well Gauging Log
H	Soil Vapor Sampling Logs
I	Analytical Laboratory Reports
J	Data Usability Summary Reports
K	Daily Reports

List of Acronyms and Abbreviations

A	
Alpha	Alpha Analytical Laboratories, Inc.
AOCs	Areas of Concern
ASP	Analytical Services Protocol
AWQS	Ambient Water Quality Standards
B	
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
BEI	Berninger Environmental Inc
bgs	below ground surface
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
C	
cis-1,2-DCE	cis-1,2-dichloroethene
Coastal	Coastal Environmental Solutions, Inc.
COCs	Contaminants of Concern
CVOCs	chlorinated volatile organic compounds
D	
DER-10	Division of Environmental Remediation-10 *(specifically "May 2010 NYSDEC Technical Guidance for Site Investigation and Remediation")*
DOT	Department of Transportation
DUSR	Data Usability Summary Report
E	
EPA	U.S. Environmental Protection Agency
ESI	Environmental Site Investigation
G	
GPR	Ground Penetrating Radar
H	
FWRIA	Fish and Wildlife Resource Impact Analysis
Haley & Aldrich	Haley & Aldrich of New York
I	
Impact	Impact Environmental
M	
MCL	Maximum Concentration Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
MTBE	Methyl-tert-butyl-ether
MDL	method detection limit
mg/kg	milligrams per kilogram

N

NAPL/GCM	Non-aqueous phase liquid/grossly contaminated material
Ng/L	Nanograms per liter
NTU	Nephelometric turbidity unit
NYCRR	New York Codes, Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health

P

PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PCE	perchloroethylene/tetrachloroethene
PFAS	Per- and Polyfluoroalkyl Substances
PFOA	Perfluorooctanoic Acid
PID	Photoionization Detector
PPB	Parts per billion
PPM	Parts per million
PVC	polyvinyl chloride
PQL	Practical quantitation limit

Q

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

R

RA	Remedial Action
RAWP	Remedial Action Work Plan
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
RI	Remedial Investigation
RIR	Remedial Investigation Report
RIWP	Remedial Investigation Work Plan
RRSCOs	Restricted-Residential Soil Cleanup Objectives

S

SCO	Soil Cleanup Objective
Site	the property located at 556 Baltic Street, Brooklyn, NY
SMP	Site Management Plan
SVOC	Semi-Volatile Organic Compound

T

TAL	Total Analyte List
TCE	trichloroethene
TCL	Target Compound List
TCLP	Toxicity Characteristic Leachate Procedure
TOGS 1.1.1	Technical and Operational Guidance Series 1.1.1 *(Specifically "June 1998 NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1 Ambient Water Quality Standards and Guidance Values, Class GA for the protection of a source of drinking water modified per the April 2000 addendum")*

U

µg/kg	micrograms per kilogram
µg/L	micrograms per liter
µg/m^3	micrograms per cubic meter
UUSCOs	Unrestricted Use Soil Cleanup Objectives

V

VOCs	Volatile Organic Compounds

1. Introduction

This Remedial Investigation Report (RIR) was developed by H & A of New York LLP, d/b/a Haley & Aldrich of New York (Haley & Aldrich) on behalf of 159 Third Realty LLC, 159 Third Residence LLC and Baltic Residence LLC for the proposed development of the property located at 556 Baltic Street, Brooklyn, New York (the Site). 159 Third Realty LLC, 159 Third Residence LLC and Baltic Residence LLC applied to and was accepted into the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) as a Volunteer. A Brownfield Cleanup Agreement (BCA) was executed by the NYSDEC and 159 Third Realty LLC, 159 Third Residence LLC and Baltic Residence LLC (the "Volunteer") on 15 December 2022 (BCP Site No. C224375).

The Site, identified as Section 3, Block 407, Lot 1 on the New York City tax map, is approximately 11,800-square feet in size. The Site is bound to the north by Baltic Street followed by a multi-story residential building, to the west by Third Avenue followed by a single-story commercial/manufacturing building, to the east by a four-story residential building and a Cube Smart storage facility, and to the south by Butler Street followed by a hotel. The Site location is shown on Figure 1. A Site plan is shown on Figure 2.

The Site is located within a residential and manufacturing zoning district (M1-4/R7X). The Site is in an urban area surrounded by commercial and industrial properties served by municipal water. The Volunteer plans to redevelop the Site for mixed-use commercial and residential purposes (including affordable housing) consistent with current zoning.

The Site is listed with an environmental E-Designation (E-601) for hazardous materials, noise, and air quality (Heating, ventilation, and air conditioning [HVAC] limited to natural gas and exhaust stack location limitations) resulting from a City Environmental Quality Review (CEQR) effective March 2019 CEQR # 19DCP157K). Satisfaction of the E-Designation requirements is subject to review and approval by the New York City Mayor's Office of Environmental Remediation (OER) prior to redevelopment.

The activities of this Remedial Investigation (RI) were completed from 1 February 2023 through 27 February 2023 in accordance with the Division of Environmental Remediation (DER) Technical Guidance for Site Investigation and Remediation (DER-10) and the NYSDEC-approved January 2023 Remedial Investigation Work Plan (RIWP), included in Appendix A.

1.1 PURPOSE AND OBJECTIVES

Previous investigations conducted at the Site identified the presence of elevated concentrations of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and metals in soil at the Site. Additionally, previous investigations detected high benzene, toluene, ethylbenzene, and xylenes (BTEX) and total VOC concentrations in soil vapor indicating source material contamination which was not previously identified.

Previous investigations conducted at the Site identified the presence of elevated concentrations of VOCs, SVOCs, and metals in soil at the Site and VOCs in soil vapor. Additional investigation was required to ascertain and delineate on Site source(s) of the total VOCs soil vapor as previous investigations did not comprehensively delineate the extent of contamination on the Site. Results of the sample analyses in this investigation were used to confirm the results of the previous Site characterization activities, delineate any on-site source(s), and determine a course for remedial action.

2. Site Background

2.1 SITE LOCATION AND DESCRIPTION

The Site, identified as Section 3, Block 407, Lot 1 on the New York City tax map, is approximately 11,800-square feet in size. The Site is located in a mixed-use residential and manufacturing area and is bound to the north by Baltic Street followed by a multi-story residential building, to the west by Third Avenue followed by a single-story commercial/manufacturing building, to the east by a four-story residential building and a Cube Smart storage facility, and to the south by Butler Street followed by a hotel.

The Site is located within a residential and manufacturing zoning district (M1-4/R7X). The Site is in an urban area surrounded by commercial and industrial properties served by municipal water. The Volunteer plans to redevelop the Site for mixed-use residential and commercial purposes (including affordable housing) consistent with current zoning.

The Site is listed with an environmental E-Designation (E-601) for hazardous materials, noise, and air quality (HVAC limited to natural gas and exhaust stack location limitations) resulting from a CEQR effective March 2019 (CEQR # 19DCP157K). Satisfaction of the E-Designation requirements is subject to review and approval by the New York City Mayor's OER prior to redevelopment.

A site location map is provided as Figure 1 and a site plan showing the property boundaries and adjacent properties is provided as Figure 2.

2.2 GEOLOGY AND HYDROGEOLOGY

The Site is underlain by a layer of fill consisting of mainly brown to gray fine to medium sand and silty fine sand with gravel and fragments of asphalt, concrete, brick, glass, cinders, and wood. The depth of fill material varies across the Site extending to a maximum depth of approximately 25 feet (ft) below ground surface (bgs). The fill is underlain by a fine sand with varying amounts of fine- and coarse-grained sediments, an organic clay at a depth of about 30 to 32 ft bgs, followed by a gray to brown silty fine sand grading to a red brown to brown fine sand with varying amounts of medium and coarse sand with fine to coarse gravels and cobbles. Bedrock beneath the Site consists of muscovite-biotite-quartz schist. Depth to bedrock beneath the Site is greater than 100 ft bgs.

Groundwater was encountered at 14.49 to 15.69 ft bgs, and groundwater flow beneath the Site is generally to the southeast.

2.3 SITE HISTORY

The Site was developed in the 1920s with multiple four-story commercial stores. By 1978, a car wash was constructed on the northern portion of the Site. The Site operated as a gasoline service station, auto rental and car wash from the 1970s until the Site became vacant in December 2022. Two 4,000-gallon gasoline Underground Storage Tanks (USTs) were installed in 1972 and reportedly a 550-gallon tank was installed in 1974 and closed-removed in 1997. There are three previously closed spill cases reported for the Site including two that were reportedly the result of failed tank tightness testing and a third case pertaining to impacted groundwater on the Site and the neighboring property across Third Avenue.

2.4 REDEVELOPMENT PLANS

Although the future development plans are in preliminary design phases, the proposed development will consist of constructing a new mixed-use (residential and commercial), mixed-income building that will provide affordable housing pursuant to 421-a. The new development is anticipated to include a cellar that will encompass the entire lot requiring excavation extending to approximately 15 ft bgs.

3. Summary of Previous Investigations

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

1. November 2006 Investigation Summary Report Prepared by Impact Environmental;
2. February 2007 Update to Subsurface Investigation Report Prepared by Impact Environmental;
3. 2017-2019 Quarterly Groundwater Monitoring Reports Spill #95-06588 Prepared by Berninger Environmental Inc.;
4. September 2021 Phase I Environmental Site Assessment, Prepared by GEI Consultants;
5. December 2021 Limited Phase II Environmental Site Investigation Report, Prepared by Haley & Aldrich of New York; and
6. March 2022 Remedial Investigation Report, Prepared by Haley & Aldrich of New York.

A summary of environmental findings of these investigations is provided below.

November 2006 Investigation Summary Report
Prepared by Impact Environmental
This investigation was conducted to define what, if any, contaminants have impacted the environmental quality of the Site. The objectives of this investigation were: 1) to determine the extent of any gasoline-related soil or groundwater contamination associated with the NYSDEC Spill #95-06588; and 2) to determine the site-specific groundwater flow direction, determined to be to the east-northeast. In November 2006, Impact Environmental (Impact) installed four soil borings and four groundwater monitoring wells. Soil analytical results did not detect elevated VOC concentrations in soil with the exception of one detection of benzene at 6.6 parts per billion (ppb). Elevated polycyclic aromatic hydrocarbons (PAHs) were detected in soil samples collected at 4 to 11 ft bgs throughout the Site. Groundwater analytical results detected elevated concentrations of naphthalene, BTEX and methyl-tert-butyl-ether (MTBE) above applicable standards. Impact concluded that the extent of the dissolved phase gasoline groundwater contamination was not fully delineated under the scope of this investigation. Accordingly, it was recommended that monitoring wells be installed hydraulically down gradient.

February 2007 Update to Subsurface Investigation Report – Citgo Service Station at 169 Third Avenue, Brooklyn, NY NYSDEC Spill #: 95-06588
Prepared by Impact Environmental
This letter was an update to the Subsurface Investigation Report prepared for the Site and included results from the installation and sampling of monitoring wells installed downgradient from impacted groundwater in wells observed in the 2006 investigation. Additional soil samples were collected from the locations of the monitoring wells. VOCs were not detected in soil and groundwater analytical results. Impact concluded that contamination did not migrate beyond the Site and considered the contamination fully delineated and proposed corrective action via a Remedial Action Plan which was submitted in April 2007 and approved in May 2007. Proposed remedial action included enhance bioremediation combining Waterloo Emitter™, oxygen gas diffusive release technology, and BioCritter®, a naturally occurring microbial blend, in order to enhance growth of microorganisms required for in-situ

bioremediation. According to the 95-06588 Spill Report, the Remedial Action Plan was approved in May 2007 and remedial systems were implemented in October of 2007 and quarterly monitoring began in 2008 by Berninger Environmental Inc.

2017-2019 Quarterly Groundwater Monitoring Reports Spill #95-06588
Prepared by Berninger Environmental Inc. (BEI)
Quarterly groundwater monitoring reports were received via Freedom of Information Law request dated March 2017 through March 2019. Reports found no free product in monitoring wells at the Site and fluctuating levels of BTEX and petroleum related VOCs. Spill closure was requested when VOC concentrations continued a downward trend with only three remaining wells exhibiting minor detections above groundwater standards. Remaining impacts were expected to naturally attenuate over time and BEI concluded the Site did not pose a threat to human health or the environment. NYSDEC approved spill closure on 16 May 2019.

September 2021 Phase I Environmental Site Assessment
Prepared by GEI Consultants
A Phase I Environmental Site Assessment (ESA) was performed by GEI Consultants, Inc. in September 2021 for the purpose of identifying Recognized Environmental Conditions (RECs) in connection with the Site. As identified in the Phase I ESA, the Site was initially developed in the 1920s with multiple four-story commercial stores. Between 1972 and 1980, a gasoline service station began operations and by 1978, the former car wash facility was developed.

The Phase I identified the following RECs at the Site:

- NYSDEC Spill Incident 9607280 – Open NYSDEC Spill incident located at the adjacent property across Third Avenue to the west of the subject Site. A monitoring well was required to be installed on the subject Site for gauging and sampling related to the open spill case.
- The Site has been operating as a gasoline service station since the 1970s.
- The Site was utilized for auto repair and detailing.

Additionally, three Historical Recognized Environmental Conditions (HRECs) were identified in connection with the Site, each corresponding to a closed spill case reported at the Site.

Details of each spill case are included below:

- Spill #1402248 was reported on 2 June 2014 due to a failed tank tightness test. The source of the leak was identified as a vent line at the vent stack. Repairs were made and the system passed retesting and the spill case was closed on 9 July 2014.
- Spill #0902974 was reported on 12 June 2019 due to a failed tank tightness test. No contamination was observed, and a manway gasket was replaced. The tank passed the tank tightness test following the repair, and NYSDEC closed the spill case on 18 August 2009.
- Spill #9506588 was reported on 17 August 1995. This spill was investigated and remediated in conjunction with Spill Number 9607280 (associated with the west adjacent property). NYSDEC determined that the remediation was complete and closed the Spill Number on 16 May 2019.

December 2021 Limited Phase II Environmental Site Investigation (ESI) Report
Prepared by Haley & Aldrich of New York
Haley & Aldrich of New York (Haley & Aldrich) completed a limited sampling event at the Site to investigate soil, soil vapor, and groundwater quality beneath the Site. Fill material, generally consisting of brown to dark brown coarse to medium sand with varying amounts of gravel, concrete, brick, asphalt, and silt, was observed from surface grade to approximately 8 to 10 ft bgs. The fill layer was underlain by brown fine silty sand extending to each boring terminus (approximately 15 ft bgs). Petroleum-like odors and elevated photoionization detector (PID) readings were encountered in borings B-4 and B-6 from 10 to 15 ft bgs with a maximum detected VOC concentration of 141.1 parts per million (ppm) in B-4. A groundwater sample was collected from the pre-existing groundwater monitoring well on site (MW-1) associated with Spill #9607280 on the west-adjacent property. Three temporary soil vapor points, SV-1 through SV-3, were installed approximately 12 ft bgs (just above the groundwater interface).

Four petroleum related VOCs were detected in site soils above Unrestricted-Use Soil Cleanup Objectives (UUSCOs) from 13 to 15 ft bgs. Multiple SVOCs, specifically PAHs, were identified at concentrations above the UUSCOs and Restricted-Residential Soil Cleanup Objectives (RRSCOs) in soil samples from the surface to 4 ft bgs. Metals were detected exceeding both UUSCOs and RRSCOs in shallow and deep soil samples site wide. Arsenic was detected in one soil sample above the RRSCO and one soil sample above the UUSCO. Barium was detected above the RRSCO in one soil sample. Copper, lead, mercury, nickel, and selenium were detected in multiple soil samples throughout the Site above the UUSCOs.

No VOCs were detected above the Ambient Water Quality Standards (AWQS). Multiple SVOCs, specifically PAHs, were detected in MW-1 with estimated concentrations above the AWQS including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene and indeno (1,2,3-cd) pyrene.

Total VOC concentrations in soil vapor ranged from 121,290 micrograms per cubic meter ($\mu g/m^3$) in sample SV-3 to 5,168,000 $\mu g/m^3$ in sample SV-2. Total BTEX concentrations ranged from non-detect in sample SV-1 to 28,000 $\mu g/m^3$ in SV-2.

The soil vapor sample results were also evaluated using the New York State Department of Health (NYSDOH) Decision Matrices A, B and C (Updated May 2017) as referenced in the 2006 NYSDOH Soil Vapor Intrusion Guidance document. Indoor air was not sampled; therefore, the soil vapor concentrations were compared to the matrices to provide a range of recommended potential response measures. Of the compounds evaluated in the NYSDOH Decision Matrices, concentrations were not detected above criteria thresholds for action.

It was noted that high method detection limits (MDLs) were reported for soil vapor samples. This is likely due to the fact that samples were diluted in the laboratory to accommodate for the high concentration of a non-target compound that was detected in the soil vapor sample (i.e., a compound outside of the TO-15 compound list). Based on the analytical data provided, it can be stated that concentrations of TO-15 compounds do not exist at or above the MDLs reported; however, concentrations may be present below this reported value. Non-target compounds with high detections include 2,2,4-trimethylpentane, a known component of gasoline, at 30,900 $\mu g/m^3$. Additional compounds associated with solvent usage were detected above laboratory detection limits including n-hexane (72,200 µg/m^3), cyclohexane (14,300 µg/m^3) and heptane (3,130 µg/m^3). Detections of these compounds are indicative of a source associated with gasoline and solvents.

March 2022 Remedial Investigation Report
Prepared by Haley & Aldrich
Haley & Aldrich completed a Phase II/RI for the New York City Office of Environmental Remediation (NYCOER) in January 2022 to investigate and delineate the nature and extent of contamination identified at the Site during the previous Limited Phase II ESI. The stratigraphy of the Site, from the surface down, consisted of approximately 8 to 10 ft of urban fill material, comprised of brown to dark brown coarse to fine sand with varying amounts of gravel, concrete, brick, asphalt, and silt, underlain by a potentially native layer consisting of brown fine silty sand. Petroleum-like odors and staining were observed in SB-05 from 18 to 20 ft bgs. PID readings ranged from non-detect at 0.0 ppm to 36.3 ppm in SB-05 at approximately 20 ft bgs. A total of 15 soil samples, four groundwater samples, and six soil vapor samples were collected (plus quality assurance/quality control [QA/QC] samples).

No VOCs were detected in soil samples at concentrations exceeding the applicable soil cleanup objectives. Seven SVOCs, specifically PAHs were detected above RRSCOs. The SVOC, 3-Methylphenol/ 4-Methylphenol was detected above the UUSCO in SB-07. No other SVOCs were detected above the UUSCOs or RRSCOs in any soil samples. Total polychlorinated biphenyls (PCBs) were detected exceeding the UUSCO in a shallow soil sample in SB-1. PCBs were not detected above UUSCOs or RRSCOs in any other soil sample. Four pesticides were detected above the UUSCOs but not the RRSCOs in SB-07. No other pesticides were detected above either UUSCOs or RRSCOs in any other sample. Four metals including arsenic, copper, lead, and mercury were detected above both UUSCOs and RRSCOs, and three metals including nickel, selenium, and zinc, were detected above the UUSCOs in SB-7 at 12-14 ft bgs. No other metals were detected above both UUSCOs or RRSCOs in any other soil sample.

One soil sample, SB-02 (0-2’), was analyzed for emerging contaminants. Perfluoroheptanoic acid, perfluorooctanesulfonic acid, perfluorooctanoic acid (PFOA), and perfluorotetradecanoic acid were identified above laboratory detection limits. No other PFOA/per- and polyfluoroalkyl substances (PFAS) compounds were identified above laboratory detection limits. The compound 1,4-dioxane was not detected above laboratory detection limits in the soil sample analyzed.

VOCs were not detected above AWQS in any sample. Two SVOCs were detected above the AWQS in TW-1. One SVOC was detected above the AWQS in TW-1 and TW-3. No other SVOCs were detected above the AWQS in any other groundwater samples. Six metals; arsenic, iron, lead, manganese, mercury, and sodium, were detected above the AWQS in all four groundwater samples. No other metals were detected above the AWQS in any other groundwater samples. Three dissolved metals; iron, manganese, and sodium, were detected above the AWQS in MW-1 and TW-2. No other dissolved metals were detected above the AWQS in any other groundwater sample. PCBs and Pesticides were not detected above the AWQS in any groundwater samples.

While a groundwater cleanup regulatory criterion does not exist for 1,4-dioxane in New York State, concentrations of were compared to New York State’s Drinking Water Maximum Contaminant Level (MCL) of 1 microgram per liter (µg/L). The compound 1,4-dioxane was not detected above the MCL in any groundwater samples. PFAS compounds in groundwater were compared to the NYSDEC June 2021 guidance values. One PFOA/PFAS compound was detected above the NYSDEC target limit of 10 nanograms per liter (ng/L) at 14.4 ng/L in TW-2. Eighteen additional PFOA/PFAS compounds were identified above detection limits.

Total VOC concentrations in soil vapor samples ranged from 56.04 $\mu g/m^3$ in sample SV-5 to 3,189.51 $\mu g/m^3$ in sample SV-2. Total BTEX concentrations ranged from non-detect in SV-2 to 23.45 $\mu g/m^3$ in SV-6. Chlorinated VOCs including, 1,1,1-trichloroethane, tetrachloroethene (PCE), trichloroethene (TCE), carbon tetrachloride, 1,1-dichloroethene, cis-1,2-dichloroethene (cis-1,2-DCE), and vinyl chlorine were not detected in soil vapor samples.

High MDLs were reported in soil vapor samples. While soil vapor samples were run for SIM analysis in order to achieve the lowest possible detection limits, interference from target compounds required the laboratory to dilute the samples in order to run on the instrumentation. Upon discussion with the air analysis group at Alpha Analytical Laboratories, Inc. (Alpha) the explanation for elevated detection limits is because target compounds cannot be ignored by their instrumentation and dilution is required to allow for a compliant analysis and in order to not saturate the instrumentation detector nor cause sample carryover and instrument contamination.

4. Remedial Investigation Approach

4.1 PROJECT TEAM

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

The NYSDEC Case Manager/Project Manager was Ruth Curley. The Case Manager/Project Manager was responsible for overseeing the successful completion of the project work and adherence to the approved RIWP on behalf of NYSDEC.

The NYSDOH Case Manager/Project Manager was Christopher Budd. The Case Manager/Project Manager was responsible for overseeing the successful completion of the project work and adherence to the work plan on behalf of NYSDOH.

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

Mari C. Conlon was the Principal in Charge for this work. In this role, Ms. Conlon was responsible for communications with the NYSDEC Case Manager regarding project status, schedule, issues, and updates for project work.

Luke McCartney was the Haley & Aldrich Project Manager for this work. In this role, Mr. McCartney managed the day-to-day tasks, including coordination and supervision of field engineers and scientists, adherence to the work plan and oversight of project schedule.

Sebastian Sotomayor was the field engineer responsible for implementing the field effort for this work. Mr. Sotomayor's responsibilities included implementing the work plan activities and directing the subcontractors to ensure successful completion of field activities.

The drilling subcontractor utilized for this investigation was Coastal Environmental Solutions, Inc. (Coastal). Coastal provided Geoprobe and Sonic rig operators to implement the scope of work of the approved RIWP.

Samples were collected in laboratory prepared sample bottles (pre-preserved when appropriate), placed in ice-packed coolers maintained at approximately 4 degrees Celsius under standard chain of custody procedures and transported to Alpha of Westborough, Massachusetts (Certification No. 07010T). Alpha was responsible for analyzing the samples as per the analyses and methods identified in the approved RIWP.

4.2 GROUND PENETRATING RADAR SURVEY

Haley & Aldrich oversaw a Ground Penetrating Radar (GPR) Survey performed at the Site by East Coast Geophysics Inc. on 1 February 2023. The survey was conducted to identify the presence of any utilities, USTs, or any other anomalies that may be present in the subsurface. The Site were scanned using a ground-penetrating radar 400 MHz cart mounted GPR system, a high-range precision utility detector, and an electromagnetic pipe and cable locator. Soil conditions allowed for a maximum GPR penetration depth of 3 ft bgs in most areas. Metallic anomies/USTs were not detected throughout accessible areas of the Site with the exception of two USTs associated with former gasoline service station operations located beneath the canopy. Several utilities were marked on the Site in designated colors. Full results of the GPR Survey are provided in Appendix B, and the location of the USTs is depicted on Figures 2 and 3.

4.3 SOIL BORING INSTALLATION AND SOIL SAMPLING

Additional soil samples were collected to meet NYSDEC DER-10 requirements for remedial investigations, as well as further characterize soil conditions.

Twenty-one soil borings were advanced between 20 to 25 ft bgs, using either a track-mounted Eijkelkamp CRS-XL-140 Duo sonic drill rig or Geoprobe® models 6610DT and 420M drill rigs operated by a licensed operator provided by Coastal, the drilling subcontractor. Soil samples were collected from acetate liners using a stainless-steel trowel or sampling spoon. Samples were collected using laboratory provided clean bottleware. VOC grab samples were collected using terra cores. Sampling locations are displayed in Figures 3 and 4.

Soils were logged continuously by a geologist using the Modified Burmister Soil Classification System. The presence of staining, odors, and PID response was noted. Soil boring logs are provided as Appendix C. Sampling methods are described in the RIWP provided as Appendix A.

Soil samples representative of Site conditions were collected at 21 locations widely distributed across the Site, as shown in Figure 3. Samples were collected from 2 to 4 ft bgs, 6 to 8 ft bgs, 10 to 12 ft bgs, and 14 to 16 ft bgs, and additional soil samples were collected in borings HA-19 and HA-21 from 20 to 22 ft bgs below where petroleum impacts were observed.

Haley & Aldrich collected 86 soil samples (plus QA/QC samples) for laboratory analysis. Soil samples were collected in laboratory-supplied containers, which were relinquished under standard chain-of-custody protocol and delivered via laboratory provided courier to Alpha for analysis.

Alpha is a NYSDOH ELAP-certified laboratory. As detailed in Table 1, soil samples were analyzed for the following:

- Target Compound List (TCL) VOCs using U.S. Environmental Protection Agency (EPA) method 8260B
- TCL SVOCs using EPA method 8270C
- Total Analyte List (TAL) Metals using EPA method 6010
- PCBs using EPA method 8082

- TCL Pesticides using EPA method 8081B
- PFAS by EPA Method 1633
- 1,4-dioxane by EPA Method 8270 SIM

As per NYDSEC DER-10 requirements, samples analyzed for PFAS and 1,4-dioxane were collected and analyzed in accordance with the NYSDEC issued November 2022 "Guidelines for sampling and Analysis of PFAS" and the November 2022 Sampling for "1,4-dioxane and Per- and Polyfluoroalkyl Substances (PFAS) Under DECs Part 375 Remedial Programs," respectively. Table 1 provides a summary of all soil samples collected as part of this RI, including sample locations, sample depths, and analyses performed on each sample:

- Lead and mercury delineations were conducted on site at locations depicted on Figure 4, where elevated concentrations of lead and mercury were detected during previous investigations. A lead delineation was performed at boring location HA-24 (former December 2021 Limited Phase II boring location B-7). From this location 5-ft step out borings (DB-01 through DB-03) were advanced in three directions with samples collected from 0 to 2 ft bgs, 2 to 4 ft bgs, and 4 to 6 ft bgs, and placed on hold for total and Toxicity Characteristic Leachate Procedure (TCLP) lead. A mercury delineation was performed at boring locations HA-25 and HA-26, (former January 2022 Phase II soil boring location SB-7 and former December 2021 Limited Phase II boring location B-4, respectively). From HA-25, 5-ft step out borings (DB-04 through DB-06) were advanced in three directions with samples collected from 10 to 12 ft bgs, 12 to 14 ft bgs, and 14 to 16 ft bgs, and placed on hold for total and TCLP mercury. From HA-26, 5-ft step out borings (DB-07 through DB-09) were advanced in two directions with samples collected from 11 to 13 ft bgs, 13 to 15 ft bgs, and 15 to 17 ft bgs, and placed on hold for total and TCLP mercury.
- To investigate the potential for the presence of non-aqueous phase liquid/grossly contaminated material (NAPL/GCM), two soil borings (HA-22 and HA-23, depicted on Figure 5) were advanced to 100 ft bgs. Shake tests were performed from intervals 38 to 40 ft, 58 to 60 ft, 68 to 70 ft, 78 to 80 ft, 88 to 90 ft, and 98 to 100 ft in HA-22 and 30 to 31 ft, 37 to 38 ft, 50 to 51 ft, 59 to 60 ft, 90 to 91 ft, and 99 to 100 ft in HA-23. NAPL/GCM was not identified in either boring and therefore soil samples were not collected for laboratory analysis.

4.4 PERMANENT MONITORING WELL INSTALLATION AND GROUNDWATER SAMPLING

The purpose of groundwater sampling was to obtain current groundwater data and meet NYSDEC DER-10 requirements for remedial investigations.

Nine, two-inch permanent monitoring wells were installed to 20 ft bgs. See Figure 3 for monitoring well locations. Each monitoring well was constructed using 2-inch diameter polyvinyl chloride (PVC) riser pipe with 10-ft-long, 10 slot (0.01-inch) slotted screens. Each monitoring well was backfilled with #0 certified clean sand fill, followed by bentonite plug and sealed at grade with steel flush-mount covers. Monitoring well screens were installed to straddle the water table. During a monitoring well gauging event concurrent with the well survey on 16 February 2023, groundwater was encountered at depths ranging from approximately 14.49 to 15.69 ft bgs. Well construction diagrams are provided in Appendix D.

Following installation, monitoring wells were developed by surging a pump in the well several times to pull fine-grained material from the well. Development was completed until the water turbidity was 50 nephelometric turbidity units (NTU) or less, or 10 well volumes were purged.

On week after development, Haley & Aldrich collected nine groundwater samples (plus QA/QC) for laboratory analysis including the following:

- TCL VOCs using EPA method 8260B;
- TCL SVOCs using EPA method 8270C;
- Total Metals using EPA methods 6010/7471;
- Dissolved Metals using EPA methods 6010/7471;
- TCL Pesticides using EPA method 8081B;
- PCBs using EPA method 8082;
- PFAS using EPA method 537; and
- 1,4-Dioxane using EPA method 8270 SIM.

Groundwater samples analyzed for PFAS and 1,4-dioxane were collected and analyzed in accordance with the NYSDEC issued November 2022 "Guidelines for sampling and Analysis of PFAS" and the November 2022 Sampling for "1,4-dioxane and PFAS Under DECs Part 375 Remedial Programs," respectively.

Table 1 provides a summary of all groundwater samples collected as part of this RI, including sample locations, sample depths, and analyses performed on each sample.

Groundwater monitoring wells were sampled utilizing low-flow sampling procedures for groundwater sampling. Prior to sampling, the water level was measured from each monitoring well using an electronic water level meter. Groundwater from each well was purged using low pumping rates (less than 500 milliliters per minute) to limit drawdown of the water level. Dedicated disposable field equipment used at each well included high density polyethylene and silicon tubing. Wells were purged until turbidity, pH, temperature, dissolved oxygen, and specific conductivity stabilized. Field measurements collected from the flow cell were logged and are included in Appendix E.

DPK Consulting LLC (DPK), a New York State licensed surveyor, completed a monitoring well survey on 16 February 2023. During surveying, Haley & Aldrich performed a synoptic monitoring well gauging event. Groundwater flows to the southeast. A summary of the data collected by the licensed surveyor is provided as Appendix F. A groundwater contour map is provided in Figure 6 and a summary of the synoptic monitoring well gauging results is provided in Appendix G.

4.5 SOIL VAPOR PROBE INSTALLATION AND SOIL VAPOR SAMPLING

Soil vapor samples were collected in accordance with the Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH October 2006). Eight soil vapor probes were installed approximately 1 and 2 ft above the observed groundwater interface between 12 and 13 ft bgs, depending on depth to groundwater, at each location. The vapor implants were installed using a stainless-steel probe to the desired sample depth.

To ensure the stainless-steel soil vapor probe was sealed completely to the surface using bentonite, a tracer gas was used in accordance with NYSDOH protocols to serve as a QA/QC device to verify the integrity of the soil vapor probe seal. In addition, one to three implant volumes were purged prior to the collection of the soil vapor samples. Sampling occurred for the duration of approximately two hours. At the conclusion of the sampling round, tracer monitoring was performed a second time to confirm the continued integrity of the probe seals.

Samples were collected in appropriately sized Summa canisters that were certified clean by the laboratory. Samples were analyzed for VOCs using USEPA Method TO-15. Flow rate for both purging and sampling did not exceed 0.2 liters per minute (L/min). Additional details regarding the sampling methods are described in the Field Sampling Plan (FSP) provided in the approved RIWP. Soil vapor sampling logs are provided in Appendix H.

Table 1 provides a summary of all soil vapor samples collected as part of this RI, including sample locations, sample depths, and analyses performed on each sample.

4.6 DEVIATIONS FROM THE RIWP

The RI was performed in substantial conformance with the approved RIWP with the exception of the following:

- Several boring, monitoring well, and soil vapor points were slightly relocated during the RI due to field conditions or multiple refusals at their original locations.
- An additional soil sample was collected at HA-19 and HA-21 from 20 to 22 ft bgs due to a petroleum odor and elevated PID readings observed at 18 ft bgs.

4.7 QUALITY ASSURANCE/QUALITY CONTROL

The RI was conducted in accordance with Haley & Aldrich's QAPP provided as an Appendix to the RIWP in Appendix A. Haley & Aldrich's sampling program included several types of QA/QC samples and measures to ensure the usability of the data. QA/QC samples included equipment rinsate/field blanks, trip blanks, sample duplicates, and matrix spike/matrix spike duplicates (MS/MSDs).

When applicable, the sample result summary tables list the laboratory MDL at which a compound was non-detectable. The laboratory results were reported to the sample-specific practical quantitation limit (PQL), equal to the sample-specific MDL, supported by the instrument calibrations.

The reliability of laboratory data is supported by compliance with sample holding times and laboratory MDLs below cleanup criteria. The accuracy and precision of the laboratory analytical methods were maintained by using calibration and calibration verification procedures, laboratory control samples, and surrogate, matrix, and analytical spikes. A review of the laboratory data packages indicates that holding times were met and no significant non-conformance issues were reported. Category B laboratory reports are provided in Appendix I. Data will be validated as detailed in Section 6.4 and summarized in Data Usability Summary Reports (DUSRs) which are included in Appendix J.

4.8 FIELD EQUIPMENT DECONTAMINATION

Downhole drilling equipment was decontaminated between each boring by washing with an Alconox-based solution. Decontamination wastewater was contained in a wash pan and containerized in 55-gallon drums for disposal. Handheld sampling equipment was decontaminated by hand in an Alconox-based solution and triple rinsed with deionized water. Decontamination liquids were temporarily contained in 5-gallon buckets and then added to drums at the end of each workday.

4.9 INVESTIGATION DERIVED WASTE

Following sample collection, boreholes that were not converted to monitoring wells were backfilled with soil cuttings and an upper bentonite plug. Boreholes were restored to grade with the surrounding area. Groundwater purged from the monitoring wells during development and sample collection was placed into Department of Transportation (DOT) approved 55-gallon drums pending offsite disposal. A total of two 55-gallon drums of purge water were produced during the Investigation. The drums are currently labeled and staged on-site in a manner that prevents leakage, deterioration, or release of waste. The drums will be transferred to an approved facility for disposal during implementation of the remedy.

4.10 REPORTING

During implementation of the NYSDEC-approved RIWP, daily reports were provided to NYSDEC. Daily field reports included a summary of sampling and field activities, investigation progress update, and photographs of field work. The daily reports are included in Appendix K.

5. Health and Safety

The work outlined above was completed under a Site-specific Health and Safety Plan (HASP) in accordance with Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) regulations. Work was completed in Modified Level D personal protective equipment (PPE). A copy of the HASP is included in Appendix E of the NYSDEC-approved RIWP.

The remedial investigation activities were conducted in accordance with a Site-specific Community Air Monitoring Plan (CAMP). CAMP data was provided to NYSDEC in the daily reports included in Appendix K.

6. Contaminants of Concern and Nature and Extent of Contamination

6.1 APPLICABLE STANDARDS

Soil analytical results were compared to NYSDEC 6 New York Codes, Rules and Regulations (NYCRR) Part 375 UUSCOs, Protection of Groundwater SCOs (PGWSCOs), and RRSCOs. Note that no standards for PFAS in soil currently exist in New York State, however; NYSDEC published soil guidance values for PFOA and PFOS in October 2020 (latest revision November 2022). PFOA and PFOS soil sample results are compared to the unrestricted use and restricted residential use soil guidance values outlined in the Part 375 Remedial Programs Guidelines for Sampling and Analysis of Per- and Polyfluoroalkyl Substances (PFAS) guidance. In addition, soil samples analyzed for TCLP lead and mercury were compared to 6 NYCRR Part 371.3 and 40 CFR 261 Subpart C and Table 1 of 40 CFR 261.24 – USEPA Resource Conservation and Recovery Act (RCRA) Characteristics of Hazardous Waste.

Groundwater analytical results were compared to 6 NYCRR Part 703.5 NYSDEC Technical and Operational Guidance Series 1.1.1 Ambient Water Quality Standards and Guidance Values (AWQS). Groundwater samples to be analyzed for PFAS and 1,4-dioxane will be collected and analyzed in accordance with the NYSDEC November 2022 "Sampling, Analysis and Assessment of PFAS" and the November 2022 Sampling for "1,4-dioxane and Per- and Polyfluoroalkyl Substances (PFAS) Under DECs Part 375 Remedial Programs," respectively. Emerging contaminants PFOA/PFAS and 1,4-Dioxane were compared to the NYSDEC February 2023 Guidance Values (NYSDEC GV) for PFOA, PFOS and 1,4-Dioxane.

No direct comparison standard currently exists for soil vapor samples in New York State.

6.2 REMEDIAL INVESTIGATION SOIL SAMPLING RESULTS

Tables 2a through 2f summarize the analytical results from the soil sampling event. Figure 7 provides the soil boring locations as well as a summary of soil data from the sampling event.

6.2.1 Volatile Organic Compounds

One VOC, n-propylbenzene, was detected above the RRSCO at a maximum concentration of 160 milligrams per kilogram (mg/kg) in HA-19 (14-16'). Six VOCs were detected in multiple soil samples above the UUSCOs and PGWSCOs including acetone (maximum concentration 0.62 mg/kg in HA-21 (10-12')), benzene (maximum concentration 3.9 mg/kg in HA-02 (14-16')), ethylbenzene (maximum concentration 10 mg/kg in HA-03 (14-16')), naphthalene (maximum concentration 25 mg/kg in HA-19 (14-16')), toluene (maximum concentration 2.9 mg/kg in HA-19 (10-12')), and total xylenes (maximum concentration 11 mg/kg HA-03 (14-16'). Additionally, 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene were detected above the UUSCO and RRSCO in one soil sample HA-03 (14-16') at concentrations of 30 mg/kg and 9.1 mg/kg, respectively. N-butylbenzene and sec-butylbenzene were detected in one soil sample, HA-19 (14-16'), above the UUSCO and PGWSCO at concentrations of 53 mg/kg and 23 mg/kg, respectively.

No other VOCs were detected in any soil samples above applicable standards.

6.2.2 Semi-Volatile Organic Compounds

The SVOC, 3-Methylphenol/4-methylphenol was detected in multiple soil samples above the UUSCO and PGWSCO at a maximum concentration of 2 mg/kg in soil sample HA-14 (14-16'). Seven SVOCs, specifically PAHs, were detected in multiple soil samples at concentrations above the UUSCOs, RRSCOs, and/or PGWSCOs, all at maximum concentrations in soil sample HA-03 (10-12'), including benzo(a)anthracene (20 mg/kg), benzo(a)pyrene (15 mg/kg), benzo(b)fluoranthene (16 mg/kg), benzo(k)fluoranthene (4 mg/kg), chrysene (18 mg/kg), dibenzo(a,h)anthracene (1.8 m/kg), indeno(1,2,3-cd)pyrene (8.6 mg/kg).

No other SVOCs were detected in any soil samples above applicable standards.

6.2.3 Pesticides

Four pesticides were detected at concentrations exceeding the UUSCOs in multiple soil samples including 4,4-DDD' (maximum concentration 0.148 mg/kg in HA-18 (6-8')), 4,4'-DDE (maximum concentration 0.0906 mg/kg in HA-18 (6-8')), 4,4'-DDT (maximum concentration 0.0639 mg/kg in HA-08 (2-4')), and dieldrin (maximum concentration 0.0238 mg/kg in HA-03 (6-8')).

No other pesticides were detected in any soil samples above applicable standards.

6.2.4 Metals

Five metals were detected above the UUSCOs, RRSCOs, and/or PGWSCOs in multiple soil samples including arsenic (maximum concentration 51 mg/kg in HA-02 (6-8')), barium (maximum concentration 676 mg/kg in HA-07 (10-12'), copper (maximum concentration 324 mg/kg in HA-18 (10-12')), lead (maximum concentration 5,320 mg/kg in HA-11 (10-12')), and mercury (maximum concentration 15.4 mg/kg in HA-19 (10-12')). Four metals were detected above the UUSCO and/or PGWSCO, only, in multiple soil samples including nickel (maximum concentration 74 mg/kg in HA-14 (2-4')), selenium (maximum concentration 9.88 mg/kg in HA-07 (14-16')), silver (maximum concentration 5.3 mg/kg in HA-18 (10-12')), and zinc (maximum concentration 3,450 m/kg in HA-19 (14-16')).

No other metals were detected in any soil samples above applicable standards.

6.2.5 Polychlorinated Biphenyls

Total PCBs were detected exceeding the UUSCO in multiple soil samples at a maximum concentration of 0.791 mg/kg in HA-21 (6-8').

No other PCBs were detected in any soil samples above applicable standards.

6.2.6 Emerging Contaminants

The emerging contaminant, 1,4-dioxane was not detected above laboratory detection limits in any soil samples collected at the Site.

Perfluorooctanesulfonic acid (PFOS) was detected above the UUSCO in eleven soil samples at a maximum concentration of 3.91 ppb in HA-20 (14-16'). Perfluorooctaneic acid (PFOA) was detected above the unrestricted use soil guidance values in two soil samples including HA-06 (6-8') at a concentration of 1.07 ppb and in HA-09 (2-4') at a concentration of 0.742 ppb.

Total PFOS and PFOA ranged from non-detect to a maximum concentration of 4.17 ppb in HA-20 (10-12').

6.3 LEAD AND MERCURY DELINEATION SOIL SAMPLING RESULTS

Table 3 summarizes the analytical results of the delineation soil sampling. Figure 4 provides the delineation sample locations.

6.3.1 Metals

TCLP lead and mercury were not detected above the EPA Toxicity Characteristic (TCLP) Regulatory Levels Criteria at each central boring location. Therefore, delineation step-out samples were not analyzed.

6.4 GROUNDWATER SAMPLING RESULTS

Tables 4a through 4f summarize the analytical results from the groundwater sampling event. Figure 8 provides the groundwater monitoring well locations as well as a summary of the groundwater data from the sampling event. Groundwater sample logs are provided in Appendix E. The following sections provide a summary of groundwater analytical results in exceedance of NYSDEC AWQS and guidance values (NYSDEC GVs) for emerging contaminants (latest update February 2023).

6.4.1 Volatile Organic Compounds

Thirteen VOCs were identified in up to three groundwater samples (MW-02, MW-03, and MW-07) at concentrations exceeding the AWQS. The VOCs, 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene were detected in one groundwater sample, MW-03, above the AWQS at concentrations of 33 µg/L and 13 µg/L, respectively. Benzene (170 µg/L), isopropylbenzene (140 µg/L), naphthalene (13 µg/L), sec-butylbenzene (22 µg/L), and MTBE (12 µg/L) were detected above the AWQS in MW-02, only. Cis-1,2-DCE was detected above the AWQS in one groundwater sample, MW-07, at a concentration of 5.3 µg/L. The VOC, 1,2,4,5-tetramethylbenzene (maximum concentration 63 µg/L in MW-02), ethylbenzene (maximum concentration 19 µg/L in MW-02), n-butylbenzene (maximum concentration 19 µg/L in MW-02), n-propylbenzene (maximum concentration 220 µg/L in MW-02), and p/m-xylene (maximum concentration 13 µg/L in MW-03) were each detected above the AWQS in two groundwater samples (MW-02 and MW-03).

No other VOCs were detected in any groundwater samples above the AWQS.

6.4.2 Semi-Volatile Organic Compounds

Phenol was detected at an estimated concentration in one groundwater sample, MW-02, above the AWQS at an estimated concentration of 1.5 µg/L. Six SVOCs, specifically PAHs, were detected in multiple groundwater samples above the AWQS at reportable or estimated concentrations including benzo(a)anthracene (maximum concentration of 0.14 µg/L in MW-03 and MW-05), benzo(a)pyrene (maximum concentration of 0.13 µg/L in MW-03), benzo(b)fluoranthene (maximum concentration of 0.16 µg/L in MW-05), benzo(k)fluoranthene (maximum concentration of 0.05 µg/L in MW-03 and MW-05), chrysene (maximum concentration of 0.13 µg/L in MW-3), and indeno(1,2,3-cd)pyrene (maximum concentration of 0.08 µg/L in MW-03 and MW-05).

No other VOCs were detected in any groundwater samples above the AWQS.

6.4.3 Organochlorine Pesticides

No pesticides were detected above laboratory detection limits in any groundwater sample.

6.4.4 Polychlorinated Biphenyls

No PCBs were detected above laboratory detection limits in any groundwater sample.

6.4.5 Total Metals

Three metals were detected in multiple groundwater samples all at maximum concentrations in MW-01 including total iron (maximum concentration of 11,200 µg/L), total manganese (maximum concentration of 1,092 µg/L), and total sodium (maximum concentration of 591,000 µg/L).

No other total metals were detected in any groundwater samples above the AWQS.

6.4.6 Dissolved Metals

Three dissolved metals were detected in multiple groundwater samples above the AWQS including dissolved iron (maximum concentration of 1,560 µg/L in MW-04), dissolved manganese (maximum concentration of 1,043 µg/L in MW-01), and dissolved sodium (maximum concentration of 559,000 µg/L in MW-01).

No other dissolved metals were detected in any groundwater samples above the AWQS.

6.4.7 Emerging Contaminants

Emerging contaminants PFOA/PFAS were compared to the February 2023 NYSDEC GVs. PFOA was detected above the NYSDEC GV in eight of the nine groundwater samples at a maximum concentration of 67.5 ng/L in MW-03. PFOS was detected above the NYSDEC GV in each groundwater sample at a maximum concentration of 108 ng/L in MW-05. The concentration of total PFOS and PFOA compounds ranged from 23.5 ng/L in MW-07 to a maximum concentration of 149 ng/L in MW-05.

The emerging contaminant, 1,4-dioxane was detected in multiple groundwater samples above the NYSDEC GV at a maximum concentration of 1.23 µg/L in MW-08.

Figure 9 provides emerging contaminant data in groundwater.

6.5 SOIL VAPOR SAMPLING RESULTS

Table 5 provides a summary of the analytical results from the soil vapor sampling event. Figure 10 provides the soil vapor sampling locations as well as a summary of soil vapor data from the sampling event. The soil vapor purge log is provided in Appendix H and includes details on each soil vapor sample collected.

Total VOC concentrations in soil vapor samples ranged from 817 µg/m^3 in VP-06 to 260,178 µg/m^3 in VP-02. Total BTEX concentrations ranged from 385 µg/m^3 in sample VP-06 to 708 µg/m^3 in sample VP-02.

PCE was detected in seven of the eight soil vapor samples above laboratory detection limits at a maximum concentration of 464 µg/m^3 in VP-03. No other chlorinated VOCs were detected above laboratory detection limits in any soil vapor sample. Multiple petroleum-related VOCs were detected at elevated concentrations in several soil vapor samples, all at maximum concentrations in soil vapor sample VP-02, including 2,2,4-trimethylpentane (maximum concentration 251,000 µg/m^3), cyclohexane (maximum concentration 3,130 µg/m^3), n-heptane (maximum concentration 2,020 µg/m^3), n-hexane (maximum concentration 3,320 µg/m^3), and toluene (maximum concentration 708 µg/m^3).

6.6 DATA VALIDATION

DUSRs were created to confirm the compliance of methods with the protocols described in the NYSDEC Analytical Services Protocol (ASP). DUSRs are provided in Appendix J. The completeness goal of >90% was exceeded as per the approved QAPP.

6.7 DATA USE

Validated analytical data, supplied in ASP Category B Data Packages in Appendix I, were submitted to the NYSDEC EQuIS database in an Electronic Data Deliverable package.

7. Conceptual Site Model

7.1 AREAS OF CONCERN

The following areas of concern (AOCs) were identified at the Site:

7.1.1 AOC 1 – Site-Wide Urban Fill in Subsurface Soils

Subsurface soils are impacted with elevated concentrations of metals, SVOCs, and in some areas, pesticides. These findings are consistent with characteristics of fill found throughout the New York City area. Fill material varies in depth throughout the Site extending to depths as great as 25 ft bgs.

7.1.2 AOC 2 – Metals Impacts in Subsurface Soils

Subsurface soils up to at least 22 ft bgs are impacted with elevated concentration of metals, specifically lead, mercury, and arsenic above UUSCOs, RRSCOs, and PGWSCOs. Elevated concentrations of metals are likely attributable to fill material and impacts from former operations at the Site.

7.1.3 AOC 3 – VOC Impacts to Groundwater

Several petroleum-related VOCs were detected above the AWQS in three of the nine groundwater samples collected at the Site. The greatest concentrations of petroleum-related VOCs were detected in MW-2. VOC impacts to groundwater are likely attributable to former gasoline service station operations at the Site.

7.1.4 AOC 4 – Soil Vapor Impacts

Based on a review of analytical data collected during this RI, VOCs have partitioned from soil and/or groundwater into the vapor phase.

7.1.5 AOC 5 – USTs in the Southern Portion of the Site

There are currently two USTs present in the southern portion of the Site. There are exceedances of SVOCs, specifically PAHs, petroleum-related VOCs, metals, and pesticides in soil samples collected adjacent to this are (HA-19, HA-20, and HA-21).

7.2 POTENTIAL ON-SITE SOURCES

Subsurface soils impacted with elevated concentrations of metals, SVOCs, and in some areas pesticides is consistent with characteristics of fill found throughout the New York City area. Fill material varies throughout the Site extending to depths as great as 25 ft bgs. Metals contamination was site-wide in soil extending to depths of 22 ft bgs. The source of elevated metals in soil is unknown but can likely be attributed to fill material and former operations at the Site.

Elevated levels of VOCs, specifically petroleum-related VOCs present in groundwater, as well as VOCs in soil vapor likely resulted to the former use of the Site as a gasoline service station.

8. Human Health and Environmental Risk Evaluation

8.1 HUMAN HEALTH RISK EVALUATION

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

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

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

8.1.1 Receptor Population

The receptor population includes the people who are or may be exposed to contaminants at a point of exposure. The identification of potential human receptors is based on the characteristics of the Site, the surrounding land uses, and the probable future land uses. The Site is currently vacant; therefore, receptors would only include construction/maintenance workers that may be employed to perform work on the property and exposure routes would including direct contact activities and/or inhalation of soil vapor during ground intrusive activities (i.e., construction of the building's foundation and sub-grade cellar).

At this time, Site development plans are conceptual; however, it is anticipated that the project will consist of development of a multi-story mixed-use commercial and residential building encompassing the entire Site footprint with a one-level cellar, which is consistent/compatible with surrounding property use and zoning. Exposed receptors under the future use scenario may comprise residents of the future building, indoor employees, outdoor employees (e.g., groundskeepers or maintenance staff), and construction workers who may be employed at or perform work on the property. Site visitors may also be considered receptors; however, their exposure would be similar to that of the indoor employees but at a lesser frequency and duration. In addition, residents or employees in offsite adjoining buildings have the potential to be exposed to vapors.

8.1.2 Contaminant Sources

The source of contamination is defined as either the source of contaminant release to the environment (such as a waste disposal area or point of discharge) or the impacted environmental medium (soil, air, water) at the point of exposure. Sections 6.0 and 7.0 discuss the Contaminants of Concern (COCs) present in the Site media at elevated concentrations. In general, these are metals, pesticides and SVOCs (including PAHs) in soil, SVOCs (including PAHs); VOCs and metals in groundwater; and petroleum-related VOCs and soil vapor.

8.1.3 Contaminant Release and Transport

Contaminant release and transport mechanisms carry contaminants from the source to points where people may be exposed and are specific to the type of contaminant and site use. For VOCs present in soil vapor, the potential exists for exposure through pathways associated with soil vapor intrusion. This would include the indoor vapor intrusion pathway (also referred to as "soil vapor intrusion").

8.1.4 Exposure Points, Routes and Mechanisms

The point of exposure is a location where actual or potential human contact with a contaminated medium may occur. Based on the exceedances of RRSCOs for metals, VOCs and SVOCs, and exceedances of UUSCOs for pesticides in soil, the exceedance of AWQS for metals and SVOCs, and VOCs above laboratory detection limits in soil vapor, the point of exposure is defined as the entire Site.

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

<u>Current Use Scenario</u>: The Site is currently vacant and covered with a building, former filling station canopy and surrounding concrete slab. Exposure to contaminated surface soil and contaminated groundwater is possible only during subsurface investigations and other activities that breach the concrete slab. Release and transport mechanisms include contaminated surface soil transported as dust, contaminated groundwater flow and volatilization of contaminates from soil and/or groundwater into vapor phase.

- Site Visitors and Public Adjacent to Site –inhalation, and incidental ingestion
- Construction/Utility/Site Investigation Worker – skin contact, inhalation, and incidental ingestion.

<u>Construction/Remediation Scenario:</u> As part of the implementation of the remedial action, the building, filling station canopy, and surrounding concrete will be demolished removing the existing engineering controls for the Site. In the absence of engineering and institutional controls, there will be exposure pathways during construction/remediation specifically related to surface soil. Construction/Remedial activities include excavation and offsite disposal of soil, potential localized dewatering of impacted groundwater to facilitate the construction of the foundation elements. Release and transport mechanisms include disturbed and exposed soil during excavation, contaminated soil transported as

dust, contaminated groundwater flow (localized dewatering), inhalation of dust from contaminated soil, and volatilization of contaminates from soil and/or groundwater into vapor phase.

- Site Visitors and Public Adjacent to Site –inhalation and incidental ingestion
- Construction/Utility/Remediation Worker –skin contact, inhalation, and incidental ingestion

Future Use Scenario: The anticipated remedial approach includes excavation of contaminated soil, dewatering of groundwater in accumulated excavations (if required), and installation a composite cover system. In the absence of remedial removal of impacted material, remaining contaminant release and transport would include migration of contaminated groundwater and volatilization of contaminants from soil and/or groundwater into the vapor phase. Routes of future exposure include cracks in the foundation or slab, or emergency repairs to the foundation walls or slab. Persons at risk of exposure, via the indicated exposure routes, are noted below.

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

Contaminant release and transport mechanisms carry contaminants from the source to points where people may be exposed and are specific to the type of contaminant and site use. For VOCs present in soil vapor, the potential exists for exposure through pathways associated with soil vapor intrusion. This would include the indoor vapor intrusion pathway (also referred to as “soil vapor intrusion”).

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

8.2 EXPOSURE ASSESSMENT

Based on the above assessment, the potential exposure pathways for the current and future use conditions are listed below.

Current Use Scenario: Site contamination includes VOCs, SVOCs, pesticides, and metals in soil, groundwater and soil vapor related to fill and the historical site operations. Under current conditions, the likelihood of exposure to soil or groundwater is limited, as the site is affixed with a perimeter fence secured with a lock. Site access is only granted to personnel associated with the planned development. Potable water for Kings County will continue to be sourced from reservoirs in the Catskill and Delaware Watersheds. All intrusive work on the Site is done in accordance with a Site-Specific Health and Safety Plan and donning of PPE.

Construction/Remediation Scenario: The exposure element exists for all media during this phase. The overall risk will be minimized by the implementation of a Site-Specific Construction Health and Safety Plan, localized monitoring of organic vapors, community air monitoring on the Site perimeter for particulates and VOCs, vapor and dust suppression techniques, installation of a stabilized entrance, cleaning truck tires and undercarriages and donning of appropriate PPE. Additionally, the Site will be under a Remedial Action Work Plan (RAWP) which will include a Soil Materials Management Plan that will highlight measures for PPE, covering of stockpiles, housekeeping, suppression techniques (particulates and vapor) and measures to prevent offsite migration of contaminates. In addition, the Site will be secured and inaccessible to the public during remedial construction.

Future Use Scenario: Under the proposed future condition (after construction/remediation), residual contaminants may remain on-site depending on the remedy achieved. The remaining contaminants would include those listed in the current conditions. If contaminants remain on site after construction/ remediation, the route of exposure will be mitigated by proper installation of engineering controls, such as Site capping system foundation, implementation of institutional controls, such as land use and groundwater use restrictions, and implementation of a Site Management Plan (SMP) to manage referenced controls.

8.3 FISH AND WILDLIFE IMPACT ANALYSIS

NYSDEC DER-10 requires an on-site and offsite Fish and Wildlife Resource Impact Analysis (FWRIA) if the stipulated criteria are met. The Site, which was developed in the 1920s and operated as a gasoline service station, auto rental, and car wash from the 1970s until it became vacant in 2022, is located in the Gowanus neighborhood of Brooklyn, New York. The Site provides little or no wildlife habitat or food value and/or access to the detected subsurface contamination. No natural waterways are present on or adjacent to the Site. The proposed future use of the Site is for residential purposes. As such, no unacceptable ecological risks are expected under the current and future use scenario.

9. Conclusions and Recommendations

9.1 CONCLUSIONS

Based on the results of Site investigations, the following conclusions have been identified:

- Subsurface soils are impacted with elevated concentrations of metals, SVOCs, and in some areas, pesticides. These findings are consistent with characteristics of fill found throughout the New York City area. Fill material varies in depth throughout the Site extending to depths as great as 25 ft bgs.
- Subsurface soils up to at least 22 ft bgs are impacted with elevated concentration of metals, specifically lead, mercury, and arsenic above UUSCOs, RRSCOs, and PGWSCOs. Elevated concentrations of metals are likely attributable to fill material and impacts from former operations at the Site.
- Several petroleum-related VOCs were detected above the AWQS in three of the nine groundwater samples collected at the Site. The greatest concentrations of petroleum-related VOCs were detected in MW-2. VOC impacts to groundwater are likely attributable to former gasoline service station operations at the Site.
- Based on a review of analytical data collected during this RI, VOCs have partitioned from soil and/or groundwater into the vapor phase.
- There are currently two USTs present in the southern portion of the Site. There are exceedances of SVOCs, specifically PAHs, petroleum-related VOCs, metals, and pesticides in soil samples collected adjacent to this are (HA-19, HA-20, and HA-21).

9.2 RECOMMENDATIONS

Based on the results of the RI, remedial action will be necessary to proceed with the anticipated redevelopment plan.

To address the AOCs, Haley & Aldrich is evaluating utilization of a combination of remedial techniques. Applicable strategies and technologies may include, but are not limited to, source removal, and installation of engineering controls which will be detailed in a RAWP.

References

1. ASTM Phase I Environmental Site Assessment, 169 Third Avenue, Brooklyn, New York. Prepared by GEI Consultants, prepared for The Macchia Group, Inc., September 2021.

2. Brownfield Cleanup Program Application. 556 Baltic Street, Brooklyn, New York. Prepared by Haley & Aldrich of New York on behalf of 159 Third Realty LLC, 159 Third Residence LLC and Baltic Residence LLC, prepared for the New York State Department of Environmental Conservation. Submitted July 2022.

3. Investigation Summary Report, 169 Third Avenue, Brooklyn, New York. Prepared by Impact Environmental, prepared for ASTI Holding Corp, dated 28 November 2006.

4. New York State Department of Environmental Conservation, Part 375 of Title 6 of the New York Compilation of Codes, Rules, and Regulations, Effective December 14, 2006.

5. New York State Department of Environmental Conservation, Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS), November 2022.

6. New York State Department of Health, Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York, dated October 2006.

7. New York State Division of Water Technical and Operational Guidance Series (TOGS) (1.1.1) dated June 1998.

8. NYCOER Remedial Investigation Report (151-169 Third Avenue), March 2022. Prepared by Haley & Aldrich.

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

10. Quarterly Update Report prepared by Berninger Environmental, dated 31 March 2019.

11. Remedial Action Plan 169 Third Avenue, Brooklyn, New York. Prepared by Impact Environmental, prepared for ASTI Holding Corp, dated 21 April 2007.

12. United States Environmental Protection Agency, Low Flow Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells, EQASOP-GW 001, September 19, 2017.

13. Update to Investigation Summary Report, 169 Third Avenue, Brooklyn, New York. Prepared by Impact Environmental, prepared for ASTI Holding Corp, dated 21 February 2007.

14. Remedial Action Plan 169 Third Avenue, Brooklyn, New York. Prepared by Impact Environmental, prepared for ASTI Holding Corp, dated 21 April 2007.

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TABLES

Table 1. Sample and Analysis Plan
556 Baltic Street
Brooklyn New York

Boring Number	Sample Depth	Target Compound List VOCs (8260B)	Target Compound List SVOCs (8270C)	Total Analyte List Metals (6010)	PCBs (8082)	Pesticides (8081B)	PFAS (1633)	1,4-Dioxane (8270 SIM)	VOCs (TO-15)	TAL and TCLP Lead	TAL and TCLP Mercury
SOIL											
HA-01	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-02	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-03	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-04	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-05	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-06	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-07	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-08	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-09	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-10	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-11	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-12	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-13	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-14	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-15	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-16	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-17	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-18	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-19	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
	20-22'	X	X	X	X	X	X	X			
HA-20	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-21	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
	20-22'	X	X	X	X	X	X	X			
HA-24	0-2'									X	
	2-4'									X	
	4-6'									X	
HA-25	10-12'										X
	12-14'										X
	14-16'										X
HA-26	11-13'										X
	13-15'										X
	15-17'										X
DB-01 through DB-03	0-2'									X	
	2-4'									X	
	4-6'									X	
DB-04 through DB-06	10-12'										X
	12-14'										X
	14-16'										X
DB-07 through DB-09	11-13'										X
	13-15'										X
	15-17'										X
Field Blank 02012023	-	X	X	X	X	X	X	X			
Field Blank 02022023	-	X	X	X	X	X	X	X			
Field Blank 02082023	-	X	X	X	X	X	X	X			
Field Blank 02092023	-	X	X	X	X	X	X	X			
Field Blank_1_02102023	-	X	X	X	X	X	X	X			
Field Blank_2_02102024	-	X	X	X	X	X	X	X			
Trip Blank (2/1/2023)	-	X									
Trip Blank (2/2/2023)	-	X									
Trip Blank (2/8/2023)	-	X									
Trip Blank (2/9/2023)	-	X									
Trip Blank (2/10/2023)	-	X									
HA-05 (6-8') MS HA-05 (6-8') MSD	HA-05 (6-8')	X	X	X	X	X	X	X			
HA-09 (2-4') MS HA-09 (2-4') MSD	HA-09 (2-4')	X	X	X	X	X	X	X			
HA-26 (13-15') MD HA-26 (13-15') MSD	HA-26 (13-15')	X	X	X	X	X	X	X			
HA-26 (15-17') MS HA-26 (15-17') MSD	HA-26 (15-17')	X	X	X	X	X	X	X			
HA-13 (2-4') MS HA-13 (2-4') MSD	HA-13 (2-4')	X	X	X	X	X	X	X			
DUP_1_02022023	Parent Sample HA-04 (6-8')	X	X	X	X	X	X	X			
DUP_1_02082023	Parent Sample HA-19 (10-12')	X	X	X	X	X	X	X			
DUP-1_02102023	Parent Sample HA-26 (11-13')	X	X	X	X	X	X	X			
DUP-2_02102023	Parent Sample HA-26 (13-15')	X	X	X	X	X	X	X			
DUP_1_02132023	Parent Sample HA-18 (10-12')	X	X	X	X	X	X	X			
GROUNDWATER											
MW-01	-	X	X	X	X	X	X	X			
MW-02	-	X	X	X	X	X	X	X			
MW-03	-	X	X	X	X	X	X	X			
MW-04	-	X	X	X	X	X	X	X			
MW-05	-	X	X	X	X	X	X	X			
MW-06	-	X	X	X	X	X	X	X			
MW-07	-	X	X	X	X	X	X	X			
MW-08	-	X	X	X	X	X	X	X			
MW-09	-	X	X	X	X	X	X	X			
FIELD BLANK 02102023	-	X	X	X	X	X	X	X			
Trip Blank (2/9/2023)	-	X									
Trip Blank (2/10/2023)	-	X									
Trip Blank (2/16/2023)	-	X									
MW-06 MS MW-06 MSD	MW-06	X	X	X	X	X	X	X			
DUP-1_02092023	Parent Sample MW-06	X	X	X	X	X	X	X			
SOIL VAPOR											
VP-01	10-12'								X	X	X
VP-02	10-12'								X	X	X
VP-03	10-12'								X	X	X
VP-04	10-12'								X	X	X
VP-05	10-12'								X	X	X
VP-06	10-12'								X	X	X
VP-07	10-12'								X	X	X
VP-08	10-12'								X	X	X

Notes:
VOCs - Volatile Organic Compounds
SVOCs - Semi-volatile Organic Compounds
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

Additional samples will be collected from any interval exhibiting elevated PID readings or where visual and olfactory evidence of impacts are observed.
Delineation borings (DB) at 5-foot step-outs from the central boring location will be conducted based on the analytical results of the central boring location HA-24 or HA-25

TABLE 2a
REMEDIAL INVESTIGATION - VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS IN SOIL
556 BALTIC STREET
BROOKLYN, NEW YORK

Location Name	Action Level: Restricted Use Soil Cleanup Objectives - Protection of Groundwater	Action Level: Restricted Use Soil Cleanup Objectives - Residential	Action Level: Unrestricted Use Soil Cleanup Objectives	HA-01	HA-01	HA-01	HA-01	HA-02	HA-02	HA-02	HA-02	HA-03
Sample Name				HA-01 (2-4)	HA-01 (6-8)	HA-01 (10-12)	HA-01 (14-16)	HA-02 (2-4)	HA-02 (6-8)	HA-02 (10-12)	HA-02 (14-16)	HA-03 (2-4)
Sample Date				02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/10/2023
Lab Sample ID				L2306883-01 L2310952-27	L2306883-02 L2310952-28	L2306883-03 L2310952-29	L2306883-04	L2306883-05 L2310952-30	L2306883-06 L2310952-31	L2306883-07	L2306883-08 L2310952-32	L2307511-01
Sample Depth (bgs)				2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)
Volatile Organic Compounds (mg/kg)												
1,1,1,2-Tetrachloroethane	NA	NA	NA	ND (0.0008)	ND (0.00045)	ND (0.0005)	ND (0.00051)	ND (0.00065)	ND (0.00047)	ND (0.0009)	ND (0.043)	ND (0.00056)
1,1,1-Trichloroethane	0.68	100	0.68	ND (0.0008)	ND (0.00045)	ND (0.0005)	ND (0.00051)	ND (0.00065)	ND (0.00047)	ND (0.0009)	ND (0.043)	ND (0.00056)
1,1,2,2-Tetrachloroethane	NA	NA	NA	ND (0.0008)	ND (0.00045)	ND (0.0005)	ND (0.00051)	ND (0.00065)	ND (0.00047)	ND (0.0009)	ND (0.043)	ND (0.00056)
1,1,2-Trichloroethane	NA	NA	NA	ND (0.0016)	ND (0.0009)	ND (0.001)	ND (0.001)	ND (0.0013)	ND (0.00094)	ND (0.0018)	ND (0.086)	ND (0.0011)
1,1-Dichloroethane	0.27	26	0.27	ND (0.0016)	ND (0.0009)	ND (0.001)	ND (0.001)	ND (0.0013)	ND (0.00094)	ND (0.0018)	ND (0.086)	ND (0.0011)
1,1-Dichloroethene	0.33	100	0.33	ND (0.0016)	ND (0.0009)	ND (0.001)	ND (0.001)	ND (0.0013)	ND (0.00094)	ND (0.0018)	ND (0.086)	ND (0.0011)
1,1-Dichloropropene	NA	NA	NA	ND (0.0008)	ND (0.00045)	ND (0.0005)	ND (0.00051)	ND (0.00065)	ND (0.00047)	ND (0.0009)	ND (0.043)	ND (0.00056)
1,2,3-Trichlorobenzene	NA	NA	NA	ND (0.0032)	ND (0.0018)	ND (0.002)	ND (0.002)	ND (0.0026)	ND (0.0019)	ND (0.0036)	ND (0.17)	ND (0.0022)
1,2,3-Trichloropropane	NA	NA	NA	ND (0.0032)	ND (0.0018)	ND (0.002)	ND (0.002)	ND (0.0026)	ND (0.0019)	ND (0.0036)	ND (0.17)	ND (0.0022)
1,2,4,5-Tetramethylbenzene	NA	NA	NA	ND (0.0032)	ND (0.0018)	ND (0.002)	ND (0.002)	ND (0.0026)	ND (0.0019)	0.0083	17	ND (0.0022)
1,2,4-Trichlorobenzene	NA	NA	NA	ND (0.0032)	ND (0.0018)	ND (0.002)	ND (0.002)	ND (0.0026)	ND (0.0019)	ND (0.0036)	ND (0.17)	ND (0.0022)
1,2,4-Trimethylbenzene	3.6	52	3.6	ND (0.0032)	ND (0.0018)	ND (0.002)	ND (0.002)	ND (0.0026)	ND (0.0019)	0.0058	0.62	0.00075 J
1,2-Dibromo-3-chloropropane (DBCP)	NA	NA	NA	ND (0.0048)	ND (0.0027)	ND (0.003)	ND (0.0031)	ND (0.0039)	ND (0.0028)	ND (0.0054)	ND (0.26)	ND (0.0034)
1,2-Dibromoethane (Ethylene Dibromide)	NA	NA	NA	ND (0.0016)	ND (0.0009)	ND (0.001)	ND (0.001)	ND (0.0013)	ND (0.00094)	ND (0.0018)	ND (0.086)	ND (0.0011)
1,2-Dichlorobenzene	1.1	100	1.1	ND (0.0032)	ND (0.0018)	ND (0.002)	ND (0.002)	ND (0.0026)	ND (0.0019)	ND (0.0036)	ND (0.17)	ND (0.0022)
1,2-Dichloroethane	0.02	3.1	0.02	ND (0.0016)	ND (0.0009)	ND (0.001)	ND (0.001)	ND (0.0013)	ND (0.00094)	ND (0.0018)	ND (0.086)	ND (0.0011)
1,2-Dichloroethene (total)	NA	NA	NA	ND (0.0016)	ND (0.0009)	ND (0.001)	ND (0.001)	ND (0.0013)	ND (0.00094)	ND (0.0018)	ND (0.086)	ND (0.0011)
1,2-Dichloropropane	NA	NA	NA	ND (0.0016)	ND (0.0009)	ND (0.001)	ND (0.001)	ND (0.0013)	ND (0.00094)	ND (0.0018)	ND (0.086)	ND (0.0011)
1,3,5-Trimethylbenzene	8.4	52	8.4	ND (0.0032)	ND (0.0018)	ND (0.002)	ND (0.002)	ND (0.0026)	ND (0.0019)	0.0048	0.17	0.00069 J
1,3-Dichlorobenzene	2.4	49	2.4	ND (0.0032)	ND (0.0018)	ND (0.002)	ND (0.002)	ND (0.0026)	ND (0.0019)	ND (0.0036)	ND (0.17)	ND (0.0022)
1,3-Dichloropropane	NA	NA	NA	ND (0.0032)	ND (0.0018)	ND (0.002)	ND (0.002)	ND (0.0026)	ND (0.0019)	ND (0.0036)	ND (0.17)	ND (0.0022)
1,3-Dichloropropene	NA	NA	NA	ND (0.0008)	ND (0.00045)	ND (0.0005)	ND (0.00051)	ND (0.00065)	ND (0.00047)	ND (0.0009)	ND (0.043)	ND (0.00056)
1,4-Dichlorobenzene	1.8	13	1.8	ND (0.0032)	ND (0.0018)	ND (0.002)	ND (0.002)	ND (0.0026)	ND (0.0019)	ND (0.0036)	ND (0.17)	ND (0.0022)
1,4-Diethylbenzene	NA	NA	NA	ND (0.0032)	ND (0.0018)	ND (0.002)	ND (0.002)	ND (0.0026)	ND (0.0019)	0.0075	6.2	ND (0.0022)
1,4-Dioxane	0.1	13	0.1	ND (0.13)	ND (0.072)	ND (0.081)	ND (0.082)	ND (0.1)	ND (0.075)	ND (0.14)	ND (6.9)	ND (0.089)
2,2-Dichloropropane	NA	NA	NA	ND (0.0032)	ND (0.0018)	ND (0.002)	ND (0.002)	ND (0.0026)	ND (0.0019)	ND (0.0036)	ND (0.17)	ND (0.0022)
2-Butanone (Methyl Ethyl Ketone)	0.12	100	0.12	ND (0.016)	ND (0.009)	ND (0.01)	0.0031 J	ND (0.013)	0.0032 J	0.0055 J	ND (0.86)	ND (0.011)
2-Chlorotoluene	NA	NA	NA	ND (0.0032)	ND (0.0018)	ND (0.002)	ND (0.002)	ND (0.0026)	ND (0.0019)	ND (0.0036)	ND (0.17)	ND (0.0022)
2-Hexanone (Methyl Butyl Ketone)	NA	NA	NA	ND (0.016)	ND (0.009)	ND (0.01)	ND (0.01)	ND (0.013)	ND (0.0094)	ND (0.018)	ND (0.86)	ND (0.011)
2-Phenylbutane (sec-Butylbenzene)	11	100	11	ND (0.0016)	ND (0.0009)	ND (0.001)	0.00015 J	ND (0.0013)	ND (0.00094)	0.022	4.3	ND (0.0011)
4-Chlorotoluene	NA	NA	NA	ND (0.0032)	ND (0.0018)	ND (0.002)	ND (0.002)	ND (0.0026)	ND (0.0019)	ND (0.0036)	ND (0.17)	ND (0.0022)
4-Ethyltoluene (1-Ethyl-4-Methylbenzene)	NA	NA	NA	ND (0.0032)	ND (0.0018)	ND (0.002)	ND (0.002)	ND (0.0026)	ND (0.0019)	0.0057	0.87	ND (0.0022)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	NA	NA	NA	ND (0.016)	ND (0.009)	ND (0.01)	ND (0.01)	ND (0.013)	ND (0.0094)	ND (0.018)	ND (0.86)	ND (0.011)
Acetone	0.05	100	0.05	***0.066***	0.024	0.04	0.033	0.017	0.029	0.045	ND (0.86)	ND (0.011)
Acrylonitrile	NA	NA	NA	ND (0.0064)	ND (0.0036)	ND (0.004)	ND (0.0041)	ND (0.0052)	ND (0.0038)	ND (0.0072)	ND (0.34)	ND (0.0045)
Benzene	0.06	4.8	0.06	0.0014	ND (0.00045)	ND (0.0005)	ND (0.00051)	0.00058 J	0.00034 J	0.02	***3.9***	ND (0.00056)
Bromobenzene	NA	NA	NA	ND (0.0032)	ND (0.0018)	ND (0.002)	ND (0.002)	ND (0.0026)	ND (0.0019)	ND (0.0036)	ND (0.17)	ND (0.0022)
Bromodichloromethane	NA	NA	NA	ND (0.0008)	ND (0.00045)	ND (0.0005)	ND (0.00051)	ND (0.00065)	ND (0.00047)	ND (0.0009)	ND (0.043)	ND (0.00056)
Bromoform	NA	NA	NA	ND (0.0064)	ND (0.0036)	ND (0.004)	ND (0.0041)	ND (0.0052)	ND (0.0038)	ND (0.0072)	ND (0.34)	ND (0.0045)
Bromomethane (Methyl Bromide)	NA	NA	NA	ND (0.0032)	ND (0.0018)	ND (0.002)	ND (0.002)	ND (0.0026)	ND (0.0019)	ND (0.0036)	ND (0.17)	ND (0.0022)
Carbon disulfide	NA	NA	NA	ND (0.016)	ND (0.009)	ND (0.01)	ND (0.01)	ND (0.013)	ND (0.0094)	ND (0.018)	ND (0.86)	ND (0.011)
Carbon tetrachloride	0.76	2.4	0.76	ND (0.0016)	ND (0.0009)	ND (0.001)	ND (0.001)	ND (0.0013)	ND (0.00094)	ND (0.0018)	ND (0.086)	ND (0.0011)
Chlorobenzene	1.1	100	1.1	ND (0.0008)	ND (0.00045)	ND (0.0005)	ND (0.00051)	ND (0.00065)	ND (0.00047)	ND (0.0009)	ND (0.043)	ND (0.00056)
Chlorobromomethane	NA	NA	NA	ND (0.0032)	ND (0.0018)	ND (0.002)	ND (0.002)	ND (0.0026)	ND (0.0019)	ND (0.0036)	ND (0.17)	ND (0.0022)
Chloroethane	NA	NA	NA	ND (0.0032)	ND (0.0018)	ND (0.002)	ND (0.002)	ND (0.0026)	ND (0.0019)	ND (0.0036)	ND (0.17)	ND (0.0022)
Chloroform (Trichloromethane)	0.37	49	0.37	ND (0.0024)	ND (0.0014)	ND (0.0015)	ND (0.0015)	ND (0.0019)	ND (0.0014)	ND (0.0027)	ND (0.13)	ND (0.0017)
Chloromethane (Methyl Chloride)	NA	NA	NA	ND (0.0064)	ND (0.0036)	ND (0.004)	ND (0.0041)	ND (0.0052)	ND (0.0038)	ND (0.0072)	ND (0.34)	ND (0.0045)
cis-1,2-Dichloroethene	0.25	100	0.25	ND (0.0016)	ND (0.0009)	ND (0.001)	ND (0.001)	ND (0.0013)	ND (0.00094)	ND (0.0018)	ND (0.086)	ND (0.0011)
cis-1,3-Dichloropropene	NA	NA	NA	ND (0.0008)	ND (0.00045)	ND (0.0005)	ND (0.00051)	ND (0.00065)	ND (0.00047)	ND (0.0009)	ND (0.043)	ND (0.00056)
Cymene (p-Isopropyltoluene)	NA	NA	NA	0.02	ND (0.0009)	ND (0.001)	ND (0.001)	ND (0.0013)	ND (0.00094)	0.0018	0.1	ND (0.0011)
Dibromochloromethane	NA	NA	NA	ND (0.0016)	ND (0.0009)	ND (0.001)	ND (0.001)	ND (0.0013)	ND (0.00094)	ND (0.0018)	ND (0.086)	ND (0.0011)
Dibromomethane	NA	NA	NA	ND (0.0032)	ND (0.0018)	ND (0.002)	ND (0.002)	ND (0.0026)	ND (0.0019)	ND (0.0036)	ND (0.17)	ND (0.0022)
Dichlorodifluoromethane (CFC-12)	NA	NA	NA	ND (0.016)	ND (0.009)	ND (0.01)	ND (0.01)	ND (0.013)	ND (0.0094)	ND (0.018)	ND (0.86)	ND (0.011)
Ethyl Ether	NA	NA	NA	ND (0.0032)	ND (0.0018)	ND (0.002)	ND (0.002)	ND (0.0026)	ND (0.0019)	ND (0.0036)	ND (0.17)	ND (0.0022)
Ethylbenzene	1	41	1	ND (0.0016)	ND (0.0009)	ND (0.001)	ND (0.001)	ND (0.0013)	ND (0.00094)	0.0037	***3.8***	ND (0.0011)
Hexachlorobutadiene	NA	NA	NA	ND (0.0064)	ND (0.0036)	ND (0.004)	ND (0.0041)	ND (0.0052)	ND (0.0038)	ND (0.0072)	ND (0.34)	ND (0.0045)
Isopropylbenzene (Cumene)	NA	NA	NA	ND (0.0016)	ND (0.0009)	ND (0.001)	ND (0.001)	ND (0.0013)	ND (0.00094)	0.06	11	ND (0.0011)
m,p-Xylenes	NA	NA	NA	ND (0.0032)	ND (0.0018)	ND (0.002)	ND (0.002)	ND (0.0026)	ND (0.0019)	0.0099	2.3	0.00087 J
Methyl Tert Butyl Ether (MTBE)	0.93	100	0.93	ND (0.0032)	ND (0.0018)	ND (0.002)	ND (0.002)	ND (0.0026)	ND (0.0019)	0.009	0.026 J	0.00041 J
Methylene chloride (Dichloromethane)	0.05	100	0.05	ND (0.008)	ND (0.0045)	ND (0.005)	ND (0.0051)	ND (0.0065)	ND (0.0047)	ND (0.009)	ND (0.43)	ND (0.0056)
Naphthalene	12	100	12	ND (0.0064)	ND (0.0036)	ND (0.004)	ND (0.0041)	ND (0.0052)	ND (0.0038)	ND (0.0072)	***13***	ND (0.0045)
n-Butylbenzene	12	100	12	ND (0.0016)	ND (0.0009)	ND (0.001)	ND (0.001)	ND (0.0013)	ND (0.00094)	0.019	9.9	ND (0.0011)
n-Propylbenzene	3.9	100	3.9	ND (0.0016)	ND (0.0009)	ND (0.001)	ND (0.001)	ND (0.0013)	ND (0.00094)	0.054	***27***	ND (0.0011)
o-Xylene	NA	NA	NA	ND (0.0016)	ND (0.0009)	ND (0.001)	ND (0.001)	ND (0.0013)	ND (0.00094)	0.0038	0.32	0.00093 J
Styrene	NA	NA	NA	ND (0.0016)	ND (0.0009)	ND (0.001)	ND (0.001)	ND (0.0013)	ND (0.00094)	ND (0.0018)	ND (0.086)	ND (0.0011)
tert-Butylbenzene	5.9	100	5.9	ND (0.0032)	ND (0.0018)	ND (0.002)	ND (0.002)	ND (0.0026)	ND (0.0019)	0.0016 J	0.12 J	ND (0.0022)
Tetrachloroethene	1.3	19	1.3	ND (0.0008)	ND (0.00045)	ND (0.0005)	ND (0.00051)	ND (0.00065)	ND (0.00047)	ND (0.0009)	ND (0.043)	ND (0.00056)
Toluene	0.7	100	0.7	ND (0.0016)	ND (0.0009)	ND (0.001)	ND (0.001)	ND (0.0013)	ND (0.00094)	0.0027	***1.1***	ND (0.0011)
trans-1,2-Dichloroethene	0.19	100	0.19	ND (0.0024)	ND (0.0014)	ND (0.0015)	ND (0.0015)	ND (0.0019)	ND (0.0014)	ND (0.0027)	ND (0.13)	ND (0.0017)
trans-1,3-Dichloropropene	NA	NA	NA	ND (0.0016)	ND (0.0009)	ND (0.001)	ND (0.001)	ND (0.0013)	ND (0.00094)	ND (0.0018)	ND (0.086)	ND (0.0011)
trans-1,4-Dichloro-2-butene	NA	NA	NA	ND (0.008)	ND (0.0045)	ND (0.005)	ND (0.0051)	ND (0.0065)	ND (0.0047)	ND (0.009)	ND (0.43)	ND (0.0056)
Trichloroethene	0.47	21	0.47	ND (0.0008)	ND (0.00045)	ND (0.0005)	ND (0.00051)	ND (0.00065)	ND (0.00047)	ND (0.0009)	ND (0.043)	ND (0.00056)
Trichlorofluoromethane (CFC-11)	NA	NA	NA	ND (0.0064)	ND (0.0036)	ND (0.004)	ND (0.0041)	ND (0.0052)	ND (0.0038)	ND (0.0072)	ND (0.34)	ND (0.0045)
Vinyl acetate	NA	NA	NA	ND (0.016)	ND (0.009)	ND (0.01)	ND (0.01)	ND (0.013)	ND (0.0094)	ND (0.018)	ND (0.86)	ND (0.011)
Vinyl chloride	0.02	0.9	0.02	ND (0.0016)	ND (0.0009)	ND (0.001)	ND (0.001)	ND (0.0013)	ND (0.00094)	ND (0.0018)	ND (0.086)	ND (0.0011)
Xylene (Total)	1.6	100	0.26	ND (0.0016)	ND (0.0009)	ND (0.001)	ND (0.001)	ND (0.0013)	ND (0.00094)	0.014	***2.6***	0.0018 J

Location Name	HA-03	HA-03	HA-03	HA-04	HA-04	HA-04	HA-04	HA-04	HA-05	HA-05	HA-05	HA-05	HA-06	HA-06	HA-06	HA-06
Sample Name	HA-03 (6-8)	HA-03 (10-12)	HA-03 (14-16)	HA-04 (2-4)	HA-04 (6-8)	DUP_1_02022023	HA-04 (10-12)	HA-04 (14-16)	HA-05 (2-4)	HA-05 (6-8)	HA-05 (10-12)	HA-05 (14-16)	HA-06 (2-4)	HA-06 (6-8)	HA-06 (10-12)	HA-06 (14-16)
Sample Date	02/10/2023	02/10/2023	02/10/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023
Lab Sample ID	L2307511-02 L2310952-22	L2307511-03 L2310952-23	L2307511-04	L2305934-01	L2305934-02	L2305934-09	L2305934-03	L2305934-04	L2305934-05	L2305934-06	L2305934-07	L2305934-08	L2305570-01	L2305570-02	L2305570-03	L2305570-04
Sample Depth (bgs)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 2 (ft)	6 - 8 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)
Volatile Organic Compounds (mg/kg)																
1,1,1,2-Tetrachloroethane	ND (0.00053)	ND (0.028)	ND (0.024)	ND (0.00058)	ND (0.0006)	ND (0.0008)	ND (0.00068)	ND (0.00089)	ND (0.0005)	ND (0.00042) J	ND (0.00058)	ND (0.00045)	ND (0.00039)	ND (0.0004)	ND (0.0005)	ND (0.00051)
1,1,1-Trichloroethane	ND (0.00053)	ND (0.028)	ND (0.024)	ND (0.00058)	ND (0.0006)	ND (0.0008)	ND (0.00068)	ND (0.00089)	ND (0.0005)	ND (0.00042)	ND (0.00058)	ND (0.00045)	ND (0.00039)	ND (0.0004)	ND (0.0005)	ND (0.00051)
1,1,2,2-Tetrachloroethane	ND (0.00053)	ND (0.028)	ND (0.024)	ND (0.00058)	ND (0.0006)	ND (0.0008)	ND (0.00068)	ND (0.00089)	ND (0.0005)	ND (0.00042)	ND (0.00058)	ND (0.00045)	ND (0.00039)	ND (0.0004)	ND (0.0005)	ND (0.00051)
1,1,2-Trichloroethane	ND (0.001)	ND (0.055)	ND (0.048)	ND (0.0012)	ND (0.0012)	ND (0.0016)	ND (0.0014)	ND (0.0018)	ND (0.001)	ND (0.00084)	ND (0.0012)	ND (0.00089)	ND (0.00077)	ND (0.0008)	ND (0.001)	ND (0.001)
1,1-Dichloroethane	ND (0.001)	ND (0.055)	ND (0.048)	ND (0.0012)	ND (0.0012)	ND (0.0016)	ND (0.0014)	ND (0.0018)	ND (0.001)	ND (0.00084)	ND (0.0012)	ND (0.00089)	ND (0.00077)	ND (0.0008)	ND (0.001)	ND (0.001)
1,1-Dichloroethene	ND (0.001)	ND (0.055)	ND (0.048)	ND (0.0012)	ND (0.0012)	ND (0.0016)	ND (0.0014)	ND (0.0018)	ND (0.001)	ND (0.00084)	ND (0.0012)	ND (0.00089)	ND (0.00077)	ND (0.0008)	ND (0.001)	ND (0.001)
1,1-Dichloropropene	ND (0.00053)	ND (0.028)	ND (0.024)	ND (0.00058)	ND (0.0006)	ND (0.0008)	ND (0.00068)	ND (0.00089)	ND (0.0005)	ND (0.00042)	ND (0.00058)	ND (0.00045)	ND (0.00039)	ND (0.0004)	ND (0.0005)	ND (0.00051)
1,2,3-Trichlorobenzene	ND (0.0021)	ND (0.11)	ND (0.095)	ND (0.0023)	ND (0.0024)	ND (0.0032)	ND (0.0027)	ND (0.0036)	ND (0.002)	ND (0.0017) J	ND (0.0023)	ND (0.0018)	ND (0.0015)	ND (0.0016)	ND (0.002)	ND (0.002)
1,2,3-Trichloropropane	ND (0.0021)	ND (0.11)	ND (0.095)	ND (0.0023)	ND (0.0024)	ND (0.0032)	ND (0.0027)	ND (0.0036)	ND (0.002)	ND (0.0017) J	ND (0.0023)	ND (0.0018)	ND (0.0015)	ND (0.0016)	ND (0.002)	ND (0.002)
1,2,4,5-Tetramethylbenzene	0.0016 J	5 J+	3.4	ND (0.0023)	ND (0.0024)	ND (0.0032)	ND (0.0027)	ND (0.0036)	ND (0.002)	ND (0.0017) J	ND (0.0023)	ND (0.0018)	ND (0.0015)	ND (0.0016)	0.00037 J	ND (0.002)
1,2,4-Trichlorobenzene	ND (0.0021)	ND (0.11)	ND (0.095)	ND (0.0023)	ND (0.0024)	ND (0.0032)	ND (0.0027)	ND (0.0036)	ND (0.002)	ND (0.0017) J	ND (0.0023)	ND (0.0018)	ND (0.0015)	ND (0.0016)	ND (0.002)	ND (0.002)
1,2,4-Trimethylbenzene	0.00049 J	0.42 J+	***30***	ND (0.0023)	ND (0.0024)	ND (0.0032)	ND (0.0027)	ND (0.0036)	ND (0.002)	0.00042 J	ND (0.0023)	ND (0.0018)	ND (0.0015)	ND (0.0016)	0.0017 J	ND (0.002)
1,2-Dibromo-3-chloropropane (DBCP)	ND (0.0032)	ND (0.16)	ND (0.14)	ND (0.0034)	ND (0.0036)	ND (0.0048)	ND (0.0041)	ND (0.0054)	ND (0.003)	ND (0.0025) J	ND (0.0035)	ND (0.0027)	ND (0.0023)	ND (0.0024)	ND (0.003)	ND (0.0031)
1,2-Dibromoethane (Ethylene Dibromide)	ND (0.001)	ND (0.055)	ND (0.048)	ND (0.0012)	ND (0.0012)	ND (0.0016)	ND (0.0014)	ND (0.0018)	ND (0.001)	ND (0.00084)	ND (0.0012)	ND (0.00089)	ND (0.00077)	ND (0.0008)	ND (0.001)	ND (0.001)
1,2-Dichlorobenzene	ND (0.0021)	ND (0.11)	ND (0.095)	ND (0.0023)	ND (0.0024)	ND (0.0032)	ND (0.0027)	ND (0.0036)	ND (0.002)	ND (0.0017) J	ND (0.0023)	ND (0.0018)	ND (0.0015)	ND (0.0016)	ND (0.002)	ND (0.002)
1,2-Dichloroethane	ND (0.001)	ND (0.055)	ND (0.048)	ND (0.0012)	ND (0.0012)	ND (0.0016)	ND (0.0014)	ND (0.0018)	ND (0.001)	ND (0.00084)	ND (0.0012)	ND (0.00089)	ND (0.00077)	ND (0.0008)	ND (0.001)	ND (0.001)
1,2-Dichloroethene (total)	ND (0.001)	ND (0.055)	ND (0.048)	ND (0.0012)	ND (0.0012)	ND (0.0016)	ND (0.0014)	ND (0.0018)	ND (0.001)	ND (0.00084)	ND (0.0012)	ND (0.00089)	ND (0.00077)	ND (0.0008)	ND (0.001)	ND (0.001)
1,2-Dichloropropane	ND (0.001)	ND (0.055)	ND (0.048)	ND (0.0012)	ND (0.0012)	ND (0.0016)	ND (0.0014)	ND (0.0018)	ND (0.001)	ND (0.00084)	ND (0.0012)	ND (0.00089)	ND (0.00077)	ND (0.0008)	ND (0.001)	ND (0.001)
1,3,5-Trimethylbenzene	0.00025 J	0.12 J+	***9.1***	ND (0.0023)	ND (0.0024)	ND (0.0032)	ND (0.0027)	ND (0.0036)	ND (0.002)	ND (0.0017) J	ND (0.0023)	ND (0.0018)	ND (0.0015)	ND (0.0016)	0.0008 J	ND (0.002)
1,3-Dichlorobenzene	ND (0.0021)	ND (0.11)	ND (0.095)	ND (0.0023)	ND (0.0024)	ND (0.0032)	ND (0.0027)	ND (0.0036)	ND (0.002)	ND (0.0017) J	ND (0.0023)	ND (0.0018)	ND (0.0015)	ND (0.0016)	ND (0.002)	ND (0.002)
1,3-Dichloropropane	ND (0.0021)	ND (0.11)	ND (0.095)	ND (0.0023)	ND (0.0024)	ND (0.0032)	ND (0.0027)	ND (0.0036)	ND (0.002)	ND (0.0017)	ND (0.0023)	ND (0.0018)	ND (0.0015)	ND (0.0016)	ND (0.002)	ND (0.002)
1,3-Dichloropropene	ND (0.00053)	ND (0.028)	ND (0.024)	ND (0.00058)	ND (0.0006)	ND (0.0008)	ND (0.00068)	ND (0.00089)	ND (0.0005)	ND (0.00042)	ND (0.00058)	ND (0.00045)	ND (0.00039)	ND (0.0004)	ND (0.0005)	ND (0.00051)
1,4-Dichlorobenzene	ND (0.0021)	ND (0.11)	ND (0.095)	ND (0.0023)	ND (0.0024)	ND (0.0032)	ND (0.0027)	ND (0.0036)	ND (0.002)	ND (0.0017) J	ND (0.0023)	ND (0.0018)	ND (0.0015)	ND (0.0016)	ND (0.002)	ND (0.002)
1,4-Diethylbenzene	ND (0.0021)	2.4	ND (0.095)	ND (0.0023)	ND (0.0024)	ND (0.0032)	ND (0.0027)	ND (0.0036)	ND (0.002)	ND (0.0017) J	ND (0.0023)	ND (0.0018)	ND (0.0015)	ND (0.0016)	ND (0.002)	ND (0.002)
1,4-Dioxane	ND (0.084)	ND (4.4)	ND (3.8)	ND (0.092)	ND (0.096)	ND (0.13)	ND (0.11)	ND (0.14)	ND (0.08)	ND (0.067)	ND (0.093)	ND (0.071)	ND (0.062)	ND (0.064)	ND (0.08)	ND (0.082)
2,2-Dichloropropane	ND (0.0021)	ND (0.11)	ND (0.095)	ND (0.0023)	ND (0.0024)	ND (0.0032)	ND (0.0027)	ND (0.0036)	ND (0.002)	ND (0.0017)	ND (0.0023)	ND (0.0018)	ND (0.0015)	ND (0.0016)	ND (0.002)	ND (0.002)
2-Butanone (Methyl Ethyl Ketone)	ND (0.01)	ND (0.55)	ND (0.48)	ND (0.012)	ND (0.012)	ND (0.016)	ND (0.014)	0.013 J	ND (0.01)	ND (0.0084)	0.011 J	ND (0.0089)	ND (0.0077)	ND (0.008)	ND (0.01)	ND (0.01)
2-Chlorotoluene	ND (0.0021)	ND (0.11)	ND (0.095)	ND (0.0023)	ND (0.0024)	ND (0.0032)	ND (0.0027)	ND (0.0036)	ND (0.002)	ND (0.0017) J	ND (0.0023)	ND (0.0018)	ND (0.0015)	ND (0.0016)	ND (0.002)	ND (0.002)
2-Hexanone (Methyl Butyl Ketone)	ND (0.01)	ND (0.55)	ND (0.48)	ND (0.012)	ND (0.012)	ND (0.016)	ND (0.014)	ND (0.018)	ND (0.01)	ND (0.0084)	ND (0.012)	ND (0.0089)	ND (0.0077)	ND (0.008)	ND (0.01)	ND (0.01)
2-Phenylbutane (sec-Butylbenzene)	ND (0.001)	1.1 J+	0.65	ND (0.0012)	ND (0.0012)	ND (0.0016)	ND (0.0014)	ND (0.0018)	ND (0.001)	ND (0.00084) J	ND (0.0012)	ND (0.00089)	ND (0.00077)	ND (0.0008)	ND (0.001)	ND (0.001)
4-Chlorotoluene	ND (0.0021)	ND (0.11)	ND (0.095)	ND (0.0023)	ND (0.0024)	ND (0.0032)	ND (0.0027)	ND (0.0036)	ND (0.002)	ND (0.0017) J	ND (0.0023)	ND (0.0018)	ND (0.0015)	ND (0.0016)	ND (0.002)	ND (0.002)
4-Ethyltoluene (1-Ethyl-4-Methylbenzene)	ND (0.0021)	0.39 J+	19	ND (0.0023)	ND (0.0024)	ND (0.0032)	ND (0.0027)	ND (0.0036)	ND (0.002)	0.00039 J	ND (0.0023)	ND (0.0018)	ND (0.0015)	ND (0.0016)	0.00091 J	ND (0.002)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ND (0.01)	ND (0.55)	ND (0.48)	ND (0.012)	ND (0.012)	ND (0.016)	ND (0.014)	ND (0.018)	ND (0.01)	ND (0.0084)	ND (0.012)	ND (0.0089)	ND (0.0077)	ND (0.008)	ND (0.01)	ND (0.01)
Acetone	0.02 J+	ND (0.55)	ND (0.48)	ND (0.012)	0.014 J	***0.052 J***	0.048	***0.081***	0.0063 J	0.023	***0.071***	0.029	0.0057 J	ND (0.008)	0.008 J	0.022
Acrylonitrile	ND (0.0042)	ND (0.22)	ND (0.19)	ND (0.0046)	ND (0.0048)	ND (0.0064)	ND (0.0055)	ND (0.0071)	ND (0.004)	ND (0.0033)	ND (0.0047)	ND (0.0036)	ND (0.0031)	ND (0.0032)	ND (0.004)	ND (0.0041)
Benzene	0.00018 J	***0.08***	0.037	ND (0.00058)	0.00084 J	0.002 J	ND (0.00068)	ND (0.00089)	ND (0.0005)	ND (0.00042)	ND (0.00058)	ND (0.00045)	ND (0.00039)	ND (0.0004)	0.0014	ND (0.00051)
Bromobenzene	ND (0.0021)	ND (0.11)	ND (0.095)	ND (0.0023)	ND (0.0024)	ND (0.0032)	ND (0.0027)	ND (0.0036)	ND (0.002)	ND (0.0017) J	ND (0.0023)	ND (0.0018)	ND (0.0015)	ND (0.0016)	ND (0.002)	ND (0.002)
Bromodichloromethane	ND (0.00053)	ND (0.028)	ND (0.024)	ND (0.00058)	ND (0.0006)	ND (0.0008)	ND (0.00068)	ND (0.00089)	ND (0.0005)	ND (0.00042)	ND (0.00058)	ND (0.00045)	ND (0.00039)	ND (0.0004)	ND (0.0005)	ND (0.00051)
Bromoform	ND (0.0042)	ND (0.22)	ND (0.19)	ND (0.0046)	ND (0.0048)	ND (0.0064)	ND (0.0055)	ND (0.0071)	ND (0.004)	ND (0.0033)	ND (0.0047)	ND (0.0036)	ND (0.0031)	ND (0.0032)	ND (0.004)	ND (0.0041)
Bromomethane (Methyl Bromide)	ND (0.0021)	ND (0.11)	ND (0.095)	ND (0.0023)	ND (0.0024)	ND (0.0032)	ND (0.0027)	ND (0.0036)	ND (0.002)	ND (0.0017)	ND (0.0023)	ND (0.0018)	ND (0.0015)	ND (0.0016)	ND (0.002)	ND (0.002)
Carbon disulfide	ND (0.01)	ND (0.55)	ND (0.48)	ND (0.012)	ND (0.012)	ND (0.016)	ND (0.014)	ND (0.018)	ND (0.01)	ND (0.0084) J	ND (0.012)	ND (0.0089)	ND (0.0077)	ND (0.008)	ND (0.01)	ND (0.01)
Carbon tetrachloride	ND (0.001)	ND (0.055)	ND (0.048)	ND (0.0012)	ND (0.0012)	ND (0.0016)	ND (0.0014)	ND (0.0018)	ND (0.001)	ND (0.00084)	ND (0.0012)	ND (0.00089)	ND (0.00077)	ND (0.0008)	ND (0.001)	ND (0.001)
Chlorobenzene	ND (0.00053)	ND (0.028)	ND (0.024)	ND (0.00058)	ND (0.0006)	ND (0.0008)	ND (0.00068)	ND (0.00089)	ND (0.0005)	ND (0.00042) J	ND (0.00058)	ND (0.00045)	ND (0.00039)	ND (0.0004)	ND (0.0005)	ND (0.00051)
Chlorobromomethane	ND (0.0021)	ND (0.11)	ND (0.095)	ND (0.0023)	ND (0.0024)	ND (0.0032)	ND (0.0027)	ND (0.0036)	ND (0.002)	ND (0.0017)	ND (0.0023)	ND (0.0018)	ND (0.0015)	ND (0.0016)	ND (0.002)	ND (0.002)
Chloroethane	ND (0.0021)	ND (0.11)	ND (0.095)	ND (0.0023)	ND (0.0024)	ND (0.0032)	ND (0.0027)	ND (0.0036)	ND (0.002)	ND (0.0017)	ND (0.0023)	ND (0.0018)	ND (0.0015)	ND (0.0016)	ND (0.002)	ND (0.002)
Chloroform (Trichloromethane)	ND (0.0016)	ND (0.083)	ND (0.072)	ND (0.0017)	ND (0.0018)	ND (0.0024)	ND (0.002)	ND (0.0027)	ND (0.0015)	0.00046 J	ND (0.0018)	ND (0.0013)	ND (0.0012)	ND (0.0012)	0.001 J	0.00026 J
Chloromethane (Methyl Chloride)	ND (0.0042)	ND (0.22)	ND (0.19)	ND (0.0046)	ND (0.0048)	ND (0.0064)	ND (0.0055)	ND (0.0071)	ND (0.004)	ND (0.0033)	ND (0.0047)	ND (0.0036)	ND (0.0031)	ND (0.0032)	ND (0.004)	ND (0.0041)
cis-1,2-Dichloroethene	ND (0.001)	ND (0.055)	ND (0.048)	ND (0.0012)	ND (0.0012)	ND (0.0016)	ND (0.0014)	ND (0.0018)	ND (0.001)	ND (0.00084)	ND (0.0012)	ND (0.00089)	ND (0.00077)	ND (0.0008)	ND (0.001)	ND (0.001)
cis-1,3-Dichloropropene	ND (0.00053)	ND (0.028)	ND (0.024)	ND (0.00058)	ND (0.0006)	ND (0.0008)	ND (0.00068)	ND (0.00089)	ND (0.0005)	ND (0.00042) J	ND (0.00058)	ND (0.00045)	ND (0.00039)	ND (0.0004)	ND (0.0005)	ND (0.00051)
Cymene (p-Isopropyltoluene)	ND (0.001)	0.056 J+	0.33	ND (0.0012)	ND (0.0012)	ND (0.0016)	ND (0.0014)	ND (0.0018)	ND (0.001)	ND (0.00084) J	ND (0.0012)	ND (0.00089)	ND (0.00077)	ND (0.0008)	ND (0.001)	ND (0.001)
Dibromochloromethane	ND (0.001)	ND (0.055)	ND (0.048)	ND (0.0012)	ND (0.0012)	ND (0.0016)	ND (0.0014)	ND (0.0018)	ND (0.001)	ND (0.00084)	ND (0.0012)	ND (0.00089)	ND (0.00077)	ND (0.0008)	ND (0.001)	ND (0.001)
Dibromomethane	ND (0.0021)	ND (0.11)	ND (0.095)	ND (0.0023)	ND (0.0024)	ND (0.0032)	ND (0.0027)	ND (0.0036)	ND (0.002)	ND (0.0017)	ND (0.0023)	ND (0.0018)	ND (0.0015)	ND (0.0016)	ND (0.002)	ND (0.002)
Dichlorodifluoromethane (CFC-12)	ND (0.01)	ND (0.55)	ND (0.48)	ND (0.012)	ND (0.012)	ND (0.016)	ND (0.014)	ND (0.018)	ND (0.01)	ND (0.0084)	ND (0.012)	ND (0.0089)	ND (0.0077)	ND (0.008)	ND (0.01)	ND (0.01)
Ethyl Ether	ND (0.0021)	ND (0.11)	ND (0.095)	ND (0.0023)	ND (0.0024)	ND (0.0032)	ND (0.0027)	ND (0.0036)	ND (0.002)	ND (0.0017)	ND (0.0023)	ND (0.0018)	ND (0.0015)	ND (0.0016)	ND (0.002)	ND (0.002)
Ethylbenzene	ND (0.001)	0.22	***10***	ND (0.0012)	ND (0.0012)	ND (0.0016)	ND (0.0014)	ND (0.0018)	ND (0.001)	ND (0.00084) J	ND (0.0012)	ND (0.00089)	ND (0.00077)	ND (0.0008)	0.00054 J	ND (0.001)
Hexachlorobutadiene	ND (0.0042)	ND (0.22)	ND (0.19)	ND (0.0046)	ND (0.0048)	ND (0.0064)	ND (0.0055)	ND (0.0071)	ND (0.004)	ND (0.0033) J	ND (0.0047)	ND (0.0036)	ND (0.0031)	ND (0.0032)	ND (0.004)	ND (0.0041)
Isopropylbenzene (Cumene)	ND (0.001)	0.3 J+	1.8	ND (0.0012)	ND (0.0012)	ND (0.0016)	ND (0.0014)	ND (0.0018)	ND (0.001)	ND (0.00084) J	ND (0.0012)	ND (0.00089)	ND (0.00077)	ND (0.0008)	ND (0.001)	ND (0.001)
m,p-Xylenes	0.0012 J	0.66	10	ND (0.0023)	ND (0.0024)	ND (0.0032)	ND (0.0027)	ND (0.0036)	ND (0.002)	0.00096 J	ND (0.0023)	ND (0.0018)	ND (0.0015)	ND (0.0016)	0.0016 J	ND (0.002)
Methyl Tert Butyl Ether (MTBE)	0.00048 J	0.021 J	ND (0.095)	ND (0.0023)	ND (0.0024)	0.00088 J	0.0025 J	0.00087 J	ND (0.002)	ND (0.0017)	ND (0.0023)	ND (0.0018)	ND (0.0015)	ND (0.0016)	ND (0.002)	ND (0.002)
Methylene chloride (Dichloromethane)	ND (0.0053)	ND (0.28)	ND (0.24)	ND (0.0058)	ND (0.006)	ND (0.008)	ND (0.0068)	ND (0.0089)	ND (0.005)	ND (0.0042)	ND (0.0058)	ND (0.0045)	ND (0.0039)	ND (0.004)	ND (0.005)	ND (0.0051)
Naphthalene	ND (0.0042)	1.1 J+	5.1	ND (0.0046)	ND (0.0048)	ND (0.0064)	ND (0.0055)	0.0021 J	ND (0.004)	ND (0.0033) J	ND (0.0047)	ND (0.0036)	ND (0.0031)	0.026	3.4	0.0063
n-Butylbenzene	ND (0.001)	1.2 J+	1.8	ND (0.0012)	ND (0.0012)	ND (0.0016)	ND (0.0014)	ND (0.0018)	ND (0.001)	ND (0.00084) J	ND (0.0012)	ND (0.00089)	ND (0.00077)	ND (0.0008)	ND (0.001)	ND (0.001)
n-Propylbenzene	ND (0.001)	1.8 J+	***7.2***	ND (0.0012)	ND (0.0012)	ND (0.0016)	ND (0.0014)	ND (0.0018)	ND (0.001)	ND (0.00084) J	ND (0.0012)	ND (0.00089)	ND (0.00077)	ND (0.0008)	ND (0.001)	ND (0.001)
o-Xylene	0.00088 J	0.16	1.2	ND (0.0012)	ND (0.0012)	ND (0.0016)	ND (0.0014)	ND (0.0018)	ND (0.001)	ND (0.00084) J	ND (0.0012)	ND (0.00089)	ND (0.00077)	ND (0.0008)	0.001	ND (0.001)
Styrene	ND (0.001)	ND (0.055)	ND (0.048)	ND (0.0012)	ND (0.0012)	ND (0.0016)	ND (0.0014)	ND (0.0018)	ND (0.001)	ND (0.00084) J	ND (0.0012)	ND (0.00089)	ND (0.00077)	ND (0.0008)	ND (0.001)	ND (0.001)
tert-Butylbenzene	ND (0.0021)	0.028 J+	ND (0.095)	ND (0.0023)	ND (0.0024)	ND (0.0032)	ND (0.0027)	ND (0.0036)	ND (0.002)	ND (0.0017) J	ND (0.0023)	ND (0.0018)	ND (0.0015)	ND (0.0016)	ND (0.002)	ND (0.002)
Tetrachloroethene	ND (0.00053)	ND (0.028)	ND (0.024)	ND (0.00058)	ND (0.0006)	ND (0.0008)	ND (0.00068)	ND (0.00089)	ND (0.0005)	ND (0.00042) J	ND (0.00058)	ND (0.00045)	ND (0.00039)	ND (0.0004)	ND (0.0005)	ND (0.00051)
Toluene	ND (0.001)	0.28	0.19	ND (0.0012)	ND (0.0012)	ND (0.0016)	ND (0.0014)	ND (0.0018)	ND (0.001)	0.00067 J	ND (0.0012)	ND (0.00089)	ND (0.00077)	ND (0.0008)	0.0012	ND (0.001)
trans-1,2-Dichloroethene	ND (0.0016)	ND (0.083)	ND (0.072)	ND (0.0017)	ND (0.0018)	ND (0.0024)	ND (0.002)	ND (0.0027)	ND (0.0015)	ND (0.0012)	ND (0.0018)	ND (0.0013)	ND (0.0012)	ND (0.0012)	ND (0.0015)	ND (0.0015)
trans-1,3-Dichloropropene	ND (0.001)	ND (0.055)	ND (0.048)	ND (0.0012)	ND (0.0012)	ND (0.0016)	ND (0.0014)	ND (0.0018)	ND (0.001)	ND (0.00084) J	ND (0.0012)	ND (0.00089)	ND (0.00077)	ND (0.0008)	ND (0.001)	ND (0.001)
trans-1,4-Dichloro-2-butene	ND (0.0053)	ND (0.28)	ND (0.24)	ND (0.0058)	ND (0.006)	ND (0.008)	ND (0.0068)	ND (0.0089)	ND (0.005)	ND (0.0042) J	ND (0.0058)	ND (0.0045)	ND (0.0039)	ND (0.004)	ND (0.005)	ND (0.0051)
Trichloroethene	ND (0.00053)	ND (0.028)	ND (0.024)	ND (0.00058)	ND (0.0006)	ND (0.0008)	ND (0.00068)	ND (0.00089)	ND (0.0005)	ND (0.00042) J	ND (0.00058)	ND (0.00045)	ND (0.00039)	ND (0.0004)	ND (0.0005)	ND (0.00051)
Trichlorofluoromethane (CFC-11)	ND (0.0042)	ND (0.22)	ND (0.19)	ND (0.0046)	ND (0.0048)	ND (0.0064)	ND (0.0055)	ND (0.0071)	ND (0.004)	ND (0.0033)	ND (0.0047)	ND (0.0036)	ND (0.0031)	ND (0.0032)	ND (0.004)	ND (0.0041)
Vinyl acetate	ND (0.01)	ND (0.55)	ND (0.48)	ND (0.012)	ND (0.012)	ND (0.016)	ND (0.014)	ND (0.018)	ND (0.01)	ND (0.0084) J	ND (0.012)	ND (0.0089)	ND (0.0077)	ND (0.008)	ND (0.01)	ND (0.01)
Vinyl chloride	ND (0.001)	ND (0.055)	ND (0.048)	ND (0.0012)	ND (0.0012)	ND (0.0016)	ND (0.0014)	ND (0.0018)	ND (0.001)	ND (0.00084)	ND (0.0012)	ND (0.00089)	ND (0.00077)	ND (0.0008)	ND (0.001)	ND (0.001)
Xylene (Total)	0.0021 J	0.82	***11***	ND (0.0012)	ND (0.0012)	ND (0.0016)	ND (0.0014)	ND (0.0018)	ND (0.001)	0.00096 J	ND (0.0012)	ND (0.00089)	ND (0.00077)	ND (0.0008)	0.0026 J	ND (0.001)

ABBREVIATIONS AND NOTES:
mg/kg: milligram per kilogram

-: Not Analyzed
bgs: below ground surface
ft: feet
J: Value is estimated.
R: Rejected
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

- For test methods used, see the laboratory data sheets.
- Soil analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 375 Unrestricted Use Soil Cleanup Objectives (SCO), Restricted-Use Residential SCOs, and Protection of Groundwater SCO's.
- ***Bold italic*** values indicate an exceedance of the Protection of Groundwater Criteria.
- Grey shading indicates an exceedance of the Unrestricted Use Soil Cleanup Objectives.
- Yellow shading indicates an exceedance of the Restricted Use Residential Soil Cleanup Objectives.

TABLE 2a
REMEDIAL INVESTIGATION - VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS IN SOIL
556 BALTIC STREET
BROOKLYN, NEW YORK

	Action Level										
Location Name	Restricted Use Soil Cleanup Objectives - Protection of Groundwater	Restricted Use Soil Cleanup Objectives - Residential	Unrestricted Use Soil Cleanup Objectives	HA-07	HA-07	HA-07	HA-07	HA-08	HA-08	HA-08	HA-08
Sample Name				HA-07 (2-4)	HA-07 (6-8)	HA-07 (10-12)	HA-07 (14-16)	HA-08 (2-4)	HA-08 (6-8)	HA-08 (10-12)	HA-08 (14-16)
Sample Date				02/09/2023	02/09/2023	02/09/2023	02/09/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023
Lab Sample ID				L2307196-01 L2310952-10	L2307196-02 L2310952-11	L2307196-03 L2310952-12	L2307196-04 L2310952-13	L2305570-05	L2305570-06	L2305570-07	L2305570-08
Sample Depth (bgs)				2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)
Volatile Organic Compounds (mg/kg)											
1,1,1,2-Tetrachloroethane	NA	NA	NA	ND (0.00046)	ND (0.00064)	ND (0.00078)	ND (0.00039)	ND (0.00048)	ND (0.00048)	ND (0.00095)	ND (0.00076)
1,1,1-Trichloroethane	0.68	100	0.68	ND (0.00046)	ND (0.00064)	ND (0.00078)	ND (0.00039)	ND (0.00048)	ND (0.00048)	ND (0.00095)	ND (0.00076)
1,1,2,2-Tetrachloroethane	NA	NA	NA	ND (0.00046)	ND (0.00064)	ND (0.00078)	ND (0.00039)	ND (0.00048)	ND (0.00048)	ND (0.00095)	ND (0.00076)
1,1,2-Trichloroethane	NA	NA	NA	ND (0.00092)	ND (0.0013)	ND (0.0016)	ND (0.00078)	ND (0.00096)	ND (0.00097)	ND (0.0019)	ND (0.0015)
1,1-Dichloroethane	0.27	26	0.27	ND (0.00092)	ND (0.0013)	ND (0.0016)	ND (0.00078)	ND (0.00096)	ND (0.00097)	ND (0.0019)	ND (0.0015)
1,1-Dichloroethene	0.33	100	0.33	ND (0.00092)	ND (0.0013)	ND (0.0016)	ND (0.00078)	ND (0.00096)	ND (0.00097)	ND (0.0019)	ND (0.0015)
1,1-Dichloropropene	NA	NA	NA	ND (0.00046)	ND (0.00064)	ND (0.00078)	ND (0.00039)	ND (0.00048)	ND (0.00048)	ND (0.00095)	ND (0.00076)
1,2,3-Trichlorobenzene	NA	NA	NA	ND (0.0018)	ND (0.0025)	ND (0.0031)	ND (0.0016)	ND (0.0019)	ND (0.0019)	ND (0.0038)	ND (0.003)
1,2,3-Trichloropropane	NA	NA	NA	ND (0.0018)	ND (0.0025)	ND (0.0031)	ND (0.0016)	ND (0.0019)	ND (0.0019)	ND (0.0038)	ND (0.003)
1,2,4,5-Tetramethylbenzene	NA	NA	NA	ND (0.0018)	0.0018 J	0.00043 J	ND (0.0016)	0.0002 J	ND (0.0019)	ND (0.0038)	ND (0.003)
1,2,4-Trichlorobenzene	NA	NA	NA	ND (0.0018)	ND (0.0025)	ND (0.0031)	ND (0.0016)	ND (0.0019)	ND (0.0019)	ND (0.0038)	ND (0.003)
1,2,4-Trimethylbenzene	3.6	52	3.6	ND (0.0018)	ND (0.0025)	ND (0.0031)	ND (0.0016)	0.00071 J	ND (0.0019)	ND (0.0038)	ND (0.003)
1,2-Dibromo-3-chloropropane (DBCP)	NA	NA	NA	ND (0.0028)	ND (0.0038)	ND (0.0047)	ND (0.0023)	ND (0.0029)	ND (0.0029)	ND (0.0057)	ND (0.0046)
1,2-Dibromoethane (Ethylene Dibromide)	NA	NA	NA	ND (0.00092)	ND (0.0013)	ND (0.0016)	ND (0.00078)	ND (0.00096)	ND (0.00097)	ND (0.0019)	ND (0.0015)
1,2-Dichlorobenzene	1.1	100	1.1	ND (0.0018)	ND (0.0025)	ND (0.0031)	ND (0.0016)	ND (0.0019)	ND (0.0019)	ND (0.0038)	ND (0.003)
1,2-Dichloroethane	0.02	3.1	0.02	ND (0.00092)	ND (0.0013)	ND (0.0016)	ND (0.00078)	ND (0.00096)	ND (0.00097)	ND (0.0019)	ND (0.0015)
1,2-Dichloroethene (total)	NA	NA	NA	ND (0.00092)	ND (0.0013)	ND (0.0016)	0.00046 J	ND (0.00096)	ND (0.00097)	ND (0.0019)	ND (0.0015)
1,2-Dichloropropane	NA	NA	NA	ND (0.00092)	ND (0.0013)	ND (0.0016)	ND (0.00078)	ND (0.00096)	ND (0.00097)	ND (0.0019)	ND (0.0015)
1,3,5-Trimethylbenzene	8.4	52	8.4	ND (0.0018)	0.0014 J	0.00036 J	ND (0.0016)	0.0004 J	ND (0.0019)	ND (0.0038)	ND (0.003)
1,3-Dichlorobenzene	2.4	49	2.4	ND (0.0018)	ND (0.0025)	ND (0.0031)	ND (0.0016)	ND (0.0019)	ND (0.0019)	ND (0.0038)	ND (0.003)
1,3-Dichloropropane	NA	NA	NA	ND (0.0018)	ND (0.0025)	ND (0.0031)	ND (0.0016)	ND (0.0019)	ND (0.0019)	ND (0.0038)	ND (0.003)
1,3-Dichloropropene	NA	NA	NA	ND (0.00046)	ND (0.00064)	ND (0.00078)	ND (0.00039)	ND (0.00048)	ND (0.00048)	ND (0.00095)	ND (0.00076)
1,4-Dichlorobenzene	1.8	13	1.8	ND (0.0018)	ND (0.0025)	ND (0.0031)	ND (0.0016)	ND (0.0019)	ND (0.0019)	ND (0.0038)	ND (0.003)
1,4-Diethylbenzene	NA	NA	NA	ND (0.0018)	0.0046	0.00084 J	ND (0.0016)	ND (0.0019)	ND (0.0019)	ND (0.0038)	ND (0.003)
1,4-Dioxane	0.1	13	0.1	ND (0.074)	ND (0.1)	ND (0.12)	ND (0.063)	ND (0.077)	ND (0.078)	ND (0.15)	ND (0.12)
2,2-Dichloropropane	NA	NA	NA	ND (0.0018)	ND (0.0025)	ND (0.0031)	ND (0.0016)	ND (0.0019)	ND (0.0019)	ND (0.0038)	ND (0.003)
2-Butanone (Methyl Ethyl Ketone)	0.12	100	0.12	ND (0.0092)	ND (0.013)	ND (0.016)	0.003 J	ND (0.0096)	ND (0.0097)	0.015 J	ND (0.015)
2-Chlorotoluene	NA	NA	NA	ND (0.0018)	ND (0.0025)	ND (0.0031)	ND (0.0016)	ND (0.0019)	ND (0.0019)	ND (0.0038)	ND (0.003)
2-Hexanone (Methyl Butyl Ketone)	NA	NA	NA	ND (0.0092)	ND (0.013)	ND (0.016)	ND (0.0078)	ND (0.0096)	ND (0.0097)	ND (0.019)	ND (0.015)
2-Phenylbutane (sec-Butylbenzene)	11	100	11	ND (0.00092)	0.00043 J	ND (0.0016)	ND (0.00078)	ND (0.00096)	ND (0.00097)	ND (0.0019)	ND (0.0015)
4-Chlorotoluene	NA	NA	NA	ND (0.0018)	ND (0.0025)	ND (0.0031)	ND (0.0016)	ND (0.0019)	ND (0.0019)	ND (0.0038)	ND (0.003)
4-Ethyltoluene (1-Ethyl-4-Methylbenzene)	NA	NA	NA	ND (0.0018)	ND (0.0025)	ND (0.0031)	ND (0.0016)	0.00052 J	ND (0.0019)	ND (0.0038)	ND (0.003)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	NA	NA	NA	ND (0.0092)	ND (0.013)	ND (0.016)	ND (0.0078)	ND (0.0096)	ND (0.0097)	ND (0.019)	ND (0.015)
Acetone	0.05	100	0.05	0.0073 J	ND (0.013)	0.02 J	0.017 J+	***0.25***	ND (0.0097)	***0.055***	0.015
Acrylonitrile	NA	NA	NA	ND (0.0037)	ND (0.0051)	ND (0.0062)	ND (0.0031)	ND (0.0038)	ND (0.0039)	ND (0.0076)	ND (0.0061)
Benzene	0.06	4.8	0.06	ND (0.00046)	ND (0.00064)	ND (0.00078)	ND (0.00039)	0.0002 J	ND (0.00048)	ND (0.00095)	ND (0.00076)
Bromobenzene	NA	NA	NA	ND (0.0018)	ND (0.0025)	ND (0.0031)	ND (0.0016)	ND (0.0019)	ND (0.0019)	ND (0.0038)	ND (0.003)
Bromodichloromethane	NA	NA	NA	ND (0.00046)	ND (0.00064)	ND (0.00078)	ND (0.00039)	ND (0.00048)	ND (0.00048)	ND (0.00095)	ND (0.00076)
Bromoform	NA	NA	NA	ND (0.0037)	ND (0.0051)	ND (0.0062)	ND (0.0031)	ND (0.0038)	ND (0.0039)	ND (0.0076)	ND (0.0061)
Bromomethane (Methyl Bromide)	NA	NA	NA	ND (0.0018)	ND (0.0025)	ND (0.0031)	ND (0.0016)	ND (0.0019)	ND (0.0019)	ND (0.0038)	ND (0.003)
Carbon disulfide	NA	NA	NA	ND (0.0092)	ND (0.013)	ND (0.016)	ND (0.0078)	ND (0.0096)	ND (0.0097)	ND (0.019)	ND (0.015)
Carbon tetrachloride	0.76	2.4	0.76	ND (0.00092)	ND (0.0013)	ND (0.0016)	ND (0.00078)	ND (0.00096)	ND (0.00097)	ND (0.0019)	ND (0.0015)
Chlorobenzene	1.1	100	1.1	ND (0.00046)	ND (0.00064)	ND (0.00078)	ND (0.00039)	ND (0.00048)	ND (0.00048)	ND (0.00095)	ND (0.00076)
Chlorobromomethane	NA	NA	NA	ND (0.0018)	ND (0.0025)	ND (0.0031)	ND (0.0016)	ND (0.0019)	ND (0.0019)	ND (0.0038)	ND (0.003)
Chloroethane	NA	NA	NA	ND (0.0018)	ND (0.0025)	ND (0.0031)	ND (0.0016)	ND (0.0019)	ND (0.0019)	ND (0.0038)	ND (0.003)
Chloroform (Trichloromethane)	0.37	49	0.37	0.00031 J	0.00043 J	0.00096 J	ND (0.0012)	ND (0.0014)	ND (0.0014)	ND (0.0028)	ND (0.0023)
Chloromethane (Methyl Chloride)	NA	NA	NA	ND (0.0037)	ND (0.0051)	ND (0.0062)	ND (0.0031)	ND (0.0038)	ND (0.0039)	ND (0.0076)	ND (0.0061)
cis-1,2-Dichloroethene	0.25	100	0.25	ND (0.00092)	ND (0.0013)	ND (0.0016)	0.00046 J	ND (0.00096)	ND (0.00097)	ND (0.0019)	ND (0.0015)
cis-1,3-Dichloropropene	NA	NA	NA	ND (0.00046)	ND (0.00064)	ND (0.00078)	ND (0.00039)	ND (0.00048)	ND (0.00048)	ND (0.00095)	ND (0.00076)
Cymene (p-Isopropyltoluene)	NA	NA	NA	ND (0.00092)	0.00056 J	ND (0.0016)	ND (0.00078)	ND (0.00096)	ND (0.00097)	ND (0.0019)	ND (0.0015)
Dibromochloromethane	NA	NA	NA	ND (0.00092)	ND (0.0013)	ND (0.0016)	ND (0.00078)	ND (0.00096)	ND (0.00097)	ND (0.0019)	ND (0.0015)
Dibromomethane	NA	NA	NA	ND (0.0018)	ND (0.0025)	ND (0.0031)	ND (0.0016)	ND (0.0019)	ND (0.0019)	ND (0.0038)	ND (0.003)
Dichlorodifluoromethane (CFC-12)	NA	NA	NA	ND (0.0092)	ND (0.013)	ND (0.016)	ND (0.0078)	ND (0.0096)	ND (0.0097)	ND (0.019)	ND (0.015)
Ethyl Ether	NA	NA	NA	ND (0.0018)	ND (0.0025)	ND (0.0031)	ND (0.0016)	ND (0.0019)	ND (0.0019)	ND (0.0038)	ND (0.003)
Ethylbenzene	1	41	1	ND (0.00092)	ND (0.0013)	ND (0.0016)	ND (0.00078)	0.0017	ND (0.00097)	ND (0.0019)	ND (0.0015)
Hexachlorobutadiene	NA	NA	NA	ND (0.0037)	ND (0.0051)	ND (0.0062)	ND (0.0031)	ND (0.0038)	ND (0.0039)	ND (0.0076)	ND (0.0061)
Isopropylbenzene (Cumene)	NA	NA	NA	ND (0.00092)	ND (0.0013)	ND (0.0016)	ND (0.00078)	0.00019 J	ND (0.00097)	ND (0.0019)	ND (0.0015)
m,p-Xylenes	NA	NA	NA	ND (0.0018)	ND (0.0025)	ND (0.0031)	ND (0.0016)	0.01	ND (0.0019)	ND (0.0038)	ND (0.003)
Methyl Tert Butyl Ether (MTBE)	0.93	100	0.93	ND (0.0018)	ND (0.0025)	ND (0.0031)	ND (0.0016)	ND (0.0019)	ND (0.0019)	ND (0.0038)	ND (0.003)
Methylene chloride (Dichloromethane)	0.05	100	0.05	ND (0.0046)	ND (0.0064)	ND (0.0078)	ND (0.0039)	ND (0.0048)	ND (0.0048)	ND (0.0095)	ND (0.0076)
Naphthalene	12	100	12	0.00083 J	0.0016 J	0.006 J	ND (0.0031)	0.019	ND (0.0039)	ND (0.0076)	ND (0.0061)
n-Butylbenzene	12	100	12	ND (0.00092)	ND (0.0013)	ND (0.0016)	ND (0.00078)	ND (0.00096)	ND (0.00097)	ND (0.0019)	ND (0.0015)
n-Propylbenzene	3.9	100	3.9	ND (0.00092)	ND (0.0013)	ND (0.0016)	ND (0.00078)	ND (0.00096)	ND (0.00097)	ND (0.0019)	ND (0.0015)
o-Xylene	NA	NA	NA	ND (0.00092)	ND (0.0013)	ND (0.0016)	ND (0.00078)	0.0054	ND (0.00097)	ND (0.0019)	ND (0.0015)
Styrene	NA	NA	NA	ND (0.00092)	ND (0.0013)	ND (0.0016)	ND (0.00078)	ND (0.00096)	ND (0.00097)	ND (0.0019)	ND (0.0015)
tert-Butylbenzene	5.9	100	5.9	ND (0.0018)	ND (0.0025)	ND (0.0031)	ND (0.0016)	ND (0.0019)	ND (0.0019)	ND (0.0038)	ND (0.003)
Tetrachloroethene	1.3	19	1.3	0.00049	0.00037 J	0.00091	ND (0.00039)	ND (0.00048)	ND (0.00048)	ND (0.00095)	ND (0.00076)
Toluene	0.7	100	0.7	ND (0.00092)	ND (0.0013)	ND (0.0016)	ND (0.00078)	0.0017	ND (0.00097)	ND (0.0019)	ND (0.0015)
trans-1,2-Dichloroethene	0.19	100	0.19	ND (0.0014)	ND (0.0019)	ND (0.0023)	ND (0.0012)	ND (0.0014)	ND (0.0014)	ND (0.0028)	ND (0.0023)
trans-1,3-Dichloropropene	NA	NA	NA	ND (0.00092)	ND (0.0013)	ND (0.0016)	ND (0.00078)	ND (0.00096)	ND (0.00097)	ND (0.0019)	ND (0.0015)
trans-1,4-Dichloro-2-butene	NA	NA	NA	ND (0.0046)	ND (0.0064)	ND (0.0078)	ND (0.0039)	ND (0.0048)	ND (0.0048)	ND (0.0095)	ND (0.0076)
Trichloroethene	0.47	21	0.47	ND (0.00046)	ND (0.00064)	ND (0.00078)	ND (0.00039)	ND (0.00048)	ND (0.00048)	ND (0.00095)	ND (0.00076)
Trichlorofluoromethane (CFC-11)	NA	NA	NA	ND (0.0037)	ND (0.0051)	ND (0.0062)	ND (0.0031)	ND (0.0038)	ND (0.0039)	ND (0.0076)	ND (0.0061)
Vinyl acetate	NA	NA	NA	ND (0.0092)	ND (0.013)	ND (0.016)	ND (0.0078)	ND (0.0096)	ND (0.0097)	ND (0.019)	ND (0.015)
Vinyl chloride	0.02	0.9	0.02	ND (0.00092)	ND (0.0013)	ND (0.0016)	ND (0.00078)	ND (0.00096)	ND (0.00097)	ND (0.0019)	ND (0.0015)
Xylene (Total)	1.6	100	0.26	ND (0.00092)	ND (0.0013)	ND (0.0016)	ND (0.00078)	0.015	ND (0.00097)	ND (0.0019)	ND (0.0015)

Location Name	HA-09	HA-09	HA-09	HA-09	HA-10	HA-10	HA-10	HA-10	HA-11	HA-11	HA-11	HA-11	HA-12	HA-12	HA-12	HA-12	HA-13
Sample Name	HA-09 (2-4)	HA-09 (6-8)	HA-09 (10-12)	HA-09 (14-16)	HA-10 (2-4)	HA-10 (6-8)	HA-10 (10-12)	HA-10 (14-16)	HA-11 (2-4)	HA-11 (6-8)	HA-11 (10-12)	HA-11 (14-16)	HA-12 (2-4)	HA-12 (6-8)	HA-12 (10-12)	HA-12 (14-16)	HA-13 (2-4)
Sample Date	02/09/2023	02/09/2023	02/09/2023	02/09/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/09/2023	02/09/2023	02/09/2023	02/09/2023	02/09/2023	02/09/2023	02/09/2023	02/09/2023	02/13/2023
Lab Sample ID	L2307196-05	L2307196-06 L2310952-14	L2307196-07	L2307196-08 L2310952-15	L2306883-09 L2310952-33	L2306883-10	L2306883-11 L2310952-34	L2306883-12 L2310952-35	L2307196-09 L2310952-16	L2307196-10	L2307196-11 L2310952-17	L2307196-12 L2310952-18	L2307196-13 L2310952-19	L2307196-14 L2310952-20	L2307196-15 L2310952-21	L2307196-16	L2307677-01 L2310952-01
Sample Depth (bgs)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)
Volatile Organic Compounds (mg/kg)																	
1,1,1,2-Tetrachloroethane	ND (0.00033)	ND (0.00057)	ND (0.00045)	ND (0.00042)	ND (0.00057)	ND (0.00079)	ND (0.00046)	ND (0.00051)	ND (0.00052)	ND (0.00048)	ND (0.00051)	ND (0.00038)	ND (0.00055)	ND (0.00047)	ND (0.00038)	ND (0.00059)	ND (0.00064) J
1,1,1-Trichloroethane	ND (0.00033)	ND (0.00057)	ND (0.00045)	ND (0.00042)	ND (0.00057)	ND (0.00079)	ND (0.00046)	ND (0.00051)	ND (0.00052)	ND (0.00048)	ND (0.00051)	ND (0.00038)	ND (0.00055)	ND (0.00047)	ND (0.00038)	ND (0.00059)	ND (0.00064) J
1,1,2,2-Tetrachloroethane	ND (0.00033)	ND (0.00057)	ND (0.00045)	ND (0.00042)	ND (0.00057)	ND (0.00079)	ND (0.00046)	ND (0.00051)	ND (0.00052)	ND (0.00048)	ND (0.00051)	ND (0.00038)	ND (0.00055)	ND (0.00047)	ND (0.00038)	ND (0.00059)	ND (0.00064) J
1,1,2-Trichloroethane	ND (0.00067)	ND (0.0011)	ND (0.0009)	ND (0.00083)	ND (0.0011)	ND (0.0016)	ND (0.00093)	ND (0.001)	ND (0.001)	ND (0.00096)	ND (0.001)	ND (0.00077)	ND (0.0011)	ND (0.00094)	ND (0.00076)	ND (0.0012)	ND (0.0013) J
1,1-Dichloroethane	ND (0.00067)	ND (0.0011)	ND (0.0009)	ND (0.00083)	ND (0.0011)	ND (0.0016)	ND (0.00093)	ND (0.001)	ND (0.001)	ND (0.00096)	ND (0.001)	ND (0.00077)	ND (0.0011)	ND (0.00094)	ND (0.00076)	ND (0.0012)	ND (0.0013) J
1,1-Dichloroethene	ND (0.00067)	ND (0.0011)	ND (0.0009)	ND (0.00083)	ND (0.0011)	ND (0.0016)	ND (0.00093)	ND (0.001)	ND (0.001)	ND (0.00096)	ND (0.001)	ND (0.00077)	ND (0.0011)	ND (0.00094)	ND (0.00076)	ND (0.0012)	ND (0.0013)
1,1-Dichloropropene	ND (0.00033)	ND (0.00057)	ND (0.00045)	ND (0.00042)	ND (0.00057)	ND (0.00079)	ND (0.00046)	ND (0.00051)	ND (0.00052)	ND (0.00048)	ND (0.00051)	ND (0.00038)	ND (0.00055)	ND (0.00047)	ND (0.00038)	ND (0.00059)	ND (0.00064) J
1,2,3-Trichlorobenzene	ND (0.0013)	ND (0.0023)	ND (0.0018)	ND (0.0017)	ND (0.0023)	ND (0.0032)	ND (0.0019)	ND (0.002)	ND (0.0021)	ND (0.0019)	ND (0.002)	ND (0.0015)	ND (0.0022)	ND (0.0019)	ND (0.0015)	ND (0.0024)	ND (0.0026) J
1,2,3-Trichloropropane	ND (0.0013)	ND (0.0023)	ND (0.0018)	ND (0.0017)	ND (0.0023)	ND (0.0032)	ND (0.0019)	ND (0.002)	ND (0.0021)	ND (0.0019)	ND (0.002)	ND (0.0015)	ND (0.0022)	ND (0.0019)	ND (0.0015)	ND (0.0024)	ND (0.0026) J
1,2,4,5-Tetramethylbenzene	ND (0.0013)	ND (0.0023)	ND (0.0018)	ND (0.0017)	ND (0.0023)	ND (0.0032)	ND (0.0019)	ND (0.002)	0.00025 J	ND (0.0019)	ND (0.002)	ND (0.0015)	ND (0.0022)	ND (0.0019)	ND (0.0015)	ND (0.0024)	ND (0.0026) J
1,2,4-Trichlorobenzene	ND (0.0013)	ND (0.0023)	ND (0.0018)	ND (0.0017)	ND (0.0023)	ND (0.0032)	ND (0.0019)	ND (0.002)	ND (0.0021)	ND (0.0019)	ND (0.002)	ND (0.0015)	ND (0.0022)	ND (0.0019)	ND (0.0015)	ND (0.0024)	ND (0.0026) J
1,2,4-Trimethylbenzene	ND (0.0013)	ND (0.0023)	ND (0.0018)	ND (0.0017)	ND (0.0023)	ND (0.0032)	ND (0.0019)	ND (0.002)	0.00058 J	ND (0.0019)	ND (0.002)	ND (0.0015)	ND (0.0022)	ND (0.0019)	ND (0.0015)	ND (0.0024)	ND (0.0026) J
1,2-Dibromo-3-chloropropane (DBCP)	ND (0.002)	ND (0.0034)	ND (0.0027)	ND (0.0025)	ND (0.0034)	ND (0.0048)	ND (0.0028)	ND (0.0031)	ND (0.0031)	ND (0.0029)	ND (0.003)	ND (0.0023)	ND (0.0033)	ND (0.0028)	ND (0.0023)	ND (0.0035)	ND (0.0039) J
1,2-Dibromoethane (Ethylene Dibromide)	ND (0.00067)	ND (0.0011)	ND (0.0009)	ND (0.00083)	ND (0.0011)	ND (0.0016)	ND (0.00093)	ND (0.001)	ND (0.001)	ND (0.00096)	ND (0.001)	ND (0.00077)	ND (0.0011)	ND (0.00094)	ND (0.00076)	ND (0.0012)	ND (0.0013) J
1,2-Dichlorobenzene	ND (0.0013)	ND (0.0023)	ND (0.0018)	ND (0.0017)	ND (0.0023)	ND (0.0032)	ND (0.0019)	ND (0.002)	ND (0.0021)	ND (0.0019)	ND (0.002)	ND (0.0015)	ND (0.0022)	ND (0.0019)	ND (0.0015)	ND (0.0024)	ND (0.0026) J
1,2-Dichloroethane	ND (0.00067)	ND (0.0011)	ND (0.0009)	ND (0.00083)	ND (0.0011)	ND (0.0016)	ND (0.00093)	ND (0.001)	ND (0.001)	ND (0.00096)	ND (0.001)	ND (0.00077)	ND (0.0011)	ND (0.00094)	ND (0.00076)	ND (0.0012)	ND (0.0013) J
1,2-Dichloroethene (total)	ND (0.00067)	ND (0.0011)	ND (0.0009)	ND (0.00083)	ND (0.0011)	ND (0.0016)	ND (0.00093)	0.00039 J	ND (0.001)	ND (0.00096)	ND (0.001)	ND (0.00077)	ND (0.0011)	ND (0.00094)	ND (0.00076)	ND (0.0012)	ND (0.0013) J
1,2-Dichloropropane	ND (0.00067)	ND (0.0011)	ND (0.0009)	ND (0.00083)	ND (0.0011)	ND (0.0016)	ND (0.00093)	ND (0.001)	ND (0.001)	ND (0.00096)	ND (0.001)	ND (0.00077)	ND (0.0011)	ND (0.00094)	ND (0.00076)	ND (0.0012)	ND (0.0013) J
1,3,5-Trimethylbenzene	ND (0.0013)	ND (0.0023)	ND (0.0018)	ND (0.0017)	ND (0.0023)	ND (0.0032)	ND (0.0019)	ND (0.002)	0.00052 J	ND (0.0019)	ND (0.002)	ND (0.0015)	ND (0.0022)	ND (0.0019)	ND (0.0015)	ND (0.0024)	ND (0.0026) J
1,3-Dichlorobenzene	ND (0.0013)	ND (0.0023)	ND (0.0018)	ND (0.0017)	ND (0.0023)	ND (0.0032)	ND (0.0019)	ND (0.002)	ND (0.0021)	ND (0.0019)	ND (0.002)	ND (0.0015)	ND (0.0022)	ND (0.0019)	ND (0.0015)	ND (0.0024)	ND (0.0026) J
1,3-Dichloropropane	ND (0.0013)	ND (0.0023)	ND (0.0018)	ND (0.0017)	ND (0.0023)	ND (0.0032)	ND (0.0019)	ND (0.002)	ND (0.0021)	ND (0.0019)	ND (0.002)	ND (0.0015)	ND (0.0022)	ND (0.0019)	ND (0.0015)	ND (0.0024)	ND (0.0026) J
1,3-Dichloropropene	ND (0.00033)	ND (0.00057)	ND (0.00045)	ND (0.00042)	ND (0.00057)	ND (0.00079)	ND (0.00046)	ND (0.00051)	ND (0.00052)	ND (0.00048)	ND (0.00051)	ND (0.00038)	ND (0.00055)	ND (0.00047)	ND (0.00038)	ND (0.00059)	ND (0.00064) J
1,4-Dichlorobenzene	ND (0.0013)	ND (0.0023)	ND (0.0018)	ND (0.0017)	ND (0.0023)	ND (0.0032)	ND (0.0019)	ND (0.002)	ND (0.0021)	ND (0.0019)	ND (0.002)	ND (0.0015)	ND (0.0022)	ND (0.0019)	ND (0.0015)	ND (0.0024)	ND (0.0026) J
1,4-Diethylbenzene	ND (0.0013)	ND (0.0023)	ND (0.0018)	ND (0.0017)	ND (0.0023)	ND (0.0032)	ND (0.0019)	ND (0.002)	0.00041 J	ND (0.0019)	ND (0.002)	ND (0.0015)	ND (0.0022)	ND (0.0019)	ND (0.0015)	ND (0.0024)	ND (0.0026) J
1,4-Dioxane	ND (0.053)	ND (0.091)	ND (0.072)	ND (0.067)	ND (0.091)	ND (0.13)	ND (0.074)	ND (0.082)	ND (0.083)	ND (0.076)	ND (0.081)	ND (0.062)	ND (0.088)	ND (0.075)	ND (0.061)	ND (0.094)	ND (0.1)
2,2-Dichloropropane	ND (0.0013)	ND (0.0023)	ND (0.0018)	ND (0.0017)	ND (0.0023)	ND (0.0032)	ND (0.0019)	ND (0.002)	ND (0.0021)	ND (0.0019)	ND (0.002)	ND (0.0015)	ND (0.0022)	ND (0.0019)	ND (0.0015)	ND (0.0024)	ND (0.0026)
2-Butanone (Methyl Ethyl Ketone)	ND (0.0067)	ND (0.011)	ND (0.009)	ND (0.0083)	ND (0.011)	ND (0.016)	0.0031 J	ND (0.01)	ND (0.01)	ND (0.0096)	ND (0.01)	0.0053 J	ND (0.011)	ND (0.0094)	0.0025 J	0.0053 J	ND (0.013)
2-Chlorotoluene	ND (0.0013)	ND (0.0023)	ND (0.0018)	ND (0.0017)	ND (0.0023)	ND (0.0032)	ND (0.0019)	ND (0.002)	ND (0.0021)	ND (0.0019)	ND (0.002)	ND (0.0015)	ND (0.0022)	ND (0.0019)	ND (0.0015)	ND (0.0024)	ND (0.0026) J
2-Hexanone (Methyl Butyl Ketone)	ND (0.0067)	ND (0.011)	ND (0.009)	ND (0.0083)	ND (0.011)	ND (0.016)	ND (0.0093)	ND (0.01)	ND (0.01)	ND (0.0096)	ND (0.01)	ND (0.0077)	ND (0.011)	ND (0.0094)	ND (0.0076)	ND (0.012)	ND (0.013) J
2-Phenylbutane (sec-Butylbenzene)	ND (0.00067)	ND (0.0011)	ND (0.0009)	ND (0.00083)	ND (0.0011)	ND (0.0016)	ND (0.00093)	ND (0.001)	ND (0.001)	ND (0.00096)	ND (0.001)	ND (0.00077)	ND (0.0011)	ND (0.00094)	ND (0.00076)	ND (0.0012)	ND (0.0013) J
4-Chlorotoluene	ND (0.0013)	ND (0.0023)	ND (0.0018)	ND (0.0017)	ND (0.0023)	ND (0.0032)	ND (0.0019)	ND (0.002)	ND (0.0021)	ND (0.0019)	ND (0.002)	ND (0.0015)	ND (0.0022)	ND (0.0019)	ND (0.0015)	ND (0.0024)	ND (0.0026) J
4-Ethyltoluene (1-Ethyl-4-Methylbenzene)	ND (0.0013)	ND (0.0023)	ND (0.0018)	ND (0.0017)	ND (0.0023)	ND (0.0032)	ND (0.0019)	ND (0.002)	ND (0.0021)	ND (0.0019)	ND (0.002)	ND (0.0015)	ND (0.0022)	ND (0.0019)	ND (0.0015)	ND (0.0024)	ND (0.0026) J
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ND (0.0067)	ND (0.011)	ND (0.009)	ND (0.0083)	ND (0.011)	ND (0.016)	ND (0.0093)	ND (0.01)	ND (0.01)	ND (0.0096)	ND (0.01)	ND (0.0077)	ND (0.011)	ND (0.0094)	ND (0.0076)	ND (0.012)	ND (0.013) J
Acetone	0.006 J	0.015 J	ND (0.009)	0.0093 J	***0.065***	0.04	0.047	0.022	0.0095 J	0.034 J	0.049 J	0.024 J	0.0073 J	***0.071 J***	0.019	0.036 J	0.015
Acrylonitrile	ND (0.0027)	ND (0.0046)	ND (0.0036)	ND (0.0033)	ND (0.0045)	ND (0.0063)	ND (0.0037)	ND (0.0041)	ND (0.0042)	ND (0.0038)	ND (0.004)	ND (0.0031)	ND (0.0044)	ND (0.0038)	ND (0.003)	ND (0.0047)	ND (0.0051) J
Benzene	ND (0.00033)	ND (0.00057)	ND (0.00045)	ND (0.00042)	0.00028 J	ND (0.00079)	ND (0.00046)	ND (0.00051)	ND (0.00052)	ND (0.00048)	ND (0.00051)	ND (0.00038)	ND (0.00055)	ND (0.00047)	ND (0.00038)	ND (0.00059)	ND (0.00064) J
Bromobenzene	ND (0.0013)	ND (0.0023)	ND (0.0018)	ND (0.0017)	ND (0.0023)	ND (0.0032)	ND (0.0019)	ND (0.002)	ND (0.0021)	ND (0.0019)	ND (0.002)	ND (0.0015)	ND (0.0022)	ND (0.0019)	ND (0.0015)	ND (0.0024)	ND (0.0026) J
Bromodichloromethane	ND (0.00033)	ND (0.00057)	ND (0.00045)	ND (0.00042)	ND (0.00057)	ND (0.00079)	ND (0.00046)	ND (0.00051)	ND (0.00052)	ND (0.00048)	ND (0.00051)	ND (0.00038)	ND (0.00055)	ND (0.00047)	ND (0.00038)	ND (0.00059)	ND (0.00064) J
Bromoform	ND (0.0027)	ND (0.0046)	ND (0.0036)	ND (0.0033)	ND (0.0045)	ND (0.0063)	ND (0.0037)	ND (0.0041)	ND (0.0042)	ND (0.0038)	ND (0.004)	ND (0.0031)	ND (0.0044)	ND (0.0038)	ND (0.003)	ND (0.0047)	ND (0.0051) J
Bromomethane (Methyl Bromide)	ND (0.0013)	ND (0.0023)	ND (0.0018)	ND (0.0017)	ND (0.0023)	ND (0.0032)	ND (0.0019)	ND (0.002)	ND (0.0021)	ND (0.0019)	ND (0.002)	ND (0.0015)	ND (0.0022)	ND (0.0019)	ND (0.0015)	ND (0.0024)	ND (0.0026) J
Carbon disulfide	ND (0.0067)	ND (0.011)	ND (0.009)	ND (0.0083)	ND (0.011)	ND (0.016)	ND (0.0093)	ND (0.01)	ND (0.01)	ND (0.0096)	ND (0.01)	ND (0.0077)	ND (0.011)	ND (0.0094)	ND (0.0076)	ND (0.012)	ND (0.013)
Carbon tetrachloride	ND (0.00067)	ND (0.0011)	ND (0.0009)	ND (0.00083)	ND (0.0011)	ND (0.0016)	ND (0.00093)	ND (0.001)	ND (0.001)	ND (0.00096)	ND (0.001)	ND (0.00077)	ND (0.0011)	ND (0.00094)	ND (0.00076)	ND (0.0012)	ND (0.0013) J
Chlorobenzene	ND (0.00033)	ND (0.00057)	ND (0.00045)	ND (0.00042)	ND (0.00057)	ND (0.00079)	ND (0.00046)	ND (0.00051)	ND (0.00052)	ND (0.00048)	ND (0.00051)	ND (0.00038)	ND (0.00055)	ND (0.00047)	ND (0.00038)	ND (0.00059)	ND (0.00064) J
Chlorobromomethane	ND (0.0013)	ND (0.0023)	ND (0.0018)	ND (0.0017)	ND (0.0023)	ND (0.0032)	ND (0.0019)	ND (0.002)	ND (0.0021)	ND (0.0019)	ND (0.002)	ND (0.0015)	ND (0.0022)	ND (0.0019)	ND (0.0015)	ND (0.0024)	ND (0.0026) J
Chloroethane	ND (0.0013)	ND (0.0023)	ND (0.0018)	ND (0.0017)	ND (0.0023)	ND (0.0032)	ND (0.0019)	ND (0.002)	ND (0.0021)	ND (0.0019)	ND (0.002)	ND (0.0015)	ND (0.0022)	ND (0.0019)	ND (0.0015)	ND (0.0024)	ND (0.0026)
Chloroform (Trichloromethane)	ND (0.001)	ND (0.0017)	0.00032 J	0.0002 J	ND (0.0017)	ND (0.0024)	ND (0.0014)	ND (0.0015)	ND (0.0016)	0.00058 J	0.0013 J	ND (0.0012)	ND (0.0016)	0.0012 J	ND (0.0011)	ND (0.0018)	0.00034 J
Chloromethane (Methyl Chloride)	ND (0.0027)	ND (0.0046)	ND (0.0036)	ND (0.0033)	ND (0.0045)	ND (0.0063)	ND (0.0037)	ND (0.0041)	ND (0.0042)	ND (0.0038)	ND (0.004)	ND (0.0031)	ND (0.0044)	ND (0.0038)	ND (0.003)	ND (0.0047)	ND (0.0051) J
cis-1,2-Dichloroethene	ND (0.00067)	ND (0.0011)	ND (0.0009)	ND (0.00083)	ND (0.0011)	ND (0.0016)	ND (0.00093)	0.00039 J	ND (0.001)	ND (0.00096)	ND (0.001)	ND (0.00077)	ND (0.0011)	ND (0.00094)	ND (0.00076)	ND (0.0012)	ND (0.0013) J
cis-1,3-Dichloropropene	ND (0.00033)	ND (0.00057)	ND (0.00045)	ND (0.00042)	ND (0.00057)	ND (0.00079)	ND (0.00046)	ND (0.00051)	ND (0.00052)	ND (0.00048)	ND (0.00051)	ND (0.00038)	ND (0.00055)	ND (0.00047)	ND (0.00038)	ND (0.00059)	ND (0.00064) J
Cymene (p-Isopropyltoluene)	ND (0.00067)	ND (0.0011)	ND (0.0009)	ND (0.00083)	ND (0.0011)	ND (0.0016)	ND (0.00093)	ND (0.001)	ND (0.001)	ND (0.00096)	ND (0.001)	ND (0.00077)	ND (0.0011)	ND (0.00094)	ND (0.00076)	ND (0.0012)	ND (0.0013) J
Dibromochloromethane	ND (0.00067)	ND (0.0011)	ND (0.0009)	ND (0.00083)	ND (0.0011)	ND (0.0016)	ND (0.00093)	ND (0.001)	ND (0.001)	ND (0.00096)	ND (0.001)	ND (0.00077)	ND (0.0011)	ND (0.00094)	ND (0.00076)	ND (0.0012)	ND (0.0013) J
Dibromomethane	ND (0.0013)	ND (0.0023)	ND (0.0018)	ND (0.0017)	ND (0.0023)	ND (0.0032)	ND (0.0019)	ND (0.002)	ND (0.0021)	ND (0.0019)	ND (0.002)	ND (0.0015)	ND (0.0022)	ND (0.0019)	ND (0.0015)	ND (0.0024)	ND (0.0026) J
Dichlorodifluoromethane (CFC-12)	ND (0.0067)	ND (0.011)	ND (0.009)	ND (0.0083)	ND (0.011)	ND (0.016)	ND (0.0093)	ND (0.01)	ND (0.01)	ND (0.0096)	ND (0.01)	ND (0.0077)	ND (0.011)	ND (0.0094)	ND (0.0076)	ND (0.012)	ND (0.013)
Ethyl Ether	ND (0.0013)	ND (0.0023)	ND (0.0018)	ND (0.0017)	ND (0.0023)	ND (0.0032)	ND (0.0019)	ND (0.002)	ND (0.0021)	ND (0.0019)	ND (0.002)	ND (0.0015)	ND (0.0022)	ND (0.0019)	ND (0.0015)	ND (0.0024)	ND (0.0026)
Ethylbenzene	ND (0.00067)	0.0021	ND (0.0009)	0.00029 J	ND (0.0011)	ND (0.0016)	ND (0.00093)	ND (0.001)	ND (0.001)	ND (0.00096)	ND (0.001)	ND (0.00077)	ND (0.0011)	ND (0.00094)	ND (0.00076)	ND (0.0012)	ND (0.0013) J
Hexachlorobutadiene	ND (0.0027)	ND (0.0046)	ND (0.0036)	ND (0.0033)	ND (0.0045)	ND (0.0063)	ND (0.0037)	ND (0.0041)	ND (0.0042)	ND (0.0038)	ND (0.004)	ND (0.0031)	ND (0.0044)	ND (0.0038)	ND (0.003)	ND (0.0047)	ND (0.0051) J
Isopropylbenzene (Cumene)	ND (0.00067)	ND (0.0011)	ND (0.0009)	ND (0.00083)	ND (0.0011)	ND (0.0016)	ND (0.00093)	ND (0.001)	ND (0.001)	ND (0.00096)	ND (0.001)	ND (0.00077)	ND (0.0011)	ND (0.00094)	ND (0.00076)	ND (0.0012)	ND (0.0013) J
m,p-Xylenes	ND (0.0013)	0.012	ND (0.0018)	0.0014 J	ND (0.0023)	ND (0.0032)	ND (0.0019)	ND (0.002)	ND (0.0021)	ND (0.0019)	ND (0.002)	ND (0.0015)	ND (0.0022)	ND (0.0019)	ND (0.0015)	ND (0.0024)	ND (0.0026) J
Methyl Tert Butyl Ether (MTBE)	ND (0.0013)	ND (0.0023)	ND (0.0018)	ND (0.0017)	ND (0.0023)	ND (0.0032)	ND (0.0019)	ND (0.002)	ND (0.0021)	ND (0.0019)	ND (0.002)	ND (0.0015)	ND (0.0022)	ND (0.0019)	ND (0.0015)	ND (0.0024)	ND (0.0026)
Methylene chloride (Dichloromethane)	ND (0.0033)	ND (0.0057)	ND (0.0045)	ND (0.0042)	ND (0.0057)	ND (0.0079)	ND (0.0046)	ND (0.0051)	ND (0.0052)	ND (0.0048)	ND (0.0051)	ND (0.0038)	ND (0.0055)	ND (0.0047)	ND (0.0038)	ND (0.0059)	ND (0.0064) J
Naphthalene	ND (0.0027)	ND (0.0046)	ND (0.0036)	0.00066 J	ND (0.0045)	0.0012 J	ND (0.0037)	ND (0.0041)	0.05	ND (0.0038)	ND (0.004)	ND (0.0031)	ND (0.0044)	ND (0.0038)	ND (0.003)	ND (0.0047)	ND (0.0051) J
n-Butylbenzene	ND (0.00067)	ND (0.0011)	ND (0.0009)	ND (0.00083)	ND (0.0011)	ND (0.0016)	ND (0.00093)	ND (0.001)	ND (0.001)	ND (0.00096)	ND (0.001)	ND (0.00077)	ND (0.0011)	ND (0.00094)	ND (0.00076)	ND (0.0012)	ND (0.0013) J
n-Propylbenzene	ND (0.00067)	ND (0.0011)	ND (0.0009)	ND (0.00083)	ND (0.0011)	ND (0.0016)	ND (0.00093)	ND (0.001)	ND (0.001)	ND (0.00096)	ND (0.001)	ND (0.00077)	ND (0.0011)	ND (0.00094)	ND (0.00076)	ND (0.0012)	ND (0.0013) J
o-Xylene	ND (0.00067)	0.0052	ND (0.0009)	0.00072 J	ND (0.0011)	ND (0.0016)	ND (0.00093)	ND (0.001)	ND (0.001)	ND (0.00096)	ND (0.001)	ND (0.00077)	ND (0.0011)	ND (0.00094)	ND (0.00076)	ND (0.0012)	ND (0.0013) J
Styrene	ND (0.00067)	ND (0.0011)	ND (0.0009)	ND (0.00083)	ND (0.0011)	ND (0.0016)	ND (0.00093)	ND (0.001)	ND (0.001)	ND (0.00096)	ND (0.001)	ND (0.00077)	ND (0.0011)	ND (0.00094)	ND (0.00076)	ND (0.0012)	ND (0.0013) J
tert-Butylbenzene	ND (0.0013)	ND (0.0023)	ND (0.0018)	ND (0.0017)	ND (0.0023)	ND (0.0032)	ND (0.0019)	ND (0.002)	ND (0.0021)	ND (0.0019)	ND (0.002)	ND (0.0015)	ND (0.0022)	ND (0.0019)	ND (0.0015)	ND (0.0024)	ND (0.0026) J
Tetrachloroethene	0.00017 J	0.00022 J	0.00024 J	0.00032 J	0.00071	ND (0.00079)	ND (0.00046)	ND (0.00051)	0.008	0.00024 J	0.00028 J	ND (0.00038)	0.00033 J	0.00034 J	ND (0.00038)	ND (0.00059)	ND (0.00064) J
Toluene	0.00059 J	ND (0.0011)	ND (0.0009)	ND (0.00083)	ND (0.0011)	ND (0.0016)	ND (0.00093)	ND (0.001)	0.00059 J	ND (0.00096)	ND (0.001)	ND (0.00077)	ND (0.0011)	ND (0.00094)	ND (0.00076)	ND (0.0012)	ND (0.0013) J
trans-1,2-Dichloroethene	ND (0.001)	ND (0.0017)	ND (0.0014)	ND (0.0012)	ND (0.0017)	ND (0.0024)	ND (0.0014)	ND (0.0015)	ND (0.0016)	ND (0.0014)	ND (0.0015)	ND (0.0012)	ND (0.0016)	ND (0.0014)	ND (0.0011)	ND (0.0018)	ND (0.0019) J
trans-1,3-Dichloropropene	ND (0.00067)	ND (0.0011)	ND (0.0009)	ND (0.00083)	ND (0.0011)	ND (0.0016)	ND (0.00093)	ND (0.001)	ND (0.001)	ND (0.00096)	ND (0.001)	ND (0.00077)	ND (0.0011)	ND (0.00094)	ND (0.00076)	ND (0.0012)	ND (0.0013) J
trans-1,4-Dichloro-2-butene	ND (0.0033)	ND (0.0057)	ND (0.0045)	ND (0.0042)	ND (0.0057)	ND (0.0079)	ND (0.0046)	ND (0.0051)	ND (0.0052)	ND (0.0048)	ND (0.0051)	ND (0.0038)	ND (0.0055)	ND (0.0047)	ND (0.0038)	ND (0.0059)	ND (0.0064) J
Trichloroethene	ND (0.00033)	ND (0.00057)	ND (0.00045)	ND (0.00042)	ND (0.00057)	ND (0.00079)	ND (0.00046)	ND (0.00051)	ND (0.00052)	ND (0.00048)	ND (0.00051)	ND (0.00038)	ND (0.00055)	ND (0.00047)	ND (0.00038)	ND (0.00059)	ND (0.00064) J
Trichlorofluoromethane (CFC-11)	ND (0.0027)	ND (0.0046)	ND (0.0036)	ND (0.0033)	ND (0.0045)	ND (0.0063)	ND (0.0037)	ND (0.0041)	ND (0.0042)	ND (0.0038)	ND (0.004)	ND (0.0031)	ND (0.0044)	ND (0.0038)	ND (0.003)	ND (0.0047)	ND (0.0051) J
Vinyl acetate	ND (0.0067) J	ND (0.011)	ND (0.009)	ND (0.0083)	ND (0.011)	ND (0.016)	ND (0.0093)	ND (0.01)	ND (0.01)	ND (0.0096)	ND (0.01)	ND (0.0077)	ND (0.011)	ND (0.0094)	ND (0.0076)	ND (0.012)	ND (0.013) J
Vinyl chloride	ND (0.00067)	ND (0.0011)	ND (0.0009)	ND (0.00083)	ND (0.0011)	ND (0.0016)	ND (0.00093)	0.00089 J	ND (0.001)	ND (0.00096)	ND (0.001)	ND (0.00077)	ND (0.0011)	ND (0.00094)	ND (0.00076)	ND (0.0012)	ND (0.0013)
Xylene (Total)	ND (0.00067)	0.017	ND (0.0009)	0.0021 J	ND (0.0011)	ND (0.0016)	ND (0.00093)	ND (0.001)	ND (0.001)	ND (0.00096)	ND (0.001)	ND (0.00077)	ND (0.0011)	ND (0.00094)	ND (0.00076)	ND (0.0012)	ND (0.0013) J

ABBREVIATIONS AND NOTES:
mg/kg: milligram per kilogram

-: Not Analyzed
bgs: below ground surface
ft: feet
J: Value is estimated.
R: Rejected
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

- For test methods used, see the laboratory data sheets.
- Soil analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 375 Unrestricted Use Soil Cleanup Objectives (SCO), Restricted-Use Residential SCOs, and Protection of Groundwater SCO's.
- ***Bold italic*** values indicate an exceedance of the Protection of Groundwater Criteria.
- Grey shading indicates an exceedance of the Unrestricted Use Soil Cleanup Objectives.
- Yellow shading indicates an exceedance of the Restricted Use Residential Soil Cleanup Objectives.

TABLE 2a
REMEDIAL INVESTIGATION - VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS IN SOIL
556 BALTIC STREET
BROOKLYN, NEW YORK

	Action Level																										
Location Name	Restricted Use Soil Cleanup Objectives - Protection of Groundwater	Restricted Use Soil Cleanup Objectives - Residential	Unrestricted Use Soil Cleanup Objectives	HA-13	HA-13	HA-13	HA-14	HA-14	HA-14	HA-14	HA-15	HA-15	HA-15	HA-15	HA-16	HA-16	HA-16	HA-16	HA-17	HA-17	HA-17	HA-17	HA-18	HA-18	HA-18	HA-18	HA-18	HA-19
Sample Name				HA-13 (6-8)	HA-13 (10-12)	HA-13 (14-16)	HA-14 (2-4)	HA-14 (6-8)	HA-14 (10-12)	HA-14 (14-16)	HA-15 (2-4)	HA-15 (6-8)	HA-15 (10-12)	HA-15 (14-16)	HA-16 (2-4)	HA-16 (6-8)	HA-16 (10-12)	HA-16 (14-16)	HA-17 (2-4)	HA-17 (6-8)	HA-17 (10-12)	HA-17 (14-16)	HA-18 (2-4)	HA-18 (6-8)	HA-18 (10-12)	DUP_1_02132023	HA-18 (14-16)	HA-19 (2-4)
Sample Date				02/13/2023	02/13/2023	02/13/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/13/2023	02/13/2023	02/13/2023	02/13/2023	02/13/2023	02/08/2023
Lab Sample ID				L2307677-02 L2310952-02	L2307677-03 L2310952-03	L2307677-04 L2310952-04	L2305570-09	L2305570-10	L2305570-11	L2305570-12	L2305570-13	L2305570-14	L2305570-15	L2305570-16	L2305570-17	L2305570-18	L2305570-19	L2305570-20	L2306883-13 L2310952-36	L2306883-14	L2306883-15	L2306883-16 L2310952-37	L2307677-05 L2310952-05	L2307677-06 L2310952-06	L2307677-07 L2310952-07	L2307677-09 L2310952-09	L2307677-08 L2310952-08	L2306883-17 L2310952-38
Sample Depth (bgs)				6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)
Volatile Organic Compounds (mg/kg)																												
1,1,1,2-Tetrachloroethane	NA	NA	NA	ND (0.00045)	ND (0.0011)	ND (0.0012)	ND (0.00056)	ND (0.00055)	ND (0.00042)	ND (0.00072)	ND (0.00043)	ND (0.00044)	ND (0.051)	ND (0.00067)	ND (0.00054)	ND (0.00076)	ND (0.00049)	ND (0.00049)	ND (0.00058)	ND (0.00051)	ND (0.0005)	ND (0.00043)	ND (0.0006)	ND (0.00051) J	ND (0.00084)	ND (0.00056) J	ND (0.032)	ND (0.00063)
1,1,1-Trichloroethane	0.68	100	0.68	ND (0.00045)	ND (0.0011)	ND (0.0012)	ND (0.00056)	ND (0.00055)	ND (0.00042)	ND (0.00072)	ND (0.00043)	ND (0.00044)	ND (0.051)	ND (0.00067)	ND (0.00054)	ND (0.00076)	ND (0.00049)	ND (0.00049)	ND (0.00058)	ND (0.00051)	ND (0.0005)	ND (0.00043)	ND (0.0006)	ND (0.00051) J	ND (0.00084)	ND (0.00056) J	ND (0.032)	ND (0.00063)
1,1,2,2-Tetrachloroethane	NA	NA	NA	ND (0.00045)	ND (0.0011)	ND (0.0012)	ND (0.00056)	ND (0.00055)	ND (0.00042)	ND (0.00072)	ND (0.00043)	ND (0.00044)	ND (0.051)	ND (0.00067)	ND (0.00054)	ND (0.00076)	ND (0.00049)	ND (0.00049)	ND (0.00058)	ND (0.00051)	ND (0.0005)	ND (0.00043)	ND (0.0006)	ND (0.00051) J	ND (0.00084)	ND (0.00056) J	ND (0.032)	ND (0.00063)
1,1,2-Trichloroethane	NA	NA	NA	ND (0.00091)	ND (0.0022)	ND (0.0023)	ND (0.0011)	ND (0.0011)	ND (0.00084)	ND (0.0014)	ND (0.00086)	ND (0.00088)	ND (0.1)	ND (0.0013)	ND (0.0011)	ND (0.0015)	ND (0.00099)	ND (0.00097)	ND (0.0012)	ND (0.001)	ND (0.001)	ND (0.00086)	ND (0.0012)	ND (0.001) J	ND (0.0017)	ND (0.0011) J	ND (0.064)	ND (0.0012)
1,1-Dichloroethane	0.27	26	0.27	ND (0.00091)	ND (0.0022)	ND (0.0023)	ND (0.0011)	ND (0.0011)	ND (0.00084)	ND (0.0014)	ND (0.00086)	ND (0.00088)	ND (0.1)	ND (0.0013)	ND (0.0011)	ND (0.0015)	ND (0.00099)	ND (0.00097)	ND (0.0012)	ND (0.001)	ND (0.001)	ND (0.00086)	ND (0.0012)	ND (0.001) J	ND (0.0017)	ND (0.0011) J	ND (0.064)	ND (0.0012)
1,1-Dichloroethene	0.33	100	0.33	ND (0.00091)	ND (0.0022)	ND (0.0023)	ND (0.0011)	ND (0.0011)	ND (0.00084)	ND (0.0014)	ND (0.00086)	ND (0.00088)	ND (0.1)	ND (0.0013)	ND (0.0011)	ND (0.0015)	ND (0.00099)	ND (0.00097)	ND (0.0012)	ND (0.001)	ND (0.001)	ND (0.00086)	ND (0.0012)	ND (0.001) J	ND (0.0017)	ND (0.0011) J	ND (0.064)	ND (0.0012)
1,1-Dichloropropene	NA	NA	NA	ND (0.00045)	ND (0.0011)	ND (0.0012)	ND (0.00056)	ND (0.00055)	ND (0.00042)	ND (0.00072)	ND (0.00043)	ND (0.00044)	ND (0.051)	ND (0.00067)	ND (0.00054)	ND (0.00076)	ND (0.00049)	ND (0.00049)	ND (0.00058)	ND (0.00051)	ND (0.0005)	ND (0.00043)	ND (0.0006)	ND (0.00051) J	ND (0.00084)	ND (0.00056) J	ND (0.032)	ND (0.00063)
1,2,3-Trichlorobenzene	NA	NA	NA	ND (0.0018)	ND (0.0045)	ND (0.0046)	ND (0.0023)	ND (0.0022)	ND (0.0017)	ND (0.0029)	ND (0.0017)	ND (0.0018)	ND (0.2)	ND (0.0027)	ND (0.0021)	ND (0.003)	ND (0.002)	ND (0.0019)	ND (0.0023)	ND (0.002)	ND (0.002)	ND (0.0017)	ND (0.0024)	ND (0.002) J	ND (0.0034)	ND (0.0022) J	ND (0.13)	ND (0.0025)
1,2,3-Trichloropropane	NA	NA	NA	ND (0.0018)	ND (0.0045)	ND (0.0046)	ND (0.0023)	ND (0.0022)	ND (0.0017)	ND (0.0029)	ND (0.0017)	ND (0.0018)	ND (0.2)	ND (0.0027)	ND (0.0021)	ND (0.003)	ND (0.002)	ND (0.0019)	ND (0.0023)	ND (0.002)	ND (0.002)	ND (0.0017)	ND (0.0024)	ND (0.002) J	ND (0.0034)	ND (0.0022) J	ND (0.13)	ND (0.0025)
1,2,4,5-Tetramethylbenzene	NA	NA	NA	ND (0.0018)	ND (0.0045)	ND (0.0046)	ND (0.0023)	ND (0.0022)	ND (0.0017)	ND (0.0029)	ND (0.0017)	ND (0.0018)	ND (0.2)	ND (0.0027)	ND (0.0021)	ND (0.003)	ND (0.002)	ND (0.0019)	ND (0.0023)	ND (0.002)	ND (0.002)	0.00085 J	ND (0.0024)	ND (0.002) J	ND (0.0034)	ND (0.0022) J	2.6	0.00035 J
1,2,4-Trichlorobenzene	NA	NA	NA	ND (0.0018)	ND (0.0045)	ND (0.0046)	ND (0.0023)	ND (0.0022)	ND (0.0017)	ND (0.0029)	ND (0.0017)	ND (0.0018)	ND (0.2)	ND (0.0027)	ND (0.0021)	ND (0.003)	ND (0.002)	ND (0.0019)	ND (0.0023)	ND (0.002)	ND (0.002)	ND (0.0017)	ND (0.0024)	ND (0.002) J	ND (0.0034)	ND (0.0022) J	ND (0.13)	ND (0.0025)
1,2,4-Trimethylbenzene	3.6	52	3.6	ND (0.0018)	ND (0.0045)	ND (0.0046)	ND (0.0023)	ND (0.0022)	ND (0.0017)	ND (0.0029)	ND (0.0017)	ND (0.0018)	ND (0.2)	ND (0.0027)	ND (0.0021)	ND (0.003)	ND (0.002)	ND (0.0019)	ND (0.0023)	ND (0.002)	ND (0.002)	ND (0.0017)	ND (0.0024)	ND (0.002) J	ND (0.0034)	ND (0.0022) J	0.062 J	0.0043
1,2-Dibromo-3-chloropropane (DBCP)	NA	NA	NA	ND (0.0027)	ND (0.0067)	ND (0.007)	ND (0.0034)	ND (0.0033)	ND (0.0025)	ND (0.0043)	ND (0.0026)	ND (0.0026)	ND (0.31)	ND (0.004)	ND (0.0032)	ND (0.0045)	ND (0.003)	ND (0.0029)	ND (0.0034)	ND (0.0031)	ND (0.003)	ND (0.0026)	ND (0.0036)	ND (0.003) J	ND (0.005)	ND (0.0034) J	ND (0.19)	ND (0.0038)
1,2-Dibromoethane (Ethylene Dibromide)	NA	NA	NA	ND (0.00091)	ND (0.0022)	ND (0.0023)	ND (0.0011)	ND (0.0011)	ND (0.00084)	ND (0.0014)	ND (0.00086)	ND (0.00088)	ND (0.1)	ND (0.0013)	ND (0.0011)	ND (0.0015)	ND (0.00099)	ND (0.00097)	ND (0.0012)	ND (0.001)	ND (0.001)	ND (0.00086)	ND (0.0012)	ND (0.001) J	ND (0.0017)	ND (0.0011) J	ND (0.064)	ND (0.0012)
1,2-Dichlorobenzene	1.1	100	1.1	ND (0.0018)	ND (0.0045)	ND (0.0046)	ND (0.0023)	ND (0.0022)	ND (0.0017)	ND (0.0029)	ND (0.0017)	ND (0.0018)	ND (0.2)	ND (0.0027)	ND (0.0021)	ND (0.003)	ND (0.002)	ND (0.0019)	ND (0.0023)	ND (0.002)	ND (0.002)	ND (0.0017)	ND (0.0024)	ND (0.002) J	ND (0.0034)	ND (0.0022) J	ND (0.13)	ND (0.0025)
1,2-Dichloroethane	0.02	3.1	0.02	ND (0.00091)	ND (0.0022)	ND (0.0023)	ND (0.0011)	ND (0.0011)	ND (0.00084)	ND (0.0014)	ND (0.00086)	ND (0.00088)	ND (0.1)	ND (0.0013)	ND (0.0011)	ND (0.0015)	ND (0.00099)	ND (0.00097)	ND (0.0012)	ND (0.001)	ND (0.001)	ND (0.00086)	ND (0.0012)	ND (0.001) J	ND (0.0017)	ND (0.0011) J	ND (0.064)	ND (0.0012)
1,2-Dichloroethene (total)	NA	NA	NA	ND (0.00091)	ND (0.0022)	ND (0.0023)	ND (0.0011)	ND (0.0011)	ND (0.00084)	ND (0.0014)	ND (0.00086)	ND (0.00088)	ND (0.1)	ND (0.0013)	ND (0.0011)	ND (0.0015)	ND (0.00099)	ND (0.00097)	ND (0.0012)	ND (0.001)	ND (0.001)	ND (0.00086)	ND (0.0012)	ND (0.001) J	ND (0.0017)	ND (0.0011) J	ND (0.064)	ND (0.0012)
1,2-Dichloropropane	NA	NA	NA	ND (0.00091)	ND (0.0022)	ND (0.0023)	ND (0.0011)	ND (0.0011)	ND (0.00084)	ND (0.0014)	ND (0.00086)	ND (0.00088)	ND (0.1)	ND (0.0013)	ND (0.0011)	ND (0.0015)	ND (0.00099)	ND (0.00097)	ND (0.0012)	ND (0.001)	ND (0.001)	ND (0.00086)	ND (0.0012)	ND (0.001) J	ND (0.0017)	ND (0.0011) J	ND (0.064)	ND (0.0012)
1,3,5-Trimethylbenzene	8.4	52	8.4	ND (0.0018)	ND (0.0045)	ND (0.0046)	ND (0.0023)	ND (0.0022)	ND (0.0017)	ND (0.0029)	ND (0.0017)	ND (0.0018)	ND (0.2)	ND (0.0027)	ND (0.0021)	ND (0.003)	ND (0.002)	ND (0.0019)	ND (0.0023)	ND (0.002)	ND (0.002)	ND (0.0017)	ND (0.0024)	ND (0.002) J	ND (0.0034)	ND (0.0022) J	0.031 J	0.0028
1,3-Dichlorobenzene	2.4	49	2.4	ND (0.0018)	ND (0.0045)	ND (0.0046)	ND (0.0023)	ND (0.0022)	ND (0.0017)	ND (0.0029)	ND (0.0017)	ND (0.0018)	ND (0.2)	ND (0.0027)	ND (0.0021)	ND (0.003)	ND (0.002)	ND (0.0019)	ND (0.0023)	ND (0.002)	ND (0.002)	ND (0.0017)	ND (0.0024)	ND (0.002) J	ND (0.0034)	ND (0.0022) J	ND (0.13)	ND (0.0025)
1,3-Dichloropropane	NA	NA	NA	ND (0.0018)	ND (0.0045)	ND (0.0046)	ND (0.0023)	ND (0.0022)	ND (0.0017)	ND (0.0029)	ND (0.0017)	ND (0.0018)	ND (0.2)	ND (0.0027)	ND (0.0021)	ND (0.003)	ND (0.002)	ND (0.0019)	ND (0.0023)	ND (0.002)	ND (0.002)	ND (0.0017)	ND (0.0024)	ND (0.002) J	ND (0.0034)	ND (0.0022) J	ND (0.13)	ND (0.0025)
1,3-Dichloropropene	NA	NA	NA	ND (0.00045)	ND (0.0011)	ND (0.0012)	ND (0.00056)	ND (0.00055)	ND (0.00042)	ND (0.00072)	ND (0.00043)	ND (0.00044)	ND (0.051)	ND (0.00067)	ND (0.00054)	ND (0.00076)	ND (0.00049)	ND (0.00049)	ND (0.00058)	ND (0.00051)	ND (0.0005)	ND (0.00043)	ND (0.0006)	ND (0.00051) J	ND (0.00084)	ND (0.00056) J	ND (0.032)	ND (0.00063)
1,4-Dichlorobenzene	1.8	13	1.8	ND (0.0018)	ND (0.0045)	ND (0.0046)	ND (0.0023)	ND (0.0022)	ND (0.0017)	ND (0.0029)	ND (0.0017)	ND (0.0018)	ND (0.2)	ND (0.0027)	ND (0.0021)	ND (0.003)	ND (0.002)	ND (0.0019)	ND (0.0023)	ND (0.002)	ND (0.002)	ND (0.0017)	ND (0.0024)	ND (0.002) J	ND (0.0034)	ND (0.0022) J	ND (0.13)	ND (0.0025)
1,4-Diethylbenzene	NA	NA	NA	ND (0.0018)	ND (0.0045)	ND (0.0046)	ND (0.0023)	ND (0.0022)	ND (0.0017)	ND (0.0029)	ND (0.0017)	ND (0.0018)	ND (0.2)	ND (0.0027)	ND (0.0021)	ND (0.003)	ND (0.002)	ND (0.0019)	ND (0.0023)	ND (0.002)	ND (0.002)	ND (0.0017)	ND (0.0024)	ND (0.002) J	ND (0.0034)	ND (0.0022) J	0.89	ND (0.0025)
1,4-Dioxane	0.1	13	0.1	ND (0.072)	ND (0.18)	ND (0.19)	ND (0.09)	ND (0.088)	ND (0.067)	ND (0.12)	ND (0.069)	ND (0.071)	ND (8.2)	ND (0.11)	ND (0.086)	ND (0.12)	ND (0.079)	ND (0.078)	ND (0.092)	ND (0.082)	ND (0.081)	ND (0.069)	ND (0.095)	ND (0.081) J	ND (0.13)	ND (0.09) J	ND (5.1)	ND (0.1)
2,2-Dichloropropane	NA	NA	NA	ND (0.0018)	ND (0.0045)	ND (0.0046)	ND (0.0023)	ND (0.0022)	ND (0.0017)	ND (0.0029)	ND (0.0017)	ND (0.0018)	ND (0.2)	ND (0.0027)	ND (0.0021)	ND (0.003)	ND (0.002)	ND (0.0019)	ND (0.0023)	ND (0.002)	ND (0.002)	ND (0.0017)	ND (0.0024)	ND (0.002) J	ND (0.0034)	ND (0.0022) J	ND (0.13)	ND (0.0025)
2-Butanone (Methyl Ethyl Ketone)	0.12	100	0.12	ND (0.0091)	0.0056 J	0.0067 J	ND (0.011)	ND (0.011)	0.0043 J	ND (0.014)	ND (0.0086)	ND (0.0088)	ND (1)	ND (0.013)	ND (0.011)	ND (0.015)	ND (0.0099)	0.0054 J	ND (0.012)	ND (0.01)	0.0069 J	0.0041 J	ND (0.012)	ND (0.01) J	0.0084 J	0.0086 J	ND (0.64)	ND (0.012)
2-Chlorotoluene	NA	NA	NA	ND (0.0018)	ND (0.0045)	ND (0.0046)	ND (0.0023)	ND (0.0022)	ND (0.0017)	ND (0.0029)	ND (0.0017)	ND (0.0018)	ND (0.2)	ND (0.0027)	ND (0.0021)	ND (0.003)	ND (0.002)	ND (0.0019)	ND (0.0023)	ND (0.002)	ND (0.002)	ND (0.0017)	ND (0.0024)	ND (0.002) J	ND (0.0034)	ND (0.0022) J	ND (0.13)	ND (0.0025)
2-Hexanone (Methyl Butyl Ketone)	NA	NA	NA	ND (0.0091)	ND (0.022)	ND (0.023)	ND (0.011)	ND (0.011)	ND (0.0084)	ND (0.014)	ND (0.0086)	ND (0.0088)	ND (1)	ND (0.013)	ND (0.011)	ND (0.015)	ND (0.0099)	ND (0.0097)	ND (0.012)	ND (0.01)	ND (0.01)	ND (0.0086)	ND (0.012)	ND (0.01) J	ND (0.017)	ND (0.011) J	ND (0.64)	ND (0.012)
2-Phenylbutane (sec-Butylbenzene)	11	100	11	ND (0.00091)	ND (0.0022)	ND (0.0023)	ND (0.0011)	ND (0.0011)	ND (0.00084)	ND (0.0014)	ND (0.00086)	ND (0.00088)	ND (0.1)	ND (0.0013)	ND (0.0011)	ND (0.0015)	ND (0.00099)	ND (0.00097)	ND (0.0012)	ND (0.001)	ND (0.001)	ND (0.00086)	ND (0.0012)	ND (0.001) J	ND (0.0017)	ND (0.0011) J	0.73	ND (0.0012)
4-Chlorotoluene	NA	NA	NA	ND (0.0018)	ND (0.0045)	ND (0.0046)	ND (0.0023)	ND (0.0022)	ND (0.0017)	ND (0.0029)	ND (0.0017)	ND (0.0018)	ND (0.2)	ND (0.0027)	ND (0.0021)	ND (0.003)	ND (0.002)	ND (0.0019)	ND (0.0023)	ND (0.002)	ND (0.002)	ND (0.0017)	ND (0.0024)	ND (0.002) J	ND (0.0034)	ND (0.0022) J	ND (0.13)	ND (0.0025)
4-Ethyltoluene (1-Ethyl-4-Methylbenzene)	NA	NA	NA	ND (0.0018)	ND (0.0045)	ND (0.0046)	ND (0.0023)	ND (0.0022)	ND (0.0017)	ND (0.0029)	ND (0.0017)	ND (0.0018)	ND (0.2)	ND (0.0027)	ND (0.0021)	ND (0.003)	ND (0.002)	ND (0.0019)	ND (0.0023)	ND (0.002)	ND (0.002)	ND (0.0017)	ND (0.0024)	ND (0.002) J	ND (0.0034)	ND (0.0022) J	0.072 J	0.004
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	NA	NA	NA	ND (0.0091)	ND (0.022)	ND (0.023)	ND (0.011)	ND (0.011)	ND (0.0084)	ND (0.014)	ND (0.0086)	ND (0.0088)	ND (1)	ND (0.013)	ND (0.011)	ND (0.015)	ND (0.0099)	ND (0.0097)	ND (0.012)	ND (0.01)	ND (0.01)	ND (0.0086)	ND (0.012)	ND (0.01) J	ND (0.017)	ND (0.011) J	ND (0.64)	ND (0.012)
Acetone	0.05	100	0.05	0.0091	***0.052***	***0.055***	0.029	0.0061 J	0.018	0.036	ND (0.0086)	0.0045 J	ND (1)	ND (0.013)	0.012	***0.078***	0.023	0.03	***0.16***	***0.062***	***0.08***	***0.055***	0.0067 J	0.021 J+	***0.062***	***0.055 J***	***0.43 J***	***0.12***
Acrylonitrile	NA	NA	NA	ND (0.0036)	ND (0.009)	ND (0.0093)	ND (0.0045)	ND (0.0044)	ND (0.0033)	ND (0.0058)	ND (0.0034)	ND (0.0035)	ND (0.41)	ND (0.0054)	ND (0.0043)	ND (0.006)	ND (0.0039)	ND (0.0039)	ND (0.0046)	ND (0.0041)	ND (0.004)	ND (0.0034)	ND (0.0048)	ND (0.0041) J	ND (0.0067)	ND (0.0045) J	ND (0.26)	ND (0.005)
Benzene	0.06	4.8	0.06	ND (0.00045)	ND (0.0011)	ND (0.0012)	ND (0.00056)	ND (0.00055)	ND (0.00042)	ND (0.00072)	0.00021 J	ND (0.00044)	ND (0.051)	ND (0.00067)	ND (0.00054)	0.0008	ND (0.00049)	0.0082	0.00028 J	ND (0.00051)	0.00035 J	0.0028	ND (0.0006)	0.0002 J	ND (0.00084)	ND (0.00056) J	***0.15***	ND (0.00063)
Bromobenzene	NA	NA	NA	ND (0.0018)	ND (0.0045)	ND (0.0046)	ND (0.0023)	ND (0.0022)	ND (0.0017)	ND (0.0029)	ND (0.0017)	ND (0.0018)	ND (0.2)	ND (0.0027)	ND (0.0021)	ND (0.003)	ND (0.002)	ND (0.0019)	ND (0.0023)	ND (0.002)	ND (0.002)	ND (0.0017)	ND (0.0024)	ND (0.002) J	ND (0.0034)	ND (0.0022) J	ND (0.13)	ND (0.0025)
Bromodichloromethane	NA	NA	NA	ND (0.00045)	ND (0.0011)	ND (0.0012)	ND (0.00056)	ND (0.00055)	ND (0.00042)	ND (0.00072)	ND (0.00043)	ND (0.00044)	ND (0.051)	ND (0.00067)	ND (0.00054)	ND (0.00076)	ND (0.00049)	ND (0.00049)	ND (0.00058)	ND (0.00051)	ND (0.0005)	ND (0.00043)	ND (0.0006)	ND (0.00051) J	ND (0.00084)	ND (0.00056) J	ND (0.032)	ND (0.00063)
Bromoform	NA	NA	NA	ND (0.0036)	ND (0.009)	ND (0.0093)	ND (0.0045)	ND (0.0044)	ND (0.0033)	ND (0.0058)	ND (0.0034)	ND (0.0035)	ND (0.41)	ND (0.0054)	ND (0.0043)	ND (0.006)	ND (0.0039)	ND (0.0039)	ND (0.0046)	ND (0.0041)	ND (0.004)	ND (0.0034)	ND (0.0048)	ND (0.0041) J	ND (0.0067)	ND (0.0045) J	ND (0.26)	ND (0.005)
Bromomethane (Methyl Bromide)	NA	NA	NA	ND (0.0018)	ND (0.0045)	ND (0.0046)	ND (0.0023)	ND (0.0022)	ND (0.0017)	ND (0.0029)	ND (0.0017)	ND (0.0018)	ND (0.2)	ND (0.0027)	ND (0.0021)	ND (0.003)	ND (0.002)	ND (0.0019)	ND (0.0023)	ND (0.002)	ND (0.002)	ND (0.0017)	ND (0.0024)	ND (0.002) J	ND (0.0034)	ND (0.0022) J	ND (0.13)	ND (0.0025)
Carbon disulfide	NA	NA	NA	ND (0.0091)	ND (0.022)	ND (0.023)	ND (0.011)	ND (0.011)	ND (0.0084)	ND (0.014)	ND (0.0086)	ND (0.0088)	ND (1)	ND (0.013)	ND (0.011)	ND (0.015)	ND (0.0099)	ND (0.0097)	ND (0.012)	ND (0.01)	ND (0.01)	ND (0.0086)	ND (0.012)	ND (0.01) J	ND (0.017)	ND (0.011) J	ND (0.64)	ND (0.012)
Carbon tetrachloride	0.76	2.4	0.76	ND (0.00091)	ND (0.0022)	ND (0.0023)	ND (0.0011)	ND (0.0011)	ND (0.00084)	ND (0.0014)	ND (0.00086)	ND (0.00088)	ND (0.1)	ND (0.0013)	ND (0.0011)	ND (0.0015)	ND (0.00099)	ND (0.00097)	ND (0.0012)	ND (0.001)	ND (0.001)	ND (0.00086)	ND (0.0012)	ND (0.001) J	ND (0.0017)	ND (0.0011) J	ND (0.064)	ND (0.0012)
Chlorobenzene	1.1	100	1.1	ND (0.00045)	ND (0.0011)	ND (0.0012)	ND (0.00056)	ND (0.00055)	ND (0.00042)	ND (0.00072)	ND (0.00043)	ND (0.00044)	ND (0.051)	ND (0.00067)	ND (0.00054)	ND (0.00076)	ND (0.00049)	ND (0.00049)	ND (0.00058)	ND (0.00051)	ND (0.0005)	ND (0.00043)	ND (0.0006)	ND (0.00051) J	ND (0.00084)	ND (0.00056) J	ND (0.032)	ND (0.00063)
Chlorobromomethane	NA	NA	NA	ND (0.0018)	ND (0.0045)	ND (0.0046)	ND (0.0023)	ND (0.0022)	ND (0.0017)	ND (0.0029)	ND (0.0017)	ND (0.0018)	ND (0.2)	ND (0.0027)	ND (0.0021)	ND (0.003)	ND (0.002)	ND (0.0019)	ND (0.0023)	ND (0.002)	ND (0.002)	ND (0.0017)	ND (0.0024)	ND (0.002) J	ND (0.0034)	ND (0.0022) J	ND (0.13)	ND (0.0025)
Chloroethane	NA	NA	NA	ND (0.0018)	ND (0.0045)	ND (0.0046)	ND (0.0023)	ND (0.0022)	ND (0.0017)	ND (0.0029)	ND (0.0017)	ND (0.0018)	ND (0.2)	ND (0.0027)	ND (0.0021)	ND (0.003)	ND (0.002)	ND (0.0019)	ND (0.0023)	ND (0.002)	ND (0.002)	ND (0.0017)	ND (0.0024)	ND (0.002) J	ND (0.0034)	ND (0.0022) J	ND (0.13)	ND (0.0025)
Chloroform (Trichloromethane)	0.37	49	0.37	0.00036 J	ND (0.0034)	ND (0.0035)	ND (0.0017)	ND (0.0016)	ND (0.0012)	ND (0.0022)	ND (0.0013)	ND (0.0013)	ND (0.15)	ND (0.002)	ND (0.0016)	ND (0.0023)	ND (0.0015)	ND (0.0014)	ND (0.0017)	ND (0.0015)	ND (0.0015)	ND (0.0013)	ND (0.0018)	ND (0.0015) J	ND (0.0025)	ND (0.0017) J	ND (0.096)	ND (0.0019)
Chloromethane (Methyl Chloride)	NA	NA	NA	ND (0.0036)	ND (0.009)	ND (0.0093)	ND (0.0045)	ND (0.0044)	ND (0.0033)	ND (0.0058)	ND (0.0034)	ND (0.0035)	ND (0.41)	ND (0.0054)	ND (0.0043)	ND (0.006)	ND (0.0039)	ND (0.0039)	ND (0.0046)	ND (0.0041)	ND (0.004)	ND (0.0034)	ND (0.0048)	ND (0.0041) J	ND (0.0067)	ND (0.0045) J	ND (0.26)	ND (0.005)
cis-1,2-Dichloroethene	0.25	100	0.25	ND (0.00091)	ND (0.0022)	ND (0.0023)	ND (0.0011)	ND (0.0011)	ND (0.00084)	ND (0.0014)	ND (0.00086)	ND (0.00088)	ND (0.1)	ND (0.0013)	ND (0.0011)	ND (0.0015)	ND (0.00099)	ND (0.00097)	ND (0.0012)	ND (0.001)	ND (0.001)	ND (0.00086)	ND (0.0012)	ND (0.001) J	ND (0.0017)	ND (0.0011) J	ND (0.064)	ND (0.0012)
cis-1,3-Dichloropropene	NA	NA	NA	ND (0.00045)	ND (0.0011)	ND (0.0012)	ND (0.00056)	ND (0.00055)	ND (0.00042)	ND (0.00072)	ND (0.00043)	ND (0.00044)	ND (0.051)	ND (0.00067)	ND (0.00054)	ND (0.00076)	ND (0.00049)	ND (0.00049)	ND (0.00058)	ND (0.00051)	ND (0.0005)	ND (0.00043)	ND (0.0006)	ND (0.00051) J	ND (0.00084)	ND (0.00056) J	ND (0.032)	ND (0.00063)
Cymene (p-Isopropyltoluene)	NA	NA	NA	ND (0.00091)	ND (0.0022)	0.002 J	ND (0.0011)	ND (0.0011)	ND (0.00084)	ND (0.0014)	ND (0.00086)	ND (0.00088)	7.3	ND (0.0013)	ND (0.0011)	ND (0.0015)	ND (0.00099)	ND (0.00097)	ND (0.0012)	ND (0.001)	ND (0.001)	ND (0.00086)	ND (0.0012)	ND (0.001) J	ND (0.0017)	ND (0.0011) J	0.018 J	ND (0.0012)
Dibromochloromethane	NA	NA	NA	ND (0.00091)	ND (0.0022)	ND (0.0023)	ND (0.0011)	ND (0.0011)	ND (0.00084)	ND (0.0014)	ND (0.00086)	ND (0.00088)	ND (0.1)	ND (0.0013)	ND (0.0011)	ND (0.0015)	ND (0.00099)	ND (0.00097)	ND (0.0012)	ND (0.001)	ND (0.001)	ND (0.00086)	ND (0.0012)	ND (0.001) J	ND (0.0017)	ND (0.0011) J	ND (0.064)	ND (0.0012)
Dibromomethane	NA	NA	NA	ND (0.0018)	ND (0.0045)	ND (0.0046)	ND (0.0023)	ND (0.0022)	ND (0.0017)	ND (0.0029)	ND (0.0017)	ND (0.0018)	ND (0.2)	ND (0.0027)	ND (0.0021)	ND (0.003)	ND (0.002)	ND (0.0019)	ND (0.0023)	ND (0.002)	ND (0.002)	ND (0.0017)	ND (0.0024)	ND (0.002) J	ND (0.0034)	ND (0.0022) J	ND (0.13)	ND (0.0025)
Dichlorodifluoromethane (CFC-12)	NA	NA	NA	ND (0.0091)	ND (0.022)	ND (0.023)	ND (0.011)	ND (0.011)	ND (0.0084)	ND (0.014)	ND (0.0086)	ND (0.0088)	ND (1)	ND (0.013)	ND (0.011)	ND (0.015)	ND (0.0099)	ND (0.0097)	ND (0.012)	ND (0.01)	ND (0.01)	ND (0.0086)	ND (0.012)	ND (0.01) J	ND (0.017)	ND (0.011) J	ND (0.64)	ND (0.012)
Ethyl Ether	NA	NA	NA	ND (0.0018)	ND (0.0045)	ND (0.0046)	ND (0.0023)	ND (0.0022)	ND (0.0017)	ND (0.0029)	ND (0.0017)	ND (0.0018)	ND (0.2)	ND (0.0027)	ND (0.0021)	ND (0.003)	ND (0.002)	ND (0.0019)	ND (0.0023)	ND (0.002)	ND (0.002)	ND (0.0017)	ND (0.0024)	ND (0.002) J	ND (0.0034)	ND (0.0022) J	ND (0.13)	ND (0.0025)
Ethylbenzene	1	41	1	ND (0.00091)	ND (0.0022)	ND (0.0023)	ND (0.0011)	ND (0.0011)	ND (0.00084)	ND (0.0014)	ND (0.00086)	ND (0.00088)	ND (0.1)	ND (0.0013)	ND (0.0011)	ND (0.0015)	ND (0.00099)	0.00025 J	ND (0.0012)	ND (0.001)	ND (0.001)	ND (0.00086)	ND (0.0012)	0.0002 J	ND (0.0017)	0.00031 J	0.11	0.00074 J
Hexachlorobutadiene	NA	NA	NA	ND (0.0036)	ND (0.009)	ND (0.0093)	ND (0.0045)	ND (0.0044)	ND (0.0033)	ND (0.0058)	ND (0.0034)	ND (0.0035)	ND (0.41)	ND (0.0054)	ND (0.0043)	ND (0.006)	ND (0.0039)	ND (0.0039)	ND (0.0046)	ND (0.0041)	ND (0.004)	ND (0.0034)	ND (0.0048)	ND (0.0041) J	ND (0.0067)	ND (0.0045) J	ND (0.26)	ND (0.005)
Isopropylbenzene (Cumene)	NA	NA	NA	ND (0.00091)	ND (0.0022)	ND (0.0023)	ND (0.0011)	ND (0.0011)	ND (0.00084)	ND (0.0014)	ND (0.00086)	ND (0.00088)	ND (0.1)	ND (0.0013)	ND (0.0011)	ND (0.0015)	ND (0.00099)	ND (0.00097)	ND (0.0012)	ND (0.001)	ND (0.001)	ND (0.00086)	ND (0.0012)	ND (0.001) J	ND (0.0017)	ND (0.0011) J	0.82	0.00016 J
m,p-Xylenes	NA	NA	NA	ND (0.0018)	ND (0.0045)	ND (0.0046)	ND (0.0023)	ND (0.0022)	ND (0.0017)	ND (0.0029)	ND (0.0017)	ND (0.0018)	ND (0.2)	ND (0.0027)	ND (0.0021)	ND (0.003)	ND (0.002)	ND (0.0019)	0.00064 J	ND (0.002)	ND (0.002)	ND (0.0017)	ND (0.0024)	ND (0.002) J	ND (0.0034)	ND (0.0022) J	0.15	0.0048
Methyl Tert Butyl Ether (MTBE)	0.93	100	0.93	ND (0.0018)	ND (0.0045)	0.0005 J	ND (0.0023)	ND (0.0022)	ND (0.0017)	ND (0.0029)	ND (0.0017)	ND (0.0018)	ND (0.2)	ND (0.0027)	ND (0.0021)	ND (0.003)	ND (0.002)	ND (0.0019)	ND (0.0023)	ND (0.002)	ND (0.002)	0.00028 J	0.00025 J	ND (0.002) J	ND (0.0034)	ND (0.0022) J	ND (0.13)	ND (0.0025)
Methylene chloride (Dichloromethane)	0.05	100	0.05	ND (0.0045)	ND (0.011)	ND (0.012)	ND (0.0056)	ND (0.0055)	ND (0.0042)	ND (0.0072)	ND (0.0043)	ND (0.0044)	ND (0.51)	ND (0.0067)	ND (0.0054)	ND (0.0076)	ND (0.0049)	ND (0.0049)	ND (0.0058)	ND (0.0051)	ND (0.005)	ND (0.0043)	ND (0.006)	ND (0.0051) J	ND (0.0084)	ND (0.0056) J	ND (0.32)	ND (0.0063)
Naphthalene	12	100	12	ND (0.0036)	ND (0.009)	ND (0.0093)	ND (0.0045)	ND (0.0044)	ND (0.0033)	ND (0.0058)	ND (0.0034)	ND (0.0035)	ND (0.41)	ND (0.0054)	ND (0.0043)	ND (0.006)	ND (0.0039)	ND (0.0039)	ND (0.0046)	ND (0.0041)	ND (0.004)	ND (0.0034)	ND (0.0048)	ND (0.0041) J	ND (0.0067)	ND (0.0045) J	0.25 J	ND (0.005)
n-Butylbenzene	12	100	12	ND (0.00091)	ND (0.0022)	ND (0.0023)	ND (0.0011)	ND (0.0011)	ND (0.00084)	ND (0.0014)	ND (0.00086)	ND (0.00088)	ND (0.1)	ND (0.0013)	ND (0.0011)	ND (0.0015)	ND (0.00099)	ND (0.00097)	ND (0.0012)	ND (0.001)	0.00024 J	ND (0.00086)	ND (0.0012)	ND (0.001) J	ND (0.0017)	ND (0.0011) J	1.2	ND (0.0012)
n-Propylbenzene	3.9	100	3.9	ND (0.00091)	ND (0.0022)	ND (0.0023)	ND (0.0011)	ND (0.0011)	ND (0.00084)	ND (0.0014)	ND (0.00086)	ND (0.00088)	ND (0.1)	ND (0.0013)	ND (0.0011)	ND (0.0015)	ND (0.00099)	ND (0.00097)	ND (0.0012)	ND (0.001)	ND (0.001)	ND (0.00086)	ND (0.0012)	ND (0.001) J	ND (0.0017)	ND (0.0011) J	2	0.00032 J
o-Xylene	NA	NA	NA	ND (0.00091)	ND (0.0022)	ND (0.0023)	ND (0.0011)	ND (0.0011)	ND (0.00084)	ND (0.0014)	ND (0.00086)	ND (0.00088)	ND (0.1)	ND (0.0013)	ND (0.0011)	ND (0.0015)	ND (0.00099)	ND (0.00097)	ND (0.0012)	ND (0.001)	ND (0.001)	ND (0.00086)	ND (0.0012)	ND (0.001) J	ND (0.0017)	ND (0.0011) J	0.03 J	0.0049
Styrene	NA	NA	NA	ND (0.00091)	ND (0.0022)	ND (0.0023)	ND (0.0011)	ND (0.0011)	ND (0.00084)	ND (0.0014)	ND (0.00086)	ND (0.00088)	ND (0.1)	ND (0.0013)	ND (0.0011)	ND (0.0015)	ND (0.00099)	ND (0.00097)	ND (0.0012)	ND (0.001)	ND (0.001)	ND (0.00086)	ND (0.0012)	ND (0.001) J	ND (0.0017)	ND (0.0011) J	ND (0.064)	ND (0.0012)
tert-Butylbenzene	5.9	100	5.9	ND (0.0018)	ND (0.0045)	ND (0.0046)	ND (0.0023)	ND (0.0022)	ND (0.0017)	ND (0.0029)	ND (0.0017)	ND (0.0018)	ND (0.2)	ND (0.0027)	ND (0.0021)	ND (0.003)	ND (0.002)	ND (0.0019)	ND (0.0023)	ND (0.002)	ND (0.002)	0.00025 J	ND (0.0024)	ND (0.002) J	ND (0.0034)	ND (0.0022) J	0.02 J	ND (0.0025)
Tetrachloroethene	1.3	19	1.3	ND (0.00045)	ND (0.0011)	ND (0.0012)	ND (0.00056)	ND (0.00055)	ND (0.00042)	ND (0.00072)	ND (0.00043)	ND (0.00044)	ND (0.051)	ND (0.00067)	ND (0.00054)	ND (0.00076)	ND (0.00049)	ND (0.00049)	ND (0.00058)	ND (0.00051)	ND (0.0005)	ND (0.00043)	ND (0.0006)	ND (0.00051) J	ND (0.00084)	ND (0.00056) J	ND (0.032)	ND (0.00063)
Toluene	0.7	100	0.7	ND (0.00091)	ND (0.0022)	ND (0.0023)	ND (0.0011)	ND (0.0011)	ND (0.00084)	ND (0.0014)	ND (0.00086)	ND (0.00088)	ND (0.1)	ND (0.0013)	ND (0.0011)	ND (0.0015)	ND (0.00099)	ND (0.00097)	0.00086 J	ND (0.001)	ND (0.001)	ND (0.00086)	ND (0.0012)	ND (0.001) J	ND (0.0017)	ND (0.0011) J	0.064	0.002
trans-1,2-Dichloroethene	0.19	100	0.19	ND (0.0014)	ND (0.0034)	ND (0.0035)	ND (0.0017)	ND (0.0016)	ND (0.0012)	ND (0.0022)	ND (0.0013)	ND (0.0013)	ND (0.15)	ND (0.002)	ND (0.0016)	ND (0.0023)	ND (0.0015)	ND (0.0014)	ND (0.0017)	ND (0.0015)	ND (0.0015)	ND (0.0013)	ND (0.0018)	ND (0.0015) J	ND (0.0025)	ND (0.0017) J	ND (0.096)	ND (0.0019)
trans-1,3-Dichloropropene	NA	NA	NA	ND (0.00091)	ND (0.0022)	ND (0.0023)	ND (0.0011)	ND (0.0011)	ND (0.00084)	ND (0.0014)	ND (0.00086)	ND (0.00088)	ND (0.1)	ND (0.0013)	ND (0.0011)	ND (0.0015)	ND (0.00099)	ND (0.00097)	ND (0.0012)	ND (0.001)	ND (0.001)	ND (0.00086)	ND (0.0012)	ND (0.001) J	ND (0.0017)	ND (0.0011) J	ND (0.064)	ND (0.0012)
trans-1,4-Dichloro-2-butene	NA	NA	NA	ND (0.0045)	ND (0.011)	ND (0.012)	ND (0.0056)	ND (0.0055)	ND (0.0042)	ND (0.0072)	ND (0.0043)	ND (0.0044)	ND (0.51)	ND (0.0067)	ND (0.0054)	ND (0.0076)	ND (0.0049)	ND (0.0049)	ND (0.0058)	ND (0.0051)	ND (0.005)	ND (0.0043)	ND (0.006)	ND (0.0051) J	ND (0.0084)	ND (0.0056) J	ND (0.32)	ND (0.0063)
Trichloroethene	0.47	21	0.47	ND (0.00045)	ND (0.0011)	ND (0.0012)	ND (0.00056)	ND (0.00055)	ND (0.00042)	ND (0.00072)	ND (0.00043)	ND (0.00044)	ND (0.051)	ND (0.00067)	ND (0.00054)	ND (0.00076)	ND (0.00049)	ND (0.00049)	ND (0.00058)	ND (0.00051)	ND (0.0005)	ND (0.00043)	ND (0.0006)	ND (0.00051) J	ND (0.00084)	ND (0.00056) J	ND (0.032)	ND (0.00063)
Trichlorofluoromethane (CFC-11)	NA	NA	NA	ND (0.0036)	ND (0.009)	ND (0.0093)	ND (0.0045)	ND (0.0044)	ND (0.0033)	ND (0.0058)	ND (0.0034)	ND (0.0035)	ND (0.41)	ND (0.0054)	ND (0.0043)	ND (0.006)	ND (0.0039)	ND (0.0039)	ND (0.0046)	ND (0.0041)	ND (0.004)	ND (0.0034)	ND (0.0048)	ND (0.0041) J	ND (0.0067)	ND (0.0045) J	ND (0.26)	ND (0.005)
Vinyl acetate	NA	NA	NA	ND (0.0091)	ND (0.022)	ND (0.023)	ND (0.011)	ND (0.011)	ND (0.0084)	ND (0.014)	ND (0.0086)	ND (0.0088)	ND (1)	ND (0.013)	ND (0.011)	ND (0.015)	ND (0.0099)	ND (0.0097)	ND (0.012)	ND (0.01)	ND (0.01)	ND (0.0086)	ND (0.012)	ND (0.01) J	ND (0.017)	ND (0.011) J	ND (0.64)	ND (0.012)
Vinyl chloride	0.02	0.9	0.02	ND (0.00091)	ND (0.0022)	ND (0.0023)	ND (0.0011)	ND (0.0011)	ND (0.00084)	ND (0.0014)	ND (0.00086)	ND (0.00088)	ND (0.1)	ND (0.0013)	ND (0.0011)	ND (0.0015)	ND (0.00099)	ND (0.00097)	ND (0.0012)	ND (0.001)	ND (0.001)	ND (0.00086)	ND (0.0012)	ND (0.001) J	ND (0.0017)	ND (0.0011) J	ND (0.064)	ND (0.0012)
Xylene (Total)	1.6	100	0.26	ND (0.00091)	ND (0.0022)	ND (0.0023)	ND (0.0011)	ND (0.0011)	ND (0.00084)	ND (0.0014)	ND (0.00086)	ND (0.00088)	ND (0.1)	ND (0.0013)	ND (0.0011)	ND (0.0015)	ND (0.00099)	ND (0.00097)	0.00064 J	ND (0.001)	ND (0.001)	ND (0.00086)	ND (0.0012)	ND (0.001) J	ND (0.0017)	ND (0.0011) J	0.18 J	0.0097

ABBREVIATIONS AND NOTES:
mg/kg: milligram per kilogram

-: Not Analyzed
bgs: below ground surface
ft: feet
J: Value is estimated.
R: Rejected
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

- For test methods used, see the laboratory data sheets.
- Soil analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 375 Unrestricted Use Soil Cleanup Objectives (SCO), Restricted-Use Residential SCOs, and Protection of Groundwater SCO's.
- ***Bold italic*** values indicate an exceedance of the Protection of Groundwater Criteria.
- Grey shading indicates an exceedance of the Unrestricted Use Soil Cleanup Objectives.
- Yellow shading indicates an exceedance of the Restricted Use Residential Soil Cleanup Objectives.

TABLE 2a
REMEDIAL INVESTIGATION - VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS IN SOIL
556 BALTIC STREET
BROOKLYN, NEW YORK

	Action Level																
Location Name	Restricted Use Soil Cleanup Objectives - Protection of Groundwater	Restricted Use Soil Cleanup Objectives - Residential	Unrestricted Use Soil Cleanup Objectives	HA-19	HA-19	HA-19	HA-19	HA-19	HA-20	HA-20	HA-20	HA-20	HA-21	HA-21	HA-21	HA-21	HA-21
Sample Name				HA-19 (6-8)	HA-19 (10-12)	DUP_1_02082023	HA-19 (14-16)	HA-19 (20-22)	HA-20 (2-4)	HA-20 (6-8)	HA-20 (10-12)	HA-20 (14-16)	HA-21 (2-4)	HA-21 (6-8)	HA-21 (10-12)	HA-21 (14-16)	HA-21 (20-22)
Sample Date				02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/10/2023	02/10/2023	02/10/2023	02/10/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023
Lab Sample ID				L2306883-18 L2310952-39	L2306883-19 L2310952-40	L2306883-27 L2310952-46	L2306883-20 L2310952-41	L2306883-21	L2307511-05 L2310952-24	L2307511-06 L2310952-25	L2307511-07 L2310952-26	L2307511-08	L2306883-22 L2310952-47	L2306883-23 L2310952-42	L2306883-24 L2310952-43	L2306883-25 L2310952-44	L2306883-26 L2310952-45
Sample Depth (bgs)				6 - 8 (ft)	10 - 12 (ft)	10 - 12 (ft)	14 - 16 (ft)	20 - 22 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	20 - 22 (ft)
Volatile Organic Compounds (mg/kg)																	
1,1,1,2-Tetrachloroethane	NA	NA	NA	ND (0.0004)	ND (0.06)	ND (0.034)	ND (0.2)	ND (0.00048)	ND (0.00055)	ND (0.00076)	ND (0.0006)	ND (0.0007)	ND (0.00053)	ND (0.00069)	ND (0.059)	ND (0.00073)	ND (0.00087)
1,1,1-Trichloroethane	0.68	100	0.68	ND (0.0004)	ND (0.06)	ND (0.034)	ND (0.2)	ND (0.00048)	ND (0.00055)	ND (0.00076)	ND (0.0006)	ND (0.0007)	ND (0.00053)	ND (0.00069)	ND (0.059)	ND (0.00073)	ND (0.00087)
1,1,2,2-Tetrachloroethane	NA	NA	NA	ND (0.0004)	ND (0.06)	ND (0.034)	ND (0.2)	ND (0.00048)	ND (0.00055)	ND (0.00076)	ND (0.0006)	ND (0.0007)	ND (0.00053)	ND (0.00069)	ND (0.059)	ND (0.00073)	ND (0.00087)
1,1,2-Trichloroethane	NA	NA	NA	ND (0.0008)	ND (0.12)	ND (0.068)	ND (0.41)	ND (0.00095)	ND (0.0011)	ND (0.0015)	ND (0.0012)	ND (0.0014)	ND (0.001)	ND (0.0014)	ND (0.12)	ND (0.0014)	ND (0.0017)
1,1-Dichloroethane	0.27	26	0.27	ND (0.0008)	ND (0.12)	ND (0.068)	ND (0.41)	ND (0.00095)	ND (0.0011)	ND (0.0015)	ND (0.0012)	ND (0.0014)	ND (0.001)	ND (0.0014)	ND (0.12)	ND (0.0014)	ND (0.0017)
1,1-Dichloroethene	0.33	100	0.33	ND (0.0008)	ND (0.12)	ND (0.068)	ND (0.41)	ND (0.00095)	ND (0.0011)	ND (0.0015)	ND (0.0012)	ND (0.0014)	ND (0.001)	ND (0.0014)	ND (0.12)	ND (0.0014)	ND (0.0017)
1,1-Dichloropropene	NA	NA	NA	ND (0.0004)	ND (0.06)	ND (0.034)	ND (0.2)	ND (0.00048)	ND (0.00055)	ND (0.00076)	ND (0.0006)	ND (0.0007)	ND (0.00053)	ND (0.00069)	ND (0.059)	ND (0.00073)	ND (0.00087)
1,2,3-Trichlorobenzene	NA	NA	NA	ND (0.0016)	ND (0.24)	ND (0.14)	ND (0.82)	ND (0.0019)	ND (0.0022)	ND (0.003)	ND (0.0024)	ND (0.0028)	ND (0.0021)	ND (0.0028)	ND (0.24)	ND (0.0029)	ND (0.0035)
1,2,3-Trichloropropane	NA	NA	NA	ND (0.0016)	ND (0.24)	ND (0.14)	ND (0.82)	ND (0.0019)	ND (0.0022)	ND (0.003)	ND (0.0024)	ND (0.0028)	ND (0.0021)	ND (0.0028)	ND (0.24)	ND (0.0029)	ND (0.0035)
1,2,4,5-Tetramethylbenzene	NA	NA	NA	0.0003 J	6.4 J	0.58 J	82	0.0022	ND (0.0022)	ND (0.003)	0.0031	0.0022 J	0.00028 J	ND (0.0028)	5.7	0.0031	0.00082 J
1,2,4-Trichlorobenzene	NA	NA	NA	ND (0.0016)	ND (0.24)	ND (0.14)	ND (0.82)	ND (0.0019)	ND (0.0022)	ND (0.003)	ND (0.0024)	ND (0.0028)	ND (0.0021)	ND (0.0028)	ND (0.24)	ND (0.0029)	ND (0.0035)
1,2,4-Trimethylbenzene	3.6	52	3.6	0.0038	2.1 J	ND (0.14) J	0.97	ND (0.0019)	ND (0.0022)	ND (0.003)	0.0011 J	ND (0.0028)	0.00092 J	ND (0.0028)	1.1	ND (0.0029)	ND (0.0035)
1,2-Dibromo-3-chloropropane (DBCP)	NA	NA	NA	ND (0.0024)	ND (0.36)	ND (0.2)	ND (1.2)	ND (0.0028)	ND (0.0033)	ND (0.0046)	ND (0.0036)	ND (0.0042)	ND (0.0032)	ND (0.0042)	ND (0.36)	ND (0.0044)	ND (0.0052)
1,2-Dibromoethane (Ethylene Dibromide)	NA	NA	NA	ND (0.0008)	ND (0.12)	ND (0.068)	ND (0.41)	ND (0.00095)	ND (0.0011)	ND (0.0015)	ND (0.0012)	ND (0.0014)	ND (0.001)	ND (0.0014)	ND (0.12)	ND (0.0014)	ND (0.0017)
1,2-Dichlorobenzene	1.1	100	1.1	ND (0.0016)	ND (0.24)	ND (0.14)	ND (0.82)	ND (0.0019)	ND (0.0022)	ND (0.003)	ND (0.0024)	ND (0.0028)	ND (0.0021)	ND (0.0028)	ND (0.24)	ND (0.0029)	ND (0.0035)
1,2-Dichloroethane	0.02	3.1	0.02	ND (0.0008)	ND (0.12)	ND (0.068)	ND (0.41)	ND (0.00095)	ND (0.0011)	ND (0.0015)	ND (0.0012)	ND (0.0014)	ND (0.001)	ND (0.0014)	ND (0.12)	ND (0.0014)	ND (0.0017)
1,2-Dichloroethene (total)	NA	NA	NA	ND (0.0008)	ND (0.12)	ND (0.068)	ND (0.41)	ND (0.00095)	ND (0.0011)	ND (0.0015)	ND (0.0012)	ND (0.0014)	ND (0.001)	ND (0.0014)	ND (0.12)	ND (0.0014)	ND (0.0017)
1,2-Dichloropropane	NA	NA	NA	ND (0.0008)	ND (0.12)	ND (0.068)	ND (0.41)	ND (0.00095)	ND (0.0011)	ND (0.0015)	ND (0.0012)	ND (0.0014)	ND (0.001)	ND (0.0014)	ND (0.12)	ND (0.0014)	ND (0.0017)
1,3,5-Trimethylbenzene	8.4	52	8.4	0.0014 J	0.45	ND (0.14)	0.31 J	ND (0.0019)	ND (0.0022)	ND (0.003)	0.00084 J	ND (0.0028)	0.001 J	ND (0.0028)	0.24	ND (0.0029)	ND (0.0035)
1,3-Dichlorobenzene	2.4	49	2.4	ND (0.0016)	ND (0.24)	ND (0.14)	ND (0.82)	ND (0.0019)	ND (0.0022)	ND (0.003)	ND (0.0024)	ND (0.0028)	ND (0.0021)	ND (0.0028)	ND (0.24)	ND (0.0029)	ND (0.0035)
1,3-Dichloropropane	NA	NA	NA	ND (0.0016)	ND (0.24)	ND (0.14)	ND (0.82)	ND (0.0019)	ND (0.0022)	ND (0.003)	ND (0.0024)	ND (0.0028)	ND (0.0021)	ND (0.0028)	ND (0.24)	ND (0.0029)	ND (0.0035)
1,3-Dichloropropene	NA	NA	NA	ND (0.0004)	ND (0.06)	ND (0.034)	ND (0.2)	ND (0.00048)	ND (0.00055)	ND (0.00076)	ND (0.0006)	ND (0.0007)	ND (0.00053)	ND (0.00069)	ND (0.059)	ND (0.00073)	ND (0.00087)
1,4-Dichlorobenzene	1.8	13	1.8	ND (0.0016)	ND (0.24)	ND (0.14)	ND (0.82)	ND (0.0019)	ND (0.0022)	ND (0.003)	ND (0.0024)	ND (0.0028)	ND (0.0021)	ND (0.0028)	ND (0.24)	ND (0.0029)	ND (0.0035)
1,4-Diethylbenzene	NA	NA	NA	ND (0.0016)	1.9 J	0.26 J	32	0.0008 J	ND (0.0022)	ND (0.003)	ND (0.0024)	ND (0.0028)	0.00077 J	ND (0.0028)	1.1	0.0014 J	0.00037 J
1,4-Dioxane	0.1	13	0.1	ND (0.064)	ND (9.5)	ND (5.4)	ND (33)	ND (0.076)	ND (0.088)	ND (0.12)	ND (0.097)	ND (0.11)	ND (0.084)	ND (0.11)	ND (9.5)	ND (0.12)	ND (0.14)
2,2-Dichloropropane	NA	NA	NA	ND (0.0016)	ND (0.24)	ND (0.14)	ND (0.82)	ND (0.0019)	ND (0.0022)	ND (0.003)	ND (0.0024)	ND (0.0028)	ND (0.0021)	ND (0.0028)	ND (0.24)	ND (0.0029)	ND (0.0035)
2-Butanone (Methyl Ethyl Ketone)	0.12	100	0.12	ND (0.008)	ND (1.2)	ND (0.68)	ND (4.1)	ND (0.0095)	ND (0.011)	ND (0.015)	ND (0.012)	0.0074 J	ND (0.01)	ND (0.014)	ND (1.2)	ND (0.014)	ND (0.017)
2-Chlorotoluene	NA	NA	NA	ND (0.0016)	ND (0.24)	ND (0.14)	ND (0.82)	ND (0.0019)	ND (0.0022)	ND (0.003)	ND (0.0024)	ND (0.0028)	ND (0.0021)	ND (0.0028)	ND (0.24)	ND (0.0029)	ND (0.0035)
2-Hexanone (Methyl Butyl Ketone)	NA	NA	NA	ND (0.008)	ND (1.2)	ND (0.68)	ND (4.1)	ND (0.0095)	ND (0.011)	ND (0.015)	ND (0.012)	ND (0.014)	ND (0.01)	ND (0.014)	ND (1.2)	ND (0.014)	ND (0.017)
2-Phenylbutane (sec-Butylbenzene)	11	100	11	ND (0.0008)	0.6 J	0.18 J	***23***	0.00045 J	ND (0.0011)	ND (0.0015)	0.00091 J	ND (0.0014)	ND (0.001)	ND (0.0014)	0.4	0.0011 J	0.00035 J
4-Chlorotoluene	NA	NA	NA	ND (0.0016)	ND (0.24)	ND (0.14)	ND (0.82)	ND (0.0019)	ND (0.0022)	ND (0.003)	ND (0.0024)	ND (0.0028)	ND (0.0021)	ND (0.0028)	ND (0.24)	ND (0.0029)	ND (0.0035)
4-Ethyltoluene (1-Ethyl-4-Methylbenzene)	NA	NA	NA	0.0024	2.4 J	ND (0.14) J	1	ND (0.0019)	ND (0.0022)	ND (0.003)	0.00083 J	ND (0.0028)	0.00044 J	ND (0.0028)	0.63	ND (0.0029)	ND (0.0035)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	NA	NA	NA	ND (0.008)	ND (1.2)	ND (0.68)	ND (4.1)	ND (0.0095)	ND (0.011)	ND (0.015)	ND (0.012)	ND (0.014)	ND (0.01)	ND (0.014)	ND (1.2)	ND (0.014)	ND (0.017)
Acetone	0.05	100	0.05	0.028	ND (1.2)	ND (0.68)	ND (4.1)	0.035	ND (0.012)	ND (0.016)	0.031	0.032	0.046	***0.2***	***0.62 J***	0.041	***0.08***
Acrylonitrile	NA	NA	NA	ND (0.0032)	ND (0.48)	ND (0.27)	ND (1.6)	ND (0.0038)	ND (0.0044)	ND (0.0061)	ND (0.0048)	ND (0.0056)	ND (0.0042)	ND (0.0055)	ND (0.47)	ND (0.0058)	ND (0.007)
Benzene	0.06	4.8	0.06	0.0013	***0.79 J***	0.014 J	***0.64***	ND (0.00048)	0.00025 J	ND (0.00076)	0.0026	ND (0.0007)	0.00023 J	0.00025 J	***0.25***	0.00035 J	ND (0.00087)
Bromobenzene	NA	NA	NA	ND (0.0016)	ND (0.24)	ND (0.14)	ND (0.82)	ND (0.0019)	ND (0.0022)	ND (0.003)	ND (0.0024)	ND (0.0028)	ND (0.0021)	ND (0.0028)	ND (0.24)	ND (0.0029)	ND (0.0035)
Bromodichloromethane	NA	NA	NA	ND (0.0004)	ND (0.06)	ND (0.034)	ND (0.2)	ND (0.00048)	ND (0.00055)	ND (0.00076)	ND (0.0006)	ND (0.0007)	ND (0.00053)	ND (0.00069)	ND (0.059)	ND (0.00073)	ND (0.00087)
Bromoform	NA	NA	NA	ND (0.0032)	ND (0.48)	ND (0.27)	ND (1.6)	ND (0.0038)	ND (0.0044)	ND (0.0061)	ND (0.0048)	ND (0.0056)	ND (0.0042)	ND (0.0055)	ND (0.47)	ND (0.0058)	ND (0.007)
Bromomethane (Methyl Bromide)	NA	NA	NA	ND (0.0016)	ND (0.24)	ND (0.14)	ND (0.82)	ND (0.0019)	ND (0.0022)	ND (0.003)	ND (0.0024)	ND (0.0028)	ND (0.0021)	ND (0.0028)	ND (0.24)	ND (0.0029)	ND (0.0035)
Carbon disulfide	NA	NA	NA	ND (0.008)	ND (1.2)	ND (0.68)	ND (4.1)	ND (0.0095)	ND (0.011)	ND (0.015)	ND (0.012)	ND (0.014)	ND (0.01)	ND (0.014)	ND (1.2)	ND (0.014)	ND (0.017)
Carbon tetrachloride	0.76	2.4	0.76	ND (0.0008)	ND (0.12)	ND (0.068)	ND (0.41)	ND (0.00095)	ND (0.0011)	ND (0.0015)	ND (0.0012)	ND (0.0014)	ND (0.001)	ND (0.0014)	ND (0.12)	ND (0.0014)	ND (0.0017)
Chlorobenzene	1.1	100	1.1	ND (0.0004)	ND (0.06)	ND (0.034)	ND (0.2)	ND (0.00048)	ND (0.00055)	ND (0.00076)	ND (0.0006)	ND (0.0007)	ND (0.00053)	ND (0.00069)	ND (0.059)	ND (0.00073)	ND (0.00087)
Chlorobromomethane	NA	NA	NA	ND (0.0016)	ND (0.24)	ND (0.14)	ND (0.82)	ND (0.0019)	ND (0.0022)	ND (0.003)	ND (0.0024)	ND (0.0028)	ND (0.0021)	ND (0.0028)	ND (0.24)	ND (0.0029)	ND (0.0035)
Chloroethane	NA	NA	NA	ND (0.0016)	ND (0.24)	ND (0.14)	ND (0.82)	ND (0.0019)	ND (0.0022)	ND (0.003)	ND (0.0024)	ND (0.0028)	ND (0.0021)	ND (0.0028)	ND (0.24)	ND (0.0029)	ND (0.0035)
Chloroform (Trichloromethane)	0.37	49	0.37	ND (0.0012)	ND (0.18)	ND (0.1)	ND (0.62)	ND (0.0014)	ND (0.0016)	ND (0.0023)	ND (0.0018)	ND (0.0021)	ND (0.0016)	ND (0.0021)	ND (0.18)	ND (0.0022)	ND (0.0026)
Chloromethane (Methyl Chloride)	NA	NA	NA	ND (0.0032)	ND (0.48)	ND (0.27)	ND (1.6)	ND (0.0038)	ND (0.0044)	ND (0.0061)	ND (0.0048)	ND (0.0056)	ND (0.0042)	ND (0.0055)	ND (0.47)	ND (0.0058)	ND (0.007)
cis-1,2-Dichloroethene	0.25	100	0.25	ND (0.0008)	ND (0.12)	ND (0.068)	ND (0.41)	ND (0.00095)	ND (0.0011)	ND (0.0015)	ND (0.0012)	ND (0.0014)	ND (0.001)	ND (0.0014)	ND (0.12)	ND (0.0014)	ND (0.0017)
cis-1,3-Dichloropropene	NA	NA	NA	ND (0.0004)	ND (0.06)	ND (0.034)	ND (0.2)	ND (0.00048)	ND (0.00055)	ND (0.00076)	ND (0.0006)	ND (0.0007)	ND (0.00053)	ND (0.00069)	ND (0.059)	ND (0.00073)	ND (0.00087)
Cymene (p-Isopropyltoluene)	NA	NA	NA	ND (0.0008)	0.032 J	0.016 J	0.52	ND (0.00095)	ND (0.0011)	ND (0.0015)	ND (0.0012)	ND (0.0014)	ND (0.001)	ND (0.0014)	0.028 J	ND (0.0014)	ND (0.0017)
Dibromochloromethane	NA	NA	NA	ND (0.0008)	ND (0.12)	ND (0.068)	ND (0.41)	ND (0.00095)	ND (0.0011)	ND (0.0015)	ND (0.0012)	ND (0.0014)	ND (0.001)	ND (0.0014)	ND (0.12)	ND (0.0014)	ND (0.0017)
Dibromomethane	NA	NA	NA	ND (0.0016)	ND (0.24)	ND (0.14)	ND (0.82)	ND (0.0019)	ND (0.0022)	ND (0.003)	ND (0.0024)	ND (0.0028)	ND (0.0021)	ND (0.0028)	ND (0.24)	ND (0.0029)	ND (0.0035)
Dichlorodifluoromethane (CFC-12)	NA	NA	NA	ND (0.008)	ND (1.2)	ND (0.68)	ND (4.1)	ND (0.0095)	ND (0.011)	ND (0.015)	ND (0.012)	ND (0.014)	ND (0.01)	ND (0.014)	ND (1.2)	ND (0.014)	ND (0.017)
Ethyl Ether	NA	NA	NA	ND (0.0016)	ND (0.24)	ND (0.14)	ND (0.82)	ND (0.0019)	ND (0.0022)	ND (0.003)	ND (0.0024)	ND (0.0028)	ND (0.0021)	ND (0.0028)	ND (0.24)	ND (0.0029)	ND (0.0035)
Ethylbenzene	1	41	1	0.0004 J	***1.6 J***	0.089 J	***4.4***	0.00014 J	ND (0.0011)	ND (0.0015)	0.00064 J	ND (0.0014)	ND (0.001)	ND (0.0014)	0.4	0.0025	0.00064 J
Hexachlorobutadiene	NA	NA	NA	ND (0.0032)	ND (0.48)	ND (0.27)	ND (1.6)	ND (0.0038)	ND (0.0044)	ND (0.0061)	ND (0.0048)	ND (0.0056)	ND (0.0042)	ND (0.0055)	ND (0.47)	ND (0.0058)	ND (0.007)
Isopropylbenzene (Cumene)	NA	NA	NA	ND (0.0008)	0.53 J	0.39 J	42	0.00088 J	ND (0.0011)	ND (0.0015)	0.0012	ND (0.0014)	ND (0.001)	ND (0.0014)	0.076 J	0.0024	0.00094 J
m,p-Xylenes	NA	NA	NA	0.0027	4.5	ND (0.14)	1.3	ND (0.0019)	0.001 J	ND (0.003)	0.0025	ND (0.0028)	0.00068 J	ND (0.0028)	1.4	ND (0.0029)	ND (0.0035)
Methyl Tert Butyl Ether (MTBE)	0.93	100	0.93	0.003	0.096 J	ND (0.14)	ND (0.82)	0.00048 J	ND (0.0022)	ND (0.003)	0.00057 J	0.00047 J	ND (0.0021)	0.00098 J	ND (0.24)	0.001 J	0.00038 J
Methylene chloride (Dichloromethane)	0.05	100	0.05	ND (0.004)	ND (0.6)	ND (0.34)	ND (2)	ND (0.0048)	ND (0.0055)	ND (0.0076)	ND (0.006)	ND (0.007)	ND (0.0053)	ND (0.0069)	ND (0.59)	ND (0.0073)	ND (0.0087)
Naphthalene	12	100	12	0.0015 J	1.5	0.4	***25***	0.0037 J	ND (0.0044)	ND (0.0061)	ND (0.0048)	ND (0.0056)	0.0018 J	0.0024 J	3.9	ND (0.0058)	ND (0.007)
n-Butylbenzene	12	100	12	ND (0.0008)	1.5	0.4	***53***	0.00093 J	ND (0.0011)	ND (0.0015)	ND (0.0012)	0.0012 J	ND (0.001)	ND (0.0014)	1.2	0.0024	0.00053 J
n-Propylbenzene	3.9	100	3.9	0.00018 J	3	1.2	***160***	0.0024	ND (0.0011)	ND (0.0015)	0.00047 J	ND (0.0014)	ND (0.001)	ND (0.0014)	0.81	0.0062	0.002
o-Xylene	NA	NA	NA	0.0024	0.92	ND (0.068)	0.68	ND (0.00095)	0.00086 J	ND (0.0015)	0.0015	ND (0.0014)	0.00034 J	ND (0.0014)	0.31	ND (0.0014)	ND (0.0017)
Styrene	NA	NA	NA	ND (0.0008)	ND (0.12)	ND (0.068)	ND (0.41)	ND (0.00095)	ND (0.0011)	ND (0.0015)	ND (0.0012)	ND (0.0014)	ND (0.001)	ND (0.0014)	ND (0.12)	ND (0.0014)	ND (0.0017)
tert-Butylbenzene	5.9	100	5.9	ND (0.0016)	0.022 J	ND (0.14)	1	ND (0.0019)	ND (0.0022)	ND (0.003)	ND (0.0024)	ND (0.0028)	ND (0.0021)	ND (0.0028)	ND (0.24)	ND (0.0029)	ND (0.0035)
Tetrachloroethene	1.3	19	1.3	ND (0.0004)	ND (0.06)	ND (0.034)	ND (0.2)	ND (0.00048)	ND (0.00055)	ND (0.00076)	ND (0.0006)	ND (0.0007)	ND (0.00053)	ND (0.00069)	ND (0.059)	ND (0.00073)	ND (0.00087)
Toluene	0.7	100	0.7	0.0012	***2.9***	ND (0.068)	0.43	ND (0.00095)	0.00061 J	ND (0.0015)	0.0014	ND (0.0014)	ND (0.001)	ND (0.0014)	***1***	ND (0.0014)	ND (0.0017)
trans-1,2-Dichloroethene	0.19	100	0.19	ND (0.0012)	ND (0.18)	ND (0.1)	ND (0.62)	ND (0.0014)	ND (0.0016)	ND (0.0023)	ND (0.0018)	ND (0.0021)	ND (0.0016)	ND (0.0021)	ND (0.18)	ND (0.0022)	ND (0.0026)
trans-1,3-Dichloropropene	NA	NA	NA	ND (0.0008)	ND (0.12)	ND (0.068)	ND (0.41)	ND (0.00095)	ND (0.0011)	ND (0.0015)	ND (0.0012)	ND (0.0014)	ND (0.001)	ND (0.0014)	ND (0.12)	ND (0.0014)	ND (0.0017)
trans-1,4-Dichloro-2-butene	NA	NA	NA	ND (0.004)	ND (0.6)	ND (0.34)	ND (2)	ND (0.0048)	ND (0.0055)	ND (0.0076)	ND (0.006)	ND (0.007)	ND (0.0053)	ND (0.0069)	ND (0.59)	ND (0.0073)	ND (0.0087)
Trichloroethene	0.47	21	0.47	ND (0.0004)	ND (0.06)	ND (0.034)	ND (0.2)	ND (0.00048)	ND (0.00055)	ND (0.00076)	ND (0.0006)	ND (0.0007)	ND (0.00053)	ND (0.00069)	ND (0.059)	ND (0.00073)	ND (0.00087)
Trichlorofluoromethane (CFC-11)	NA	NA	NA	ND (0.0032)	ND (0.48)	ND (0.27)	ND (1.6)	ND (0.0038)	ND (0.0044)	ND (0.0061)	ND (0.0048)	ND (0.0056)	ND (0.0042)	ND (0.0055)	ND (0.47)	ND (0.0058)	ND (0.007)
Vinyl acetate	NA	NA	NA	ND (0.008)	ND (1.2)	ND (0.68)	ND (4.1)	ND (0.0095)	ND (0.011)	ND (0.015)	ND (0.012)	ND (0.014)	ND (0.01)	ND (0.014)	ND (1.2)	ND (0.014)	ND (0.017)
Vinyl chloride	0.02	0.9	0.02	ND (0.0008)	ND (0.12)	ND (0.068)	ND (0.41)	ND (0.00095)	ND (0.0011)	ND (0.0015)	ND (0.0012)	ND (0.0014)	ND (0.001)	ND (0.0014)	ND (0.12)	ND (0.0014)	ND (0.0017)
Xylene (Total)	1.6	100	0.26	0.0051	***5.4***	ND (0.068)	***2***	ND (0.00095)	0.0019 J	ND (0.0015)	0.004	ND (0.0014)	0.001 J	ND (0.0014)	***1.7***	ND (0.0014)	ND (0.0017)

ABBREVIATIONS AND NOTES:
mg/kg: milligram per kilogram

-: Not Analyzed
bgs: below ground surface
ft: feet
J: Value is estimated.
R: Rejected
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

- For test methods used, see the laboratory data sheets.
- Soil analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 375 Unrestricted Use Soil Cleanup Objectives (SCO), Restricted-Use Residential SCOs, and Protection of Groundwater SCO's.
- ***Bold italic*** values indicate an exceedance of the Protection of Groundwater Criteria.
- Grey shading indicates an exceedance of the Unrestricted Use Soil Cleanup Objectives.
- Yellow shading indicates an exceedance of the Restricted Use Residential Soil Cleanup Objectives.

TABLE 2b
REMEDIAL INVESTIGATION - SEMI-VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS IN SOIL
556 BALTIC STREET
BROOKLYN, NEW YORK

	Action Level												
Location Name	Restricted Use Soil Cleanup Objectives - Protection of Groundwater	Restricted Use Soil Cleanup Objectives - Residential	Unrestricted Use Soil Cleanup Objectives	HA-01	HA-01	HA-01	HA-01	HA-02	HA-02	HA-02	HA-02	HA-03	HA-03
Sample Name				HA-01 (2-4)	HA-01 (6-8)	HA-01 (10-12)	HA-01 (14-16)	HA-02 (2-4)	HA-02 (6-8)	HA-02 (10-12)	HA-02 (14-16)	HA-03 (2-4)	HA-03 (6-8)
Sample Date				02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/10/2023	02/10/2023
Lab Sample ID				L2306883-01 L2310952-27	L2306883-02 L2310952-28	L2306883-03 L2310952-29	L2306883-04	L2306883-05 L2310952-30	L2306883-06 L2310952-31	L2306883-07	L2306883-08 L2310952-32	L2307511-01	L2307511-02 L2310952-22
Sample Depth (bgs)				2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)
Semi-Volatile Organic Compounds (mg/kg)													
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
1,2,4-Trichlorobenzene	NA	NA	NA	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
1,2-Dichlorobenzene	1.1	100	1.1	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
1,3-Dichlorobenzene	2.4	49	2.4	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
1,4-Dichlorobenzene	1.8	13	1.8	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
1,4-Dioxane	0.1	13	0.1	ND (0.031)	ND (0.029)	ND (0.032)	ND (0.086)	ND (0.03)	ND (0.029)	ND (0.03)	ND (0.029)	ND (0.026)	ND (0.033)
2,2'-oxybis(1-Chloropropane)	NA	NA	NA	ND (0.25)	ND (0.23)	ND (0.26)	ND (0.69)	ND (0.24)	ND (0.23)	ND (0.24)	ND (0.23)	ND (0.21)	ND (0.27)
2,4,5-Trichlorophenol	NA	NA	NA	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
2,4,6-Trichlorophenol	NA	NA	NA	ND (0.12)	ND (0.11)	ND (0.13)	ND (0.34)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.11)	ND (0.1)	ND (0.13)
2,4-Dichlorophenol	NA	NA	NA	ND (0.19)	ND (0.17)	ND (0.19)	ND (0.52)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.17)	ND (0.16)	ND (0.2)
2,4-Dimethylphenol	NA	NA	NA	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
2,4-Dinitrophenol	NA	NA	NA	ND (1)	ND (0.92)	ND (1)	ND (2.8)	ND (0.95)	ND (0.94)	ND (0.98)	ND (0.92)	ND (0.85)	ND (1.1)
2,4-Dinitrotoluene	NA	NA	NA	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
2,6-Dinitrotoluene	NA	NA	NA	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
2-Chloronaphthalene	NA	NA	NA	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
2-Chlorophenol	NA	NA	NA	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
2-Methylnaphthalene	NA	NA	NA	0.033 J	ND (0.23)	ND (0.26)	ND (0.69)	0.12 J	0.056 J	ND (0.24)	0.54	ND (0.21)	0.06 J
2-Methylphenol (o-Cresol)	0.33	100	0.33	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
2-Nitroaniline	NA	NA	NA	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
2-Nitrophenol	NA	NA	NA	ND (0.45)	ND (0.41)	ND (0.46)	ND (1.2)	ND (0.42)	ND (0.42)	ND (0.44)	ND (0.41)	ND (0.38)	ND (0.48)
3&4-Methylphenol	0.33	100	0.33	ND (0.3)	ND (0.28)	ND (0.31)	ND (0.83)	0.031 J	ND (0.28)	ND (0.29)	0.073 J	ND (0.25)	ND (0.32)
3,3'-Dichlorobenzidine	NA	NA	NA	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
3-Nitroaniline	NA	NA	NA	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
4,6-Dinitro-2-methylphenol	NA	NA	NA	ND (0.54)	ND (0.5)	ND (0.56)	ND (1.5)	ND (0.51)	ND (0.51)	ND (0.53)	ND (0.5)	ND (0.46)	ND (0.58)
4-Bromophenyl phenyl ether (BDE-3)	NA	NA	NA	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
4-Chloro-3-methylphenol	NA	NA	NA	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
4-Chloroaniline	NA	NA	NA	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
4-Chlorophenyl phenyl ether	NA	NA	NA	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
4-Nitroaniline	NA	NA	NA	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
4-Nitrophenol	NA	NA	NA	ND (0.29)	ND (0.27)	ND (0.3)	ND (0.8)	ND (0.28)	ND (0.27)	ND (0.28)	ND (0.27)	ND (0.25)	ND (0.31)
Acenaphthene	98	100	20	ND (0.17)	ND (0.15)	ND (0.17)	ND (0.46)	0.42	0.087 J	0.034 J	0.02 J	ND (0.14)	0.044 J
Acenaphthylene	107	100	100	ND (0.17)	ND (0.15)	ND (0.17)	ND (0.46)	0.31	ND (0.16)	ND (0.16)	ND (0.15)	ND (0.14)	0.13 J
Acetophenone	NA	NA	NA	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
Anthracene	1000	100	100	ND (0.12)	ND (0.11)	ND (0.13)	ND (0.34)	1.2	0.11 J	0.094 J	0.037 J	ND (0.1)	0.2
Benzo(a)anthracene	1	1	1	0.13	ND (0.11)	ND (0.13)	0.58	***4***	0.32	0.14	0.086 J	0.21	***1.2***
Benzo(a)pyrene	22	1	1	0.12 J	ND (0.15)	ND (0.17)	0.6	3.8	0.28	0.11 J	0.13 J	0.26	1.5
Benzo(b)fluoranthene	1.7	1	1	0.14	ND (0.11)	ND (0.13)	0.64	***4.2***	0.33	0.13	0.13	0.32	***1.9***
Benzo(g,h,i)perylene	1000	100	100	0.072 J	ND (0.15)	ND (0.17)	0.32 J	2.2	0.17	0.07 J	0.1 J	0.18	1.1
Benzo(k)fluoranthene	1.7	3.9	0.8	0.043 J	ND (0.11)	ND (0.13)	0.24 J	1	0.11 J	0.038 J	0.058 J	0.091 J	0.54
Benzoic acid	NA	NA	NA	ND (0.68)	ND (0.62)	ND (0.69)	ND (1.9)	ND (0.64)	ND (0.63)	ND (0.66)	ND (0.62)	ND (0.57)	ND (0.72)
Benzyl Alcohol	NA	NA	NA	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
Biphenyl	NA	NA	NA	ND (0.48)	ND (0.44)	ND (0.49)	ND (1.3)	0.041 J	ND (0.45)	ND (0.46)	ND (0.44)	ND (0.4)	ND (0.51)
bis(2-Chloroethoxy)methane	NA	NA	NA	ND (0.22)	ND (0.21)	ND (0.23)	ND (0.62)	ND (0.21)	ND (0.21)	ND (0.22)	ND (0.21)	ND (0.19)	ND (0.24)
bis(2-Chloroethyl)ether	NA	NA	NA	ND (0.19)	ND (0.17)	ND (0.19)	ND (0.52)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.17)	ND (0.16)	ND (0.2)
bis(2-Ethylhexyl)phthalate	NA	NA	NA	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
Butyl benzylphthalate (BBP)	NA	NA	NA	0.31	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
Carbazole	NA	NA	NA	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	0.36	0.046 J	0.033 J	ND (0.19)	ND (0.18)	0.066 J
Chrysene	1	3.9	1	0.11 J	ND (0.11)	ND (0.13)	0.6	***3.7***	0.34	0.13	0.084 J	0.21	***1.2***
Dibenz(a,h)anthracene	1000	0.33	0.33	ND (0.12)	ND (0.11)	ND (0.13)	0.08 J	0.54	0.042 J	ND (0.12)	0.031 J	0.04 J	0.25
Dibenzofuran	210	59	7	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	0.2	0.075 J	0.031 J	ND (0.19)	ND (0.18)	0.047 J
Diethyl phthalate	NA	NA	NA	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
Dimethyl phthalate	NA	NA	NA	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
Di-n-butylphthalate (DBP)	NA	NA	NA	0.043 J	ND (0.19)	ND (0.21)	ND (0.58)	0.049 J	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
Di-n-octyl phthalate (DnOP)	NA	NA	NA	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
Fluoranthene	1000	100	100	0.25	ND (0.11)	ND (0.13)	1	7.5	0.76	0.34	0.17	0.33	1.4
Fluorene	386	100	30	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	0.44	0.046 J	0.043 J	0.031 J	ND (0.18)	0.072 J
Hexachlorobenzene	3.2	1.2	0.33	ND (0.12)	ND (0.11)	ND (0.13)	ND (0.34)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.11)	ND (0.1)	ND (0.13)
Hexachlorobutadiene	NA	NA	NA	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
Hexachlorocyclopentadiene	NA	NA	NA	ND (0.6)	ND (0.55)	ND (0.61)	ND (1.6)	ND (0.56)	ND (0.56)	ND (0.58)	ND (0.54)	ND (0.5)	ND (0.64)
Hexachloroethane	NA	NA	NA	ND (0.17)	ND (0.15)	ND (0.17)	ND (0.46)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.15)	ND (0.14)	ND (0.18)
Indeno(1,2,3-cd)pyrene	8.2	0.5	0.5	0.083 J	ND (0.15)	ND (0.17)	0.38 J	2.4	0.18	0.075 J	0.11 J	0.19	1.2
Isophorone	NA	NA	NA	ND (0.19)	ND (0.17)	ND (0.19)	ND (0.52)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.17)	ND (0.16)	ND (0.2)
Naphthalene	12	100	12	0.061 J	ND (0.19)	ND (0.21)	ND (0.58)	0.28	0.087 J	0.026 J	0.69	ND (0.18)	0.16 J
Nitrobenzene	NA	NA	NA	ND (0.19)	ND (0.17)	ND (0.19)	ND (0.52)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.17)	ND (0.16)	ND (0.2)
N-Nitrosodi-n-propylamine	NA	NA	NA	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
N-Nitrosodiphenylamine	NA	NA	NA	ND (0.17)	ND (0.15)	ND (0.17)	ND (0.46)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.15)	ND (0.14)	ND (0.18)
Pentachlorophenol	0.8	6.7	0.8	ND (0.17)	ND (0.15)	ND (0.17)	ND (0.46)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.15)	ND (0.14)	ND (0.18)
Phenanthrene	1000	100	100	0.14	ND (0.11)	ND (0.13)	0.42	4.5	0.59	0.3	0.08 J	0.14	0.43
Phenol	0.33	100	0.33	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.58)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.22)
Pyrene	1000	100	100	0.22	ND (0.11)	ND (0.13)	1.1	7.3	0.66	0.27	0.14	0.3	1.4

Location Name	HA-03	HA-03	HA-04	HA-04	HA-04	HA-04	HA-04	HA-05	HA-05	HA-05	HA-05	HA-06	HA-06	HA-06	HA-06
Sample Name	HA-03 (10-12)	HA-03 (14-16)	HA-04 (2-4)	HA-04 (6-8)	DUP_1_02022023	HA-04 (10-12)	HA-04 (14-16)	HA-05 (2-4)	HA-05 (6-8)	HA-05 (10-12)	HA-05 (14-16)	HA-06 (2-4)	HA-06 (6-8)	HA-06 (10-12)	HA-06 (14-16)
Sample Date	02/10/2023	02/10/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023
Lab Sample ID	L2307511-03 L2310952-23	L2307511-04	L2305934-01	L2305934-02	L2305934-09	L2305934-03	L2305934-04	L2305934-05	L2305934-06	L2305934-07	L2305934-08	L2305570-01	L2305570-02	L2305570-03	L2305570-04
Sample Depth (bgs)	10 - 12 (ft)	14 - 16 (ft)	2 - 2 (ft)	6 - 8 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)
Semi-Volatile Organic Compounds (mg/kg)															
1,2,4,5-Tetrachlorobenzene	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
1,2,4-Trichlorobenzene	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
1,2-Dichlorobenzene	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
1,3-Dichlorobenzene	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
1,4-Dichlorobenzene	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
1,4-Dioxane	ND (0.028)	ND (0.028)	ND (0.026)	ND (0.03)	ND (0.031)	ND (0.033)	ND (0.15)	ND (0.027)	ND (0.029)	ND (0.029)	ND (0.028)	ND (0.029)	ND (0.028)	ND (0.029)	ND (0.029)
2,2'-oxybis(1-Chloropropane)	ND (0.23)	ND (0.22)	ND (0.21)	ND (0.24)	ND (0.24)	ND (0.27)	ND (1.2)	ND (0.22)	ND (0.23)	ND (0.23)	ND (0.22)	ND (0.24)	ND (0.22)	ND (0.23)	ND (0.23)
2,4,5-Trichlorophenol	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
2,4,6-Trichlorophenol	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.12)	ND (0.12)	ND (0.13)	ND (0.6)	ND (0.11)	ND (0.11)	ND (0.12)	ND (0.11)	ND (0.12)	ND (0.11)	ND (0.12)	ND (0.12)
2,4-Dichlorophenol	ND (0.17)	ND (0.17)	ND (0.16)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.91)	ND (0.16)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.18)	ND (0.17)	ND (0.17)	ND (0.17)
2,4-Dimethylphenol	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
2,4-Dinitrophenol	ND (0.91)	ND (0.89)	0.85 R	0.98 R	0.98 R	1.1 R	4.8 R	0.87 R	0.92 R	0.93 R	0.9 R	ND (0.94)	ND (0.89)	ND (0.93)	ND (0.92)
2,4-Dinitrotoluene	ND (0.19)	ND (0.18)	0.18 R	0.2 R	0.2 R	0.22 R	1 R	0.18 R	0.19 R	0.19 R	0.19 R	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
2,6-Dinitrotoluene	ND (0.19)	ND (0.18)	0.18 R	0.2 R	0.2 R	0.22 R	1 R	0.18 R	0.19 R	0.19 R	0.19 R	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
2-Chloronaphthalene	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
2-Chlorophenol	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
2-Methylnaphthalene	0.36	0.13 J	0.048 J	ND (0.24)	0.15 J	ND (0.27)	ND (1.2)	0.15 J	ND (0.23)	0.028 J	ND (0.22)	0.14 J	ND (0.22)	0.055 J	0.25
2-Methylphenol (o-Cresol)	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
2-Nitroaniline	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
2-Nitrophenol	ND (0.41)	ND (0.4)	0.38 R	0.44 R	0.44 R	0.48 R	2.2 R	0.39 R	0.41 R	0.42 R	0.4 R	ND (0.42)	ND (0.4)	ND (0.42)	ND (0.42)
3&4-Methylphenol	0.032 J	ND (0.27)	ND (0.26)	ND (0.29)	ND (0.3)	0.16 J	ND (1.4)	ND (0.26)	ND (0.28)	ND (0.28)	ND (0.27)	0.046 J	ND (0.27)	ND (0.28)	0.15 J
3,3'-Dichlorobenzidine	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
3-Nitroaniline	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
4,6-Dinitro-2-methylphenol	ND (0.49)	ND (0.48)	0.46 R	0.53 R	0.53 R	0.58 R	2.6 R	0.47 R	0.5 R	0.5 R	0.49 R	ND (0.51)	ND (0.48)	ND (0.5)	ND (0.5)
4-Bromophenyl phenyl ether (BDE-3)	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
4-Chloro-3-methylphenol	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
4-Chloroaniline	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	it was	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	0.2 R	0.18 R	0.19 R	0.19 R
4-Chlorophenyl phenyl ether	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
4-Nitroaniline	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
4-Nitrophenol	ND (0.26)	ND (0.26)	ND (0.25)	ND (0.28)	ND (0.29)	ND (0.31)	ND (1.4)	ND (0.25)	ND (0.27)	ND (0.27)	ND (0.26)	ND (0.27)	ND (0.26)	ND (0.27)	ND (0.27)
Acenaphthene	4	ND (0.15)	0.14	ND (0.16)	0.044 J	ND (0.18)	ND (0.81)	0.25	ND (0.15)	0.027 J	ND (0.15)	0.49	ND (0.15)	0.096 J	0.35
Acenaphthylene	0.6	ND (0.15)	0.18	ND (0.16)	ND (0.16)	ND (0.18)	ND (0.81)	0.19	ND (0.15)	ND (0.16)	ND (0.15)	0.3	ND (0.15)	0.042 J	0.3
Acetophenone	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
Anthracene	14	ND (0.11)	0.36	ND (0.12)	0.043 J	ND (0.13)	ND (0.6)	0.49	ND (0.11)	0.062 J	ND (0.11)	0.98	0.049 J	0.22	1
Benzo(a)anthracene	***20***	ND (0.11)	***1.5***	ND (0.12)	0.1 J	0.034 J	ND (0.6)	***1.3***	0.09 J	0.16	ND (0.11)	***3.5***	0.19	0.28	***1.4***
Benzo(a)pyrene	15	ND (0.15)	1.8	ND (0.16)	0.12 J	ND (0.18)	ND (0.81)	1.4	0.087 J	0.16	ND (0.15)	3.1	0.24	0.23	1.1
Benzo(b)fluoranthene	***16***	ND (0.11)	***2.2***	0.034 J	0.14	0.055 J	ND (0.6)	1.7	0.1 J	0.18	ND (0.11)	***3.4***	0.27	0.26	1.2
Benzo(g,h,i)perylene	6.2	ND (0.15)	1	ND (0.16)	0.074 J	0.051 J	ND (0.81)	0.8	0.045 J	0.08 J	ND (0.15)	1.8	0.08 J	0.1 J	0.49
Benzo(k)fluoranthene	***4***	ND (0.11)	0.63	ND (0.12)	0.048 J	ND (0.13)	ND (0.6)	0.49	0.035 J	0.056 J	ND (0.11)	1.2	0.09 J	0.09 J	0.46
Benzoic acid	ND (0.61)	ND (0.6)	0.57 R	0.66 R	0.66 R	0.72 R	3.3 R	0.59 R	0.62 R	0.63 R	0.61 R	ND (0.64)	ND (0.6)	ND (0.63)	ND (0.62)
Benzyl Alcohol	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
Biphenyl	0.22 J	ND (0.42)	ND (0.4)	ND (0.46)	ND (0.47)	ND (0.51)	ND (2.3)	0.032 J	ND (0.44)	ND (0.44)	ND (0.43)	0.042 J	ND (0.42)	ND (0.44)	0.069 J
bis(2-Chloroethoxy)methane	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.22)	ND (0.22)	ND (0.24)	ND (1.1)	ND (0.2)	ND (0.21)	ND (0.21)	ND (0.2)	ND (0.21)	ND (0.2)	ND (0.21)	ND (0.21)
bis(2-Chloroethyl)ether	ND (0.17)	ND (0.17)	ND (0.16)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.91)	ND (0.16)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.18)	ND (0.17)	ND (0.17)	ND (0.17)
bis(2-Ethylhexyl)phthalate	ND (0.19)	ND (0.18)	0.46	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	0.1 J	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
Butyl benzylphthalate (BBP)	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
Carbazole	2.4	ND (0.18)	0.18	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	0.13 J	0.02 J	0.041 J	ND (0.19)	0.42	0.02 J	0.11 J	0.39
Chrysene	***18***	ND (0.11)	***1.6***	0.029 J	0.12	0.032 J	ND (0.6)	***1.2***	0.088 J	0.17	ND (0.11)	***3.6***	0.17	0.26	***1.3***
Dibenz(a,h)anthracene	1.8	ND (0.11)	0.23	ND (0.12)	ND (0.12)	ND (0.13)	ND (0.6)	0.17	ND (0.11)	0.023 J	ND (0.11)	0.41	0.024 J	0.034 J	0.14
Dibenzofuran	3	ND (0.18)	0.08 J	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	0.12 J	ND (0.19)	0.027 J	ND (0.19)	0.25	ND (0.18)	0.096 J	0.42
Diethyl phthalate	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
Dimethyl phthalate	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
Di-n-butylphthalate (DBP)	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
Di-n-octyl phthalate (DnOP)	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
Fluoranthene	48	ND (0.11)	3.2	0.058 J	0.26 J	0.041 J	ND (0.6)	2.8	0.18	0.32	ND (0.11)	6.3	0.36	0.68	3.2
Fluorene	5.7	ND (0.18)	0.12 J	ND (0.2)	0.032 J	ND (0.22)	ND (1)	0.19	ND (0.19)	0.041 J	ND (0.19)	0.41	ND (0.18)	0.12 J	0.56
Hexachlorobenzene	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.12)	ND (0.12)	ND (0.13)	ND (0.6)	ND (0.11)	ND (0.11)	ND (0.12)	ND (0.11)	ND (0.12)	ND (0.11)	ND (0.12)	ND (0.12)
Hexachlorobutadiene	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
Hexachlorocyclopentadiene	ND (0.54)	ND (0.53)	0.51 R	0.58 R	0.59 R	0.64 R	2.9 R	0.52 R	0.55 R	0.55 R	0.54 R	ND (0.56)	ND (0.53)	ND (0.56)	ND (0.55)
Hexachloroethane	ND (0.15)	ND (0.15)	0.14 R	0.16 R	0.16 R	0.18 R	0.81 R	0.14 R	0.15 R	0.16 R	0.15 R	ND (0.16)	ND (0.15)	ND (0.16)	ND (0.15)
Indeno(1,2,3-cd)pyrene	***8.6***	ND (0.15)	1.2	ND (0.16)	0.089 J	0.052 J	ND (0.81)	0.84	0.05 J	0.085 J	ND (0.15)	2	0.099 J	0.12 J	0.61
Isophorone	ND (0.17)	ND (0.17)	ND (0.16)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.91)	ND (0.16)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.18)	ND (0.17)	ND (0.17)	ND (0.17)
Naphthalene	0.4	0.48	0.1 J	ND (0.2)	0.22	ND (0.22)	ND (1)	0.23	ND (0.19)	0.043 J	ND (0.19)	0.26	0.033 J	0.15 J	0.58
Nitrobenzene	0.13 J	ND (0.17)	ND (0.16)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.91)	ND (0.16)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.18)	ND (0.17)	ND (0.17)	ND (0.17)
N-Nitrosodi-n-propylamine	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	ND (0.19)
N-Nitrosodiphenylamine	ND (0.15)	ND (0.15)	ND (0.14)	ND (0.16)	ND (0.16)	ND (0.18)	ND (0.81)	ND (0.14)	ND (0.15)	ND (0.16)	ND (0.15)	ND (0.16)	ND (0.15)	ND (0.16)	ND (0.15)
Pentachlorophenol	ND (0.15)	ND (0.15)	ND (0.14)	ND (0.16)	ND (0.16)	ND (0.18)	ND (0.81)	ND (0.14)	ND (0.15)	ND (0.16)	ND (0.15)	ND (0.16)	ND (0.15)	ND (0.16)	ND (0.15)
Phenanthrene	45	ND (0.11)	1.6	0.04 J	0.21 J	ND (0.13)	ND (0.6)	2.2	0.16	0.32	ND (0.11)	5.8	0.21	0.79	3.7
Phenol	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.22)	ND (1)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.19)	0.042 J
Pyrene	40	ND (0.11)	2.9	0.047 J	0.18 J	0.039 J	ND (0.6)	2.4	0.16	0.28	ND (0.11)	6.3	0.32	0.54	2.5

ABBREVIATIONS AND NOTES:
mg/kg: milligram per kilogram

-: Not Analyzed
bgs: below ground surface
ft: feet
J: Value is estimated.
R: Rejected
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

- For test methods used, see the laboratory data sheets.
- Soil analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 375 Unrestricted Use Soil Cleanup Objectives (SCO), Restricted-Use Residential SCOs, and Protection of Groundwater SCO's.
- ***Bold italic*** values indicate an exceedance of the Protection of Groundwater Criteria.
- Grey shading indicates an exceedance of the Unrestricted Use Soil Cleanup Objectives.
- Yellow shading indicates an exceedance of the Restricted Use Residential Soil Cleanup Objectives.

TABLE 2b
REMEDIAL INVESTIGATION - SEMI-VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS IN SOIL
556 BALTIC STREET
BROOKLYN, NEW YORK

Location Name Sample Name Sample Date Lab Sample ID Sample Depth (bgs)	Action Level Restricted Use Soil Cleanup Objectives - Protection of Groundwater	Restricted Use Soil Cleanup Objectives - Residential	Unrestricted Use Soil Cleanup Objectives	HA-07 HA-07 (2-4) 02/09/2023 L2307196-01 L2310952-10 2 - 4 (ft)	HA-07 HA-07 (6-8) 02/09/2023 L2307196-02 L2310952-11 6 - 8 (ft)	HA-07 HA-07 (10-12) 02/09/2023 L2307196-03 L2310952-12 10 - 12 (ft)	HA-07 HA-07 (14-16) 02/09/2023 L2307196-04 L2310952-13 14 - 16 (ft)	HA-08 HA-08 (2-4) 02/01/2023 L2305570-05 2 - 4 (ft)	HA-08 HA-08 (6-8) 02/01/2023 L2305570-06 6 - 8 (ft)	HA-08 HA-08 (10-12) 02/01/2023 L2305570-07 10 - 12 (ft)	HA-08 HA-08 (14-16) 02/01/2023 L2305570-08 14 - 16 (ft)	HA-09 HA-09 (2-4) 02/09/2023 L2307196-05 2 - 4 (ft)	HA-09 HA-09 (6-8) 02/09/2023 L2307196-06 L2310952-14 6 - 8 (ft)	HA-09 HA-09 (10-12) 02/09/2023 L2307196-07 10 - 12 (ft)	HA-09 HA-09 (14-16) 02/09/2023 L2307196-08 L2310952-15 14 - 16 (ft)	HA-10 HA-10 (2-4) 02/08/2023 L2306883-09 L2310952-33 2 - 4 (ft)	HA-10 HA-10 (6-8) 02/08/2023 L2306883-10 6 - 8 (ft)	HA-10 HA-10 (10-12) 02/08/2023 L2306883-11 L2310952-34 10 - 12 (ft)	HA-10 HA-10 (14-16) 02/08/2023 L2306883-12 L2310952-35 14 - 16 (ft)	HA-11 HA-11 (2-4) 02/09/2023 L2307196-09 L2310952-16 2 - 4 (ft)	HA-11 HA-11 (6-8) 02/09/2023 L2307196-10 6 - 8 (ft)	HA-11 HA-11 (10-12) 02/09/2023 L2307196-11 L2310952-17 10 - 12 (ft)	HA-11 HA-11 (14-16) 02/09/2023 L2307196-12 L2310952-18 14 - 16 (ft)	HA-12 HA-12 (2-4) 02/09/2023 L2307196-13 L2310952-19 2 - 4 (ft)	HA-12 HA-12 (6-8) 02/09/2023 L2307196-14 L2310952-20 6 - 8 (ft)	HA-12 HA-12 (10-12) 02/09/2023 L2307196-15 L2310952-21 10 - 12 (ft)	HA-12 HA-12 (14-16) 02/09/2023 L2307196-16 14 - 16 (ft)	HA-13 HA-13 (2-4) 02/13/2023 L2307677-01 L2310952-01 2 - 4 (ft)
Semi-Volatile Organic Compounds (mg/kg)																												
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	ND (0.19)	ND (0.21)	ND (0.23) J	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
1,2,4-Trichlorobenzene	NA	NA	NA	ND (0.19)	ND (0.21)	ND (0.23) J	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
1,2-Dichlorobenzene	1.1	100	1.1	ND (0.19)	ND (0.21)	ND (0.23) J	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
1,3-Dichlorobenzene	2.4	49	2.4	ND (0.19)	ND (0.21)	ND (0.23) J	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
1,4-Dichlorobenzene	1.8	13	1.8	ND (0.19)	ND (0.21)	ND (0.23) J	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
1,4-Dioxane	0.1	13	0.1	ND (0.029)	ND (0.032)	ND (0.035)	ND (0.028)	ND (0.027)	ND (0.027)	ND (0.033)	ND (0.11)	ND (0.028)	ND (0.031)	ND (0.03)	ND (0.029)	ND (0.028)	ND (0.16)	ND (0.03)	ND (0.03)	ND (0.028)	ND (0.03)	ND (0.027)	ND (0.029)	ND (0.03)	ND (0.029)	ND (0.029)	ND (0.029)	0.027 R
2,2'-oxybis(1-Chloropropane)	NA	NA	NA	ND (0.23)	ND (0.26)	ND (0.28)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.26)	ND (0.87)	ND (0.22)	ND (0.25)	ND (0.24)	ND (0.23)	ND (0.22)	ND (1.3)	ND (0.24)	ND (0.24)	ND (0.22)	ND (0.24)	ND (0.22)	ND (0.24)	ND (0.24)	ND (0.23)	ND (0.23)	ND (0.23)	0.22 R
2,4,5-Trichlorophenol	NA	NA	NA	ND (0.19)	ND (0.21)	ND (0.23) J	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
2,4,6-Trichlorophenol	NA	NA	NA	ND (0.12)	ND (0.13)	ND (0.14) J	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.13)	ND (0.43)	ND (0.11)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.11)	ND (0.65)	ND (0.12)	ND (0.12)	ND (0.11)	ND (0.12)	ND (0.11)	ND (0.12)	ND (0.12)	ND (0.11)	ND (0.12)	ND (0.12)	ND (0.11)
2,4-Dichlorophenol	NA	NA	NA	ND (0.18)	ND (0.19)	ND (0.21) J	ND (0.17)	ND (0.16)	ND (0.16)	ND (0.2)	ND (0.65)	ND (0.17)	ND (0.19)	ND (0.18)	ND (0.17)	ND (0.17)	ND (0.97)	ND (0.18)	ND (0.18)	ND (0.17)	ND (0.18)	ND (0.16)	ND (0.18)	ND (0.18)	ND (0.17)	ND (0.18)	ND (0.17)	ND (0.16)
2,4-Dimethylphenol	NA	NA	NA	ND (0.19)	ND (0.21)	ND (0.23) J	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	0.16 J	0.084 J	ND (0.19)	ND (0.18)
2,4-Dinitrophenol	NA	NA	NA	ND (0.93)	ND (1)	ND (1.1) J	ND (0.89)	ND (0.87)	ND (0.88)	ND (1.1)	ND (3.5)	ND (0.89)	ND (1)	ND (0.95)	ND (0.93)	ND (0.9)	ND (5.2)	ND (0.95)	ND (0.96)	ND (0.9)	ND (0.97)	ND (0.87)	ND (0.94)	ND (0.95)	ND (0.92)	ND (0.94)	ND (0.93)	ND (0.88) J
2,4-Dinitrotoluene	NA	NA	NA	ND (0.19)	ND (0.21)	ND (0.23) J	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
2,6-Dinitrotoluene	NA	NA	NA	ND (0.19)	ND (0.21)	ND (0.23) J	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
2-Chloronaphthalene	NA	NA	NA	ND (0.19)	ND (0.21)	ND (0.23) J	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
2-Chlorophenol	NA	NA	NA	ND (0.19)	ND (0.21)	ND (0.23) J	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
2-Methylnaphthalene	NA	NA	NA	0.2 J	ND (0.26)	0.2 J-	ND (0.22)	0.32	ND (0.22)	0.034 J	0.1 J	ND (0.22)	0.11 J	ND (0.24)	ND (0.23)	0.04 J	ND (1.3)	ND (0.24)	ND (0.24)	0.046 J	ND (0.24)	0.034 J	ND (0.24)	ND (0.24)	3.4	1.7	ND (0.23)	0.084 J
2-Methylphenol (o-Cresol)	0.33	100	0.33	ND (0.19)	ND (0.21)	ND (0.23) J	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	0.16 J	0.11 J	ND (0.19)	ND (0.18)
2-Nitroaniline	NA	NA	NA	ND (0.19)	ND (0.21)	ND (0.23) J	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
2-Nitrophenol	NA	NA	NA	ND (0.42)	ND (0.46)	ND (0.5) J	ND (0.4)	ND (0.39)	ND (0.39)	ND (0.48)	ND (1.6)	ND (0.4)	ND (0.45)	ND (0.43)	ND (0.42)	ND (0.4)	ND (2.3)	ND (0.43)	ND (0.43)	ND (0.41)	ND (0.44)	ND (0.39)	ND (0.42)	ND (0.43)	ND (0.41)	ND (0.42)	ND (0.42)	ND (0.39)
3&4-Methylphenol	0.33	100	0.33	0.048 J	ND (0.31)	ND (0.34) J	0.034 J	ND (0.26)	ND (0.26)	***1.4***	0.33 J	ND (0.27)	ND (0.3)	ND (0.28)	ND (0.28)	ND (0.27)	ND (1.6)	ND (0.29)	ND (0.29)	ND (0.27)	ND (0.29)	ND (0.26)	ND (0.28)	ND (0.28)	***0.46***	0.29	ND (0.28)	ND (0.26)
3,3'-Dichlorobenzidine	NA	NA	NA	ND (0.19)	ND (0.21)	ND (0.23)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
3-Nitroaniline	NA	NA	NA	ND (0.19)	ND (0.21)	ND (0.23) J	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
4,6-Dinitro-2-methylphenol	NA	NA	NA	ND (0.51)	ND (0.55)	ND (0.61) J	ND (0.48)	ND (0.47)	ND (0.47)	ND (0.57)	ND (1.9)	ND (0.48)	ND (0.54)	ND (0.51)	ND (0.5)	ND (0.48)	ND (2.8)	ND (0.52)	ND (0.52)	ND (0.49)	ND (0.53)	ND (0.47)	ND (0.51)	ND (0.51)	ND (0.5)	ND (0.51)	ND (0.5)	ND (0.48)
4-Bromophenyl phenyl ether (BDE-3)	NA	NA	NA	ND (0.19)	ND (0.21)	ND (0.23) J	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
4-Chloro-3-methylphenol	NA	NA	NA	ND (0.19)	ND (0.21)	ND (0.23) J	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
4-Chloroaniline	NA	NA	NA	ND (0.19)	ND (0.21)	ND (0.23) J	ND (0.18)	0.18 R	0.18 R	0.22 R	0.72 R	ND (0.18) J	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
4-Chlorophenyl phenyl ether	NA	NA	NA	ND (0.19)	ND (0.21)	ND (0.23) J	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
4-Nitroaniline	NA	NA	NA	ND (0.19)	ND (0.21)	ND (0.23) J	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
4-Nitrophenol	NA	NA	NA	ND (0.27)	ND (0.3)	ND (0.33) J	ND (0.26)	ND (0.25)	ND (0.26)	ND (0.31)	ND (1)	ND (0.26)	ND (0.29)	ND (0.28)	ND (0.27)	ND (0.26)	ND (1.5)	ND (0.28)	ND (0.28)	ND (0.26)	ND (0.28)	ND (0.25)	ND (0.27)	ND (0.28)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.26)
Acenaphthene	98	100	20	0.6	ND (0.17)	0.36 J-	0.025 J	1.1	0.041 J	0.027 J	ND (0.58)	0.019 J	0.3	ND (0.16)	ND (0.15)	0.087 J	ND (0.86)	ND (0.16)	ND (0.16)	0.15	ND (0.16)	ND (0.14)	ND (0.16)	ND (0.16)	7.1	3.6	0.024 J	0.17
Acenaphthylene	107	100	100	0.56	ND (0.17)	0.29 J-	ND (0.15)	0.37	ND (0.15)	ND (0.18)	ND (0.58)	ND (0.15)	0.34	ND (0.16)	ND (0.15)	0.18	ND (0.86)	ND (0.16)	ND (0.16)	0.52	ND (0.16)	ND (0.14)	0.032 J	ND (0.16)	0.052 J	0.16	ND (0.15)	0.07 J
Acetophenone	NA	NA	NA	ND (0.19)	ND (0.21)	ND (0.23) J	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
Anthracene	1000	100	100	1.6	ND (0.13)	0.94	0.063 J	2.8	0.11	ND (0.13)	ND (0.43)	ND (0.11)	0.93	ND (0.12)	ND (0.12)	0.49	ND (0.65)	ND (0.12)	ND (0.12)	0.68	ND (0.12)	0.072 J	0.048 J	ND (0.12)	5.2	3.8	ND (0.12)	0.44
Benzo(a)anthracene	1	1	1	***4.9***	0.026 J	***2.6***	0.5	***6.6***	0.21	0.086 J	ND (0.43)	0.12	***3.3***	0.11 J	0.1 J	***1.8***	0.53 J	0.028 J	0.046 J	***3.3***	0.037 J	0.98	0.23	0.084 J	***7.2***	***7.2***	0.094 J	***1.5***
Benzo(a)pyrene	22	1	1	5.5	ND (0.17)	2.5	1.1	8.4	0.18	0.062 J	ND (0.58)	0.13 J	3.8	0.12 J	0.1 J	1.8	0.58 J	ND (0.16)	0.069 J	4.4	ND (0.16)	1.3	0.3	0.1 J	6.6	7.4	0.097 J	1.6
Benzo(b)fluoranthene	1.7	1	1	***6.5***	ND (0.13)	***3***	0.97	***9.4***	0.2	0.076 J	ND (0.43)	0.14	***4.3***	0.13	0.13	***2***	0.65	ND (0.12)	0.069 J	***5.1***	0.038 J	0.76	0.32	0.11 J	***7.3***	***8.2***	0.11 J	***1.8***
Benzo(g,h,i)perylene	1000	100	100	2.8	ND (0.17)	1.5	0.6	4	0.068 J	0.077 J	ND (0.58)	0.06 J	2	0.065 J	0.049 J	1.1	0.45 J	ND (0.16)	0.034 J	2.8	ND (0.16)	1.1	0.18	0.063 J	3.5	4	0.062 J	0.9
Benzo(k)fluoranthene	1.7	3.9	0.8	***2.2***	ND (0.13)	0.86	0.38	***2.7***	0.072 J	ND (0.13)	ND (0.43)	0.062 J	1.5	0.048 J	0.035 J	0.66	0.24 J	ND (0.12)	0.032 J	***1.9***	ND (0.12)	0.15	0.12	0.043 J	***2.9***	***3.4***	0.038 J	0.72
Benzoic acid	NA	NA	NA	ND (0.63)	ND (0.69)	ND (0.76) J	ND (0.6)	ND (0.59)	ND (0.59)	ND (0.72)	ND (2.3)	ND (0.6) J	ND (0.67)	ND (0.64)	ND (0.62)	ND (0.6)	ND (3.5)	ND (0.64)	ND (0.64)	ND (0.61)	ND (0.66)	ND (0.59)	ND (0.64)	ND (0.64)	ND (0.62)	ND (0.63)	ND (0.63)	ND (0.59) J
Benzyl Alcohol	NA	NA	NA	ND (0.19)	ND (0.21)	ND (0.23) J	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
Biphenyl	NA	NA	NA	0.061 J	ND (0.49)	0.038 J-	ND (0.42)	0.09 J	ND (0.42)	ND (0.5)	ND (1.6)	ND (0.42)	0.036 J	ND (0.45)	ND (0.44)	ND (0.42)	ND (2.5)	ND (0.45)	ND (0.45)	ND (0.43)	ND (0.46)	ND (0.41)	ND (0.45)	ND (0.45)	0.8	0.43 J	ND (0.44)	0.024 J
bis(2-Chloroethoxy)methane	NA	NA	NA	ND (0.21)	ND (0.23)	ND (0.25) J	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.24)	ND (0.78)	ND (0.2)	ND (0.22)	ND (0.21)	ND (0.21)	ND (0.2)	ND (1.2)	ND (0.21)	ND (0.22)	ND (0.2)	ND (0.22)	ND (0.2)	ND (0.21)	ND (0.21)	ND (0.2)	ND (0.21)	ND (0.21)	ND (0.2)
bis(2-Chloroethyl)ether	NA	NA	NA	ND (0.18)	ND (0.19)	ND (0.21) J	ND (0.17)	ND (0.16)	ND (0.16)	ND (0.2)	ND (0.65)	ND (0.17)	ND (0.19)	ND (0.18)	ND (0.17)	ND (0.17)	ND (0.97)	ND (0.18)	ND (0.18)	ND (0.17)	ND (0.18)	ND (0.16)	ND (0.18)	ND (0.18)	ND (0.17)	ND (0.18)	ND (0.17)	ND (0.16)
bis(2-Ethylhexyl)phthalate	NA	NA	NA	0.94	ND (0.21)	ND (0.23)	ND (0.18)	0.069 J	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	0.13 J	0.065 J
Butyl benzylphthalate (BBP)	NA	NA	NA	ND (0.19)	ND (0.21)	ND (0.23)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
Carbazole	NA	NA	NA	0.76	ND (0.21)	0.48	0.037 J	1	0.032 J	0.026 J	ND (0.72)	ND (0.18)	0.43	ND (0.2)	ND (0.19)	0.11 J	ND (1.1)	ND (0.2)	ND (0.2)	0.35	ND (0.2)	0.027 J	0.024 J	ND (0.2)	3.2	2.4	ND (0.19)	0.12 J
Chrysene	1	3.9	1	***4.8***	0.024 J	***2.4***	0.47	***6***	0.18	0.09 J	ND (0.43)	0.12	***3.3***	0.11 J	0.097 J	***1.7***	0.47 J	0.022 J	0.058 J	***3.3***	0.031 J	***1.3***	0.23	0.083 J	***7.4***	***7.8***	0.091 J	***1.4***
Dibenz(a,h)anthracene	1000	0.33	0.33	0.7	ND (0.13)	0.33	0.15	0.89	0.023 J	ND (0.13)	ND (0.43)	ND (0.11)	0.51	ND (0.12)	ND (0.12)	0.26	0.12 J	ND (0.12)	ND (0.12)	0.66	ND (0.12)	0.41	0.042 J	ND (0.12)	0.96	1	ND (0.12)	0.22
Dibenzofuran	210	59	7	0.42	ND (0.21)	0.26 J-	ND (0.18)	0.67	0.018 J	0.036 J	ND (0.72)	ND (0.18)	0.24	ND (0.2)	ND (0.19)	0.05 J	ND (1.1)	ND (0.2)	ND (0.2)	0.079 J	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	4.7	2.6	ND (0.19)	0.12 J
Diethyl phthalate	NA	NA	NA	ND (0.19)	ND (0.21)	ND (0.23) J	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
Dimethyl phthalate	NA	NA	NA	ND (0.19)	ND (0.21)	ND (0.23) J	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
Di-n-butylphthalate (DBP)	NA	NA	NA	0.043 J	ND (0.21)	ND (0.23)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
Di-n-octyl phthalate (DnOP)	NA	NA	NA	ND (0.19)	ND (0.21)	ND (0.23)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
Fluoranthene	1000	100	100	10	0.041 J	5.8	0.39	19	0.4	0.2	0.1 J	0.25	7.2	0.24	0.19	3.6	0.77	0.041 J	0.1 J	6.8	0.059 J	0.32	0.44	0.17	20	21	0.2	3
Fluorene	386	100	30	0.6	ND (0.21)	0.36 J-	ND (0.18)	1.1	0.044 J	0.042 J	ND (0.72)	ND (0.18)	0.29	ND (0.2)	ND (0.19)	0.094 J	ND (1.1)	ND (0.2)	ND (0.2)	0.17 J	ND (0.2)	0.021 J	ND (0.2)	ND (0.2)	6	2.4	ND (0.19)	0.15 J
Hexachlorobenzene	3.2	1.2	0.33	ND (0.12)	ND (0.13)	ND (0.14) J	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.13)	ND (0.43)	ND (0.11)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.11)	ND (0.65)	ND (0.12)	ND (0.12)	ND (0.11)	ND (0.12)	ND (0.11)	ND (0.12)	ND (0.12)	ND (0.11)	ND (0.12)	ND (0.12)	ND (0.11)
Hexachlorobutadiene	NA	NA	NA	ND (0.19)	ND (0.21)	ND (0.23) J	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
Hexachlorocyclopentadiene	NA	NA	NA	ND (0.56)	ND (0.61)	ND (0.67) J	ND (0.53)	ND (0.52)	ND (0.52)	ND (0.63)	ND (2.1)	ND (0.53)	ND (0.59)	ND (0.56)	ND (0.55)	ND (0.53)	ND (3.1)	ND (0.57)	ND (0.57)	ND (0.54)	ND (0.58)	ND (0.52)	ND (0.56)	ND (0.56)	ND (0.54)	ND (0.56)	ND (0.55)	ND (0.52)
Hexachloroethane	NA	NA	NA	ND (0.16)	ND (0.17)	ND (0.19) J	ND (0.15)	ND (0.14)	ND (0.15)	ND (0.18)	ND (0.58)	ND (0.15)	ND (0.16)	ND (0.16)	ND (0.15)	ND (0.15)	ND (0.86)	ND (0.16)	ND (0.16)	ND (0.15)	ND (0.16)	ND (0.14)	ND (0.16)	ND (0.16)	ND (0.15)	ND (0.16)	ND (0.15)	ND (0.15)
Indeno(1,2,3-cd)pyrene	8.2	0.5	0.5	3.4	ND (0.17)	1.7	0.7	4.8	0.088 J	0.092 J	ND (0.58)	0.074 J	2.5	0.072 J	0.062 J	1.2	0.48 J	ND (0.16)	0.039 J	3.2	ND (0.16)	0.43	0.19	0.062 J	4	4.6	0.065 J	1
Isophorone	NA	NA	NA	ND (0.18)	ND (0.19)	ND (0.21) J	ND (0.17)	ND (0.16)	ND (0.16)	ND (0.2)	ND (0.65)	ND (0.17)	ND (0.19)	ND (0.18)	ND (0.17)	ND (0.17)	ND (0.97)	ND (0.18)	ND (0.18)	ND (0.17)	ND (0.18)	ND (0.16)	ND (0.18)	ND (0.18)	ND (0.17)	ND (0.18)	ND (0.17)	ND (0.16)
Naphthalene	12	100	12	0.41	ND (0.21)	0.24 J-	ND (0.18)	0.47	ND (0.18)	0.085 J	0.2 J	ND (0.18)	0.25	ND (0.2)	ND (0.19)	0.1 J	ND (1.1)	ND (0.2)	ND (0.2)	0.12 J	ND (0.2)	0.027 J	ND (0.2)	ND (0.2)	7.5	4	ND (0.19)	0.16 J
Nitrobenzene	NA	NA	NA	ND (0.18)	ND (0.19)	ND (0.21) J	ND (0.17)	ND (0.16)	ND (0.16)	ND (0.2)	ND (0.65)	ND (0.17)	ND (0.19)	ND (0.18)	ND (0.17)	ND (0.17)	ND (0.97)	ND (0.18)	ND (0.18)	ND (0.17)	ND (0.18)	ND (0.16)	ND (0.18)	ND (0.18)	ND (0.17)	ND (0.18)	ND (0.17)	ND (0.16)
N-Nitrosodi-n-propylamine	NA	NA	NA	ND (0.19)	ND (0.21)	ND (0.23) J	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.22)	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)
N-Nitrosodiphenylamine	NA	NA	NA	ND (0.16)	ND (0.17)	ND (0.19) J	ND (0.15)	ND (0.14)	ND (0.15)	ND (0.18)	ND (0.58)	ND (0.15)	ND (0.16)	ND (0.16)	ND (0.15)	ND (0.15)	ND (0.86)	ND (0.16)	ND (0.16)	ND (0.15)	ND (0.16)	ND (0.14)	ND (0.16)	ND (0.16)	ND (0.15)	ND (0.16)	ND (0.15)	ND (0.15)
Pentachlorophenol	0.8	6.7	0.8	ND (0.16)	ND (0.17)	ND (0.19) J	ND (0.15)	ND (0.14)	ND (0.15)	ND (0.18)	ND (0.58)	ND (0.15)	ND (0.16)	ND (0.16)	ND (0.15)	ND (0.15)	ND (0.86)	ND (0.16)	ND (0.16)	ND (0.15)	ND (0.16)	ND (0.14)	ND (0.16)	ND (0.16)	ND (0.15)	ND (0.16)	ND (0.15)	ND (0.15)
Phenanthrene	1000	100	100	7.8	ND (0.13)	4.2	0.18	13	0.35	0.19	0.18 J	0.15	4.4	0.17	0.079 J	1.4	0.3 J	ND (0.12)	0.064 J	2.6	0.045 J	0.28	0.19	0.1 J	29	24	0.17	1.9 J
Phenol	0.33	100	0.33	ND (0.19)	ND (0.21)	ND (0.23) J	ND (0.18)	ND (0.18)	ND (0.18)	0.079 J	ND (0.72)	ND (0.18)	ND (0.21)	ND (0.2)	ND (0.19)	ND (0.19)	ND (1.1)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.2)	ND (0.18)	ND (0.2)	ND (0.2)	0.22	0.16 J	ND (0.19)	ND (0.18)
Pyrene	1000	100	100	8.2	0.033 J	4.9	0.41	16	0.32	0.15	0.1 J	0.21	6.1	0.2	0.15	3.2	0.69	0.034 J	0.09 J	5.6	0.052 J	0.57	0.39	0.15	16	17	0.17	2.5

ABBREVIATIONS AND NOTES:
mg/kg: milligram per kilogram

-: Not Analyzed
bgs: below ground surface
ft: feet
J: Value is estimated.
R: Rejected
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

- For test methods used, see the laboratory data sheets.
- Soil analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 375 Unrestricted Use Soil Cleanup Objectives (SCO), Restricted-Use Residential SCOs, and Protection of Groundwater SCO's.
- ***Bold italic*** values indicate an exceedance of the Protection of Groundwater Criteria.
- Grey shading indicates an exceedance of the Unrestricted Use Soil Cleanup Objectives.
- Yellow shading indicates an exceedance of the Restricted Use Residential Soil Cleanup Objectives.

TABLE 2b
REMEDIAL INVESTIGATION - SEMI-VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS IN SOIL
556 BALTIC STREET
BROOKLYN, NEW YORK

	Action Level										
Location Name	Restricted Use Soil Cleanup Objectives - Protection of Groundwater	Restricted Use Soil Cleanup Objectives - Residential	Unrestricted Use Soil Cleanup Objectives	HA-13	HA-13	HA-13	HA-14	HA-14	HA-14	HA-14	HA-15
Sample Name				HA-13 (6-8)	HA-13 (10-12)	HA-13 (14-16)	HA-14 (2-4)	HA-14 (6-8)	HA-14 (10-12)	HA-14 (14-16)	HA-15 (2-4)
Sample Date				02/13/2023	02/13/2023	02/13/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023
Lab Sample ID				L2307677-02 L2310952-02	L2307677-03 L2310952-03	L2307677-04 L2310952-04	L2305570-09	L2305570-10	L2305570-11	L2305570-12	L2305570-13
Sample Depth (bgs)				6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)
Semi-Volatile Organic Compounds (mg/kg)											
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
1,2,4-Trichlorobenzene	NA	NA	NA	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
1,2-Dichlorobenzene	1.1	100	1.1	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
1,3-Dichlorobenzene	2.4	49	2.4	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
1,4-Dichlorobenzene	1.8	13	1.8	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
1,4-Dioxane	0.1	13	0.1	0.028 R	0.032 R	0.039 R	ND (0.028)	ND (0.029)	ND (0.028)	ND (0.11)	ND (0.026)
2,2'-oxybis(1-Chloropropane)	NA	NA	NA	0.22 R	0.26 R	0.32 R	ND (0.22)	ND (0.23)	ND (0.22)	ND (0.89)	ND (0.21)
2,4,5-Trichlorophenol	NA	NA	NA	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
2,4,6-Trichlorophenol	NA	NA	NA	ND (0.11)	ND (0.13)	ND (0.16)	ND (0.11)	ND (0.12)	ND (0.11)	ND (0.44)	ND (0.11)
2,4-Dichlorophenol	NA	NA	NA	ND (0.17)	ND (0.19)	ND (0.24)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.66)	ND (0.16)
2,4-Dimethylphenol	NA	NA	NA	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
2,4-Dinitrophenol	NA	NA	NA	ND (0.89)	ND (1)	ND (1.3)	ND (0.88)	ND (0.92)	ND (0.89)	ND (3.5)	ND (0.85)
2,4-Dinitrotoluene	NA	NA	NA	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
2,6-Dinitrotoluene	NA	NA	NA	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
2-Chloronaphthalene	NA	NA	NA	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
2-Chlorophenol	NA	NA	NA	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
2-Methylnaphthalene	NA	NA	NA	0.16 J	0.059 J	ND (0.32)	0.058 J	ND (0.23)	ND (0.22)	ND (0.89)	0.032 J
2-Methylphenol (o-Cresol)	0.33	100	0.33	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
2-Nitroaniline	NA	NA	NA	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
2-Nitrophenol	NA	NA	NA	ND (0.4)	ND (0.46)	ND (0.57)	ND (0.4)	ND (0.42)	ND (0.4)	ND (1.6)	ND (0.38)
3&4-Methylphenol	0.33	100	0.33	0.2 J	0.28 J	0.29 J	ND (0.26)	ND (0.28)	ND (0.26)	***2***	ND (0.25)
3,3'-Dichlorobenzidine	NA	NA	NA	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
3-Nitroaniline	NA	NA	NA	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
4,6-Dinitro-2-methylphenol	NA	NA	NA	ND (0.48)	ND (0.56)	ND (0.68)	ND (0.48)	ND (0.5)	ND (0.48)	ND (1.9)	ND (0.46)
4-Bromophenyl phenyl ether (BDE-3)	NA	NA	NA	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
4-Chloro-3-methylphenol	NA	NA	NA	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
4-Chloroaniline	NA	NA	NA	ND (0.18)	ND (0.21)	ND (0.26)	0.18 R	0.19 R	0.18 R	0.74 R	0.18 R
4-Chlorophenyl phenyl ether	NA	NA	NA	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
4-Nitroaniline	NA	NA	NA	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
4-Nitrophenol	NA	NA	NA	ND (0.26)	ND (0.3)	ND (0.37)	ND (0.26)	ND (0.27)	ND (0.26)	ND (1)	ND (0.25)
Acenaphthene	98	100	20	0.52	0.039 J	0.046 J	0.23	ND (0.15)	ND (0.15)	0.16 J	0.039 J
Acenaphthylene	107	100	100	0.16	0.077 J	0.081 J	0.21	ND (0.15)	ND (0.15)	ND (0.59)	0.051 J
Acetophenone	NA	NA	NA	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
Anthracene	1000	100	100	0.94	0.12 J	0.17	0.63	ND (0.12)	ND (0.11)	0.37 J	0.14
Benzo(a)anthracene	1	1	1	***1.9***	0.34	0.63	***2.2***	0.051 J	0.051 J	0.71	0.52
Benzo(a)pyrene	22	1	1	2	0.41	0.77	2.1	0.05 J	0.046 J	0.79	0.67
Benzo(b)fluoranthene	1.7	1	1	***2.1***	0.47	0.8	***2.5***	0.058 J	0.044 J	0.86	0.81
Benzo(g,h,i)perylene	1000	100	100	0.82	0.21	0.4	1.3	0.031 J	0.023 J	0.32 J	0.3
Benzo(k)fluoranthene	1.7	3.9	0.8	0.87	0.19	0.32	0.74	ND (0.12)	ND (0.11)	0.37 J	0.29
Benzoic acid	NA	NA	NA	ND (0.6)	ND (0.69)	ND (0.85)	ND (0.6)	ND (0.62)	ND (0.6)	ND (2.4)	ND (0.57)
Benzyl Alcohol	NA	NA	NA	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
Biphenyl	NA	NA	NA	0.054 J	ND (0.49)	ND (0.6)	ND (0.42)	ND (0.44)	ND (0.42)	ND (1.7)	ND (0.4)
bis(2-Chloroethoxy)methane	NA	NA	NA	ND (0.2)	ND (0.23)	ND (0.28)	ND (0.2)	ND (0.21)	ND (0.2)	ND (0.8)	ND (0.19)
bis(2-Chloroethyl)ether	NA	NA	NA	ND (0.17)	ND (0.19)	ND (0.24)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.66)	ND (0.16)
bis(2-Ethylhexyl)phthalate	NA	NA	NA	ND (0.18)	ND (0.21)	ND (0.26)	0.13 J	ND (0.19)	ND (0.18)	ND (0.74)	0.073 J
Butyl benzylphthalate (BBP)	NA	NA	NA	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
Carbazole	NA	NA	NA	0.31	0.11 J	0.088 J	0.28	ND (0.19)	ND (0.18)	0.21 J	0.036 J
Chrysene	1	3.9	1	***1.8***	0.4	0.65	***2.2***	0.046 J	0.045 J	0.66	0.5
Dibenz(a,h)anthracene	1000	0.33	0.33	0.24	0.058 J	0.11 J	0.28	ND (0.12)	ND (0.11)	0.093 J	0.072 J
Dibenzofuran	210	59	7	0.33	0.092 J	0.049 J	0.12 J	ND (0.19)	ND (0.18)	0.085 J	0.03 J
Diethyl phthalate	NA	NA	NA	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
Dimethyl phthalate	NA	NA	NA	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
Di-n-butylphthalate (DBP)	NA	NA	NA	ND (0.18)	ND (0.21)	ND (0.26)	0.057 J	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
Di-n-octyl phthalate (DnOP)	NA	NA	NA	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
Fluoranthene	1000	100	100	4.7	0.93	1.3	4.2	0.094 J	0.11	1.5	0.76
Fluorene	386	100	30	0.46	0.091 J	0.074 J	0.23	ND (0.19)	ND (0.18)	0.19 J	0.035 J
Hexachlorobenzene	3.2	1.2	0.33	ND (0.11)	ND (0.13)	ND (0.16)	ND (0.11)	ND (0.12)	ND (0.11)	ND (0.44)	ND (0.11)
Hexachlorobutadiene	NA	NA	NA	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
Hexachlorocyclopentadiene	NA	NA	NA	ND (0.53)	ND (0.61)	ND (0.75)	ND (0.53)	ND (0.55)	ND (0.53)	ND (2.1)	ND (0.51)
Hexachloroethane	NA	NA	NA	ND (0.15)	ND (0.17)	ND (0.21)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.59)	ND (0.14)
Indeno(1,2,3-cd)pyrene	8.2	0.5	0.5	1	0.26	0.48	1.4	0.033 J	0.026 J	0.35 J	0.35
Isophorone	NA	NA	NA	ND (0.17)	ND (0.19)	ND (0.24)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.66)	ND (0.16)
Naphthalene	12	100	12	0.45	0.19 J	0.07 J	0.11 J	ND (0.19)	ND (0.18)	ND (0.74)	0.048 J
Nitrobenzene	NA	NA	NA	ND (0.17)	ND (0.19)	ND (0.24)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.66)	ND (0.16)
N-Nitrosodi-n-propylamine	NA	NA	NA	ND (0.18)	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
N-Nitrosodiphenylamine	NA	NA	NA	ND (0.15)	ND (0.17)	ND (0.21)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.59)	ND (0.14)
Pentachlorophenol	0.8	6.7	0.8	ND (0.15)	ND (0.17)	ND (0.21)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.59)	ND (0.14)
Phenanthrene	1000	100	100	3	0.8	0.79	2.9	0.07 J	0.1 J	1.4	0.48
Phenol	0.33	100	0.33	0.05 J	ND (0.21)	ND (0.26)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.74)	ND (0.18)
Pyrene	1000	100	100	3.9	0.75	1.1	3.9	0.083 J	0.092 J	1.2	0.75

Location Name	HA-15	HA-15	HA-15	HA-16	HA-16	HA-16	HA-16	HA-17	HA-17	HA-17	HA-17	HA-18	HA-18	HA-18	HA-18	HA-18	HA-19	HA-19
Sample Name	HA-15 (6-8)	HA-15 (10-12)	HA-15 (14-16)	HA-16 (2-4)	HA-16 (6-8)	HA-16 (10-12)	HA-16 (14-16)	HA-17 (2-4)	HA-17 (6-8)	HA-17 (10-12)	HA-17 (14-16)	HA-18 (2-4)	HA-18 (6-8)	HA-18 (10-12)	DUP_1_02132023	HA-18 (14-16)	HA-19 (2-4)	HA-19 (6-8)
Sample Date	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/13/2023	02/13/2023	02/13/2023	02/13/2023	02/13/2023	02/08/2023	02/08/2023
Lab Sample ID	L2305570-14	L2305570-15	L2305570-16	L2305570-17	L2305570-18	L2305570-19	L2305570-20	L2306883-13 L2310952-36	L2306883-14	L2306883-15	L2306883-16 L2310952-37	L2307677-05 L2310952-05	L2307677-06 L2310952-06	L2307677-07 L2310952-07	L2307677-09 L2310952-09	L2307677-08 L2310952-08	L2306883-17 L2310952-38	L2306883-18 L2310952-39
Sample Depth (bgs)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)
Semi-Volatile Organic Compounds (mg/kg)																		
1,2,4,5-Tetrachlorobenzene	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
1,2,4-Trichlorobenzene	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
1,2-Dichlorobenzene	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
1,3-Dichlorobenzene	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
1,4-Dichlorobenzene	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
1,4-Dioxane	ND (0.028)	ND (0.1)	ND (0.096)	ND (0.027)	ND (0.028)	ND (0.028)	ND (0.028)	ND (0.029)	ND (0.03)	ND (0.031)	ND (0.03)	0.028 R	0.029 R	0.033 R	0.028 R	0.03 R	ND (0.032)	ND (0.029)
2,2'-oxybis(1-Chloropropane)	ND (0.22)	ND (0.81)	ND (0.77)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.23)	ND (0.24)	ND (0.25)	ND (0.24)	0.23 R	0.23 R	0.26 R	0.22 R	0.24 R	ND (0.26)	ND (0.23)
2,4,5-Trichlorophenol	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
2,4,6-Trichlorophenol	ND (0.11)	ND (0.4)	ND (0.38)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.11)	ND (0.12)	ND (0.13)	ND (0.11)	ND (0.12)	ND (0.13)	ND (0.12)
2,4-Dichlorophenol	ND (0.16)	ND (0.6)	ND (0.58)	ND (0.16)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.17)	ND (0.17)	ND (0.2)	ND (0.16)	ND (0.18)	ND (0.19)	ND (0.17)
2,4-Dimethylphenol	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
2,4-Dinitrophenol	ND (0.88)	ND (3.2)	ND (3.1)	ND (0.87)	ND (0.9)	ND (0.89)	ND (0.89)	ND (0.92)	ND (0.98)	ND (0.98)	ND (0.97)	ND (0.91)	ND (0.93)	ND (1)	ND (0.88)	ND (0.98)	ND (1)	ND (0.93)
2,4-Dinitrotoluene	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
2,6-Dinitrotoluene	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
2-Chloronaphthalene	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
2-Chlorophenol	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
2-Methylnaphthalene	ND (0.22)	ND (0.81)	ND (0.77)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.23)	ND (0.24)	ND (0.25)	ND (0.24)	0.062 J	0.078 J	ND (0.26)	ND (0.22)	0.73	0.063 J	0.065 J
2-Methylphenol (o-Cresol)	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
2-Nitroaniline	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
2-Nitrophenol	ND (0.4)	ND (1.4)	ND (1.4)	ND (0.39)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.42)	ND (0.44)	ND (0.44)	ND (0.44)	ND (0.41)	ND (0.42)	ND (0.47)	ND (0.4)	ND (0.44)	ND (0.46)	ND (0.42)
3&4-Methylphenol	ND (0.26)	0.16 J	ND (0.92)	ND (0.26)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.28)	ND (0.29)	ND (0.3)	ND (0.29)	ND (0.27)	ND (0.28)	ND (0.31)	ND (0.26)	ND (0.29)	ND (0.31)	ND (0.28)
3,3'-Dichlorobenzidine	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
3-Nitroaniline	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
4,6-Dinitro-2-methylphenol	ND (0.48)	ND (1.7)	ND (1.7)	ND (0.47)	ND (0.49)	ND (0.48)	ND (0.48)	ND (0.5)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.49)	ND (0.5)	ND (0.57)	ND (0.48)	ND (0.53)	ND (0.55)	ND (0.5)
4-Bromophenyl phenyl ether (BDE-3)	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
4-Chloro-3-methylphenol	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
4-Chloroaniline	0.18 R	0.67 R	0.64 R	0.18 R	0.19 R	0.18 R	0.19 R	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
4-Chlorophenyl phenyl ether	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
4-Nitroaniline	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
4-Nitrophenol	ND (0.26)	ND (0.94)	ND (0.9)	ND (0.25)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.27)	ND (0.28)	ND (0.29)	ND (0.28)	ND (0.27)	ND (0.27)	ND (0.3)	ND (0.26)	ND (0.28)	ND (0.3)	ND (0.27)
Acenaphthene	0.062 J	ND (0.54)	ND (0.51)	ND (0.14)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.16)	ND (0.16)	ND (0.16)	0.14 J	0.14 J	ND (0.17)	ND (0.15)	0.053 J	ND (0.17)	0.039 J
Acenaphthylene	0.03 J	ND (0.54)	ND (0.51)	ND (0.14)	ND (0.15)	ND (0.15)	ND (0.15)	0.05 J	ND (0.16)	ND (0.16)	ND (0.16)	0.11 J	0.04 J	ND (0.17)	ND (0.15)	ND (0.16)	ND (0.17)	0.13 J
Acetophenone	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	0.036 J	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
Anthracene	0.14	ND (0.4)	ND (0.38)	0.052 J	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.12)	ND (0.12)	ND (0.12)	0.042 J	0.72	0.29	ND (0.13)	ND (0.11)	ND (0.12)	0.08 J	0.25
Benzo(a)anthracene	0.39	0.24 J	ND (0.38)	0.28	0.044 J	ND (0.11)	ND (0.11)	0.14	ND (0.12)	ND (0.12)	0.067 J	***1.8***	0.97	0.14	0.021 J	0.086 J	0.29	0.73
Benzo(a)pyrene	0.34	0.19 J	ND (0.51)	0.26	0.047 J	ND (0.15)	ND (0.15)	0.24	ND (0.16)	ND (0.16)	0.068 J	1.9	1.1	0.16 J	ND (0.15)	0.13 J	0.34	0.8
Benzo(b)fluoranthene	0.38	0.25 J	ND (0.38)	0.3	0.059 J	ND (0.11)	ND (0.11)	0.25	ND (0.12)	ND (0.12)	0.063 J	***2.1***	1.3	0.19	ND (0.11)	0.12	0.43	0.89
Benzo(g,h,i)perylene	0.17	0.1 J	ND (0.51)	0.16	0.034 J	ND (0.15)	ND (0.15)	0.2	ND (0.16)	ND (0.16)	0.031 J	1	0.68	0.1 J	ND (0.15)	0.077 J	0.31	0.6
Benzo(k)fluoranthene	0.14	ND (0.4)	ND (0.38)	0.11	ND (0.11)	ND (0.11)	ND (0.11)	0.1 J	ND (0.12)	ND (0.12)	ND (0.12)	0.69	0.45	0.07 J	ND (0.11)	0.054 J	0.16	0.31
Benzoic acid	ND (0.6)	ND (2.2)	ND (2.1)	ND (0.58)	ND (0.61)	ND (0.6)	ND (0.6)	ND (0.62)	ND (0.66)	ND (0.66)	ND (0.66)	ND (0.62)	ND (0.63)	ND (0.71)	ND (0.59)	ND (0.66)	ND (0.69)	ND (0.63)
Benzyl Alcohol	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
Biphenyl	ND (0.42)	ND (1.5)	ND (1.5)	ND (0.41)	ND (0.43)	ND (0.42)	ND (0.42)	ND (0.44)	ND (0.46)	ND (0.47)	ND (0.46)	ND (0.43)	ND (0.44)	ND (0.5)	ND (0.42)	0.029 J	ND (0.48)	ND (0.44)
bis(2-Chloroethoxy)methane	ND (0.2)	ND (0.73)	ND (0.69)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.21)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.2)	ND (0.21)	ND (0.24)	ND (0.2)	ND (0.22)	ND (0.23)	ND (0.21)
bis(2-Chloroethyl)ether	ND (0.16)	ND (0.6)	ND (0.58)	ND (0.16)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.17)	ND (0.17)	ND (0.2)	ND (0.16)	ND (0.18)	ND (0.19)	ND (0.17)
bis(2-Ethylhexyl)phthalate	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
Butyl benzylphthalate (BBP)	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
Carbazole	0.058 J	ND (0.67)	ND (0.64)	0.023 J	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	0.024 J	0.29	0.18 J	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	0.083 J
Chrysene	0.37	0.23 J	ND (0.38)	0.29	0.045 J	ND (0.11)	ND (0.11)	0.15	ND (0.12)	ND (0.12)	0.056 J	***1.7***	***1.1***	0.15	ND (0.11)	0.095 J	0.27	0.72
Dibenz(a,h)anthracene	0.046 J	ND (0.4)	ND (0.38)	0.038 J	ND (0.11)	ND (0.11)	ND (0.11)	0.04 J	ND (0.12)	ND (0.12)	ND (0.12)	0.25	0.16	0.027 J	ND (0.11)	0.026 J	0.067 J	0.12
Dibenzofuran	0.04 J	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	0.14 J	0.11 J	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	0.034 J
Diethyl phthalate	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
Dimethyl phthalate	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
Di-n-butylphthalate (DBP)	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
Di-n-octyl phthalate (DnOP)	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
Fluoranthene	0.78	0.5	ND (0.38)	0.53	0.064 J	ND (0.11)	ND (0.11)	0.2	ND (0.12)	ND (0.12)	0.13	4	2.1	0.28 J	0.027 J	0.15	0.6	1.3
Fluorene	0.058 J	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	0.021 J	0.16 J	0.12 J	ND (0.22)	ND (0.18)	0.044 J	ND (0.21)	0.063 J
Hexachlorobenzene	ND (0.11)	ND (0.4)	ND (0.38)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.11)	ND (0.12)	ND (0.13)	ND (0.11)	ND (0.12)	ND (0.13)	ND (0.12)
Hexachlorobutadiene	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
Hexachlorocyclopentadiene	ND (0.53)	ND (1.9)	ND (1.8)	ND (0.52)	ND (0.54)	ND (0.53)	ND (0.53)	ND (0.55)	ND (0.58)	ND (0.59)	ND (0.58)	ND (0.54)	ND (0.56)	ND (0.62)	ND (0.52)	ND (0.58)	ND (0.61)	0.55 R
Hexachloroethane	ND (0.15)	ND (0.54)	ND (0.51)	ND (0.14)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.15)	ND (0.16)	ND (0.17)	ND (0.15)	ND (0.16)	ND (0.17)	ND (0.15)
Indeno(1,2,3-cd)pyrene	0.2	0.13 J	ND (0.51)	0.17	0.035 J	ND (0.15)	ND (0.15)	0.2	ND (0.16)	ND (0.16)	0.035 J	1.2	0.78	0.12 J	ND (0.15)	0.096 J	0.31	0.64
Isophorone	ND (0.16)	ND (0.6)	ND (0.58)	ND (0.16)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.17)	ND (0.17)	ND (0.2)	ND (0.16)	ND (0.18)	ND (0.19)	ND (0.17)
Naphthalene	0.029 J	0.089 J	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	0.033 J	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	0.12 J	0.12 J	ND (0.22)	ND (0.18)	2.2	0.07 J	0.099 J
Nitrobenzene	ND (0.16)	ND (0.6)	ND (0.58)	ND (0.16)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.17)	ND (0.17)	ND (0.2)	ND (0.16)	ND (0.18)	ND (0.19)	ND (0.17)
N-Nitrosodi-n-propylamine	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
N-Nitrosodiphenylamine	ND (0.15)	ND (0.54)	ND (0.51)	ND (0.14)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.15)	ND (0.16)	ND (0.17)	ND (0.15)	ND (0.16)	ND (0.17)	ND (0.15)
Pentachlorophenol	ND (0.15)	ND (0.54)	ND (0.51)	ND (0.14)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.15)	ND (0.16)	ND (0.17)	ND (0.15)	ND (0.16)	ND (0.17)	ND (0.15)
Phenanthrene	0.6	0.49	ND (0.38)	0.26	0.033 J	ND (0.11)	ND (0.11)	0.087 J	ND (0.12)	ND (0.12)	0.13	2.8	1.8	0.16	ND (0.11)	0.11 J	0.31	0.72
Phenol	ND (0.18)	ND (0.67)	ND (0.64)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.19)	ND (0.19)	ND (0.22)	ND (0.18)	ND (0.2)	ND (0.21)	ND (0.19)
Pyrene	0.68	0.4	ND (0.38)	0.6	0.053 J	ND (0.11)	ND (0.11)	0.19	ND (0.12)	ND (0.12)	0.11 J	3.4	1.8	0.25 J	0.023 J	0.13	0.46	1.2

ABBREVIATIONS AND NOTES:

mg/kg: milligram per kilogram

-: Not Analyzed
bgs: below ground surface
ft: feet
J: Value is estimated.
R: Rejected
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

- For test methods used, see the laboratory data sheets.
- Soil analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 375 Unrestricted Use Soil Cleanup Objectives (SCO), Restricted-Use Residential SCOs, and Protection of Groundwater SCO's.
- ***Bold italic*** values indicate an exceedance of the Protection of Groundwater Criteria.
- Grey shading indicates an exceedance of the Unrestricted Use Soil Cleanup Objectives.
- Yellow shading indicates an exceedance of the Restricted Use Residential Soil Cleanup Objectives.

TABLE 2b
REMEDIAL INVESTIGATION - SEMI-VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS IN SOIL
556 BALTIC STREET
BROOKLYN, NEW YORK

	Action Level																	
Location Name	Restricted Use Soil Cleanup Objectives - Protection of Groundwater	Restricted Use Soil Cleanup Objectives - Residential	Unrestricted Use Soil Cleanup Objectives	HA-19	HA-19	HA-19	HA-19	HA-20	HA-20	HA-20	HA-20	HA-21	HA-21	HA-21	HA-21	HA-21
Sample Name				HA-19 (10-12)	DUP_1_02082023	HA-19 (14-16)	HA-19 (20-22)	HA-20 (2-4)	HA-20 (6-8)	HA-20 (10-12)	HA-20 (14-16)	HA-21 (2-4)	HA-21 (6-8)	HA-21 (10-12)	HA-21 (14-16)	HA-21 (20-22)
Sample Date				02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/10/2023	02/10/2023	02/10/2023	02/10/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023
Lab Sample ID				L2306883-19 L2310952-40	L2306883-27 L2310952-46	L2306883-20 L2310952-41	L2306883-21	L2307511-05 L2310952-24	L2307511-06 L2310952-25	L2307511-07 L2310952-26	L2307511-08	L2306883-22 L2310952-47	L2306883-23 L2310952-42	L2306883-24 L2310952-43	L2306883-25 L2310952-44	L2306883-26 L2310952-45
Sample Depth (bgs)				10 - 12 (ft)	10 - 12 (ft)	14 - 16 (ft)	20 - 22 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	20 - 22 (ft)
Semi-Volatile Organic Compounds (mg/kg)																
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
1,2,4-Trichlorobenzene	NA	NA	NA	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
1,2-Dichlorobenzene	1.1	100	1.1	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
1,3-Dichlorobenzene	2.4	49	2.4	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
1,4-Dichlorobenzene	1.8	13	1.8	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
1,4-Dioxane	0.1	13	0.1	ND (0.088)	ND (0.029)	ND (0.086)	ND (0.081)	ND (0.031)	ND (0.033)	ND (0.033)	ND (0.042)	ND (0.029)	ND (0.029)	ND (0.086)	ND (0.092)	ND (0.034)
2,2'-oxybis(1-Chloropropane)	NA	NA	NA	ND (0.71)	ND (0.23)	ND (0.69)	ND (0.65)	ND (0.25)	ND (0.26)	ND (0.26)	ND (0.34)	ND (0.24)	ND (0.23)	ND (0.69)	ND (0.74)	ND (0.27)
2,4,5-Trichlorophenol	NA	NA	NA	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
2,4,6-Trichlorophenol	NA	NA	NA	ND (0.35)	ND (0.12)	ND (0.35)	ND (0.32)	ND (0.12)	ND (0.13)	ND (0.13)	ND (0.17)	ND (0.12)	ND (0.12)	ND (0.34)	ND (0.37)	ND (0.14)
2,4-Dichlorophenol	NA	NA	NA	ND (0.53)	ND (0.17)	ND (0.52)	ND (0.49)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.25)	ND (0.18)	ND (0.17)	ND (0.52)	ND (0.55)	ND (0.21)
2,4-Dimethylphenol	NA	NA	NA	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
2,4-Dinitrophenol	NA	NA	NA	ND (2.8)	ND (0.92)	ND (2.8)	ND (2.6)	ND (0.98)	ND (1)	ND (1)	ND (1.4)	ND (0.94)	ND (0.93)	ND (2.8)	ND (3)	ND (1.1)
2,4-Dinitrotoluene	NA	NA	NA	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
2,6-Dinitrotoluene	NA	NA	NA	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
2-Chloronaphthalene	NA	NA	NA	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
2-Chlorophenol	NA	NA	NA	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
2-Methylnaphthalene	NA	NA	NA	3.1 J	ND (0.23) J	4.4	ND (0.65)	ND (0.25)	ND (0.26)	0.11 J	ND (0.34)	ND (0.24)	1.3	0.62 J	ND (0.74)	ND (0.27)
2-Methylphenol (o-Cresol)	0.33	100	0.33	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
2-Nitroaniline	NA	NA	NA	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
2-Nitrophenol	NA	NA	NA	ND (1.3)	ND (0.41)	ND (1.2)	ND (1.2)	ND (0.44)	ND (0.48)	ND (0.48)	ND (0.61)	ND (0.42)	ND (0.42)	ND (1.2)	ND (1.3)	ND (0.49)
3&4-Methylphenol	0.33	100	0.33	0.18 J	ND (0.28)	0.13 J	ND (0.78)	ND (0.3)	ND (0.32)	ND (0.32)	ND (0.41)	ND (0.28)	ND (0.28)	ND (0.83)	0.18 J	ND (0.33)
3,3'-Dichlorobenzidine	NA	NA	NA	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
3-Nitroaniline	NA	NA	NA	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
4,6-Dinitro-2-methylphenol	NA	NA	NA	ND (1.5)	ND (0.5)	ND (1.5)	ND (1.4)	ND (0.53)	ND (0.57)	ND (0.57)	ND (0.74)	ND (0.51)	ND (0.5)	ND (1.5)	ND (1.6)	ND (0.6)
4-Bromophenyl phenyl ether (BDE-3)	NA	NA	NA	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
4-Chloro-3-methylphenol	NA	NA	NA	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
4-Chloroaniline	NA	NA	NA	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
4-Chlorophenyl phenyl ether	NA	NA	NA	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
4-Nitroaniline	NA	NA	NA	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	0.16 J	ND (0.58)	ND (0.62)	ND (0.23)
4-Nitrophenol	NA	NA	NA	ND (0.82)	ND (0.27)	ND (0.81)	ND (0.76)	ND (0.29)	ND (0.31)	ND (0.31)	ND (0.4)	ND (0.27)	ND (0.27)	ND (0.81)	ND (0.86)	ND (0.32)
Acenaphthene	98	100	20	0.089 J	ND (0.15)	ND (0.46)	ND (0.43)	0.036 J	ND (0.18)	0.095 J	ND (0.23)	0.032 J	2.5	ND (0.46)	ND (0.49)	ND (0.18)
Acenaphthylene	107	100	100	ND (0.47)	ND (0.15)	ND (0.46)	ND (0.43)	0.066 J	ND (0.18)	ND (0.18)	ND (0.23)	0.28	0.23	ND (0.46)	ND (0.49)	ND (0.18)
Acetophenone	NA	NA	NA	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
Anthracene	1000	100	100	0.12 J	ND (0.12)	ND (0.35)	ND (0.32)	0.13	ND (0.13)	0.44	ND (0.17)	0.21	5.1	ND (0.34)	ND (0.37)	ND (0.14)
Benzo(a)anthracene	1	1	1	0.5	ND (0.12)	0.12 J	ND (0.32)	0.68	0.11 J	0.97	0.083 J	***1.9***	***5.4***	0.11 J	0.17 J	0.035 J
Benzo(a)pyrene	22	1	1	0.77	ND (0.15)	0.15 J	ND (0.43)	0.81	0.11 J	0.99	0.086 J	2.4	4.4	0.15 J	0.18 J	ND (0.18)
Benzo(b)fluoranthene	1.7	1	1	0.73 J	ND (0.12) J	0.14 J	ND (0.32)	0.94	0.13	0.99	0.094 J	***2.8***	***5.2***	0.16 J	0.2 J	ND (0.14)
Benzo(g,h,i)perylene	1000	100	100	0.68	ND (0.15)	0.13 J	ND (0.43)	0.52	0.051 J	0.46	0.043 J	1.4	2.2	0.12 J	0.11 J	ND (0.18)
Benzo(k)fluoranthene	1.7	3.9	0.8	0.22 J	ND (0.12)	ND (0.35)	ND (0.32)	0.32	0.052 J	0.33	ND (0.17)	1	1.4	ND (0.34)	ND (0.37)	ND (0.14)
Benzoic acid	NA	NA	NA	ND (1.9)	ND (0.62)	ND (1.9)	ND (1.8)	ND (0.66)	ND (0.72)	ND (0.71)	ND (0.92)	ND (0.64)	ND (0.63)	1.8 J	ND (2)	ND (0.74)
Benzyl Alcohol	NA	NA	NA	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
Biphenyl	NA	NA	NA	ND (1.3)	ND (0.44)	ND (1.3)	ND (1.2)	ND (0.47)	ND (0.5)	ND (0.5)	ND (0.64)	ND (0.45)	0.27 J	ND (1.3)	ND (1.4)	ND (0.52)
bis(2-Chloroethoxy)methane	NA	NA	NA	ND (0.64)	ND (0.21)	ND (0.62)	ND (0.59)	ND (0.22)	ND (0.24)	ND (0.24)	ND (0.3)	ND (0.21)	ND (0.21)	ND (0.62)	ND (0.66)	ND (0.25)
bis(2-Chloroethyl)ether	NA	NA	NA	ND (0.53)	ND (0.17)	ND (0.52)	ND (0.49)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.25)	ND (0.18)	ND (0.17)	ND (0.52)	ND (0.55)	ND (0.21)
bis(2-Ethylhexyl)phthalate	NA	NA	NA	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
Butyl benzylphthalate (BBP)	NA	NA	NA	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
Carbazole	NA	NA	NA	0.092 J	ND (0.19)	ND (0.58)	ND (0.54)	0.04 J	0.028 J	0.24	ND (0.28)	0.04 J	1.4	ND (0.58)	ND (0.62)	ND (0.23)
Chrysene	1	3.9	1	0.48	ND (0.12)	0.1 J	ND (0.32)	0.67	0.12 J	0.95	0.086 J	***2***	***4.8***	0.078 J	0.14 J	0.028 J
Dibenz(a,h)anthracene	1000	0.33	0.33	0.12 J	ND (0.12)	ND (0.35)	ND (0.32)	0.11 J	ND (0.13)	0.16	ND (0.17)	0.35	0.55	ND (0.34)	ND (0.37)	ND (0.14)
Dibenzofuran	210	59	7	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	0.019 J	0.028 J	0.16 J	ND (0.28)	ND (0.2)	2.2	ND (0.58)	ND (0.62)	ND (0.23)
Diethyl phthalate	NA	NA	NA	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
Dimethyl phthalate	NA	NA	NA	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
Di-n-butylphthalate (DBP)	NA	NA	NA	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
Di-n-octyl phthalate (DnOP)	NA	NA	NA	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
Fluoranthene	1000	100	100	0.77 J	ND (0.12) J	0.17 J	ND (0.32)	1.2	0.29	1.5	0.16 J	3	17	0.077 J	0.23 J	0.049 J
Fluorene	386	100	30	0.072 J	ND (0.19)	ND (0.58)	ND (0.54)	0.028 J	0.024 J	0.27	ND (0.28)	0.032 J	3.2	ND (0.58)	ND (0.62)	ND (0.23)
Hexachlorobenzene	3.2	1.2	0.33	ND (0.35)	ND (0.12)	ND (0.35)	ND (0.32)	ND (0.12)	ND (0.13)	ND (0.13)	ND (0.17)	ND (0.12)	ND (0.12)	ND (0.34)	ND (0.37)	ND (0.14)
Hexachlorobutadiene	NA	NA	NA	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
Hexachlorocyclopentadiene	NA	NA	NA	1.7 R	ND (0.55)	1.6 R	1.6 R	ND (0.59)	ND (0.63)	ND (0.63)	ND (0.81)	ND (0.56)	0.55 R	1.6 R	1.8 R	0.65 R
Hexachloroethane	NA	NA	NA	ND (0.47)	ND (0.15)	ND (0.46)	ND (0.43)	ND (0.16)	ND (0.18)	ND (0.18)	ND (0.23)	ND (0.16)	ND (0.15)	ND (0.46)	ND (0.49)	ND (0.18)
Indeno(1,2,3-cd)pyrene	8.2	0.5	0.5	0.68	ND (0.15)	0.13 J	ND (0.43)	0.58	0.064 J	0.46	0.049 J	1.7	2.6	0.13 J	0.13 J	ND (0.18)
Isophorone	NA	NA	NA	ND (0.53)	ND (0.17)	ND (0.52)	ND (0.49)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.25)	ND (0.18)	ND (0.17)	ND (0.52)	ND (0.55)	ND (0.21)
Naphthalene	12	100	12	4.1	ND (0.19)	5.6	0.11 J	ND (0.2)	0.041 J	0.16 J	ND (0.28)	0.03 J	1.9	1.1	0.075 J	ND (0.23)
Nitrobenzene	NA	NA	NA	ND (0.53)	ND (0.17)	ND (0.52)	ND (0.49)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.25)	ND (0.18)	ND (0.17)	ND (0.52)	ND (0.55)	ND (0.21)
N-Nitrosodi-n-propylamine	NA	NA	NA	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
N-Nitrosodiphenylamine	NA	NA	NA	ND (0.47)	ND (0.15)	ND (0.46)	ND (0.43)	ND (0.16)	ND (0.18)	ND (0.18)	ND (0.23)	ND (0.16)	ND (0.15)	ND (0.46)	ND (0.49)	ND (0.18)
Pentachlorophenol	0.8	6.7	0.8	ND (0.47)	ND (0.15)	ND (0.46)	ND (0.43)	ND (0.16)	ND (0.18)	ND (0.18)	ND (0.23)	ND (0.16)	ND (0.15)	ND (0.46)	ND (0.49)	ND (0.18)
Phenanthrene	1000	100	100	0.45	ND (0.12)	0.12 J	ND (0.32)	0.5	0.26	1.5	0.12 J	0.62	19	ND (0.34)	0.13 J	0.048 J
Phenol	0.33	100	0.33	ND (0.59)	ND (0.19)	ND (0.58)	ND (0.54)	ND (0.2)	ND (0.22)	ND (0.22)	ND (0.28)	ND (0.2)	ND (0.19)	ND (0.58)	ND (0.62)	ND (0.23)
Pyrene	1000	100	100	0.81	ND (0.12)	0.17 J	ND (0.32)	1.1	0.23	1.3	0.14 J	2.7	14	0.073 J	0.19 J	0.04 J

ABBREVIATIONS AND NOTES:
mg/kg: milligram per kilogram

-: Not Analyzed
bgs: below ground surface
ft: feet
J: Value is estimated.
R: Rejected
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

- For test methods used, see the laboratory data sheets.
- Soil analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 375 Unrestricted Use Soil Cleanup Objectives (SCO), Restricted-Use Residential SCOs, and Protection of Groundwater SCO's.
- ***Bold italic*** values indicate an exceedance of the Protection of Groundwater Criteria.
- Grey shading indicates an exceedance of the Unrestricted Use Soil Cleanup Objectives.
- Yellow shading indicates an exceedance of the Restricted Use Residential Soil Cleanup Objectives.

TABLE 2c
REMEDIAL INVESTIGATION - POLYCHLORINATED BIPHENYL ANALYTICAL RESULTS IN SOIL
556 BALTIC STREET
BROOKLYN, NEW YORK

	Action Level														
Location Name	Restricted Use Soil Cleanup Objectives - Protection of Groundwater	Restricted Use Soil Cleanup Objectives - Residential	Unrestricted Use Soil Cleanup Objectives	HA-01	HA-01	HA-01	HA-01	HA-02	HA-02	HA-02	HA-02	HA-03	HA-03	HA-03	HA-03
Sample Name				HA-01 (2-4)	HA-01 (6-8)	HA-01 (10-12)	HA-01 (14-16)	HA-02 (2-4)	HA-02 (6-8)	HA-02 (10-12)	HA-02 (14-16)	HA-03 (2-4)	HA-03 (6-8)	HA-03 (10-12)	HA-03 (14-16)
Sample Date				02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/10/2023	02/10/2023	02/10/2023	02/10/2023
Lab Sample ID				L2306883-01 L2310952-27	L2306883-02 L2310952-28	L2306883-03 L2310952-29	L2306883-04	L2306883-05 L2310952-30	L2306883-06 L2310952-31	L2306883-07	L2306883-08 L2310952-32	L2307511-01	L2307511-02 L2310952-22	L2307511-03 L2310952-23	L2307511-04
Sample Depth (bgs)				2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)
PCBs (mg/kg)															
Aroclor-1016 (PCB-1016)	NA	NA	NA	ND (0.0402)	ND (0.0385)	ND (0.0407)	ND (0.0397)	ND (0.0395)	ND (0.0378)	ND (0.0398)	ND (0.0364)	ND (0.0357)	ND (0.223)	ND (0.0386)	ND (0.0364)
Aroclor-1221 (PCB-1221)	NA	NA	NA	ND (0.0402)	ND (0.0385)	ND (0.0407)	ND (0.0397)	ND (0.0395)	ND (0.0378)	ND (0.0398)	ND (0.0364)	ND (0.0357)	ND (0.223)	ND (0.0386)	ND (0.0364)
Aroclor-1232 (PCB-1232)	NA	NA	NA	ND (0.0402)	ND (0.0385)	ND (0.0407)	ND (0.0397)	ND (0.0395)	ND (0.0378)	ND (0.0398)	ND (0.0364)	ND (0.0357)	ND (0.223)	ND (0.0386)	ND (0.0364)
Aroclor-1242 (PCB-1242)	NA	NA	NA	ND (0.0402)	ND (0.0385)	ND (0.0407)	ND (0.0397)	0.0229 J	ND (0.0378)	ND (0.0398)	ND (0.0364)	ND (0.0357)	ND (0.223)	ND (0.0386)	ND (0.0364)
Aroclor-1248 (PCB-1248)	NA	NA	NA	ND (0.0402)	ND (0.0385)	ND (0.0407)	ND (0.0397)	ND (0.0395)	ND (0.0378)	ND (0.0398)	ND (0.0364)	ND (0.0357)	ND (0.223)	ND (0.0386)	ND (0.0364)
Aroclor-1254 (PCB-1254)	NA	NA	NA	ND (0.0402)	ND (0.0385)	ND (0.0407)	ND (0.0397)	ND (0.0395)	ND (0.0378)	ND (0.0398)	ND (0.0364)	ND (0.0357)	ND (0.223)	ND (0.0386)	ND (0.0364)
Aroclor-1260 (PCB-1260)	NA	NA	NA	ND (0.0402)	ND (0.0385)	ND (0.0407)	0.00796 J	ND (0.0395)	ND (0.0378)	ND (0.0398)	ND (0.0364)	0.00858 J	ND (0.223)	ND (0.0386)	ND (0.0364)
Aroclor-1262 (PCB-1262)	NA	NA	NA	ND (0.0402)	ND (0.0385)	ND (0.0407)	ND (0.0397)	ND (0.0395)	ND (0.0378)	ND (0.0398)	ND (0.0364)	ND (0.0357)	ND (0.223)	ND (0.0386)	ND (0.0364)
Aroclor-1268 (PCB-1268)	NA	NA	NA	ND (0.0402)	ND (0.0385)	ND (0.0407)	ND (0.0397)	0.124	ND (0.0378)	ND (0.0398)	ND (0.0364)	0.00607 J	0.665	0.00797 J	ND (0.0364)
SUM of PCBs	3.2	1	0.1	ND (0.0402)	ND (0.0385)	ND (0.0407)	0.00796 J	0.147 J	ND (0.0378)	ND (0.0398)	ND (0.0364)	0.0147 J	0.665	0.00797 J	ND (0.0364)

Location Name	HA-04	HA-04	HA-04	HA-04	HA-04	HA-05	HA-05	HA-05	HA-05
Sample Name	HA-04 (2-4)	HA-04 (6-8)	DUP_1_02022023	HA-04 (10-12)	HA-04 (14-16)	HA-05 (2-4)	HA-05 (6-8)	HA-05 (10-12)	HA-05 (14-16)
Sample Date	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023
Lab Sample ID	L2305934-01	L2305934-02	L2305934-09	L2305934-03	L2305934-04	L2305934-05	L2305934-06	L2305934-07	L2305934-08
Sample Depth (bgs)	2 - 2 (ft)	6 - 8 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)
PCBs (mg/kg)									
Aroclor-1016 (PCB-1016)	ND (0.0361)	ND (0.0398)	ND (0.0405)	ND (0.0446)	ND (0.0654)	ND (0.0356)	ND (0.0381)	ND (0.0388)	ND (0.0376)
Aroclor-1221 (PCB-1221)	ND (0.0361)	ND (0.0398)	ND (0.0405)	ND (0.0446)	ND (0.0654)	ND (0.0356)	ND (0.0381)	ND (0.0388)	ND (0.0376)
Aroclor-1232 (PCB-1232)	ND (0.0361)	ND (0.0398)	ND (0.0405)	ND (0.0446)	ND (0.0654)	ND (0.0356)	ND (0.0381)	ND (0.0388)	ND (0.0376)
Aroclor-1242 (PCB-1242)	ND (0.0361)	ND (0.0398)	ND (0.0405)	ND (0.0446)	ND (0.0654)	ND (0.0356)	ND (0.0381)	ND (0.0388)	ND (0.0376)
Aroclor-1248 (PCB-1248)	ND (0.0361)	ND (0.0398)	ND (0.0405)	ND (0.0446)	ND (0.0654)	ND (0.0356)	ND (0.0381)	ND (0.0388)	ND (0.0376)
Aroclor-1254 (PCB-1254)	0.0163 J	ND (0.0398)	ND (0.0405)	ND (0.0446)	ND (0.0654)	0.00964 J	ND (0.0381)	ND (0.0388)	ND (0.0376)
Aroclor-1260 (PCB-1260)	0.00926 J	ND (0.0398)	ND (0.0405)	ND (0.0446)	ND (0.0654)	0.00775 J	ND (0.0381)	ND (0.0388)	ND (0.0376)
Aroclor-1262 (PCB-1262)	ND (0.0361)	ND (0.0398)	ND (0.0405)	ND (0.0446)	ND (0.0654)	ND (0.0356)	ND (0.0381)	ND (0.0388)	ND (0.0376)
Aroclor-1268 (PCB-1268)	0.00407 J	ND (0.0398)	ND (0.0405)	ND (0.0446)	ND (0.0654)	ND (0.0356)	ND (0.0381)	ND (0.0388)	ND (0.0376)
SUM of PCBs	0.0296 J	ND (0.0398)	ND (0.0405)	ND (0.0446)	ND (0.0654)	0.0174 J	ND (0.0381)	ND (0.0388)	ND (0.0376)

Location Name	HA-06	HA-06	HA-06	HA-06	HA-07	HA-07	HA-07	HA-07	HA-08	HA-08
Sample Name	HA-06 (2-4)	HA-06 (6-8)	HA-06 (10-12)	HA-06 (14-16)	HA-07 (2-4)	HA-07 (6-8)	HA-07 (10-12)	HA-07 (14-16)	HA-08 (2-4)	HA-08 (6-8)
Sample Date	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/09/2023	02/09/2023	02/09/2023	02/09/2023	02/01/2023	02/01/2023
Lab Sample ID	L2305570-01	L2305570-02	L2305570-03	L2305570-04	L2307196-01 L2310952-10	L2307196-02 L2310952-11	L2307196-03 L2310952-12	L2307196-04 L2310952-13	L2305570-05	L2305570-06
Sample Depth (bgs)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)
PCBs (mg/kg)										
Aroclor-1016 (PCB-1016)	ND (0.0385)	ND (0.0362)	ND (0.0384)	ND (0.0381)	ND (0.0376)	ND (0.042)	ND (0.0462)	ND (0.0368)	ND (0.0354)	ND (0.0369)
Aroclor-1221 (PCB-1221)	ND (0.0385)	ND (0.0362)	ND (0.0384)	ND (0.0381)	ND (0.0376)	ND (0.042)	ND (0.0462)	ND (0.0368)	ND (0.0354)	ND (0.0369)
Aroclor-1232 (PCB-1232)	ND (0.0385)	ND (0.0362)	ND (0.0384)	ND (0.0381)	ND (0.0376)	ND (0.042)	ND (0.0462)	ND (0.0368)	ND (0.0354)	ND (0.0369)
Aroclor-1242 (PCB-1242)	ND (0.0385)	ND (0.0362)	ND (0.0384)	ND (0.0381)	ND (0.0376)	ND (0.042)	ND (0.0462)	ND (0.0368)	ND (0.0354)	ND (0.0369)
Aroclor-1248 (PCB-1248)	ND (0.0385)	ND (0.0362)	ND (0.0384)	ND (0.0381)	ND (0.0376)	ND (0.042)	ND (0.0462)	ND (0.0368)	ND (0.0354)	ND (0.0369)
Aroclor-1254 (PCB-1254)	ND (0.0385)	ND (0.0362)	ND (0.0384)	ND (0.0381)	ND (0.0376)	ND (0.042)	ND (0.0462)	ND (0.0368)	ND (0.0354)	ND (0.0369)
Aroclor-1260 (PCB-1260)	0.0147 J	ND (0.0362)	ND (0.0384)	ND (0.0381)	0.0215 J	ND (0.042)	0.0228 J	ND (0.0368)	0.018 J	ND (0.0369)
Aroclor-1262 (PCB-1262)	ND (0.0385)	ND (0.0362)	ND (0.0384)	ND (0.0381)	ND (0.0376)	ND (0.042)	ND (0.0462)	ND (0.0368)	ND (0.0354)	ND (0.0369)
Aroclor-1268 (PCB-1268)	0.0081 J	ND (0.0362)	ND (0.0384)	ND (0.0381)	0.0041 J	ND (0.042)	ND (0.0462)	ND (0.0368)	0.0111 J	ND (0.0369)
SUM of PCBs	0.0228 J	ND (0.0362)	ND (0.0384)	ND (0.0381)	0.0256 J	ND (0.042)	0.0228 J	ND (0.0368)	0.0291 J	ND (0.0369)

ABBREVIATIONS AND NOTES:
mg/kg: milligram per kilogram

-: Not Analyzed
bgs: below ground surface
ft: feet
J: Value is estimated.
R: Rejected
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

- For test methods used, see the laboratory data sheets.
- Soil analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 375 Unrestricted Use Soil Cleanup Objectives (SCO), Restricted-Use Residential SCOs, and Protection of Groundwater SCO's.
- ***Bold Italic*** values indicate an exceedance of the Protection of Groundwater Criteria.
- Grey shading indicates an exceedance of the Unrestricted Use Soil Cleanup Objectives.
- Yellow shading indicates an exceedance of the Restricted Use Residential Soil Cleanup Objectives.

TABLE 2c
REMEDIAL INVESTIGATION - POLYCHLORINATED BIPHENYL ANALYTICAL RESU
556 BALTIC STREET
BROOKLYN, NEW YORK

	Action Level												
Location Name	Restricted Use Soil Cleanup Objectives - Protection of Groundwater	Restricted Use Soil Cleanup Objectives - Residential	Unrestricted Use Soil Cleanup Objectives	HA-08	HA-08	HA-09	HA-09	HA-09	HA-09	HA-10	HA-10	HA-10	HA-10
Sample Name				HA-08 (10-12)	HA-08 (14-16)	HA-09 (2-4)	HA-09 (6-8)	HA-09 (10-12)	HA-09 (14-16)	HA-10 (2-4)	HA-10 (6-8)	HA-10 (10-12)	HA-10 (14-16)
Sample Date				02/01/2023	02/01/2023	02/09/2023	02/09/2023	02/09/2023	02/09/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023
Lab Sample ID				L2305570-07	L2305570-08	L2307196-05	L2307196-06 L2310952-14	L2307196-07	L2307196-08 L2310952-15	L2306883-09 L2310952-33	L2306883-10	L2306883-11 L2310952-34	L2306883-12 L2310952-35
Sample Depth (bgs)				10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)
PCBs (mg/kg)													
Aroclor-1016 (PCB-1016)	NA	NA	NA	ND (0.0423)	ND (0.0493)	ND (0.037)	ND (0.0401)	ND (0.0385)	ND (0.0377)	ND (0.0364)	ND (0.0429)	ND (0.0383)	ND (0.0391)
Aroclor-1221 (PCB-1221)	NA	NA	NA	ND (0.0423)	ND (0.0493)	ND (0.037)	ND (0.0401)	ND (0.0385)	ND (0.0377)	ND (0.0364)	ND (0.0429)	ND (0.0383)	ND (0.0391)
Aroclor-1232 (PCB-1232)	NA	NA	NA	ND (0.0423)	ND (0.0493)	ND (0.037)	ND (0.0401)	ND (0.0385)	ND (0.0377)	ND (0.0364)	ND (0.0429)	ND (0.0383)	ND (0.0391)
Aroclor-1242 (PCB-1242)	NA	NA	NA	ND (0.0423)	ND (0.0493)	ND (0.037)	ND (0.0401)	ND (0.0385)	ND (0.0377)	0.00602 J	ND (0.0429)	ND (0.0383)	ND (0.0391)
Aroclor-1248 (PCB-1248)	NA	NA	NA	ND (0.0423)	ND (0.0493)	ND (0.037)	ND (0.0401)	ND (0.0385)	ND (0.0377)	ND (0.0364)	ND (0.0429)	ND (0.0383)	ND (0.0391)
Aroclor-1254 (PCB-1254)	NA	NA	NA	ND (0.0423)	ND (0.0493)	ND (0.037)	ND (0.0401)	ND (0.0385)	ND (0.0377)	ND (0.0364)	ND (0.0429)	ND (0.0383)	ND (0.0391)
Aroclor-1260 (PCB-1260)	NA	NA	NA	ND (0.0423)	ND (0.0493)	ND (0.037)	0.0147 J	ND (0.0385)	ND (0.0377)	ND (0.0364) J	0.0149 J	ND (0.0383)	ND (0.0391)
Aroclor-1262 (PCB-1262)	NA	NA	NA	ND (0.0423)	ND (0.0493)	ND (0.037)	ND (0.0401)	ND (0.0385)	ND (0.0377)	ND (0.0364)	ND (0.0429)	ND (0.0383)	ND (0.0391)
Aroclor-1268 (PCB-1268)	NA	NA	NA	ND (0.0423)	ND (0.0493)	ND (0.037)	ND (0.0401)	ND (0.0385)	ND (0.0377)	ND (0.0364)	0.0046 J	ND (0.0383)	ND (0.0391)
SUM of PCBs	3.2	1	0.1	ND (0.0423)	ND (0.0493)	ND (0.037)	0.0147 J	ND (0.0385)	ND (0.0377)	0.00602 J	0.0195 J	ND (0.0383)	ND (0.0391)

Location Name	HA-11	HA-11	HA-11	HA-11	HA-12	HA-12	HA-12	HA-12	HA-13	HA-13	HA-13	HA-13
Sample Name	HA-11 (2-4)	HA-11 (6-8)	HA-11 (10-12)	HA-11 (14-16)	HA-12 (2-4)	HA-12 (6-8)	HA-12 (10-12)	HA-12 (14-16)	HA-13 (2-4)	HA-13 (6-8)	HA-13 (10-12)	HA-13 (14-16)
Sample Date	02/09/2023	02/09/2023	02/09/2023	02/09/2023	02/09/2023	02/09/2023	02/09/2023	02/09/2023	02/13/2023	02/13/2023	02/13/2023	02/13/2023
Lab Sample ID	L2307196-09 L2310952-16	L2307196-10	L2307196-11 L2310952-17	L2307196-12 L2310952-18	L2307196-13 L2310952-19	L2307196-14 L2310952-20	L2307196-15 L2310952-21	L2307196-16	L2307677-01 L2310952-01	L2307677-02 L2310952-02	L2307677-03 L2310952-03	L2307677-04 L2310952-04
Sample Depth (bgs)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	ND (0.0373)	ND (0.0397)	ND (0.0356)	ND (0.0383)	ND (0.0402)	ND (0.0379)	ND (0.0379)	ND (0.0388)	ND (0.0352)	ND (0.0359)	ND (0.043)	ND (0.0525)
Aroclor-1221 (PCB-1221)	ND (0.0373)	ND (0.0397)	ND (0.0356)	ND (0.0383)	ND (0.0402)	ND (0.0379)	ND (0.0379)	ND (0.0388)	ND (0.0352)	ND (0.0359)	ND (0.043)	ND (0.0525)
Aroclor-1232 (PCB-1232)	ND (0.0373)	ND (0.0397)	ND (0.0356)	ND (0.0383)	ND (0.0402)	ND (0.0379)	ND (0.0379)	ND (0.0388)	ND (0.0352)	ND (0.0359)	ND (0.043)	ND (0.0525)
Aroclor-1242 (PCB-1242)	ND (0.0373)	ND (0.0397)	ND (0.0356)	ND (0.0383)	ND (0.0402)	ND (0.0379)	ND (0.0379)	ND (0.0388)	0.358	ND (0.0359)	ND (0.043)	ND (0.0525)
Aroclor-1248 (PCB-1248)	ND (0.0373)	ND (0.0397)	ND (0.0356)	ND (0.0383)	ND (0.0402)	ND (0.0379)	ND (0.0379)	ND (0.0388)	ND (0.0352)	ND (0.0359)	ND (0.043)	ND (0.0525)
Aroclor-1254 (PCB-1254)	ND (0.0373)	ND (0.0397)	ND (0.0356)	ND (0.0383)	ND (0.0402)	ND (0.0379)	ND (0.0379)	ND (0.0388)	ND (0.0352)	ND (0.0359)	ND (0.043)	ND (0.0525)
Aroclor-1260 (PCB-1260)	0.00972 J	ND (0.0397)	ND (0.0356)	ND (0.0383)	ND (0.0402)	ND (0.0379)	ND (0.0379)	ND (0.0388)	ND (0.0352)	ND (0.0359)	ND (0.043)	ND (0.0525)
Aroclor-1262 (PCB-1262)	ND (0.0373)	ND (0.0397)	ND (0.0356)	ND (0.0383)	ND (0.0402)	ND (0.0379)	ND (0.0379)	ND (0.0388)	ND (0.0352)	ND (0.0359)	ND (0.043)	ND (0.0525)
Aroclor-1268 (PCB-1268)	ND (0.0373)	ND (0.0397)	ND (0.0356)	ND (0.0383)	ND (0.0402)	ND (0.0379)	ND (0.0379)	ND (0.0388)	ND (0.0352)	ND (0.0359)	ND (0.043)	ND (0.0525)
SUM of PCBs	0.00972 J	ND (0.0397)	ND (0.0356)	ND (0.0383)	ND (0.0402)	ND (0.0379)	ND (0.0379)	ND (0.0388)	0.358	ND (0.0359)	ND (0.043)	ND (0.0525)

Location Name	HA-14	HA-14	HA-14	HA-14	HA-15	HA-15	HA-15	HA-15	HA-16	HA-16
Sample Name	HA-14 (2-4)	HA-14 (6-8)	HA-14 (10-12)	HA-14 (14-16)	HA-15 (2-4)	HA-15 (6-8)	HA-15 (10-12)	HA-15 (14-16)	HA-16 (2-4)	HA-16 (6-8)
Sample Date	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023
Lab Sample ID	L2305570-09	L2305570-10	L2305570-11	L2305570-12	L2305570-13	L2305570-14	L2305570-15	L2305570-16	L2305570-17	L2305570-18
Sample Depth (bgs)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)
PCBs (mg/kg)										
Aroclor-1016 (PCB-1016)	ND (0.0376)	ND (0.0382)	ND (0.0365)	ND (0.133)	ND (0.0347)	ND (0.0354)	ND (0.0427)	ND (0.114)	ND (0.035)	ND (0.0355)
Aroclor-1221 (PCB-1221)	ND (0.0376)	ND (0.0382)	ND (0.0365)	ND (0.133)	ND (0.0347)	ND (0.0354)	ND (0.0427)	ND (0.114)	ND (0.035)	ND (0.0355)
Aroclor-1232 (PCB-1232)	ND (0.0376)	ND (0.0382)	ND (0.0365)	ND (0.133)	ND (0.0347)	ND (0.0354)	ND (0.0427)	ND (0.114)	ND (0.035)	ND (0.0355)
Aroclor-1242 (PCB-1242)	ND (0.0376)	ND (0.0382)	ND (0.0365)	ND (0.133)	ND (0.0347)	ND (0.0354)	ND (0.0427)	ND (0.114)	ND (0.035)	ND (0.0355)
Aroclor-1248 (PCB-1248)	ND (0.0376)	ND (0.0382)	ND (0.0365)	ND (0.133)	ND (0.0347)	ND (0.0354)	ND (0.0427)	ND (0.114)	ND (0.035)	ND (0.0355)
Aroclor-1254 (PCB-1254)	ND (0.0376)	ND (0.0382)	ND (0.0365)	ND (0.133)	ND (0.0347)	ND (0.0354)	ND (0.0427)	ND (0.114)	ND (0.035)	ND (0.0355)
Aroclor-1260 (PCB-1260)	0.0282 J	ND (0.0382)	ND (0.0365)	ND (0.133)	0.0138 J	ND (0.0354)	ND (0.0427)	ND (0.114)	ND (0.035)	ND (0.0355)
Aroclor-1262 (PCB-1262)	ND (0.0376)	ND (0.0382)	ND (0.0365)	ND (0.133)	ND (0.0347)	ND (0.0354)	ND (0.0427)	ND (0.114)	ND (0.035)	ND (0.0355)
Aroclor-1268 (PCB-1268)	0.0198 J	ND (0.0382)	ND (0.0365)	ND (0.133)	0.00562 J	ND (0.0354)	ND (0.0427)	ND (0.114)	0.00366 J	ND (0.0355)
SUM of PCBs	0.048 J	ND (0.0382)	ND (0.0365)	ND (0.133)	0.0194 J	ND (0.0354)	ND (0.0427)	ND (0.114)	0.00366 J	ND (0.0355)

ABBREVIATIONS AND NOTES:
mg/kg: milligram per kilogram

-: Not Analyzed
bgs: below ground surface
ft: feet
J: Value is estimated.
R: Rejected
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting lim

- For test methods used, see the laboratory data sheets.
- Soil analytical results are compared to the New York State Department of Env Conservation (NYSDEC) Title 6 of the Official Compilation of New York Code Regulations (NYCRR) Part 375 Unrestricted Use Soil Cleanup Objectives (SCO Restricted-Use Residential SCOs, and Protection of Groundwater SCO's.
- ***Bold italic*** values indicate an exceedance of the Protection of Groundwater C
- Grey shading indicates an exceedance of the Unrestricted Use Soil Cleanup O
- Yellow shading indicates an exceedance of the Restricted Use Residential Soil

TABLE 2c
REMEDIAL INVESTIGATION - POLYCHLORINATED BIPHENYL ANALYTICAL RESU
556 BALTIC STREET
BROOKLYN, NEW YORK

	Action Level									
Location Name	Restricted Use Soil Cleanup Objectives - Protection of Groundwater	Restricted Use Soil Cleanup Objectives - Residential	Unrestricted Use Soil Cleanup Objectives	HA-16	HA-16	HA-17	HA-17	HA-17	HA-17	HA-18
Sample Name				HA-16 (10-12)	HA-16 (14-16)	HA-17 (2-4)	HA-17 (6-8)	HA-17 (10-12)	HA-17 (14-16)	HA-18 (2-4)
Sample Date				02/01/2023	02/01/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/13/2023
Lab Sample ID				L2305570-19	L2305570-20	L2306883-13 L2310952-36	L2306883-14	L2306883-15	L2306883-16 L2310952-37	L2307677-05 L2310952-05
Sample Depth (bgs)				10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)
PCBs (mg/kg)										
Aroclor-1016 (PCB-1016)	NA	NA	NA	ND (0.0363)	ND (0.0365)	ND (0.0383)	ND (0.0394)	ND (0.0403)	ND (0.0392)	ND (0.0374)
Aroclor-1221 (PCB-1221)	NA	NA	NA	ND (0.0363)	ND (0.0365)	ND (0.0383)	ND (0.0394)	ND (0.0403)	ND (0.0392)	ND (0.0374)
Aroclor-1232 (PCB-1232)	NA	NA	NA	ND (0.0363)	ND (0.0365)	ND (0.0383)	ND (0.0394)	ND (0.0403)	ND (0.0392)	ND (0.0374)
Aroclor-1242 (PCB-1242)	NA	NA	NA	ND (0.0363)	ND (0.0365)	ND (0.0383)	ND (0.0394)	ND (0.0403)	ND (0.0392)	ND (0.0374)
Aroclor-1248 (PCB-1248)	NA	NA	NA	ND (0.0363)	ND (0.0365)	ND (0.0383)	ND (0.0394)	ND (0.0403)	ND (0.0392)	ND (0.0374)
Aroclor-1254 (PCB-1254)	NA	NA	NA	ND (0.0363)	ND (0.0365)	ND (0.0383)	ND (0.0394)	ND (0.0403)	ND (0.0392)	ND (0.0374)
Aroclor-1260 (PCB-1260)	NA	NA	NA	ND (0.0363)	ND (0.0365)	0.00948 J	ND (0.0394)	ND (0.0403)	ND (0.0392)	0.0106 J
Aroclor-1262 (PCB-1262)	NA	NA	NA	ND (0.0363)	ND (0.0365)	ND (0.0383)	ND (0.0394)	ND (0.0403)	ND (0.0392)	ND (0.0374)
Aroclor-1268 (PCB-1268)	NA	NA	NA	ND (0.0363)	ND (0.0365)	0.00513 J	ND (0.0394)	ND (0.0403)	ND (0.0392)	0.00888 J
SUM of PCBs	3.2	1	0.1	ND (0.0363)	ND (0.0365)	0.0146 J	ND (0.0394)	ND (0.0403)	ND (0.0392)	0.0195 J

Location Name	HA-18	HA-18	HA-18	HA-18	HA-19	HA-19	HA-19	HA-19	HA-19
Sample Name	HA-18 (6-8)	HA-18 (10-12)	DUP_1_02132023	HA-18 (14-16)	HA-19 (2-4)	HA-19 (6-8)	HA-19 (10-12)	DUP_1_02082023	HA-19 (14-16)
Sample Date	02/13/2023	02/13/2023	02/13/2023	02/13/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023
Lab Sample ID	L2307677-06 L2310952-06	L2307677-07 L2310952-07	L2307677-09 L2310952-09	L2307677-08 L2310952-08	L2306883-17 L2310952-38	L2306883-18 L2310952-39	L2306883-19 L2310952-40	L2306883-27 L2310952-46	L2306883-20 L2310952-41
Sample Depth (bgs)	6 - 8 (ft)	10 - 12 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	10 - 12 (ft)	14 - 16 (ft)
PCBs (mg/kg)									
Aroclor-1016 (PCB-1016)	ND (0.0375)	ND (0.0431)	ND (0.0355)	ND (0.0399)	ND (0.0415)	ND (0.039)	ND (0.0406)	ND (0.0368)	ND (0.0398)
Aroclor-1221 (PCB-1221)	ND (0.0375)	ND (0.0431)	ND (0.0355)	ND (0.0399)	ND (0.0415)	ND (0.039)	ND (0.0406)	ND (0.0368)	ND (0.0398)
Aroclor-1232 (PCB-1232)	ND (0.0375)	ND (0.0431)	ND (0.0355)	ND (0.0399)	ND (0.0415)	ND (0.039)	ND (0.0406)	ND (0.0368)	ND (0.0398)
Aroclor-1242 (PCB-1242)	ND (0.0375)	ND (0.0431)	ND (0.0355)	ND (0.0399)	0.00879 J	ND (0.039)	ND (0.0406)	ND (0.0368)	ND (0.0398)
Aroclor-1248 (PCB-1248)	ND (0.0375)	ND (0.0431)	ND (0.0355)	ND (0.0399)	ND (0.0415)	ND (0.039)	ND (0.0406)	ND (0.0368)	ND (0.0398)
Aroclor-1254 (PCB-1254)	ND (0.0375)	ND (0.0431)	ND (0.0355)	ND (0.0399)	ND (0.0415)	ND (0.039)	ND (0.0406)	ND (0.0368)	ND (0.0398)
Aroclor-1260 (PCB-1260)	0.0109 J	ND (0.0431)	ND (0.0355)	ND (0.0399)	0.0435	0.0184 J	ND (0.0406)	ND (0.0368)	ND (0.0398)
Aroclor-1262 (PCB-1262)	ND (0.0375)	ND (0.0431)	ND (0.0355)	ND (0.0399)	ND (0.0415)	ND (0.039)	ND (0.0406)	ND (0.0368)	ND (0.0398)
Aroclor-1268 (PCB-1268)	0.00519 J	ND (0.0431)	ND (0.0355)	ND (0.0399)	0.0414 J	0.0136 J	ND (0.0406)	ND (0.0368)	ND (0.0398)
SUM of PCBs	0.0161 J	ND (0.0431)	ND (0.0355)	ND (0.0399)	0.0937 J	0.032 J	ND (0.0406)	ND (0.0368)	ND (0.0398)

Location Name	HA-19	HA-20	HA-20	HA-20	HA-20	HA-21	HA-21	HA-21	HA-21	HA-21
Sample Name	HA-19 (20-22)	HA-20 (2-4)	HA-20 (6-8)	HA-20 (10-12)	HA-20 (14-16)	HA-21 (2-4)	HA-21 (6-8)	HA-21 (10-12)	HA-21 (14-16)	HA-21 (20-22)
Sample Date	02/08/2023	02/10/2023	02/10/2023	02/10/2023	02/10/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023
Lab Sample ID	L2306883-21	L2307511-05 L2310952-24	L2307511-06 L2310952-25	L2307511-07 L2310952-26	L2307511-08	L2306883-22 L2310952-47	L2306883-23 L2310952-42	L2306883-24 L2310952-43	L2306883-25 L2310952-44	L2306883-26 L2310952-45
Sample Depth (bgs)	20 - 22 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	20 - 22 (ft)
PCBs (mg/kg)										
Aroclor-1016 (PCB-1016)	ND (0.0373)	ND (0.0401)	ND (0.0449)	ND (0.0422)	ND (0.0551)	ND (0.0389)	ND (0.188)	ND (0.0379)	ND (0.0394)	ND (0.0437)
Aroclor-1221 (PCB-1221)	ND (0.0373)	ND (0.0401)	ND (0.0449)	ND (0.0422)	ND (0.0551)	ND (0.0389)	ND (0.188)	ND (0.0379)	ND (0.0394)	ND (0.0437)
Aroclor-1232 (PCB-1232)	ND (0.0373)	ND (0.0401)	ND (0.0449)	ND (0.0422)	ND (0.0551)	ND (0.0389)	ND (0.188)	ND (0.0379)	ND (0.0394)	ND (0.0437)
Aroclor-1242 (PCB-1242)	ND (0.0373)	ND (0.0401)	ND (0.0449)	ND (0.0422)	ND (0.0551)	ND (0.0389)	ND (0.188)	ND (0.0379)	ND (0.0394)	ND (0.0437)
Aroclor-1248 (PCB-1248)	ND (0.0373)	ND (0.0401)	ND (0.0449)	ND (0.0422)	ND (0.0551)	ND (0.0389)	ND (0.188)	ND (0.0379)	ND (0.0394)	ND (0.0437)
Aroclor-1254 (PCB-1254)	ND (0.0373)	ND (0.0401)	ND (0.0449)	ND (0.0422)	ND (0.0551)	ND (0.0389)	ND (0.188)	ND (0.0379)	ND (0.0394)	ND (0.0437)
Aroclor-1260 (PCB-1260)	ND (0.0373)	ND (0.0401)	ND (0.0449)	ND (0.0422)	ND (0.0551)	0.0211 J	0.244	ND (0.0379)	ND (0.0394)	ND (0.0437)
Aroclor-1262 (PCB-1262)	ND (0.0373)	ND (0.0401)	ND (0.0449)	ND (0.0422)	ND (0.0551)	ND (0.0389)	ND (0.188)	ND (0.0379)	ND (0.0394)	ND (0.0437)
Aroclor-1268 (PCB-1268)	ND (0.0373)	0.17	ND (0.0449)	ND (0.0422)	ND (0.0551)	0.0243 J	0.547	ND (0.0379)	ND (0.0394)	ND (0.0437)
SUM of PCBs	ND (0.0373)	0.17	ND (0.0449)	ND (0.0422)	ND (0.0551)	0.0454 J	0.791	ND (0.0379)	ND (0.0394)	ND (0.0437)

ABBREVIATIONS AND NOTES:
mg/kg: milligram per kilogram

-: Not Analyzed
bgs: below ground surface
ft: feet
J: Value is estimated.
R: Rejected
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting lim

- For test methods used, see the laboratory data sheets.
- Soil analytical results are compared to the New York State Department of Env Conservation (NYSDEC) Title 6 of the Official Compilation of New York Code Regulations (NYCRR) Part 375 Unrestricted Use Soil Cleanup Objectives (SCO Restricted-Use Residential SCOs, and Protection of Groundwater SCO's.
- ***Bold italic*** values indicate an exceedance of the Protection of Groundwater C
- Grey shading indicates an exceedance of the Unrestricted Use Soil Cleanup O
- Yellow shading indicates an exceedance of the Restricted Use Residential Soil

TABLE 2d
REMEDIAL INVESTIGATION - PESTICIDES ANALYTICAL RESULTS IN SOIL
556 BALTIC STREET
BROOKLYN, NEW YORK

	Action Level											
Location Name	Restricted Use Soil Cleanup Objectives - Protection of Groundwater	Restricted Use Soil Cleanup Objectives - Residential	Unrestricted Use Soil Cleanup Objectives	HA-01	HA-01	HA-01	HA-01	HA-02	HA-02	HA-02	HA-02	HA-03
Sample Name				HA-01 (2-4)	HA-01 (6-8)	HA-01 (10-12)	HA-01 (14-16)	HA-02 (2-4)	HA-02 (6-8)	HA-02 (10-12)	HA-02 (14-16)	HA-03 (2-4)
Sample Date				02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/10/2023
Lab Sample ID				L2306883-01 L2310952-27	L2306883-02 L2310952-28	L2306883-03 L2310952-29	L2306883-04	L2306883-05 L2310952-30	L2306883-06 L2310952-31	L2306883-07	L2306883-08 L2310952-32	L2307511-01
Sample Depth (bgs)				2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)
Pesticides (mg/kg)												
4,4'-DDD	14	13	0.0033	ND (0.00199)	ND (0.00178)	ND (0.00199)	0.000916 J	0.0922	ND (0.00184)	ND (0.00191)	ND (0.00174)	0.00251 J
4,4'-DDE	17	8.9	0.0033	0.000472 J	ND (0.00178)	ND (0.00199)	0.000662 J	0.0155	ND (0.00184)	ND (0.00191)	ND (0.00174)	0.00151 J
4,4'-DDT	136	7.9	0.0033	ND (0.00199)	ND (0.00178)	ND (0.00199)	0.00294 J	0.0181 J+	ND (0.00184)	ND (0.00191)	ND (0.00174)	0.0024 J
Aldrin	0.19	0.097	0.005	ND (0.00199)	ND (0.00178)	ND (0.00199)	ND (0.00194)	ND (0.0019)	ND (0.00184)	ND (0.00191)	ND (0.00174)	ND (0.0017)
alpha-BHC	0.02	0.48	0.02	ND (0.000828)	ND (0.000742)	ND (0.000828)	ND (0.000811)	ND (0.000791)	ND (0.000765)	ND (0.000798)	ND (0.000725)	ND (0.000708)
alpha-Chlordane (cis)	2.9	4.2	0.094	ND (0.00248)	ND (0.00222)	ND (0.00248)	ND (0.00243)	0.00605	ND (0.00229)	ND (0.00239)	ND (0.00218)	0.000627 J
beta-BHC	0.09	0.36	0.036	ND (0.00199)	ND (0.00178)	ND (0.00199)	ND (0.00194)	ND (0.0019)	ND (0.00184)	ND (0.00191)	ND (0.00174)	ND (0.0017)
Chlordane	NA	NA	NA	ND (0.0166)	ND (0.0148)	ND (0.0166)	ND (0.0162)	0.0395	ND (0.0153)	ND (0.016)	ND (0.0145)	ND (0.0142)
delta-BHC	0.25	100	0.04	ND (0.00199)	ND (0.00178)	ND (0.00199)	ND (0.00194)	ND (0.0019)	ND (0.00184)	ND (0.00191)	ND (0.00174)	ND (0.0017)
Dieldrin	0.1	0.2	0.005	ND (0.00124)	ND (0.00111)	ND (0.00124)	ND (0.00122)	0.00548 J+	ND (0.00115)	ND (0.0012)	ND (0.00109)	ND (0.00106) J
Endosulfan I	102	24	2.4	ND (0.00199)	ND (0.00178)	ND (0.00199)	ND (0.00194)	ND (0.0019)	ND (0.00184)	ND (0.00191)	ND (0.00174)	ND (0.0017)
Endosulfan II	102	24	2.4	ND (0.00199)	ND (0.00178)	ND (0.00199)	ND (0.00194)	ND (0.0019)	ND (0.00184)	ND (0.00191)	ND (0.00174)	ND (0.0017)
Endosulfan sulfate	1000	24	2.4	ND (0.000828)	ND (0.000742)	ND (0.000828)	ND (0.000811)	ND (0.000791)	ND (0.000765)	ND (0.000798)	ND (0.000725)	ND (0.000708)
Endrin	0.06	11	0.014	ND (0.000828)	ND (0.000742)	ND (0.000828)	ND (0.000811)	ND (0.000791)	ND (0.000765)	ND (0.000798)	ND (0.000725)	ND (0.000708)
Endrin aldehyde	NA	NA	NA	ND (0.00248)	ND (0.00222)	ND (0.00248)	ND (0.00243)	ND (0.00237)	ND (0.00229)	ND (0.00239)	ND (0.00218)	ND (0.00212)
Endrin ketone	NA	NA	NA	ND (0.00199)	ND (0.00178)	ND (0.00199)	ND (0.00194)	ND (0.0019)	ND (0.00184)	ND (0.00191)	ND (0.00174)	ND (0.0017)
gamma-BHC (Lindane)	0.1	1.3	0.1	ND (0.000828)	ND (0.000742)	ND (0.000828)	ND (0.000811)	ND (0.000791)	ND (0.000765)	ND (0.000798)	ND (0.000725)	ND (0.000708)
gamma-Chlordane (trans)	NA	NA	NA	ND (0.00248)	ND (0.00222)	ND (0.00248)	ND (0.00243)	0.00727	ND (0.00229)	ND (0.00239)	ND (0.00218)	0.000619 J
Heptachlor	0.38	2.1	0.042	ND (0.000994)	ND (0.00089)	ND (0.000993)	ND (0.000973)	ND (0.000949)	ND (0.000918)	ND (0.000957)	ND (0.00087)	ND (0.00085)
Heptachlor epoxide	NA	NA	NA	ND (0.00373)	ND (0.00334)	ND (0.00372)	ND (0.00365)	ND (0.00356)	ND (0.00344)	ND (0.00359)	ND (0.00326)	ND (0.00319)
Methoxychlor	NA	NA	NA	ND (0.00373)	ND (0.00334)	ND (0.00372)	ND (0.00365)	ND (0.00356)	ND (0.00344)	ND (0.00359)	ND (0.00326)	ND (0.00319)
Toxaphene	NA	NA	NA	ND (0.0373)	ND (0.0334)	ND (0.0372)	ND (0.0365)	ND (0.0356)	ND (0.0344)	ND (0.0359)	ND (0.0326)	ND (0.0319)

Location Name	HA-03	HA-03	HA-03	HA-04	HA-04	HA-04	HA-04	HA-04	HA-05	HA-05	HA-05	HA-05	HA-06	HA-06
Sample Name	HA-03 (6-8)	HA-03 (10-12)	HA-03 (14-16)	HA-04 (2-4)	HA-04 (6-8)	DUP_1_02022023	HA-04 (10-12)	HA-04 (14-16)	HA-05 (2-4)	HA-05 (6-8)	HA-05 (10-12)	HA-05 (14-16)	HA-06 (2-4)	HA-06 (6-8)
Sample Date	02/10/2023	02/10/2023	02/10/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/01/2023	02/01/2023
Lab Sample ID	L2307511-02 L2310952-22	L2307511-03 L2310952-23	L2307511-04	L2305934-01	L2305934-02	L2305934-09	L2305934-03	L2305934-04	L2305934-05	L2305934-06	L2305934-07	L2305934-08	L2305570-01	L2305570-02
Sample Depth (bgs)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 2 (ft)	6 - 8 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)
Pesticides (mg/kg)														
4,4'-DDD	0.17	ND (0.00184)	ND (0.00175)	0.0116	ND (0.00194)	ND (0.00191)	ND (0.0205)	ND (0.00312)	0.00288	ND (0.0018)	ND (0.00179)	ND (0.00178)	ND (0.00186)	ND (0.0017)
4,4'-DDE	0.0686 J+	ND (0.00184)	ND (0.00175)	0.00588	ND (0.00194)	ND (0.00191)	ND (0.0205)	ND (0.00312)	0.0036	ND (0.0018)	ND (0.00179)	ND (0.00178)	0.00238 J+	ND (0.0017)
4,4'-DDT	0.0197 J+	ND (0.00184)	ND (0.00175)	0.00359 J	ND (0.00194)	ND (0.00191)	ND (0.0205)	ND (0.00312)	0.00235 J	ND (0.0018)	ND (0.00179)	ND (0.00178)	ND (0.00186)	ND (0.0017)
Aldrin	ND (0.00216)	ND (0.00184)	ND (0.00175)	ND (0.0017)	ND (0.00194)	ND (0.00191)	ND (0.0205)	ND (0.00312)	ND (0.00167)	ND (0.0018)	ND (0.00179)	ND (0.00178)	ND (0.00186)	ND (0.0017)
alpha-BHC	ND (0.000902)	ND (0.000769)	ND (0.00073)	ND (0.000709)	ND (0.000809)	ND (0.000796)	ND (0.00855)	0.00764 J	ND (0.000696)	ND (0.000751)	ND (0.000746)	ND (0.000741)	ND (0.000777)	ND (0.00071)
alpha-Chlordane (cis)	0.00309	0.00319 J+	ND (0.00219)	0.00236	ND (0.00243)	ND (0.00239)	ND (0.0257)	ND (0.0039)	0.00115 J	ND (0.00225)	ND (0.00224)	ND (0.00222)	ND (0.00233)	ND (0.00213)
beta-BHC	ND (0.00216)	ND (0.00184)	ND (0.00175)	ND (0.0017)	ND (0.00194)	ND (0.00191)	ND (0.0205)	ND (0.00312)	ND (0.00167)	ND (0.0018)	ND (0.00179)	ND (0.00178)	ND (0.00186)	ND (0.0017)
Chlordane	0.0408	ND (0.0154)	ND (0.0146)	ND (0.0142)	ND (0.0162)	ND (0.0159)	ND (0.171)	ND (0.026)	ND (0.0139)	ND (0.015)	ND (0.0149)	ND (0.0148)	ND (0.0155)	ND (0.0142)
delta-BHC	ND (0.00216)	ND (0.00184)	ND (0.00175)	ND (0.0017)	ND (0.00194)	ND (0.00191)	ND (0.0205)	ND (0.00312)	ND (0.00167)	ND (0.0018)	ND (0.00179)	ND (0.00178)	ND (0.00186)	ND (0.0017)
Dieldrin	0.0238 J+	ND (0.00115)	ND (0.00109)	ND (0.00106)	ND (0.00121)	ND (0.00119)	ND (0.0128)	ND (0.00195)	0.00402	ND (0.00113)	ND (0.00112)	ND (0.00111)	ND (0.00117)	ND (0.00106)
Endosulfan I	ND (0.00216)	ND (0.00184)	ND (0.00175)	ND (0.0017)	ND (0.00194)	ND (0.00191)	ND (0.0205)	ND (0.00312)	ND (0.00167)	ND (0.0018)	ND (0.00179)	ND (0.00178)	ND (0.00186)	ND (0.0017)
Endosulfan II	ND (0.00216)	ND (0.00184)	ND (0.00175)	ND (0.0017)	ND (0.00194)	ND (0.00191)	ND (0.0205)	ND (0.00312)	ND (0.00167)	ND (0.0018)	ND (0.00179)	ND (0.00178)	ND (0.00186)	ND (0.0017)
Endosulfan sulfate	ND (0.000902)	ND (0.000769)	ND (0.00073)	ND (0.000709)	ND (0.000809)	ND (0.000796)	ND (0.00855)	ND (0.0013)	ND (0.000696)	ND (0.000751)	ND (0.000746)	ND (0.000741)	ND (0.000777)	ND (0.00071)
Endrin	ND (0.000902)	ND (0.000769)	ND (0.00073)	ND (0.000709)	ND (0.000809)	ND (0.000796)	ND (0.00855)	ND (0.0013)	ND (0.000696)	ND (0.000751)	ND (0.000746)	ND (0.000741)	ND (0.000777)	ND (0.00071)
Endrin aldehyde	ND (0.0027)	ND (0.0023)	ND (0.00219)	ND (0.00213)	ND (0.00243)	ND (0.00239)	ND (0.0257)	ND (0.0039)	ND (0.00209)	ND (0.00225)	ND (0.00224)	ND (0.00222)	ND (0.00233)	ND (0.00213)
Endrin ketone	ND (0.00216)	ND (0.00184)	ND (0.00175)	ND (0.0017)	ND (0.00194)	ND (0.00191)	ND (0.0205)	ND (0.00312)	ND (0.00167)	ND (0.0018)	ND (0.00179)	ND (0.00178)	ND (0.00186)	ND (0.0017)
gamma-BHC (Lindane)	ND (0.000902)	ND (0.000769)	ND (0.00073)	ND (0.000709)	ND (0.000809)	ND (0.000796)	ND (0.00855)	ND (0.0013)	ND (0.000696)	ND (0.000751)	ND (0.000746)	ND (0.000741)	ND (0.000777)	ND (0.00071)
gamma-Chlordane (trans)	0.00552 J+	0.00128 J+	ND (0.00219)	0.00216 J+	ND (0.00243)	ND (0.00239)	ND (0.0257)	ND (0.0039)	0.00138 J	ND (0.00225)	ND (0.00224)	ND (0.00222)	ND (0.00233)	ND (0.00213)
Heptachlor	ND (0.00108)	ND (0.000922)	ND (0.000876)	ND (0.000851)	ND (0.00097)	ND (0.000955)	ND (0.0103)	ND (0.00156)	ND (0.000835)	ND (0.000901)	ND (0.000895)	ND (0.00089)	ND (0.000933)	ND (0.000852)
Heptachlor epoxide	ND (0.00406)	ND (0.00346)	ND (0.00328)	ND (0.00319)	ND (0.00364)	ND (0.00358)	ND (0.0385)	ND (0.00585)	ND (0.00313)	ND (0.00338)	ND (0.00336)	ND (0.00334)	ND (0.0035)	ND (0.0032)
Methoxychlor	ND (0.00406)	ND (0.00346)	ND (0.00328)	ND (0.00319)	ND (0.00364)	ND (0.00358)	ND (0.0385)	ND (0.00585)	ND (0.00313)	ND (0.00338)	ND (0.00336)	ND (0.00334)	ND (0.0035)	ND (0.0032)
Toxaphene	ND (0.0406)	ND (0.0346)	ND (0.0328)	ND (0.0319)	ND (0.0364)	ND (0.0358)	ND (0.385)	ND (0.0585)	ND (0.0313)	ND (0.0338)	ND (0.0336)	ND (0.0334)	ND (0.035)	ND (0.032)

ABBREVIATIONS AND NOTES:

mg/kg: milligram per kilogram

-: Not Analyzed
bgs: below ground surface
ft: feet
J: Value is estimated.
R: Rejected
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

- For test methods used, see the laboratory data sheets.
- Soil analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 375 Unrestricted Use Soil Cleanup Objectives (SCO), Restricted-Use Residential SCOs, and Protection of Groundwater SCO's.
- ***Bold italic*** values indicate an exceedance of the Protection of Groundwater Criteria.
- Grey shading indicates an exceedance of the Unrestricted Use Soil Cleanup Objectives.
- Yellow shading indicates an exceedance of the Restricted Use Residential Soil Cleanup Objectives.

TABLE 2d
REMEDIAL INVESTIGATION - PESTICIDES ANALYTICAL RESULTS IN SOIL
556 BALTIC STREET
BROOKLYN, NEW YORK

Location Name / Sample Name / Sample Date / Lab Sample ID / Sample Depth (bgs)	Action Level: Restricted Use Soil Cleanup Objectives - Protection of Groundwater	Action Level: Restricted Use Soil Cleanup Objectives - Residential	Action Level: Unrestricted Use Soil Cleanup Objectives	HA-06	HA-06	HA-07	HA-07	HA-07	HA-07	HA-08	HA-08	HA-08	HA-08
Sample Name				HA-06 (10-12)	HA-06 (14-16)	HA-07 (2-4)	HA-07 (6-8)	HA-07 (10-12)	HA-07 (14-16)	HA-08 (2-4)	HA-08 (6-8)	HA-08 (10-12)	HA-08 (14-16)
Sample Date				02/01/2023	02/01/2023	02/09/2023	02/09/2023	02/09/2023	02/09/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023
Lab Sample ID				L2305570-03	L2305570-04	L2307196-01 L2310952-10	L2307196-02 L2310952-11	L2307196-03 L2310952-12	L2307196-04 L2310952-13	L2305570-05	L2305570-06	L2305570-07	L2305570-08
Sample Depth (bgs)				10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)
Pesticides (mg/kg)													
4,4'-DDD	14	13	0.0033	ND (0.00179)	ND (0.00185)	0.00166 J+	ND (0.00204)	0.00219 R	ND (0.00174)	0.0382	ND (0.00176)	ND (0.00208)	ND (0.00664)
4,4'-DDE	17	8.9	0.0033	ND (0.00179)	ND (0.00185)	0.00874 J+	ND (0.00204)	0.00246 J-	ND (0.00174)	0.0219	ND (0.00176)	ND (0.00208)	ND (0.00664)
4,4'-DDT	136	7.9	0.0033	ND (0.00179)	ND (0.00185)	0.0456 J+	ND (0.00204)	0.0154 J-	ND (0.00174)	0.0639 J+	ND (0.00176)	ND (0.00208)	ND (0.00664)
Aldrin	0.19	0.097	0.005	ND (0.00179)	ND (0.00185)	ND (0.00183)	ND (0.00204)	0.00219 R	ND (0.00174)	ND (0.00172)	ND (0.00176)	ND (0.00208)	ND (0.00664)
alpha-BHC	0.02	0.48	0.02	ND (0.000745)	ND (0.000772)	ND (0.000763)	ND (0.00085)	0.000913 R	ND (0.000726)	ND (0.000717)	ND (0.000733)	ND (0.000865)	ND (0.00277)
alpha-Chlordane (cis)	2.9	4.2	0.094	ND (0.00224)	ND (0.00232)	0.0104 J+	ND (0.00255)	0.00514 J-	ND (0.00218)	0.0108 J+	ND (0.0022)	ND (0.00259)	ND (0.0083)
beta-BHC	0.09	0.36	0.036	ND (0.00179)	ND (0.00185)	ND (0.00183)	ND (0.00204)	0.00219 R	ND (0.00174)	ND (0.00172)	ND (0.00176)	ND (0.00208)	ND (0.00664)
Chlordane	NA	NA	NA	ND (0.0149)	ND (0.0154)	0.0563 J+	ND (0.017)	0.0183 R	ND (0.0145)	0.0827 J+	ND (0.0147)	ND (0.0173)	ND (0.0553)
delta-BHC	0.25	100	0.04	ND (0.00179)	ND (0.00185)	ND (0.00183)	ND (0.00204)	0.00219 R	ND (0.00174)	ND (0.00172)	ND (0.00176)	ND (0.00208)	ND (0.00664)
Dieldrin	0.1	0.2	0.005	ND (0.00112)	ND (0.00116)	0.00854 J+	0.000762 J+	0.0063 J-	ND (0.00109)	0.00883 J+	ND (0.0011)	ND (0.0013)	ND (0.00415)
Endosulfan I	102	24	2.4	ND (0.00179)	ND (0.00185)	ND (0.00183)	ND (0.00204)	0.00219 R	ND (0.00174)	ND (0.00172)	ND (0.00176)	ND (0.00208)	ND (0.00664)
Endosulfan II	102	24	2.4	ND (0.00179)	ND (0.00185)	ND (0.00183)	ND (0.00204)	0.00219 R	ND (0.00174)	ND (0.00172)	ND (0.00176)	ND (0.00208)	ND (0.00664)
Endosulfan sulfate	1000	24	2.4	ND (0.000745)	ND (0.000772)	ND (0.000763)	ND (0.00085)	0.000913 R	ND (0.000726)	ND (0.000717)	ND (0.000733)	ND (0.000865)	ND (0.00277)
Endrin	0.06	11	0.014	ND (0.000745)	ND (0.000772)	ND (0.000763)	ND (0.00085)	0.000913 R	ND (0.000726)	ND (0.000717)	ND (0.000733)	ND (0.000865)	ND (0.00277)
Endrin aldehyde	NA	NA	NA	ND (0.00224)	ND (0.00232)	ND (0.00229)	ND (0.00255)	0.00274 R	ND (0.00218)	ND (0.00215)	ND (0.0022)	ND (0.00259)	ND (0.0083)
Endrin ketone	NA	NA	NA	ND (0.00179)	ND (0.00185)	ND (0.00183)	ND (0.00204)	0.00219 R	ND (0.00174)	ND (0.00172)	ND (0.00176)	ND (0.00208)	ND (0.00664)
gamma-BHC (Lindane)	0.1	1.3	0.1	ND (0.000745)	ND (0.000772)	ND (0.000763)	ND (0.00085)	0.000913 R	ND (0.000726)	ND (0.000717)	ND (0.000733)	ND (0.000865)	ND (0.00277)
gamma-Chlordane (trans)	NA	NA	NA	ND (0.00224)	ND (0.00232)	0.0103 J+	ND (0.00255)	0.00109 J	ND (0.00218)	0.0101	ND (0.0022)	ND (0.00259)	ND (0.0083)
Heptachlor	0.38	2.1	0.042	ND (0.000894)	ND (0.000926)	ND (0.000916)	ND (0.00102)	0.0011 R	ND (0.000872)	ND (0.000861)	ND (0.00088)	ND (0.00104)	ND (0.00332)
Heptachlor epoxide	NA	NA	NA	ND (0.00335)	ND (0.00347)	ND (0.00343)	ND (0.00382)	0.00411 R	ND (0.00327)	0.00122 J+	ND (0.0033)	ND (0.00389)	ND (0.0124)
Methoxychlor	NA	NA	NA	ND (0.00335)	ND (0.00347)	0.00295 J	ND (0.00382)	0.00521 J-	0.0118 J+	ND (0.00323)	ND (0.0033)	ND (0.00389)	ND (0.0124)
Toxaphene	NA	NA	NA	ND (0.0335)	ND (0.0347)	ND (0.0343)	ND (0.0382)	0.0411 R	ND (0.0327)	ND (0.0323)	ND (0.033)	ND (0.0389)	ND (0.124)

Location Name	HA-09	HA-09	HA-09	HA-09	HA-10	HA-10	HA-10	HA-10
Sample Name	HA-09 (2-4)	HA-09 (6-8)	HA-09 (10-12)	HA-09 (14-16)	HA-10 (2-4)	HA-10 (6-8)	HA-10 (10-12)	HA-10 (14-16)
Sample Date	02/09/2023	02/09/2023	02/09/2023	02/09/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023
Lab Sample ID	L2307196-05	L2307196-06 L2310952-14	L2307196-07	L2307196-08 L2310952-15	L2306883-09 L2310952-33	L2306883-10	L2306883-11 L2310952-34	L2306883-12 L2310952-35
Sample Depth (bgs)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)
Pesticides (mg/kg)								
4,4'-DDD	ND (0.00176)	0.0132 J+	ND (0.00187)	ND (0.00179)	0.00297	0.0035 J+	ND (0.00183)	ND (0.0019)
4,4'-DDE	ND (0.00176)	0.0203 J+	ND (0.00187)	ND (0.00179)	0.00372 J	0.0045	ND (0.00183)	ND (0.0019)
4,4'-DDT	ND (0.00176)	0.0311 J+	ND (0.00187)	ND (0.00179)	0.00448 J	0.00823 J+	ND (0.00183)	ND (0.0019)
Aldrin	ND (0.00176)	ND (0.00194)	ND (0.00187)	ND (0.00179)	ND (0.00179)	ND (0.00212)	ND (0.00183)	ND (0.0019)
alpha-BHC	ND (0.000735)	ND (0.000809)	ND (0.000778)	ND (0.000746)	ND (0.000747)	ND (0.000884)	ND (0.000764)	0.00252
alpha-Chlordane (cis)	ND (0.0022)	0.0136 J+	ND (0.00233)	ND (0.00224)	0.00124 J+	0.00257 J+	ND (0.00229)	ND (0.00238)
beta-BHC	ND (0.00176)	ND (0.00194)	ND (0.00187)	ND (0.00179)	ND (0.00179)	ND (0.00212)	ND (0.00183)	ND (0.0019)
Chlordane	ND (0.0147)	0.0699 J+	ND (0.0156)	ND (0.0149)	ND (0.0149)	0.0236	ND (0.0153)	ND (0.0158)
delta-BHC	ND (0.00176)	ND (0.00194)	ND (0.00187)	ND (0.00179)	ND (0.00179)	ND (0.00212)	ND (0.00183)	ND (0.0019)
Dieldrin	ND (0.0011)	0.00898 J+	ND (0.00117)	ND (0.00112)	ND (0.00112)	0.0024 J+	ND (0.00115)	ND (0.00119)
Endosulfan I	ND (0.00176)	ND (0.00194)	ND (0.00187)	ND (0.00179)	ND (0.00179)	ND (0.00212)	ND (0.00183)	ND (0.0019)
Endosulfan II	ND (0.00176)	ND (0.00194)	ND (0.00187)	ND (0.00179)	ND (0.00179)	ND (0.00212)	ND (0.00183)	ND (0.0019)
Endosulfan sulfate	ND (0.000735)	ND (0.000809)	ND (0.000778)	ND (0.000746)	ND (0.000747)	ND (0.000884)	ND (0.000764)	ND (0.000793)
Endrin	ND (0.000735)	ND (0.000809)	ND (0.000778)	ND (0.000746)	ND (0.000747)	ND (0.000884)	ND (0.000764)	ND (0.000793)
Endrin aldehyde	ND (0.0022)	ND (0.00243)	ND (0.00233)	ND (0.00224)	ND (0.00224)	ND (0.00265)	ND (0.00229)	ND (0.00238)
Endrin ketone	ND (0.00176)	ND (0.00194)	ND (0.00187)	ND (0.00179)	ND (0.00179)	ND (0.00212)	ND (0.00183)	ND (0.0019)
gamma-BHC (Lindane)	ND (0.000735)	ND (0.000809)	ND (0.000778)	ND (0.000746)	ND (0.000747)	ND (0.000884)	ND (0.000764)	ND (0.000793)
gamma-Chlordane (trans)	ND (0.0022)	0.0138 J+	ND (0.00233)	ND (0.00224)	0.00151 J	0.00478	0.00119 J	0.00156 J
Heptachlor	ND (0.000882)	ND (0.000971)	ND (0.000934)	ND (0.000896)	ND (0.000897)	ND (0.00106)	ND (0.000917)	ND (0.000951)
Heptachlor epoxide	ND (0.00331)	ND (0.00364) J	ND (0.0035)	ND (0.00336)	ND (0.00336)	ND (0.00398)	ND (0.00344)	ND (0.00357)
Methoxychlor	0.00964 J+	0.0107 J+	ND (0.0035)	ND (0.00336)	ND (0.00336)	ND (0.00398)	ND (0.00344)	ND (0.00357)
Toxaphene	ND (0.0331)	ND (0.0364)	ND (0.035)	ND (0.0336)	ND (0.0336)	ND (0.0398)	ND (0.0344)	ND (0.0357)

Location Name	HA-11	HA-11	HA-11	HA-11	HA-12	HA-12
Sample Name	HA-11 (2-4)	HA-11 (6-8)	HA-11 (10-12)	HA-11 (14-16)	HA-12 (2-4)	HA-12 (6-8)
Sample Date	02/09/2023	02/09/2023	02/09/2023	02/09/2023	02/09/2023	02/09/2023
Lab Sample ID	L2307196-09 L2310952-16	L2307196-10	L2307196-11 L2310952-17	L2307196-12 L2310952-18	L2307196-13 L2310952-19	L2307196-14 L2310952-20
Sample Depth (bgs)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)
Pesticides (mg/kg)						
4,4'-DDD	0.00359 J+	ND (0.0019)	ND (0.00172)	ND (0.00182)	ND (0.00188)	ND (0.0018)
4,4'-DDE	0.00261 J+	ND (0.0019)	ND (0.00172)	0.00116 J+	ND (0.00188)	ND (0.0018)
4,4'-DDT	0.00936 J+	ND (0.0019)	ND (0.00172)	ND (0.00182) J	ND (0.00188)	ND (0.0018)
Aldrin	ND (0.00176)	ND (0.0019)	ND (0.00172)	ND (0.00182)	ND (0.00188)	ND (0.0018)
alpha-BHC	ND (0.000732)	ND (0.00079)	ND (0.000717)	ND (0.00076)	ND (0.000784)	ND (0.00075)
alpha-Chlordane (cis)	0.00298 J+	ND (0.00237)	ND (0.00215)	ND (0.00228)	ND (0.00235)	ND (0.00225)
beta-BHC	ND (0.00176)	ND (0.0019)	ND (0.00172)	ND (0.00182)	ND (0.00188)	ND (0.0018)
Chlordane	ND (0.0146)	ND (0.0158)	ND (0.0143)	ND (0.0152)	ND (0.0157)	ND (0.015)
delta-BHC	ND (0.00176)	ND (0.0019)	ND (0.00172)	ND (0.00182)	ND (0.00188)	ND (0.0018)
Dieldrin	ND (0.0011)	ND (0.00118)	ND (0.00108)	ND (0.00114)	ND (0.00118)	ND (0.00112)
Endosulfan I	ND (0.00176)	ND (0.0019)	ND (0.00172)	ND (0.00182)	ND (0.00188)	ND (0.0018)
Endosulfan II	ND (0.00176)	ND (0.0019)	ND (0.00172)	ND (0.00182)	ND (0.00188)	ND (0.0018)
Endosulfan sulfate	ND (0.000732)	ND (0.00079)	ND (0.000717)	ND (0.00076)	ND (0.000784)	ND (0.00075)
Endrin	ND (0.000732)	ND (0.00079)	ND (0.000717)	ND (0.00076)	ND (0.000784)	ND (0.00075)
Endrin aldehyde	ND (0.00219)	ND (0.00237)	ND (0.00215)	ND (0.00228)	ND (0.00235)	ND (0.00225)
Endrin ketone	ND (0.00176)	ND (0.0019)	ND (0.00172)	ND (0.00182)	ND (0.00188)	ND (0.0018)
gamma-BHC (Lindane)	ND (0.000732)	ND (0.00079)	ND (0.000717)	ND (0.00076)	ND (0.000784)	ND (0.00075)
gamma-Chlordane (trans)	0.000579 J+	ND (0.00237)	ND (0.00215)	ND (0.00228)	ND (0.00235)	ND (0.00225)
Heptachlor	ND (0.000878)	ND (0.000948)	ND (0.000861)	ND (0.000911)	ND (0.000941)	ND (0.0009)
Heptachlor epoxide	ND (0.00329)	ND (0.00356)	ND (0.00323)	ND (0.00342)	ND (0.00353)	ND (0.00338)
Methoxychlor	0.0118 J+	ND (0.00356)	ND (0.00323)	ND (0.00342)	0.0194 J+	ND (0.00338)
Toxaphene	ND (0.0329)	ND (0.0356)	ND (0.0323)	ND (0.0342)	ND (0.0353)	ND (0.0338)

ABBREVIATIONS AND NOTES:

mg/kg: milligram per kilogram

-: Not Analyzed
bgs: below ground surface
ft: feet
J: Value is estimated.
R: Rejected
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

- For test methods used, see the laboratory data sheets.
- Soil analytical results are compared to the New York State Department of Environm
  Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rule
  Regulations (NYCRR) Part 375 Unrestricted Use Soil Cleanup Objectives (SCO),
  Restricted-Use Residential SCOs, and Protection of Groundwater SCO's.
- ***Bold italic*** values indicate an exceedance of the Protection of Groundwater Criteri
- Grey shading indicates an exceedance of the Unrestricted Use Soil Cleanup Objecti
- Yellow shading indicates an exceedance of the Restricted Use Residential Soil Clear

TABLE 2d
REMEDIAL INVESTIGATION - PESTICIDES ANALYTICAL RESULTS IN SOIL
556 BALTIC STREET
BROOKLYN, NEW YORK

Location Name	Action Level: Restricted Use Soil Cleanup Objectives - Protection of Groundwater	Action Level: Restricted Use Soil Cleanup Objectives - Residential	Action Level: Unrestricted Use Soil Cleanup Objectives	HA-12	HA-12	HA-13	HA-13	HA-13	HA-13	HA-14	HA-14	HA-14	HA-14
Sample Name				HA-12 (10-12)	HA-12 (14-16)	HA-13 (2-4)	HA-13 (6-8)	HA-13 (10-12)	HA-13 (14-16)	HA-14 (2-4)	HA-14 (6-8)	HA-14 (10-12)	HA-14 (14-16)
Sample Date				02/09/2023	02/09/2023	02/13/2023	02/13/2023	02/13/2023	02/13/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023
Lab Sample ID				L2307196-15 L2310952-21	L2307196-16	L2307677-01 L2310952-01	L2307677-02 L2310952-02	L2307677-03 L2310952-03	L2307677-04 L2310952-04	L2305570-09	L2305570-10	L2305570-11	L2305570-12
Sample Depth (bgs)				10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)
Pesticides (mg/kg)													
4,4'-DDD	14	13	0.0033	ND (0.00181)	ND (0.00185)	ND (0.00175)	ND (0.00178)	ND (0.00201)	ND (0.00252)	0.0289	ND (0.00179)	ND (0.00174)	ND (0.00678)
4,4'-DDE	17	8.9	0.0033	ND (0.00181)	ND (0.00185)	ND (0.00175)	ND (0.00178)	ND (0.00201)	ND (0.00252)	0.0201	0.00644	ND (0.00174)	ND (0.00678)
4,4'-DDT	136	7.9	0.0033	ND (0.00181)	ND (0.00185)	ND (0.00175)	ND (0.00178)	0.00498 J	ND (0.00252)	0.0181	0.00729	ND (0.00174)	ND (0.00678)
Aldrin	0.19	0.097	0.005	ND (0.00181)	ND (0.00185)	ND (0.00175)	ND (0.00178)	ND (0.00201)	ND (0.00252)	ND (0.00179)	ND (0.00179)	ND (0.00174)	ND (0.00678)
alpha-BHC	0.02	0.48	0.02	ND (0.000756)	ND (0.000772)	ND (0.00073)	ND (0.00074)	ND (0.000837)	ND (0.00105)	ND (0.000745)	ND (0.000746)	ND (0.000726)	ND (0.00283)
alpha-Chlordane (cis)	2.9	4.2	0.094	ND (0.00227)	ND (0.00231)	0.00354	ND (0.00222)	ND (0.00251)	ND (0.00315)	0.00756	ND (0.00224)	ND (0.00218)	ND (0.00848)
beta-BHC	0.09	0.36	0.036	ND (0.00181)	ND (0.00185)	ND (0.00175)	ND (0.00178)	ND (0.00201)	ND (0.00252)	ND (0.00179)	ND (0.00179)	ND (0.00174)	ND (0.00678)
Chlordane	NA	NA	NA	ND (0.0151)	ND (0.0154)	0.13 J+	ND (0.0148)	ND (0.0167)	ND (0.021)	0.0381	ND (0.0149)	ND (0.0145)	ND (0.0565)
delta-BHC	0.25	100	0.04	ND (0.00181)	ND (0.00185)	ND (0.00175)	ND (0.00178)	ND (0.00201)	ND (0.00252)	ND (0.00179)	ND (0.00179)	ND (0.00174)	ND (0.00678)
Dieldrin	0.1	0.2	0.005	ND (0.00113)	ND (0.00116)	ND (0.0011)	ND (0.00111)	0.00125 J	ND (0.00157)	ND (0.00112)	ND (0.00112)	ND (0.00109)	ND (0.00424)
Endosulfan I	102	24	2.4	ND (0.00181)	ND (0.00185)	ND (0.00175)	ND (0.00178)	ND (0.00201)	ND (0.00252)	ND (0.00179)	ND (0.00179)	ND (0.00174)	ND (0.00678)
Endosulfan II	102	24	2.4	ND (0.00181)	ND (0.00185)	ND (0.00175)	ND (0.00178)	ND (0.00201)	ND (0.00252)	ND (0.00179)	ND (0.00179)	ND (0.00174)	ND (0.00678)
Endosulfan sulfate	1000	24	2.4	ND (0.000756)	ND (0.000772)	ND (0.00073)	ND (0.00074)	ND (0.000837)	ND (0.00105)	ND (0.000745)	ND (0.000746)	ND (0.000726)	ND (0.00283)
Endrin	0.06	11	0.014	ND (0.000756)	ND (0.000772)	ND (0.00073)	ND (0.00074)	ND (0.000837)	ND (0.00105)	ND (0.000745)	ND (0.000746)	ND (0.000726)	ND (0.00283)
Endrin aldehyde	NA	NA	NA	ND (0.00227)	ND (0.00231)	ND (0.00219)	ND (0.00222)	ND (0.00251)	ND (0.00315)	ND (0.00224)	ND (0.00224)	ND (0.00218)	ND (0.00848)
Endrin ketone	NA	NA	NA	ND (0.00181)	ND (0.00185)	ND (0.00175)	ND (0.00178)	ND (0.00201)	ND (0.00252)	ND (0.00179)	ND (0.00179)	ND (0.00174)	ND (0.00678)
gamma-BHC (Lindane)	0.1	1.3	0.1	ND (0.000756)	ND (0.000772)	ND (0.00073)	ND (0.00074)	ND (0.000837)	ND (0.00105)	ND (0.000745)	ND (0.000746)	ND (0.000726)	ND (0.00283)
gamma-Chlordane (trans)	NA	NA	NA	ND (0.00227)	ND (0.00231)	0.00389 J+	ND (0.00222)	ND (0.00251)	ND (0.00315)	0.00566	ND (0.00224)	ND (0.00218)	ND (0.00848)
Heptachlor	0.38	2.1	0.042	ND (0.000907)	ND (0.000926)	ND (0.000876)	ND (0.000888)	ND (0.001)	ND (0.00126)	ND (0.000894)	ND (0.000896)	ND (0.000871)	ND (0.00339)
Heptachlor epoxide	NA	NA	NA	ND (0.0034)	ND (0.00347)	ND (0.00329)	ND (0.00333)	ND (0.00377)	ND (0.00472)	ND (0.00335) J	ND (0.00336)	ND (0.00327)	ND (0.0127)
Methoxychlor	NA	NA	NA	ND (0.0034)	ND (0.00347)	ND (0.00329)	ND (0.00333)	ND (0.00377)	ND (0.00472)	ND (0.00335)	ND (0.00336)	ND (0.00327)	ND (0.0127)
Toxaphene	NA	NA	NA	ND (0.034)	ND (0.0347)	ND (0.0329)	ND (0.0333)	ND (0.0377)	ND (0.0472)	ND (0.0335)	ND (0.0336)	ND (0.0327)	ND (0.127)

Location Name	HA-15	HA-15	HA-15	HA-15	HA-16	HA-16	HA-16	HA-16	HA-17	HA-17	HA-17	HA-17	HA-18	HA-18
Sample Name	HA-15 (2-4)	HA-15 (6-8)	HA-15 (10-12)	HA-15 (14-16)	HA-16 (2-4)	HA-16 (6-8)	HA-16 (10-12)	HA-16 (14-16)	HA-17 (2-4)	HA-17 (6-8)	HA-17 (10-12)	HA-17 (14-16)	HA-18 (2-4)	HA-18 (6-8)
Sample Date	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/13/2023	02/13/2023
Lab Sample ID	L2305570-13	L2305570-14	L2305570-15	L2305570-16	L2305570-17	L2305570-18	L2305570-19	L2305570-20	L2306883-13 L2310952-36	L2306883-14	L2306883-15	L2306883-16 L2310952-37	L2307677-05 L2310952-05	L2307677-06 L2310952-06
Sample Depth (bgs)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)
Pesticides (mg/kg)														
4,4'-DDD	0.0178	ND (0.00173)	ND (0.00208) J	ND (0.00601)	ND (0.00164)	ND (0.00176)	ND (0.00178)	ND (0.00174)	0.0106	ND (0.00191)	ND (0.00195)	ND (0.00193)	0.06	0.148 J+
4,4'-DDE	0.00632	ND (0.00173)	ND (0.00208)	ND (0.00601)	0.00146 J	ND (0.00176)	ND (0.00178)	ND (0.00174)	0.00412	ND (0.00191)	ND (0.00195)	ND (0.00193)	0.0266	0.0906 J+
4,4'-DDT	0.00235 J	ND (0.00173)	ND (0.00208)	ND (0.00601)	0.0029	ND (0.00176)	ND (0.00178)	ND (0.00174)	0.00609 J+	ND (0.00191)	ND (0.00195)	ND (0.00193)	0.0243 J+	0.0294 J+
Aldrin	ND (0.00164)	ND (0.00173)	ND (0.00208)	ND (0.00601)	ND (0.00164)	ND (0.00176)	ND (0.00178)	ND (0.00174)	ND (0.00178)	ND (0.00191)	ND (0.00195)	ND (0.00193)	ND (0.00179)	ND (0.00181)
alpha-BHC	ND (0.000685)	ND (0.000723)	ND (0.000868)	ND (0.0025)	ND (0.000685)	ND (0.000735)	ND (0.00074)	ND (0.000724)	ND (0.000741)	ND (0.000796)	ND (0.000812)	ND (0.000804)	ND (0.000748)	ND (0.000754)
alpha-Chlordane (cis)	0.00311	ND (0.00217)	ND (0.0026)	ND (0.00751)	ND (0.00206)	ND (0.0022)	ND (0.00222)	ND (0.00217)	0.00158 J	ND (0.00239)	ND (0.00244)	ND (0.00241)	0.00401 J	0.00704 J+
beta-BHC	ND (0.00164)	ND (0.00173)	ND (0.00208)	ND (0.00601)	ND (0.00164)	ND (0.00176)	ND (0.00178)	ND (0.00174)	ND (0.00178)	ND (0.00191)	ND (0.00195)	ND (0.00193)	ND (0.00179)	ND (0.00181)
Chlordane	0.028	ND (0.0144)	ND (0.0174)	ND (0.0501)	ND (0.0137)	ND (0.0147)	ND (0.0148)	ND (0.0145)	0.0138 J	ND (0.0159)	ND (0.0162)	ND (0.0161)	0.0161	0.066 J
delta-BHC	ND (0.00164)	ND (0.00173)	ND (0.00208)	ND (0.00601)	ND (0.00164)	ND (0.00176)	ND (0.00178)	ND (0.00174)	ND (0.00178)	ND (0.00191)	ND (0.00195)	ND (0.00193)	ND (0.00179)	ND (0.00181)
Dieldrin	0.00858	ND (0.00108)	ND (0.0013)	ND (0.00376)	ND (0.00103)	ND (0.0011)	ND (0.00111)	ND (0.00108)	ND (0.00111)	ND (0.00119)	ND (0.00122)	ND (0.00121)	0.00456 J+	ND (0.00113)
Endosulfan I	ND (0.00164)	ND (0.00173)	ND (0.00208)	ND (0.00601)	ND (0.00164)	ND (0.00176)	ND (0.00178)	ND (0.00174)	ND (0.00178)	ND (0.00191)	ND (0.00195)	ND (0.00193)	ND (0.00179)	ND (0.00181)
Endosulfan II	ND (0.00164)	ND (0.00173)	ND (0.00208)	ND (0.00601)	ND (0.00164)	ND (0.00176)	ND (0.00178)	ND (0.00174)	ND (0.00178)	ND (0.00191)	ND (0.00195)	ND (0.00193)	ND (0.00179)	ND (0.00181)
Endosulfan sulfate	ND (0.000685)	ND (0.000723)	ND (0.000868)	ND (0.0025)	ND (0.000685)	ND (0.000735)	ND (0.00074)	ND (0.000724)	ND (0.000741)	ND (0.000796)	ND (0.000812)	ND (0.000804)	ND (0.000748)	ND (0.000754)
Endrin	ND (0.000685)	ND (0.000723)	ND (0.000868)	ND (0.0025)	ND (0.000685)	ND (0.000735)	ND (0.00074)	ND (0.000724)	ND (0.000741)	ND (0.000796)	ND (0.000812)	ND (0.000804)	ND (0.000748)	ND (0.000754)
Endrin aldehyde	ND (0.00206)	ND (0.00217)	ND (0.0026)	ND (0.00751)	ND (0.00206)	ND (0.0022)	ND (0.00222)	ND (0.00217)	ND (0.00222)	ND (0.00239)	ND (0.00244)	ND (0.00241)	ND (0.00224)	ND (0.00226)
Endrin ketone	ND (0.00164)	ND (0.00173)	ND (0.00208)	ND (0.00601)	ND (0.00164)	ND (0.00176)	ND (0.00178)	ND (0.00174)	ND (0.00178)	ND (0.00191)	ND (0.00195)	ND (0.00193)	ND (0.00179)	ND (0.00181)
gamma-BHC (Lindane)	ND (0.000685)	ND (0.000723)	ND (0.000868)	ND (0.0025)	ND (0.000685)	ND (0.000735)	ND (0.00074)	ND (0.000724)	ND (0.000741)	ND (0.000796)	ND (0.000812)	ND (0.000804)	ND (0.000748)	ND (0.000754)
gamma-Chlordane (trans)	0.00431	ND (0.00217)	ND (0.0026)	ND (0.00751)	ND (0.00206)	ND (0.0022)	ND (0.00222)	ND (0.00217)	0.00283	0.000806 J	0.00154 J	0.000818 J	0.00248 J+	0.00857 J+
Heptachlor	ND (0.000822)	ND (0.000867)	ND (0.00104)	ND (0.003)	ND (0.000822)	ND (0.000882)	ND (0.000888)	ND (0.000869)	ND (0.000889)	ND (0.000955)	ND (0.000974)	ND (0.000965)	ND (0.000897)	ND (0.000904)
Heptachlor epoxide	ND (0.00308)	ND (0.00325)	ND (0.0039)	ND (0.0113)	ND (0.00308)	ND (0.00331)	ND (0.00333)	ND (0.00326)	ND (0.00334)	ND (0.00358)	ND (0.00365)	ND (0.00362)	ND (0.00336)	ND (0.00339)
Methoxychlor	ND (0.00308)	ND (0.00325)	ND (0.0039)	ND (0.0113)	ND (0.00308)	ND (0.00331)	ND (0.00333)	ND (0.00326)	ND (0.00334)	ND (0.00358)	ND (0.00365)	ND (0.00362)	ND (0.00336)	ND (0.00339)
Toxaphene	ND (0.0308)	ND (0.0325)	ND (0.039)	ND (0.113)	ND (0.0308)	ND (0.0331)	ND (0.0333)	ND (0.0326)	ND (0.0334)	ND (0.0358)	ND (0.0365)	ND (0.0362)	ND (0.0336)	ND (0.0339)

ABBREVIATIONS AND NOTES:

mg/kg: milligram per kilogram

-: Not Analyzed
bgs: below ground surface
ft: feet
J: Value is estimated.
R: Rejected
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

- For test methods used, see the laboratory data sheets.
- Soil analytical results are compared to the New York State Department of Environm
  Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rule
  Regulations (NYCRR) Part 375 Unrestricted Use Soil Cleanup Objectives (SCO),
  Restricted-Use Residential SCOs, and Protection of Groundwater SCO's.
- ***Bold italic*** values indicate an exceedance of the Protection of Groundwater Criteri
- Grey shading indicates an exceedance of the Unrestricted Use Soil Cleanup Objecti
- Yellow shading indicates an exceedance of the Restricted Use Residential Soil Clear

TABLE 2d
REMEDIAL INVESTIGATION - PESTICIDES ANALYTICAL RESULTS IN SOIL
556 BALTIC STREET
BROOKLYN, NEW YORK

	Action Level									
Location Name	Restricted Use Soil Cleanup Objectives - Protection of Groundwater	Restricted Use Soil Cleanup Objectives - Residential	Unrestricted Use Soil Cleanup Objectives	HA-18	HA-18	HA-18	HA-19	HA-19	HA-19	HA-19
Sample Name				HA-18 (10-12)	DUP_1_02132023	HA-18 (14-16)	HA-19 (2-4)	HA-19 (6-8)	HA-19 (10-12)	DUP_1_02082023
Sample Date				02/13/2023	02/13/2023	02/13/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023
Lab Sample ID				L2307677-07 L2310952-07	L2307677-09 L2310952-09	L2307677-08 L2310952-08	L2306883-17 L2310952-38	L2306883-18 L2310952-39	L2306883-19 L2310952-40	L2306883-27 L2310952-46
Sample Depth (bgs)				10 - 12 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	10 - 12 (ft)
Pesticides (mg/kg)										
4,4'-DDD	14	13	0.0033	ND (0.0103)	ND (0.0335)	ND (0.00955)	0.0462	0.038 J+	ND (0.00955)	ND (0.0018)
4,4'-DDE	17	8.9	0.0033	ND (0.0103)	ND (0.0335)	ND (0.00955)	0.0125 J+	0.00516 J	ND (0.00955)	ND (0.0018)
4,4'-DDT	136	7.9	0.0033	ND (0.0103)	ND (0.0335)	ND (0.00955)	ND (0.00201)	0.00587	ND (0.00955)	ND (0.0018)
Aldrin	0.19	0.097	0.005	ND (0.0103)	ND (0.0335)	ND (0.00955)	ND (0.00201)	ND (0.00184)	ND (0.00955)	ND (0.0018)
alpha-BHC	0.02	0.48	0.02	ND (0.0043)	ND (0.0139)	ND (0.00398)	ND (0.000838)	ND (0.000767)	ND (0.00398)	0.0029 J+
alpha-Chlordane (cis)	2.9	4.2	0.094	ND (0.0129)	ND (0.0418)	ND (0.0119)	0.00638 J	0.00243 J+	ND (0.0119)	ND (0.00225)
beta-BHC	0.09	0.36	0.036	ND (0.0103)	ND (0.0335)	ND (0.00955)	ND (0.00201)	ND (0.00184)	ND (0.00955)	ND (0.0018)
Chlordane	NA	NA	NA	ND (0.0859)	ND (0.279)	ND (0.0796)	0.0365	0.0139 J	ND (0.0796)	ND (0.015)
delta-BHC	0.25	100	0.04	ND (0.0103)	ND (0.0335)	ND (0.00955)	ND (0.00201)	ND (0.00184)	ND (0.00955)	ND (0.0018)
Dieldrin	0.1	0.2	0.005	ND (0.00645)	ND (0.0209)	ND (0.00597)	0.011 J+	0.00283	ND (0.00597)	ND (0.00112)
Endosulfan I	102	24	2.4	ND (0.0103)	ND (0.0335)	ND (0.00955)	ND (0.00201)	ND (0.00184)	ND (0.00955)	ND (0.0018)
Endosulfan II	102	24	2.4	ND (0.0103)	ND (0.0335)	ND (0.00955)	ND (0.00201)	ND (0.00184)	ND (0.00955)	ND (0.0018)
Endosulfan sulfate	1000	24	2.4	ND (0.0043)	ND (0.0139)	ND (0.00398)	ND (0.000838)	ND (0.000767)	ND (0.00398)	ND (0.000749)
Endrin	0.06	11	0.014	ND (0.0043)	ND (0.0139)	ND (0.00398)	ND (0.000838)	ND (0.000767)	ND (0.00398)	ND (0.000749)
Endrin aldehyde	NA	NA	NA	ND (0.0129)	ND (0.0418)	ND (0.0119)	ND (0.00251)	ND (0.0023)	ND (0.0119)	ND (0.00225)
Endrin ketone	NA	NA	NA	ND (0.0103)	ND (0.0335)	ND (0.00955)	ND (0.00201)	ND (0.00184)	ND (0.00955)	ND (0.0018)
gamma-BHC (Lindane)	0.1	1.3	0.1	ND (0.0043)	ND (0.0139)	ND (0.00398)	ND (0.000838)	ND (0.000767)	ND (0.00398)	ND (0.000749)
gamma-Chlordane (trans)	NA	NA	NA	ND (0.0129)	ND (0.0418)	ND (0.0119)	0.00654	0.00205 J	ND (0.0119)	0.00296 J+
Heptachlor	0.38	2.1	0.042	ND (0.00516)	ND (0.0167)	ND (0.00478)	ND (0.001)	ND (0.000921)	ND (0.00477)	ND (0.000898)
Heptachlor epoxide	NA	NA	NA	ND (0.0193)	ND (0.0628)	ND (0.0179)	ND (0.00377)	ND (0.00345) J	ND (0.0179)	ND (0.00337)
Methoxychlor	NA	NA	NA	ND (0.0193)	ND (0.0628)	ND (0.0179)	ND (0.00377)	ND (0.00345)	ND (0.0179)	ND (0.00337)
Toxaphene	NA	NA	NA	ND (0.193)	ND (0.628)	ND (0.179)	ND (0.0377)	ND (0.0345)	ND (0.179)	ND (0.0337)

Location Name	HA-19	HA-19	HA-20	HA-20	HA-20	HA-20	HA-21	HA-21	HA-21	HA-21	HA-21
Sample Name	HA-19 (14-16)	HA-19 (20-22)	HA-20 (2-4)	HA-20 (6-8)	HA-20 (10-12)	HA-20 (14-16)	HA-21 (2-4)	HA-21 (6-8)	HA-21 (10-12)	HA-21 (14-16)	HA-21 (20-22)
Sample Date	02/08/2023	02/08/2023	02/10/2023	02/10/2023	02/10/2023	02/10/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023
Lab Sample ID	L2306883-20 L2310952-41	L2306883-21	L2307511-05 L2310952-24	L2307511-06 L2310952-25	L2307511-07 L2310952-26	L2307511-08	L2306883-22 L2310952-47	L2306883-23 L2310952-42	L2306883-24 L2310952-43	L2306883-25 L2310952-44	L2306883-26 L2310952-45
Sample Depth (bgs)	14 - 16 (ft)	20 - 22 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	20 - 22 (ft)
Pesticides (mg/kg)											
4,4'-DDD	ND (0.0094)	ND (0.0018)	0.0425	ND (0.00213)	ND (0.00213)	ND (0.00268)	0.0155	0.0444	ND (0.0089)	ND (0.00952)	ND (0.00212)
4,4'-DDE	ND (0.0094)	ND (0.0018)	0.0277	ND (0.00213)	ND (0.00213)	ND (0.00268)	0.00672 J+	0.0128	ND (0.0089)	ND (0.00952)	ND (0.00212)
4,4'-DDT	ND (0.0094)	ND (0.0018)	0.0134	ND (0.00213)	ND (0.00213)	ND (0.00268)	0.00474 J+	0.00901	ND (0.0089)	ND (0.00952)	ND (0.00212)
Aldrin	ND (0.0094)	ND (0.0018)	ND (0.00198)	ND (0.00213)	ND (0.00213)	ND (0.00268)	ND (0.00184)	ND (0.00178)	ND (0.0089)	ND (0.00952)	ND (0.00212)
alpha-BHC	ND (0.00392)	ND (0.000752)	ND (0.000827)	ND (0.000887)	ND (0.000886)	ND (0.00112)	ND (0.000766)	ND (0.00074)	ND (0.00371)	ND (0.00396)	0.00209 J
alpha-Chlordane (cis)	ND (0.0118)	ND (0.00226)	0.00201 J	ND (0.00266)	ND (0.00266)	ND (0.00334)	0.000682	0.00139 J	ND (0.0111)	ND (0.0119)	ND (0.00265)
beta-BHC	ND (0.0094)	ND (0.0018)	ND (0.00198)	ND (0.00213)	ND (0.00213)	ND (0.00268)	ND (0.00184)	ND (0.00178)	ND (0.0089)	ND (0.00952)	ND (0.00212)
Chlordane	ND (0.0783)	ND (0.015)	0.0125 J	ND (0.0177)	ND (0.0177)	ND (0.0223)	0.00744 J+	0.0125 J	ND (0.0742)	ND (0.0793)	ND (0.0176)
delta-BHC	ND (0.0094)	ND (0.0018)	ND (0.00198)	ND (0.00213)	ND (0.00213)	ND (0.00268)	ND (0.00184)	ND (0.00178)	ND (0.0089)	ND (0.00952)	ND (0.00212)
Dieldrin	ND (0.00588)	ND (0.00113)	0.00497	ND (0.00133)	ND (0.00133)	ND (0.00167)	ND (0.00115)	0.00456	ND (0.00556)	ND (0.00595)	ND (0.00132)
Endosulfan I	ND (0.0094)	ND (0.0018)	ND (0.00198)	ND (0.00213)	ND (0.00213)	ND (0.00268)	ND (0.00184)	ND (0.00178)	ND (0.0089)	ND (0.00952)	ND (0.00212)
Endosulfan II	ND (0.0094)	ND (0.0018)	ND (0.00198)	ND (0.00213)	ND (0.00213)	ND (0.00268)	ND (0.00184)	ND (0.00178)	ND (0.0089)	ND (0.00952)	ND (0.00212)
Endosulfan sulfate	ND (0.00392)	ND (0.000752)	ND (0.000827)	ND (0.000887)	ND (0.000886)	ND (0.00112)	ND (0.000766)	ND (0.00074)	ND (0.00371)	ND (0.00396)	ND (0.000883)
Endrin	ND (0.00392)	ND (0.000752)	ND (0.000827)	ND (0.000887)	ND (0.000886)	ND (0.00112)	ND (0.000766)	ND (0.00074)	ND (0.00371)	ND (0.00396)	ND (0.000883)
Endrin aldehyde	ND (0.0118)	ND (0.00226)	ND (0.00248)	ND (0.00266)	ND (0.00266)	ND (0.00334)	ND (0.0023)	ND (0.00222)	ND (0.0111)	ND (0.0119)	ND (0.00265)
Endrin ketone	ND (0.0094)	ND (0.0018)	ND (0.00198)	ND (0.00213)	ND (0.00213)	ND (0.00268)	ND (0.00184)	ND (0.00178)	ND (0.0089)	ND (0.00952)	ND (0.00212)
gamma-BHC (Lindane)	ND (0.00392)	ND (0.000752)	ND (0.000827)	ND (0.000887)	ND (0.000886)	ND (0.00112)	ND (0.000766)	ND (0.00074)	ND (0.00371)	ND (0.00396)	ND (0.000883)
gamma-Chlordane (trans)	ND (0.0118)	ND (0.00226)	0.00273	ND (0.00266)	ND (0.00266)	ND (0.00334)	0.00138	0.00225	ND (0.0111)	ND (0.0119)	0.000753 J
Heptachlor	ND (0.0047)	ND (0.000903)	ND (0.000992)	ND (0.00106)	ND (0.00106)	ND (0.00134)	ND (0.000919)	ND (0.000888)	ND (0.00445)	ND (0.00476)	ND (0.00106)
Heptachlor epoxide	ND (0.0176)	ND (0.00338)	ND (0.00372)	ND (0.00399)	ND (0.00399)	ND (0.00502)	ND (0.00345)	0.00109 J	ND (0.0167)	ND (0.0178)	ND (0.00397)
Methoxychlor	ND (0.0176)	ND (0.00338)	ND (0.00372)	ND (0.00399)	ND (0.00399)	ND (0.00502)	ND (0.00345)	ND (0.00333)	ND (0.0167)	ND (0.0178)	ND (0.00397)
Toxaphene	ND (0.176)	ND (0.0338)	ND (0.0372)	ND (0.0399)	ND (0.0399)	ND (0.0502)	ND (0.0345)	ND (0.0333)	ND (0.167)	ND (0.178)	ND (0.0397)

ABBREVIATIONS AND NOTES:

mg/kg: milligram per kilogram

-: Not Analyzed
bgs: below ground surface
ft: feet
J: Value is estimated.
R: Rejected
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

- For test methods used, see the laboratory data sheets.
- Soil analytical results are compared to the New York State Department of Environm
Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rule
Regulations (NYCRR) Part 375 Unrestricted Use Soil Cleanup Objectives (SCO),
Restricted-Use Residential SCOs, and Protection of Groundwater SCO's.
- ***Bold italic*** values indicate an exceedance of the Protection of Groundwater Criteri
- Grey shading indicates an exceedance of the Unrestricted Use Soil Cleanup Objecti
- Yellow shading indicates an exceedance of the Restricted Use Residential Soil Clear

TABLE 2e
REMEDIAL INVESTIGATION - EMERGING CONTAMINANTS ANALYTICAL RESULTS IN SOIL
556 BALTIC STREET
BROOKLYN, NEW YORK

	Action Level											
Location Name	Restricted Use NYSDEC Guidance Values - Protection of Groundwater - PFAS/PFOA	Restricted Use NYSDEC Guidance Values - Residential - PFAS/PFOA	Unrestricted Use NYSDEC Guidance Values - PFAS/PFOA	HA-01	HA-01	HA-01	HA-01	HA-02	HA-02	HA-02	HA-02	HA-03
Sample Name				HA-01 (2-4)	HA-01 (6-8)	HA-01 (10-12)	HA-01 (14-16)	HA-02 (2-4)	HA-02 (6-8)	HA-02 (10-12)	HA-02 (14-16)	HA-03 (2-4)
Sample Date				02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/10/2023
Lab Sample ID				L2306883-01 L2310952-27	L2306883-02 L2310952-28	L2306883-03 L2310952-29	L2306883-04	L2306883-05 L2310952-30	L2306883-06 L2310952-31	L2306883-07	L2306883-08 L2310952-32	L2307511-01
Sample Depth (bgs)				2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)
Semi-Volatile Organic Compounds (mg/kg)												
1,4-Dioxane	NA	NA	NA	ND (0.031)	ND (0.029)	ND (0.032)	ND (0.086)	ND (0.03)	ND (0.029)	ND (0.03)	ND (0.029)	ND (0.026)
PFAS (ng/g)												
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NA	NA	NA	ND (0.753)	ND (0.786)	ND (0.794)	ND (0.755)	ND (0.786)	ND (0.782)	ND (0.72)	ND (0.74)	ND (0.795) J
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NA	NA	NA	ND (0.753)	ND (0.786)	ND (0.794)	ND (0.755)	ND (0.786)	ND (0.782)	ND (0.72)	ND (0.74)	ND (0.795) J
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	NA	NA	NA	ND (0.188)	ND (0.197)	ND (0.198)	ND (0.189)	ND (0.196)	ND (0.195)	ND (0.18)	ND (0.185)	ND (0.199)
N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	NA	NA	NA	ND (0.188)	ND (0.197)	ND (0.198)	ND (0.189)	ND (0.196)	ND (0.195)	ND (0.18)	ND (0.185)	ND (0.199) J
Perfluorobutanesulfonic acid (PFBS)	NA	NA	NA	ND (0.188)	ND (0.197)	ND (0.198)	ND (0.189)	ND (0.196)	ND (0.195)	ND (0.18)	ND (0.185)	ND (0.199)
Perfluorobutanoic acid (PFBA)	NA	NA	NA	ND (0.753)	ND (0.786)	ND (0.794)	ND (0.755)	ND (0.786)	ND (0.782)	ND (0.72)	ND (0.74)	ND (0.795)
Perfluorodecanesulfonic acid (PFDS)	NA	NA	NA	ND (0.188)	ND (0.197)	ND (0.198)	ND (0.189)	ND (0.196)	ND (0.195)	ND (0.18)	ND (0.185)	ND (0.199)
Perfluorodecanoic acid (PFDA)	NA	NA	NA	ND (0.188)	ND (0.197)	ND (0.198)	ND (0.189)	ND (0.196)	ND (0.195)	ND (0.18)	ND (0.185)	ND (0.199)
Perfluorododecanoic acid (PFDoDA)	NA	NA	NA	ND (0.188) J	ND (0.197)	ND (0.198)	ND (0.189)	ND (0.196) J	ND (0.195) J	ND (0.18) J	ND (0.185) J	ND (0.199) J
Perfluoroheptanesulfonic acid (PFHpS)	NA	NA	NA	ND (0.188)	ND (0.197)	ND (0.198)	ND (0.189)	ND (0.196)	ND (0.195)	ND (0.18)	ND (0.185)	ND (0.199)
Perfluoroheptanoic acid (PFHpA)	NA	NA	NA	ND (0.188)	ND (0.197)	ND (0.198)	ND (0.189)	ND (0.196)	ND (0.195)	ND (0.18)	ND (0.185)	0.072 J
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	NA	ND (0.188)	ND (0.197)	ND (0.198)	ND (0.189)	ND (0.196)	ND (0.195)	ND (0.18)	ND (0.185)	0.199
Perfluorohexanoic acid (PFHxA)	NA	NA	NA	ND (0.188)	ND (0.197)	ND (0.198)	ND (0.189)	ND (0.196)	ND (0.195)	ND (0.18)	ND (0.185)	0.095 J
Perfluorononanoic acid (PFNA)	NA	NA	NA	ND (0.188)	ND (0.197)	ND (0.198)	ND (0.189)	ND (0.196)	ND (0.195)	ND (0.18)	ND (0.185)	ND (0.199) J
Perfluorooctane sulfonamide (PFOSA)	NA	NA	NA	ND (0.188)	ND (0.197)	ND (0.198)	ND (0.189)	ND (0.196)	ND (0.195)	ND (0.18)	ND (0.185)	ND (0.199)
Perfluorooctanesulfonic acid (PFOS)	3.7	44	0.88	0.136 J	ND (0.197)	ND (0.198)	0.091 J	0.134 J	0.266	0.094 J	0.133 J	0.851 J
Perfluorooctanoic acid (PFOA)	1.1	33	0.66	ND (0.188)	ND (0.197)	ND (0.198)	ND (0.189)	ND (0.196)	0.078 J	ND (0.18)	ND (0.185)	0.239 J
Perfluoropentanoic acid (PFPeA)	NA	NA	NA	ND (0.377)	ND (0.393)	ND (0.397)	ND (0.378)	ND (0.393)	ND (0.391)	ND (0.36)	ND (0.37)	0.095 J
Perfluorotetradecanoic acid (PFTeDA)	NA	NA	NA	ND (0.188) J	ND (0.197) J	ND (0.198) J	ND (0.189) J	ND (0.196) J	ND (0.195) J	ND (0.18) J	ND (0.185) J	ND (0.199)
Perfluorotridecanoic acid (PFTrDA)	NA	NA	NA	ND (0.188) J	ND (0.197) J	ND (0.198) J	ND (0.189) J	ND (0.196) J	ND (0.195) J	ND (0.18) J	ND (0.185) J	ND (0.199)
Perfluoroundecanoic acid (PFUnDA)	NA	NA	NA	ND (0.188)	ND (0.197)	ND (0.198)	ND (0.189)	ND (0.196)	ND (0.195)	ND (0.18)	ND (0.185)	ND (0.199)
US EPA PFAS (PFOS + PFOA)	NA	NA	NA	0.136 J	ND (0.197)	ND (0.198)	0.091 J	0.134 J	0.344 J	0.094 J	0.133 J	1.09 J

Location Name	HA-03	HA-03	HA-03	HA-04	HA-04	HA-04	HA-04	HA-04	HA-05	HA-05	HA-05	HA-05	HA-06	HA-06	HA-06
Sample Name	HA-03 (6-8)	HA-03 (10-12)	HA-03 (14-16)	HA-04 (2-4)	HA-04 (6-8)	DUP_1_02022023	HA-04 (10-12)	HA-04 (14-16)	HA-05 (2-4)	HA-05 (6-8)	HA-05 (10-12)	HA-05 (14-16)	HA-06 (2-4)	HA-06 (6-8)	HA-06 (10-12)
Sample Date	02/10/2023	02/10/2023	02/10/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/02/2023	02/01/2023	02/01/2023	02/01/2023
Lab Sample ID	L2307511-02 L2310952-22	L2307511-03 L2310952-23	L2307511-04	L2305934-01	L2305934-02	L2305934-09	L2305934-03	L2305934-04	L2305934-05	L2305934-06	L2305934-07	L2305934-08	L2305570-01	L2305570-02	L2305570-03
Sample Depth (bgs)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 2 (ft)	6 - 8 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)
Semi-Volatile Organic Compounds (mg/kg)															
1,4-Dioxane	ND (0.033)	ND (0.028)	ND (0.028)	ND (0.026)	ND (0.03)	ND (0.031)	ND (0.033)	ND (0.15)	ND (0.027)	ND (0.029)	ND (0.029)	ND (0.028)	ND (0.029)	ND (0.028)	ND (0.029)
PFAS (ng/g)															
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ND (0.793) J	ND (0.797) J	ND (0.789) J	ND (0.782)	ND (0.729)	ND (0.773)	ND (0.786)	ND (0.767)	ND (0.763)	ND (0.75)	0.448 J	ND (0.733)	ND (0.797)	ND (0.779)	ND (0.773)
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ND (0.793) J	ND (0.797) J	ND (0.789) J	ND (0.782)	ND (0.729)	ND (0.773)	ND (0.786)	ND (0.767)	ND (0.763)	ND (0.75)	ND (0.786)	ND (0.733)	ND (0.797)	ND (0.779)	ND (0.773)
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND (0.198)	ND (0.199)	ND (0.197)	ND (0.196)	ND (0.182)	ND (0.193)	ND (0.196)	ND (0.192)	ND (0.191)	ND (0.187)	ND (0.196)	ND (0.183)	ND (0.199)	ND (0.195)	ND (0.193)
N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	ND (0.198) J	ND (0.199) J	ND (0.197) J	ND (0.196)	ND (0.182)	ND (0.193)	ND (0.196)	ND (0.192)	ND (0.191)	ND (0.187)	ND (0.196)	ND (0.183)	ND (0.199)	ND (0.195)	ND (0.193)
Perfluorobutanesulfonic acid (PFBS)	ND (0.198)	ND (0.199)	ND (0.197)	ND (0.196)	ND (0.182)	ND (0.193)	ND (0.196)	ND (0.192)	ND (0.191)	ND (0.187)	ND (0.196)	ND (0.183)	ND (0.199)	ND (0.195)	ND (0.193)
Perfluorobutanoic acid (PFBA)	ND (0.793)	ND (0.797)	ND (0.789)	ND (0.782)	ND (0.729)	ND (0.773)	ND (0.786)	ND (0.767)	ND (0.763)	ND (0.75)	ND (0.786)	ND (0.733)	ND (0.797)	ND (0.779)	ND (0.773)
Perfluorodecanesulfonic acid (PFDS)	ND (0.198)	ND (0.199)	ND (0.197)	ND (0.196)	ND (0.182)	ND (0.193)	ND (0.196)	ND (0.192)	ND (0.191)	ND (0.187)	ND (0.196)	ND (0.183)	ND (0.199)	ND (0.195)	ND (0.193)
Perfluorodecanoic acid (PFDA)	0.079 J	ND (0.199)	ND (0.197)	ND (0.196)	ND (0.182)	ND (0.193)	ND (0.196)	ND (0.192)	ND (0.191)	ND (0.187)	ND (0.196)	ND (0.183)	ND (0.199)	ND (0.195)	ND (0.193)
Perfluorododecanoic acid (PFDoDA)	ND (0.198) J	ND (0.199) J	ND (0.197) J	ND (0.196)	ND (0.182)	ND (0.193)	ND (0.196)	ND (0.192)	0.084 J	ND (0.187)	ND (0.196)	ND (0.183)	ND (0.199)	ND (0.195)	ND (0.193)
Perfluoroheptanesulfonic acid (PFHpS)	ND (0.198)	ND (0.199)	ND (0.197)	ND (0.196)	ND (0.182)	ND (0.193)	ND (0.196)	ND (0.192)	ND (0.191)	ND (0.187)	ND (0.196)	ND (0.183)	0.064 J	ND (0.195)	ND (0.193)
Perfluoroheptanoic acid (PFHpA)	0.079 J	ND (0.199)	ND (0.197)	ND (0.196)	ND (0.182)	ND (0.193)	ND (0.196)	ND (0.192)	ND (0.191)	ND (0.187)	ND (0.196)	ND (0.183)	0.072 J	ND (0.195)	ND (0.193)
Perfluorohexanesulfonic acid (PFHxS)	0.143 J	ND (0.199)	ND (0.197)	ND (0.196)	ND (0.182)	ND (0.193)	ND (0.196)	ND (0.192)	0.061 J	ND (0.187)	ND (0.196)	ND (0.183)	0.327	ND (0.195)	ND (0.193)
Perfluorohexanoic acid (PFHxA)	0.127 J	ND (0.199)	ND (0.197)	ND (0.196)	ND (0.182)	ND (0.193)	ND (0.196)	ND (0.192)	ND (0.191)	ND (0.187)	ND (0.196)	ND (0.183)	0.072 J	ND (0.195)	ND (0.193)
Perfluorononanoic acid (PFNA)	ND (0.198) J	ND (0.199) J	ND (0.197) J	ND (0.196) J	ND (0.182) J	ND (0.193) J	ND (0.196) J	ND (0.192) J	ND (0.191) J	ND (0.187) J	ND (0.196) J	ND (0.183) J	0.263 J	ND (0.195) J	ND (0.193) J
Perfluorooctane sulfonamide (PFOSA)	ND (0.198)	ND (0.199)	ND (0.197)	ND (0.196)	ND (0.182)	ND (0.193)	ND (0.196)	ND (0.192)	ND (0.191)	ND (0.187)	ND (0.196)	ND (0.183)	ND (0.199)	ND (0.195)	ND (0.193)
Perfluorooctanesulfonic acid (PFOS)	0.96 J	0.096 J	0.205 J	0.352	0.569 J	0.866 J	0.173 J	0.207	1.29	0.277	0.464	0.191	1.82 J	0.226 J	0.255 J
Perfluorooctanoic acid (PFOA)	0.341 J	ND (0.199) J	ND (0.197) J	0.102 J	ND (0.182)	0.162 J	ND (0.196)	ND (0.192)	0.221	ND (0.187)	ND (0.196)	ND (0.183)	1.07	ND (0.195)	ND (0.193)
Perfluoropentanoic acid (PFPeA)	0.111 J	ND (0.398)	ND (0.394)	ND (0.391)	ND (0.365)	ND (0.386)	ND (0.393)	ND (0.384)	ND (0.382)	ND (0.375)	ND (0.393)	ND (0.367)	ND (0.398)	ND (0.39)	ND (0.387)
Perfluorotetradecanoic acid (PFTeDA)	ND (0.198)	ND (0.199)	ND (0.197) J	ND (0.196)	ND (0.182)	ND (0.193)	ND (0.196)	ND (0.192)	ND (0.191)	ND (0.187)	ND (0.196)	ND (0.183)	ND (0.199)	ND (0.195) J	ND (0.193)
Perfluorotridecanoic acid (PFTrDA)	ND (0.198)	ND (0.199)	ND (0.197) J	ND (0.196)	ND (0.182)	ND (0.193)	ND (0.196)	ND (0.192)	ND (0.191)	ND (0.187)	ND (0.196)	ND (0.183)	ND (0.199)	ND (0.195) J	ND (0.193)
Perfluoroundecanoic acid (PFUnDA)	ND (0.198)	ND (0.199)	ND (0.197)	ND (0.196)	ND (0.182)	ND (0.193)	ND (0.196)	ND (0.192)	ND (0.191)	ND (0.187)	ND (0.196)	ND (0.183)	ND (0.199)	ND (0.195)	ND (0.193)
US EPA PFAS (PFOS + PFOA)	1.3 J	0.096 J	0.205 J	0.454 J	0.569 J	1.03 J	0.173 J	0.207	1.51	0.277	0.464	0.191	2.89 J	0.226 J	0.255 J

ABBREVIATIONS AND NOTES:
mg/kg: milligram per kilogram

-: Not Analyzed
bgs: below ground surface
ft: feet
J: Value is estimated.
R: Rejected
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

- For test methods used, see the laboratory data sheets.
- Soil analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 375 Unrestricted Use Guidance Values Restricted-Use Residential Guidance Values, and Protection of Groundwater Guidance Values for PFOA and PFOS.
- ***Bold italic*** values indicate an exceedance of the Protection of Groundwater Criteria.
- Grey shading indicates an exceedance of the Unrestricted Use Soil Cleanup Objectives.
- Yellow shading indicates an exceedance of the Restricted Use Residential Soil Cleanup Objectives.

TABLE 2e
REMEDIAL INVESTIGATION - EMERGING CONTAMINANTS ANALYTICAL RESULTS IN SOIL
556 BALTIC STREET
BROOKLYN, NEW YORK

Location Name / Sample Name / Sample Date / Lab Sample ID / Sample Depth (bgs)	Action Level: Restricted Use NYSDEC Guidance Values - Protection of Groundwater - PFAS/PFOA	Action Level: Restricted Use NYSDEC Guidance Values - Residential - PFAS/PFOA	Action Level: Unrestricted Use NYSDEC Guidance Values - PFAS/PFOA	HA-06 HA-06 (14-16) 02/01/2023 L2305570-04 14 - 16 (ft)	HA-07 HA-07 (2-4) 02/09/2023 L2307196-01 L2310952-10 2 - 4 (ft)	HA-07 HA-07 (6-8) 02/09/2023 L2307196-02 L2310952-11 6 - 8 (ft)	HA-07 HA-07 (10-12) 02/09/2023 L2307196-03 L2310952-12 10 - 12 (ft)	HA-07 HA-07 (14-16) 02/09/2023 L2307196-04 L2310952-13 14 - 16 (ft)	HA-08 HA-08 (2-4) 02/01/2023 L2305570-05 2 - 4 (ft)	HA-08 HA-08 (6-8) 02/01/2023 L2305570-06 6 - 8 (ft)	HA-08 HA-08 (10-12) 02/01/2023 L2305570-07 10 - 12 (ft)	HA-08 HA-08 (14-16) 02/01/2023 L2305570-08 14 - 16 (ft)
Semi-Volatile Organic Compounds (mg/kg)												
1,4-Dioxane	NA	NA	NA	ND (0.029)	ND (0.029)	ND (0.032)	ND (0.035)	ND (0.028)	ND (0.027)	ND (0.027)	ND (0.033)	ND (0.11)
PFAS (ng/g)												
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NA	NA	NA	ND (0.781)	ND (0.763)	ND (0.719)	ND (0.76)	ND (0.71)	ND (0.772)	ND (0.742)	ND (0.78)	ND (0.794)
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NA	NA	NA	ND (0.781)	ND (0.763)	ND (0.719)	ND (0.76)	ND (0.71)	ND (0.772)	ND (0.742)	ND (0.78)	ND (0.794)
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	NA	NA	NA	ND (0.195)	ND (0.191)	ND (0.18)	ND (0.19)	ND (0.177)	ND (0.193)	ND (0.185)	ND (0.195)	ND (0.198)
N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	NA	NA	NA	ND (0.195)	ND (0.191) J	ND (0.18) J	ND (0.19) J	ND (0.177) J	ND (0.193)	ND (0.185)	ND (0.195)	ND (0.198)
Perfluorobutanesulfonic acid (PFBS)	NA	NA	NA	ND (0.195)	ND (0.191)	ND (0.18)	ND (0.19)	ND (0.177)	ND (0.193)	ND (0.185)	ND (0.195)	ND (0.198)
Perfluorobutanoic acid (PFBA)	NA	NA	NA	ND (0.781)	ND (0.763)	ND (0.719)	ND (0.76)	ND (0.71)	ND (0.772)	ND (0.742)	ND (0.78)	ND (0.794)
Perfluorodecanesulfonic acid (PFDS)	NA	NA	NA	ND (0.195)	ND (0.191)	ND (0.18)	ND (0.19)	ND (0.177)	ND (0.193)	ND (0.185)	ND (0.195)	ND (0.198)
Perfluorodecanoic acid (PFDA)	NA	NA	NA	ND (0.195)	ND (0.191)	ND (0.18)	ND (0.19)	ND (0.177)	ND (0.193)	ND (0.185)	ND (0.195)	ND (0.198)
Perfluorododecanoic acid (PFDoDA)	NA	NA	NA	ND (0.195)	ND (0.191)	ND (0.18)	ND (0.19)	ND (0.177) J	ND (0.193)	ND (0.185)	ND (0.195)	ND (0.198)
Perfluoroheptanesulfonic acid (PFHpS)	NA	NA	NA	ND (0.195)	ND (0.191)	ND (0.18)	ND (0.19)	ND (0.177)	ND (0.193)	ND (0.185)	ND (0.195)	ND (0.198)
Perfluoroheptanoic acid (PFHpA)	NA	NA	NA	ND (0.195)	ND (0.191)	ND (0.18)	ND (0.19)	ND (0.177)	ND (0.193)	ND (0.185)	ND (0.195)	ND (0.198)
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	NA	ND (0.195)	ND (0.191)	ND (0.18)	ND (0.19)	ND (0.177)	ND (0.193)	ND (0.185)	ND (0.195)	ND (0.198)
Perfluorohexanoic acid (PFHxA)	NA	NA	NA	ND (0.195)	ND (0.191) J	ND (0.18) J	ND (0.19) J	ND (0.177) J	ND (0.193)	ND (0.185)	ND (0.195)	ND (0.198)
Perfluorononanoic acid (PFNA)	NA	NA	NA	ND (0.195) J	ND (0.191)	ND (0.18)	ND (0.19)	ND (0.177)	ND (0.193) J	ND (0.185) J	ND (0.195) J	ND (0.198) J
Perfluorooctane sulfonamide (PFOSA)	NA	NA	NA	ND (0.195)	ND (0.191)	ND (0.18)	ND (0.19)	ND (0.177)	ND (0.193)	ND (0.185)	ND (0.195)	ND (0.198)
Perfluorooctanesulfonic acid (PFOS)	3.7	44	0.88	0.336 J	0.313	0.525	0.471	ND (0.177)	0.417 J	0.156 J	0.25 J	0.095 J
Perfluorooctanoic acid (PFOA)	1.1	33	0.66	ND (0.195)	0.114 J	ND (0.18)	ND (0.19)	ND (0.177)	ND (0.193)	0.334	ND (0.195)	ND (0.198)
Perfluoropentanoic acid (PFPeA)	NA	NA	NA	ND (0.391)	ND (0.382)	ND (0.36)	ND (0.38)	ND (0.355)	ND (0.386)	ND (0.371)	ND (0.39)	ND (0.397)
Perfluorotetradecanoic acid (PFTeDA)	NA	NA	NA	ND (0.195)	ND (0.191)	ND (0.18) J	ND (0.19) J	ND (0.177) J	ND (0.193)	ND (0.185)	ND (0.195)	ND (0.198)
Perfluorotridecanoic acid (PFTrDA)	NA	NA	NA	ND (0.195)	ND (0.191) J	ND (0.18) J	ND (0.19) J	ND (0.177) J	ND (0.193)	ND (0.185)	ND (0.195)	ND (0.198)
Perfluoroundecanoic acid (PFUnDA)	NA	NA	NA	ND (0.195)	ND (0.191)	ND (0.18)	ND (0.19)	ND (0.177)	ND (0.193)	ND (0.185)	ND (0.195)	ND (0.198)
US EPA PFAS (PFOS + PFOA)	NA	NA	NA	0.336 J	0.427 J	0.525	0.471	ND (0.177)	0.417 J	0.49 J	0.25 J	0.095 J

Location Name / Sample Name / Sample Date / Lab Sample ID / Sample Depth (bgs)	HA-09 HA-09 (2-4) 02/09/2023 L2307196-05 2 - 4 (ft)	HA-09 HA-09 (6-8) 02/09/2023 L2307196-06 L2310952-14 6 - 8 (ft)	HA-09 HA-09 (10-12) 02/09/2023 L2307196-07 10 - 12 (ft)	HA-09 HA-09 (14-16) 02/09/2023 L2307196-08 L2310952-15 14 - 16 (ft)	HA-10 HA-10 (2-4) 02/08/2023 L2306883-09 L2310952-33 2 - 4 (ft)	HA-10 HA-10 (6-8) 02/08/2023 L2306883-10 6 - 8 (ft)	HA-10 HA-10 (10-12) 02/08/2023 L2306883-11 L2310952-34 10 - 12 (ft)	HA-10 HA-10 (14-16) 02/08/2023 L2306883-12 L2310952-35 14 - 16 (ft)	HA-11 HA-11 (2-4) 02/09/2023 L2307196-09 L2310952-16 2 - 4 (ft)	HA-11 HA-11 (6-8) 02/09/2023 L2307196-10 6 - 8 (ft)	HA-11 HA-11 (10-12) 02/09/2023 L2307196-11 L2310952-17 10 - 12 (ft)	HA-11 HA-11 (14-16) 02/09/2023 L2307196-12 L2310952-18 14 - 16 (ft)	HA-12 HA-12 (2-4) 02/09/2023 L2307196-13 L2310952-19 2 - 4 (ft)	HA-12 HA-12 (6-8) 02/09/2023 L2307196-14 L2310952-20 6 - 8 (ft)	HA-12 HA-12 (10-12) 02/09/2023 L2307196-15 L2310952-21 10 - 12 (ft)
Semi-Volatile Organic Compounds (mg/kg)															
1,4-Dioxane	ND (0.028)	ND (0.031)	ND (0.03)	ND (0.029)	ND (0.028)	ND (0.16)	ND (0.03)	ND (0.03)	ND (0.028)	ND (0.03)	ND (0.027)	ND (0.029)	ND (0.03)	ND (0.029)	ND (0.029)
PFAS (ng/g)															
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	0.532 J	ND (0.751)	ND (0.728)	ND (0.777)	ND (0.72)	ND (0.787)	ND (0.794)	ND (0.79)	ND (0.771)	ND (0.746)	ND (0.768)	ND (0.772)	ND (0.777)	ND (0.761)	ND (0.72)
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ND (0.75)	ND (0.751)	ND (0.728)	ND (0.777)	ND (0.72)	ND (0.787) J	ND (0.794) J	ND (0.79) J	ND (0.771)	ND (0.746)	ND (0.768)	ND (0.772)	ND (0.777)	ND (0.761)	ND (0.72)
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND (0.187)	ND (0.188)	ND (0.182)	ND (0.194)	ND (0.18)	ND (0.197)	ND (0.199)	ND (0.198)	ND (0.193)	ND (0.186)	ND (0.192)	ND (0.193)	ND (0.194)	ND (0.19)	ND (0.18)
N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	ND (0.187) J	ND (0.188) J	ND (0.182) J	ND (0.194) J	ND (0.18)	ND (0.197) J	ND (0.199) J	ND (0.198) J	ND (0.193) J	ND (0.186) J	ND (0.192) J	ND (0.193) J	ND (0.194) J	ND (0.19) J	ND (0.18) J
Perfluorobutanesulfonic acid (PFBS)	0.105 J	ND (0.188)	ND (0.182)	ND (0.194)	ND (0.18)	ND (0.197)	ND (0.199)	ND (0.198)	ND (0.193)	ND (0.186)	ND (0.192)	ND (0.193)	ND (0.194)	ND (0.19)	ND (0.18)
Perfluorobutanoic acid (PFBA)	ND (0.75)	ND (0.751)	ND (0.728)	ND (0.777)	ND (0.72)	ND (0.787) J	ND (0.794) J	ND (0.79) J	ND (0.771)	ND (0.746)	ND (0.768)	ND (0.772)	ND (0.777)	ND (0.761)	ND (0.72)
Perfluorodecanesulfonic acid (PFDS)	ND (0.187)	ND (0.188)	ND (0.182)	ND (0.194)	ND (0.18)	ND (0.197)	ND (0.199)	ND (0.198)	ND (0.193)	ND (0.186)	ND (0.192)	ND (0.193)	ND (0.194)	ND (0.19)	ND (0.18)
Perfluorodecanoic acid (PFDA)	ND (0.187)	ND (0.188)	ND (0.182)	ND (0.194)	ND (0.18)	ND (0.197)	ND (0.199)	ND (0.198)	ND (0.193)	ND (0.186)	ND (0.192)	ND (0.193)	ND (0.194)	ND (0.19)	ND (0.18)
Perfluorododecanoic acid (PFDoDA)	ND (0.187)	ND (0.188)	ND (0.182)	ND (0.194)	ND (0.18) J	ND (0.197) J	ND (0.199) J	ND (0.198) J	ND (0.193)	ND (0.186)	ND (0.192)	ND (0.193)	ND (0.194)	ND (0.19)	ND (0.18) J
Perfluoroheptanesulfonic acid (PFHpS)	0.15 J	ND (0.188)	ND (0.182)	ND (0.194)	ND (0.18)	ND (0.197) J	ND (0.199) J	ND (0.198) J	ND (0.193)	ND (0.186)	ND (0.192)	ND (0.193)	ND (0.194)	ND (0.19)	ND (0.18)
Perfluoroheptanoic acid (PFHpA)	ND (0.187)	0.03 J	ND (0.182)	ND (0.194)	ND (0.18)	ND (0.197)	ND (0.199)	ND (0.198)	ND (0.193)	ND (0.186)	ND (0.192)	ND (0.193)	0.047 J	ND (0.19)	ND (0.18)
Perfluorohexanesulfonic acid (PFHxS)	0.202	0.06 J	ND (0.182)	ND (0.194)	ND (0.18)	ND (0.197)	ND (0.199)	ND (0.198)	0.139 J	ND (0.186)	ND (0.192)	ND (0.193)	ND (0.194)	ND (0.19)	ND (0.18)
Perfluorohexanoic acid (PFHxA)	0.06 J	0.053 J	ND (0.182) J	ND (0.194) J	ND (0.18)	ND (0.197)	ND (0.199)	ND (0.198)	0.054 J	ND (0.186) J	ND (0.192) J	ND (0.193) J	0.085 J	ND (0.19) J	ND (0.18) J
Perfluorononanoic acid (PFNA)	ND (0.187)	ND (0.188)	ND (0.182)	ND (0.194)	ND (0.18)	ND (0.197) J	ND (0.199) J	ND (0.198) J	ND (0.193)	ND (0.186)	ND (0.192)	ND (0.193)	ND (0.194)	ND (0.19)	ND (0.18)
Perfluorooctane sulfonamide (PFOSA)	ND (0.187)	ND (0.188)	ND (0.182)	ND (0.194)	ND (0.18)	ND (0.197)	ND (0.199)	ND (0.198)	ND (0.193)	ND (0.186)	ND (0.192)	ND (0.193)	ND (0.194)	ND (0.19)	ND (0.18)
Perfluorooctanesulfonic acid (PFOS)	0.18 J	0.323	ND (0.182)	ND (0.194)	0.547	0.338	ND (0.199)	0.15 J	0.532	0.38	0.684	0.232	0.287 J	ND (0.19)	ND (0.18)
Perfluorooctanoic acid (PFOA)	0.742 J	0.511	0.138 J	0.241	0.079 J	0.165 J	ND (0.199)	ND (0.198)	ND (0.193)	ND (0.186)	ND (0.192)	ND (0.193)	0.412	0.145 J	0.252
Perfluoropentanoic acid (PFPeA)	0.075 J	0.098 J	ND (0.364)	ND (0.388)	ND (0.36)	ND (0.394)	ND (0.397)	ND (0.395)	0.069 J	ND (0.373)	ND (0.384)	ND (0.386)	0.202 J	ND (0.381)	ND (0.36)
Perfluorotetradecanoic acid (PFTeDA)	ND (0.187) J	ND (0.188) J	ND (0.182) J	ND (0.194) J	ND (0.18) J	ND (0.197) J	ND (0.199) J	ND (0.198) J	ND (0.193) J	ND (0.186) J	ND (0.192) J	ND (0.193)	ND (0.194)	ND (0.19)	ND (0.18) J
Perfluorotridecanoic acid (PFTrDA)	ND (0.187) J	ND (0.188) J	ND (0.182) J	ND (0.194) J	ND (0.18) J	ND (0.197)	ND (0.199)	ND (0.198)	ND (0.193) J	ND (0.186) J	ND (0.192) J	ND (0.193)	ND (0.194)	ND (0.19)	ND (0.18) J
Perfluoroundecanoic acid (PFUnDA)	ND (0.187)	ND (0.188)	ND (0.182)	ND (0.194)	ND (0.18)	ND (0.197)	ND (0.199)	ND (0.198)	ND (0.193)	ND (0.186)	ND (0.192)	ND (0.193)	ND (0.194)	ND (0.19)	ND (0.18)
US EPA PFAS (PFOS + PFOA)	0.922 J	0.834	0.138 J	0.241	0.626 J	0.503 J	ND (0.199)	0.15 J	0.532	0.38	0.684	0.232	0.699 J	0.145 J	0.252

ABBREVIATIONS AND NOTES:
mg/kg: milligram per kilogram

-: Not Analyzed
bgs: below ground surface
ft: feet
J: Value is estimated.
R: Rejected
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

- For test methods used, see the laboratory data sheets.
- Soil analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 375 Unrestricted Use Guidance Values Restricted-Use Residential Guidance Values, and Protection of Groundwater Guidance Values for PFOA and PFOS.
- ***Bold italic*** values indicate an exceedance of the Protection of Groundwater Criteria.
- Grey shading indicates an exceedance of the Unrestricted Use Soil Cleanup Objectives.
- Yellow shading indicates an exceedance of the Restricted Use Residential Soil Cleanup Objectives.

TABLE 2e
REMEDIAL INVESTIGATION - EMERGING CONTAMINANTS ANALYTICAL RESULTS IN SOIL
556 BALTIC STREET
BROOKLYN, NEW YORK

	Action Level												
Location Name	Restricted Use NYSDEC Guidance Values - Protection of Groundwater - PFAS/PFOA	Restricted Use NYSDEC Guidance Values - Residential - PFAS/PFOA	Unrestricted Use NYSDEC Guidance Values - PFAS/PFOA	HA-12	HA-13	HA-13	HA-13	HA-13	HA-14	HA-14	HA-14	HA-14
Sample Name				HA-12 (14-16)	HA-13 (2-4)	HA-13 (6-8)	HA-13 (10-12)	HA-13 (14-16)	HA-14 (2-4)	HA-14 (6-8)	HA-14 (10-12)	HA-14 (14-16)
Sample Date				02/09/2023	02/13/2023	02/13/2023	02/13/2023	02/13/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023
Lab Sample ID				L2307196-16	L2307677-01 L2310952-01	L2307677-02 L2310952-02	L2307677-03 L2310952-03	L2307677-04 L2310952-04	L2305570-09	L2305570-10	L2305570-11	L2305570-12
Sample Depth (bgs)				14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)
Semi-Volatile Organic Compounds (mg/kg)												
1,4-Dioxane	NA	NA	NA	ND (0.029)	0.027 R	0.028 R	0.032 R	0.039 R	ND (0.028)	ND (0.029)	ND (0.028)	ND (0.11)
PFAS (ng/g)												
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NA	NA	NA	ND (0.731)	ND (0.798) J	ND (0.781) J	ND (0.798) J	ND (0.795) J	ND (0.78)	ND (0.784)	ND (0.74)	ND (0.786)
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NA	NA	NA	ND (0.731)	ND (0.798) J	ND (0.781) J	ND (0.798) J	ND (0.795) J	ND (0.78)	ND (0.784)	ND (0.74)	ND (0.786)
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	NA	NA	NA	ND (0.183)	ND (0.2)	ND (0.195)	0.176 J	0.143 J	ND (0.195)	ND (0.196)	ND (0.185)	ND (0.196)
N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	NA	NA	NA	ND (0.183) J	ND (0.2) J	ND (0.195) J	ND (0.2) J	ND (0.199) J	ND (0.195)	ND (0.196)	ND (0.185)	ND (0.196)
Perfluorobutanesulfonic acid (PFBS)	NA	NA	NA	ND (0.183)	ND (0.2)	ND (0.195)	ND (0.2)	ND (0.199)	ND (0.195)	ND (0.196)	ND (0.185)	ND (0.196)
Perfluorobutanoic acid (PFBA)	NA	NA	NA	ND (0.731)	ND (0.798)	ND (0.781)	ND (0.798)	ND (0.795)	ND (0.78)	ND (0.784)	ND (0.74)	ND (0.786)
Perfluorodecanesulfonic acid (PFDS)	NA	NA	NA	ND (0.183)	ND (0.2)	ND (0.195)	ND (0.2)	ND (0.199)	ND (0.195)	ND (0.196)	ND (0.185)	ND (0.196)
Perfluorodecanoic acid (PFDA)	NA	NA	NA	ND (0.183)	ND (0.2)	ND (0.195)	ND (0.2)	ND (0.199)	ND (0.195)	ND (0.196)	ND (0.185)	ND (0.196)
Perfluorododecanoic acid (PFDoDA)	NA	NA	NA	ND (0.183)	ND (0.2) J	ND (0.195) J	ND (0.2) J	ND (0.199) J	ND (0.195)	ND (0.196)	ND (0.185)	ND (0.196)
Perfluoroheptanesulfonic acid (PFHpS)	NA	NA	NA	ND (0.183)	ND (0.2)	ND (0.195)	ND (0.2)	ND (0.199)	ND (0.195)	ND (0.196)	ND (0.185)	ND (0.196)
Perfluoroheptanoic acid (PFHpA)	NA	NA	NA	ND (0.183)	ND (0.2)	ND (0.195)	ND (0.2)	ND (0.199)	ND (0.195)	ND (0.196)	ND (0.185)	ND (0.196)
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	NA	ND (0.183)	ND (0.2)	ND (0.195)	ND (0.2)	ND (0.199)	ND (0.195)	ND (0.196)	ND (0.185)	ND (0.196)
Perfluorohexanoic acid (PFHxA)	NA	NA	NA	ND (0.183) J	ND (0.2)	ND (0.195)	ND (0.2)	ND (0.199)	0.078 J	0.094 J	ND (0.185)	ND (0.196)
Perfluorononanoic acid (PFNA)	NA	NA	NA	ND (0.183)	0.088 J	ND (0.195) J	ND (0.2) J	ND (0.199) J	ND (0.195) J	ND (0.196) J	ND (0.185) J	ND (0.196) J
Perfluorooctane sulfonamide (PFOSA)	NA	NA	NA	ND (0.183)	ND (0.2)	ND (0.195)	0.088 J	ND (0.199)	ND (0.195)	ND (0.196)	ND (0.185)	ND (0.196)
Perfluorooctanesulfonic acid (PFOS)	3.7	44	0.88	ND (0.183)	0.335 J	0.125 J	0.255 J	0.254 J	0.398 J	0.11 J	0.118 J	0.236 J
Perfluorooctanoic acid (PFOA)	1.1	33	0.66	0.066 J	0.096 J	ND (0.195) J	ND (0.2) J	ND (0.199) J	0.546	ND (0.196)	ND (0.185)	ND (0.196)
Perfluoropentanoic acid (PFPeA)	NA	NA	NA	ND (0.366)	ND (0.399)	ND (0.391)	ND (0.399)	ND (0.398)	ND (0.39)	0.078 J	ND (0.37)	ND (0.393)
Perfluorotetradecanoic acid (PFTeDA)	NA	NA	NA	ND (0.183) J	ND (0.2)	ND (0.195)	ND (0.2)	ND (0.199)	ND (0.195)	ND (0.196)	ND (0.185)	ND (0.196)
Perfluorotridecanoic acid (PFTrDA)	NA	NA	NA	ND (0.183) J	ND (0.2)	ND (0.195)	ND (0.2)	ND (0.199)	ND (0.195)	ND (0.196)	ND (0.185)	ND (0.196)
Perfluoroundecanoic acid (PFUnDA)	NA	NA	NA	ND (0.183)	ND (0.2)	ND (0.195)	ND (0.2)	ND (0.199)	ND (0.195)	ND (0.196)	ND (0.185)	ND (0.196)
US EPA PFAS (PFOS + PFOA)	NA	NA	NA	0.066 J	0.431 J	0.125 J	0.255 J	0.254 J	0.944 J	0.11 J	0.118 J	0.236 J

Location Name	HA-15	HA-15	HA-15	HA-15	HA-16	HA-16	HA-16	HA-16	HA-17	HA-17	HA-17	HA-17	HA-18	HA-18	HA-18
Sample Name	HA-15 (2-4)	HA-15 (6-8)	HA-15 (10-12)	HA-15 (14-16)	HA-16 (2-4)	HA-16 (6-8)	HA-16 (10-12)	HA-16 (14-16)	HA-17 (2-4)	HA-17 (6-8)	HA-17 (10-12)	HA-17 (14-16)	HA-18 (2-4)	HA-18 (6-8)	HA-18 (10-12)
Sample Date	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/13/2023	02/13/2023	02/13/2023
Lab Sample ID	L2305570-13	L2305570-14	L2305570-15	L2305570-16	L2305570-17	L2305570-18	L2305570-19	L2305570-20	L2306883-13 L2310952-36	L2306883-14	L2306883-15	L2306883-16 L2310952-37	L2307677-05 L2310952-05	L2307677-06 L2310952-06	L2307677-07 L2310952-07
Sample Depth (bgs)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)
Semi-Volatile Organic Compounds (mg/kg)															
1,4-Dioxane	ND (0.026)	ND (0.028)	ND (0.1)	ND (0.096)	ND (0.027)	ND (0.028)	ND (0.028)	ND (0.028)	ND (0.029)	ND (0.03)	ND (0.031)	ND (0.03)	0.028 R	0.029 R	0.033 R
PFAS (ng/g)															
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ND (0.748)	ND (0.768)	ND (0.782)	ND (0.796)	ND (0.788)	ND (0.784)	ND (0.781)	ND (0.784)	ND (0.772)	ND (0.78)	ND (0.776)	ND (0.778)	ND (0.795) J	ND (0.785) J	ND (0.793) J
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ND (0.748)	ND (0.768)	ND (0.782)	ND (0.796)	ND (0.788)	ND (0.784)	ND (0.781)	ND (0.784)	ND (0.772) J	ND (0.78) J	ND (0.776) J	ND (0.778) J	ND (0.795) J	ND (0.785) J	ND (0.793) J
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND (0.187)	ND (0.192)	ND (0.195)	ND (0.199)	ND (0.197)	ND (0.196)	ND (0.195)	ND (0.196)	ND (0.193)	ND (0.195)	ND (0.194) J	ND (0.194)	ND (0.199)	ND (0.196)	ND (0.198)
N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	ND (0.187)	ND (0.192)	ND (0.195)	ND (0.199)	ND (0.197)	ND (0.196)	ND (0.195)	ND (0.196)	ND (0.193) J	ND (0.195) J	ND (0.194) J	ND (0.194) J	ND (0.199) J	ND (0.196) J	ND (0.198) J
Perfluorobutanesulfonic acid (PFBS)	ND (0.187)	ND (0.192)	ND (0.195)	ND (0.199)	ND (0.197)	ND (0.196)	ND (0.195)	ND (0.196)	ND (0.193)	ND (0.195)	ND (0.194)	ND (0.194)	ND (0.199)	ND (0.196)	ND (0.198)
Perfluorobutanoic acid (PFBA)	ND (0.748)	ND (0.768)	ND (0.782)	ND (0.796)	ND (0.788)	ND (0.784)	ND (0.781)	ND (0.784)	ND (0.772) J	ND (0.78) J	ND (0.776) J	ND (0.778) J	ND (0.795)	ND (0.785)	ND (0.793)
Perfluorodecanesulfonic acid (PFDS)	ND (0.187)	ND (0.192)	ND (0.195)	ND (0.199)	ND (0.197)	ND (0.196)	ND (0.195)	ND (0.196)	ND (0.193)	ND (0.195)	ND (0.194)	ND (0.194)	ND (0.199)	ND (0.196)	ND (0.198)
Perfluorodecanoic acid (PFDA)	ND (0.187)	ND (0.192)	ND (0.195)	ND (0.199)	0.126 J	0.094 J	ND (0.195)	ND (0.196)	ND (0.193)	ND (0.195)	ND (0.194)	ND (0.194)	ND (0.199)	ND (0.196)	ND (0.198)
Perfluorododecanoic acid (PFDoDA)	ND (0.187)	ND (0.192)	ND (0.195)	ND (0.199)	0.063 J	ND (0.196)	ND (0.195)	ND (0.196)	ND (0.193) J	ND (0.195) J	ND (0.194) J	ND (0.194) J	ND (0.199) J	ND (0.196) J	ND (0.198) J
Perfluoroheptanesulfonic acid (PFHpS)	ND (0.187)	ND (0.192)	ND (0.195)	ND (0.199)	ND (0.197)	ND (0.196)	ND (0.195)	ND (0.196)	ND (0.193) J	ND (0.195) J	ND (0.194) J	ND (0.194) J	ND (0.199)	ND (0.196)	ND (0.198)
Perfluoroheptanoic acid (PFHpA)	ND (0.187)	ND (0.192)	ND (0.195)	ND (0.199)	ND (0.197)	ND (0.196)	ND (0.195)	ND (0.196)	ND (0.193)	ND (0.195)	ND (0.194)	ND (0.194)	0.032 J	ND (0.196)	ND (0.198)
Perfluorohexanesulfonic acid (PFHxS)	ND (0.187)	ND (0.192)	ND (0.195)	ND (0.199)	ND (0.197)	ND (0.196)	ND (0.195)	ND (0.196)	ND (0.193)	ND (0.195)	ND (0.194)	ND (0.194)	ND (0.199)	ND (0.196)	ND (0.198)
Perfluorohexanoic acid (PFHxA)	ND (0.187)	ND (0.192)	ND (0.195)	ND (0.199)	ND (0.197)	ND (0.196)	ND (0.195)	ND (0.196)	ND (0.193)	ND (0.195)	ND (0.194)	ND (0.194)	ND (0.199)	ND (0.196)	ND (0.198)
Perfluorononanoic acid (PFNA)	ND (0.187) J	ND (0.192) J	ND (0.195) J	ND (0.199) J	ND (0.197) J	0.141 J	ND (0.195) J	ND (0.196) J	ND (0.193) J	ND (0.195) J	ND (0.194) J	ND (0.194) J	ND (0.199) J	ND (0.196) J	ND (0.198) J
Perfluorooctane sulfonamide (PFOSA)	ND (0.187)	ND (0.192)	ND (0.195)	ND (0.199)	ND (0.197)	ND (0.196)	ND (0.195)	ND (0.196)	ND (0.193)	ND (0.195)	ND (0.194) J	ND (0.194)	ND (0.199)	ND (0.196)	ND (0.198)
Perfluorooctanesulfonic acid (PFOS)	0.075 J	0.315 J	0.446 J	0.143 J	2.35 J	2.71 J	ND (0.195) J	0.22 J	0.224	0.132 J	0.287	0.202	0.565 J	0.392 J	0.468 J
Perfluorooctanoic acid (PFOA)	0.172 J	ND (0.192)	ND (0.195)	ND (0.199)	ND (0.197)	0.086 J	ND (0.195)	ND (0.196)	ND (0.193)	ND (0.195)	0.233	0.117 J	0.159 J	0.22 J	0.127 J
Perfluoropentanoic acid (PFPeA)	ND (0.374)	ND (0.384)	ND (0.391)	ND (0.398)	ND (0.394)	ND (0.392)	ND (0.39)	ND (0.392)	ND (0.386)	ND (0.39)	ND (0.388)	ND (0.389)	ND (0.398)	ND (0.392)	ND (0.397)
Perfluorotetradecanoic acid (PFTeDA)	ND (0.187)	ND (0.192)	ND (0.195)	ND (0.199)	ND (0.197)	ND (0.196) J	ND (0.195)	ND (0.196)	ND (0.193) J	ND (0.195) J	ND (0.194) J	ND (0.194) J	ND (0.199)	ND (0.196)	ND (0.198)
Perfluorotridecanoic acid (PFTrDA)	ND (0.187)	ND (0.192)	ND (0.195)	ND (0.199)	ND (0.197)	ND (0.196) J	ND (0.195)	ND (0.196)	ND (0.193)	ND (0.195)	ND (0.194) J	ND (0.194) J	ND (0.199)	ND (0.196)	ND (0.198)
Perfluoroundecanoic acid (PFUnDA)	ND (0.187)	ND (0.192)	ND (0.195)	ND (0.199)	0.079 J	ND (0.196)	ND (0.195)	ND (0.196)	ND (0.193)	ND (0.195)	ND (0.194)	ND (0.194)	ND (0.199)	ND (0.196)	ND (0.198)
US EPA PFAS (PFOS + PFOA)	0.247 J	0.315 J	0.446 J	0.143 J	2.35 J	2.8 J	ND (0.195) J	0.22 J	0.224	0.132 J	0.52	0.319 J	0.724 J	0.612 J	0.595 J

ABBREVIATIONS AND NOTES:

mg/kg: milligram per kilogram

-: Not Analyzed
bgs: below ground surface
ft: feet
J: Value is estimated.
R: Rejected
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

- For test methods used, see the laboratory data sheets.
- Soil analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 375 Unrestricted Use Guidance Values Restricted-Use Residential Guidance Values, and Protection of Groundwater Guidance Values for PFOA and PFOS.
- ***Bold italic*** values indicate an exceedance of the Protection of Groundwater Criteria.
- Grey shading indicates an exceedance of the Unrestricted Use Soil Cleanup Objectives.
- Yellow shading indicates an exceedance of the Restricted Use Residential Soil Cleanup Objectives.

TABLE 2e
REMEDIAL INVESTIGATION - EMERGING CONTAMINANTS ANALYTICAL RESULTS IN SOIL
556 BALTIC STREET
BROOKLYN, NEW YORK

Location Name / Sample Name / Sample Date / Lab Sample ID / Sample Depth (bgs)	Action Level: Restricted Use NYSDEC Guidance Values - Protection of Groundwater - PFAS/PFOA	Action Level: Restricted Use NYSDEC Guidance Values - Residential - PFAS/PFOA	Action Level: Unrestricted Use NYSDEC Guidance Values - PFAS/PFOA	HA-18 DUP_1_02132023 02/13/2023 L2307677-09 L2310952-09 10 - 12 (ft)	HA-18 HA-18 (14-16) 02/13/2023 L2307677-08 L2310952-08 14 - 16 (ft)	HA-19 HA-19 (2-4) 02/08/2023 L2306883-17 L2310952-38 2 - 4 (ft)	HA-19 HA-19 (6-8) 02/08/2023 L2306883-18 L2310952-39 6 - 8 (ft)	HA-19 HA-19 (10-12) 02/08/2023 L2306883-19 L2310952-40 10 - 12 (ft)	HA-19 DUP_1_02082023 02/08/2023 L2306883-27 L2310952-46 10 - 12 (ft)	HA-19 HA-19 (14-16) 02/08/2023 L2306883-20 L2310952-41 14 - 16 (ft)	HA-19 HA-19 (20-22) 02/08/2023 L2306883-21 20 - 22 (ft)	HA-20 HA-20 (2-4) 02/10/2023 L2307511-05 L2310952-24 2 - 4 (ft)	HA-20 HA-20 (6-8) 02/10/2023 L2307511-06 L2310952-25 6 - 8 (ft)	HA-20 HA-20 (10-12) 02/10/2023 L2307511-07 L2310952-26 10 - 12 (ft)	HA-20 HA-20 (14-16) 02/10/2023 L2307511-08 14 - 16 (ft)	HA-21 HA-21 (2-4) 02/08/2023 L2306883-22 L2310952-47 2 - 4 (ft)	HA-21 HA-21 (6-8) 02/08/2023 L2306883-23 L2310952-42 6 - 8 (ft)	HA-21 HA-21 (10-12) 02/08/2023 L2306883-24 L2310952-43 10 - 12 (ft)	HA-21 HA-21 (14-16) 02/08/2023 L2306883-25 L2310952-44 14 - 16 (ft)	HA-21 HA-21 (20-22) 02/08/2023 L2306883-26 L2310952-45 20 - 22 (ft)
Semi-Volatile Organic Compounds (mg/kg)																				
1,4-Dioxane	NA	NA	NA	0.028 R	0.03 R	ND (0.032)	ND (0.029)	ND (0.088)	ND (0.029)	ND (0.086)	ND (0.081)	ND (0.031)	ND (0.033)	ND (0.033)	ND (0.042)	ND (0.029)	ND (0.029)	ND (0.086)	ND (0.092)	ND (0.034)
PFAS (ng/g)																				
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NA	NA	NA	ND (0.788) J	ND (0.79) J	ND (0.787)	ND (0.756)	ND (0.779)	ND (0.788)	ND (0.786)	ND (0.794)	ND (0.799) J	ND (0.793) J	0.278 J	ND (0.796) J	ND (0.786)	ND (0.758)	ND (0.777)	ND (0.77)	ND (0.796)
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NA	NA	NA	ND (0.788) J	ND (0.79) J	ND (0.787) J	ND (0.756) J	ND (0.779) J	ND (0.788) J	ND (0.786) J	ND (0.794) J	ND (0.799) J	ND (0.793) J	ND (0.795) J	ND (0.796) J	ND (0.786) J	ND (0.758) J	ND (0.777) J	ND (0.77) J	ND (0.796) J
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	NA	NA	NA	ND (0.197)	ND (0.198)	ND (0.197)	ND (0.189)	ND (0.195)	ND (0.197)	ND (0.196)	ND (0.198)	ND (0.2)	ND (0.198)	ND (0.199)	ND (0.199)	ND (0.197)	ND (0.189)	ND (0.194)	ND (0.193)	ND (0.199)
N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	NA	NA	NA	ND (0.197) J	ND (0.198) J	ND (0.197) J	ND (0.189) J	ND (0.195) J	ND (0.197) J	ND (0.196) J	ND (0.198) J	ND (0.2) J	ND (0.198) J	ND (0.199) J	ND (0.199) J	ND (0.197) J	ND (0.189) J	ND (0.194) J	ND (0.193) J	ND (0.199) J
Perfluorobutanesulfonic acid (PFBS)	NA	NA	NA	ND (0.197)	ND (0.198)	ND (0.197)	ND (0.189)	ND (0.195)	ND (0.197)	ND (0.196)	ND (0.198)	ND (0.2)	ND (0.198)	ND (0.199)	ND (0.199)	ND (0.197)	ND (0.189)	ND (0.194)	ND (0.193)	ND (0.199)
Perfluorobutanoic acid (PFBA)	NA	NA	NA	0.063 J	ND (0.79)	ND (0.787) J	ND (0.756) J	ND (0.779) J	ND (0.788) J	ND (0.786) J	ND (0.794) J	ND (0.799)	ND (0.793)	ND (0.795)	ND (0.796)	ND (0.786) J	ND (0.758) J	ND (0.777) J	ND (0.77) J	ND (0.796) J
Perfluorodecanesulfonic acid (PFDS)	NA	NA	NA	ND (0.197)	ND (0.198)	ND (0.197)	ND (0.189)	ND (0.195)	ND (0.197)	ND (0.196)	ND (0.198)	ND (0.2)	ND (0.198)	ND (0.199)	ND (0.199)	ND (0.197)	ND (0.189)	ND (0.194)	ND (0.193)	ND (0.199)
Perfluorodecanoic acid (PFDA)	NA	NA	NA	ND (0.197)	ND (0.198)	0.268	ND (0.189)	ND (0.195)	0.142 J	ND (0.196)	ND (0.198)	ND (0.2)	ND (0.198)	0.08 J	0.08 J	ND (0.197)	ND (0.189)	ND (0.194)	ND (0.193)	ND (0.199)
Perfluorododecanoic acid (PFDoDA)	NA	NA	NA	ND (0.197) J	ND (0.198) J	0.095 J	ND (0.189) J	ND (0.195) J	0.095 J	ND (0.196) J	ND (0.198) J	ND (0.2) J	ND (0.198) J	ND (0.199) J	ND (0.199) J	ND (0.197) J	ND (0.189) J	ND (0.194) J	ND (0.193) J	ND (0.199) J
Perfluoroheptanesulfonic acid (PFHpS)	NA	NA	NA	ND (0.197)	ND (0.198)	ND (0.197) J	ND (0.189) J	ND (0.195) J	ND (0.197) J	ND (0.196) J	ND (0.198) J	ND (0.2)	ND (0.198)	0.04 J	0.056 J	ND (0.197) J	ND (0.189) J	ND (0.194) J	ND (0.193) J	ND (0.199) J
Perfluoroheptanoic acid (PFHpA)	NA	NA	NA	ND (0.197)	ND (0.198)	0.071 J	0.038 J	ND (0.195)	ND (0.197)	ND (0.196)	ND (0.198)	ND (0.2)	ND (0.198)	0.064 J	0.056 J	ND (0.197)	ND (0.189)	ND (0.194)	ND (0.193)	ND (0.199)
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	NA	ND (0.197)	ND (0.198)	ND (0.197)	ND (0.189)	ND (0.195)	ND (0.197)	ND (0.196)	ND (0.198)	0.16 J	ND (0.198)	0.199	0.231	ND (0.197)	ND (0.189)	ND (0.194)	ND (0.193)	ND (0.199)
Perfluorohexanoic acid (PFHxA)	NA	NA	NA	ND (0.197)	ND (0.198)	0.079 J	0.045 J	ND (0.195)	0.087 J	ND (0.196)	ND (0.198)	0.048 J	ND (0.198)	0.088 J	0.08 J	ND (0.197)	ND (0.189)	ND (0.194)	ND (0.193)	ND (0.199)
Perfluorononanoic acid (PFNA)	NA	NA	NA	ND (0.197) J	ND (0.198) J	0.189 J	ND (0.189) J	ND (0.195) J	0.095 J	ND (0.196) J	ND (0.198) J	0.128 J	ND (0.198) J	0.111 J	0.199 J	ND (0.197) J	ND (0.189) J	ND (0.194) J	ND (0.193) J	ND (0.199) J
Perfluorooctane sulfonamide (PFOSA)	NA	NA	NA	ND (0.197)	ND (0.198)	0.118 J	ND (0.189)	ND (0.195)	ND (0.197)	ND (0.196)	ND (0.198)	ND (0.2)	ND (0.198)	ND (0.199)	ND (0.199)	ND (0.197)	ND (0.189)	ND (0.194)	ND (0.193)	ND (0.199)
Perfluorooctanesulfonic acid (PFOS)	3.7	44	0.88	0.355 J	0.348 J	1.13	0.461	0.273 J	0.709 J	0.503	ND (0.198)	1.88 J	1.67 J	3.31 J	***3.91 J***	0.401	0.182 J	0.101 J	0.223	0.127 J
Perfluorooctanoic acid (PFOA)	1.1	33	0.66	ND (0.197) J	ND (0.198) J	0.402	0.166 J	0.125 J	0.252	0.165 J	0.111 J	0.144 J	ND (0.198) J	0.414 J	0.255 J	0.189 J	0.099 J	0.14 J	0.131 J	0.103 J
Perfluoropentanoic acid (PFPeA)	NA	NA	NA	ND (0.394)	ND (0.395)	ND (0.394)	ND (0.378)	ND (0.39)	0.071 J	ND (0.393)	ND (0.397)	ND (0.399)	ND (0.397)	0.095 J	0.088 J	ND (0.393)	ND (0.379)	ND (0.388)	ND (0.385)	ND (0.398)
Perfluorotetradecanoic acid (PFTeDA)	NA	NA	NA	ND (0.197)	ND (0.198)	ND (0.197) J	ND (0.189) J	ND (0.195) J	ND (0.197) J	ND (0.196) J	ND (0.198) J	ND (0.2)	ND (0.198)	ND (0.199)	ND (0.199)	ND (0.197) J	ND (0.189) J	ND (0.194) J	ND (0.193) J	ND (0.199) J
Perfluorotridecanoic acid (PFTrDA)	NA	NA	NA	ND (0.197)	ND (0.198)	ND (0.197)	ND (0.189)	ND (0.195)	ND (0.197)	ND (0.196)	ND (0.198)	ND (0.2)	ND (0.198)	ND (0.199)	ND (0.199)	ND (0.197)	ND (0.189)	ND (0.194)	ND (0.193)	ND (0.199)
Perfluoroundecanoic acid (PFUnDA)	NA	NA	NA	ND (0.197)	ND (0.198)	ND (0.197)	ND (0.189)	ND (0.195)	ND (0.197)	ND (0.196)	ND (0.198)	ND (0.2)	ND (0.198)	ND (0.199)	ND (0.199)	ND (0.197)	ND (0.189)	ND (0.194)	ND (0.193)	ND (0.199)
US EPA PFAS (PFOS + PFOA)	NA	NA	NA	0.355 J	0.348 J	1.53	0.627 J	0.398 J	0.961 J	0.668 J	0.111 J	2.02 J	1.67 J	3.72 J	4.17 J	0.59 J	0.281 J	0.241 J	0.354 J	0.23 J

ABBREVIATIONS AND NOTES:
mg/kg: milligram per kilogram

-: Not Analyzed
bgs: below ground surface
ft: feet
J: Value is estimated.
R: Rejected
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

- For test methods used, see the laboratory data sheets.
- Soil analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 375 Unrestricted Use Guidance Values Restricted-Use Residential Guidance Values, and Protection of Groundwater Guidance Values for PFOA and PFOS.
- ***Bold italic*** values indicate an exceedance of the Protection of Groundwater Criteria.
- Grey shading indicates an exceedance of the Unrestricted Use Soil Cleanup Objectives.
- Yellow shading indicates an exceedance of the Restricted Use Residential Soil Cleanup Objectives.

TABLE 2f
REMEDIAL INVESTIGATION - METALS ANALYTICAL RESULTS IN SOIL
556 BALTIC STREET
BROOKLYN, NEW YORK

Location Name Sample Name Sample Date Lab Sample ID Sample Depth (bgs)	Action Level: Restricted Use Soil Cleanup Objectives - Protection of Groundwater	Action Level: Restricted Use Soil Cleanup Objectives - Residential	Action Level: Unrestricted Use Soil Cleanup Objectives	HA-01 HA-01 (2-4) 02/08/2023 L2306883-01 L2310952-27 2 - 4 (ft)	HA-01 HA-01 (6-8) 02/08/2023 L2306883-02 L2310952-28 6 - 8 (ft)	HA-01 HA-01 (10-12) 02/08/2023 L2306883-03 L2310952-29 10 - 12 (ft)	HA-01 HA-01 (14-16) 02/08/2023 L2306883-04 14 - 16 (ft)	HA-02 HA-02 (2-4) 02/08/2023 L2306883-05 L2310952-30 2 - 4 (ft)	HA-02 HA-02 (6-8) 02/08/2023 L2306883-06 L2310952-31 6 - 8 (ft)	HA-02 HA-02 (10-12) 02/08/2023 L2306883-07 10 - 12 (ft)	HA-02 HA-02 (14-16) 02/08/2023 L2306883-08 L2310952-32 14 - 16 (ft)
General Chemistry											
Total Solids (%)	NA	NA	NA	78.3	85.2	77.6	80.1	82.9	83.6	79.8	87
Total Metals (mg/kg)											
Aluminum	NA	NA	NA	6070	7540	8320	6720	6030	3650	9580	2160
Antimony	NA	NA	NA	ND (4.84)	ND (4.41)	ND (4.87)	ND (4.78)	4.87	ND (4.51)	ND (4.71)	ND (4.34)
Arsenic	16	16	13	4.92	8.74	3.94	5.11	9.27	***51***	4.25	5.35
Barium	820	400	350	89.6	132	96.7	50.4	322	247	36.6	67.7
Beryllium	47	72	7.2	0.299 J	0.396 J	0.46 J	0.382 J	0.853	0.265 J	0.443 J	0.199 J
Cadmium	7.5	4.3	2.5	0.533 J	0.293 J	0.185 J	0.154 J	1.46	0.266 J	0.212 J	1.86
Calcium	NA	NA	NA	37000	1720	4850	3470	27600	5830	4230	3080
Chromium	NA	NA	NA	16.3	19.2	10.6	13.8	23.2	16.5	12.4	5.1
Cobalt	NA	NA	NA	4.04	8.02	4.59	5.98	9.37	5.88	5.14	2.29
Copper	1720	270	50	44	31.1	15.5	19.2	155	323	12.4	76.4
Iron	NA	NA	NA	11000	23000	14300	12400	17900	16400	14400	5230
Lead	450	400	63	114	***550***	120	64.5	***1850***	***3070***	57.1	183
Magnesium	NA	NA	NA	3800	2870	2110	2290	4900	772	1970	348
Manganese	2000	2000	1600	200	92.5	682	190	266	104	242	43.6
Mercury	0.73	0.81	0.18	0.241	0.616	0.17	0.585	0.515	***3.22***	0.102	0.726
Nickel	130	310	30	13.8	27.7	13.2	23.8	34.5	15.6	12.4	6.77
Potassium	NA	NA	NA	905	1370	549	929	840	507	650	316
Selenium	4	180	3.9	0.375 J	0.296 J	ND (1.95)	ND (1.91)	0.705 J	1.89	0.38 J	0.651 J
Silver	8.3	180	2	0.318 J	0.524	0.421 J	ND (0.478)	0.809	1.14	0.309 J	ND (0.434)
Sodium	NA	NA	NA	346	136 J	109 J	342	479	600	252	155 J
Thallium	NA	NA	NA	ND (1.94)	ND (1.76)	ND (1.95)	ND (1.91)	ND (1.84)	ND (1.8)	ND (1.88)	ND (1.73)
Vanadium	NA	NA	NA	16.6	21.4	17.3	21.7	24.4	18.4	19.2	13
Zinc	2480	10000	109	175	60.8	30.7	41.6	576	414	54.8	1440

Location Name Sample Name Sample Date Lab Sample ID Sample Depth (bgs)	HA-03 HA-03 (2-4) 02/10/2023 L2307511-01 2 - 4 (ft)	HA-03 HA-03 (6-8) 02/10/2023 L2307511-02 L2310952-22 6 - 8 (ft)	HA-03 HA-03 (10-12) 02/10/2023 L2307511-03 L2310952-23 10 - 12 (ft)	HA-03 HA-03 (14-16) 02/10/2023 L2307511-04 14 - 16 (ft)	HA-04 HA-04 (2-4) 02/02/2023 L2305934-01 2 - 2 (ft)	HA-04 HA-04 (6-8) 02/02/2023 L2305934-02 6 - 8 (ft)	HA-04 DUP_1_02022023 02/02/2023 L2305934-09 6 - 8 (ft)	HA-04 HA-04 (10-12) 02/02/2023 L2305934-03 10 - 12 (ft)	HA-04 HA-04 (14-16) 02/02/2023 L2305934-04 14 - 16 (ft)	HA-05 HA-05 (2-4) 02/02/2023 L2305934-05 2 - 4 (ft)	HA-05 HA-05 (6-8) 02/02/2023 L2305934-06 6 - 8 (ft)	HA-05 HA-05 (10-12) 02/02/2023 L2305934-07 10 - 12 (ft)	HA-05 HA-05 (14-16) 02/02/2023 L2305934-08 14 - 16 (ft)
General Chemistry													
Total Solids (%)	92.1	73.3	86.1	88.5	91.3	80.4	79.5	73.8	48.5	90.8	85.1	84.4	86.3
Total Metals (mg/kg)													
Aluminum	2480	4880	6680	7270	5920	5140	6510	6030	8100	4410	5920	8750	6890
Antimony	ND (4.12)	0.642 J	ND (4.41)	ND (4.25)	ND (4.28)	ND (4.9)	ND (4.87)	ND (5.28)	ND (8.12)	ND (4.24)	ND (4.44)	ND (4.56)	ND (4.53)
Arsenic	2.4	13	6.76	3.1	5.34 J+	***26.6 J+***	4.98 J+	***20.8 J+***	***29 J+***	6.37 J+	12.6 J+	7.3 J+	3.63 J+
Barium	43.7	58.8	88.6	40.5	146 J+	510 J+	90.2 J+	239 J+	235 J+	78.5 J+	205 J+	104 J+	22.8 J+
Beryllium	0.111 J	0.262 J	0.337 J	0.348 J	0.324 J	0.26 J	0.393 J	0.54	0.872	0.171 J	0.375 J	0.489	0.35 J
Cadmium	0.492 J	0.628 J	0.145 J	0.088 J	0.228 J	1.64 J	0.159 J	ND (1.06)	ND (1.62)	0.229 J	0.298 J	ND (0.911)	ND (0.905)
Calcium	11700	10300	2400	3140	18200	26600 J	4780 J	7350	13900	41400	1840	3130	908
Chromium	5.7	12	12.1	13.9	11.4	15.5	15.3	19.2	13.3	10.4	14.6	17.6	9.67
Cobalt	2.87	3.81	6.41	5.88	3.7	5.89	6.79	6.14	8.55	5.07	6.44	7.17	4.55
Copper	14.4	42.6	25.8	16.1	34.8	89.1 J	30.1 J	51.1	77.7	62.2	122	31.9	10.2
Iron	5070	11400	20400	14600	9090	24100 J	13000 J	11800	21200	10400	13200	20200	13200
Lead	67.1	208	237	59.5	230	***746 J***	394 J	***1480***	***586***	129	358	243	30.1
Magnesium	1110	2150	1380	2120	2740 J+	3140 J+	3510 J+	597 J+	777 J+	14400 J+	1880 J+	2000 J+	1790 J+
Manganese	86.5	163	391	408	204 J+	185 J+	117 J+	89.8 J+	165 J+	183 J+	107 J+	572 J+	229 J+
Mercury	0.104	0.503	***1.25***	0.158	***1.05***	***1.11***	***0.76***	***1.76***	0.633	0.286	0.362	0.387	0.117
Nickel	7.66	14.8	15.6	16.5	15.5	25.3	28.4	15	19.8	26	18.6	27	10.8
Potassium	426	561	557	774	685 J+	615 J+	1040 J+	1040 J+	1090 J+	668 J+	743 J+	706 J+	534 J+
Selenium	ND (1.65)	0.516 J	1.03 J	ND (1.7)	0.356 J	0.964 J	0.835 J	1.23 J	2.53 J	0.284 J	0.464 J	0.375 J	ND (1.81)
Silver	ND (0.412)	ND (0.52)	ND (0.441)	ND (0.425)	ND (0.428)	0.595	ND (0.487)	0.339 J	ND (0.812)	ND (0.424)	ND (0.444)	ND (0.456)	ND (0.453)
Sodium	219	354	86.8 J	95.7 J	401	311	149 J	534	528	370	88.2 J	151 J	91 J
Thallium	ND (1.65)	ND (2.08)	0.415 J	0.355 J	ND (1.71)	ND (1.96)	ND (1.95)	ND (2.11)	ND (3.25)	ND (1.69)	ND (1.78)	ND (1.82)	ND (1.81)
Vanadium	8.52	22.1	18.5	21.4	15.5	26.7	19.7	31	40.4	30.6	19.4	31.6	15.7
Zinc	150	200	93	35.4	138	531 J	190 J	117	154	99.6	580	89.9	26.8

Location Name Sample Name Sample Date Lab Sample ID Sample Depth (bgs)	HA-06 HA-06 (2-4) 02/01/2023 L2305570-01 2 - 4 (ft)	HA-06 HA-06 (6-8) 02/01/2023 L2305570-02 6 - 8 (ft)	HA-06 HA-06 (10-12) 02/01/2023 L2305570-03 10 - 12 (ft)	HA-06 HA-06 (14-16) 02/01/2023 L2305570-04 14 - 16 (ft)	HA-07 HA-07 (2-4) 02/09/2023 L2307196-01 L2310952-10 2 - 4 (ft)	HA-07 HA-07 (6-8) 02/09/2023 L2307196-02 L2310952-11 6 - 8 (ft)	HA-07 HA-07 (10-12) 02/09/2023 L2307196-03 L2310952-12 10 - 12 (ft)	HA-07 HA-07 (14-16) 02/09/2023 L2307196-04 L2310952-13 14 - 16 (ft)	HA-08 HA-08 (2-4) 02/01/2023 L2305570-05 2 - 4 (ft)	HA-08 HA-08 (6-8) 02/01/2023 L2305570-06 6 - 8 (ft)
General Chemistry										
Total Solids (%)	83.8	89.3	85.5	85.6	84.8	76.8	69.6	88.6	90.1	88.7
Total Metals (mg/kg)										
Aluminum	6610	5680	6410	6950	5760	3870	5880	3180	6940	8560
Antimony	8.59	ND (4.23)	ND (4.41)	ND (4.43)	1.11 J-	0.763 J-	2 J-	1.49 J-	1.69 J	ND (4.25)
Arsenic	***33.9***	3.54	4.93	5.6	4.86	4.54	***23.4***	4.92	6.88	4.66
Barium	90.2	52.6	52.9	67.8	130	133	676	106	198	51.3
Beryllium	0.423 J	0.385 J	0.393 J	0.414 J	0.238 J	0.345 J	0.359 J	0.28 J	0.376 J	0.501
Cadmium	0.338 J	ND (0.846)	ND (0.883)	ND (0.886)	0.84 J	0.189 J	0.557 J	0.195 J	0.415 J	ND (0.85)
Calcium	5090	1500	2420	3950	46300 J-	3340 J-	24300 J-	6060 J-	7000	1570
Chromium	20.2	12.2	12.5	16.4	13.6	7.87	16	6.84	21.7	19
Cobalt	9.6	5.71	5.56	7.15	4.15	3.23	4.29	4.12	6.81	8.25
Copper	132	16.5	24.4	24.2	36.2	73.7	63.9	37	59.6	71.7
Iron	39800	12400	13500	13300	13000 J-	5030 J-	11000 J-	7490 J-	15800	14300
Lead	322	82.4	117	184	212	321	434	204	198	75.1
Magnesium	2800	2860	2310	2310	7400	379	3500	428	4930	4120
Manganese	288	126	356	214	354 J-	55.7 J-	196 J-	36 J-	295	165
Mercury	***1.01***	0.2	***0.755***	0.233	0.564	***1.04***	***1.92***	***0.99***	0.577	0.156
Nickel	37	20.2	24.5	29.6	15.3	9.4	17.6	11.4	44.2	50.3
Potassium	998	894	706	985	784	412	699	342	2370	1330
Selenium	0.253 J	ND (1.69)	ND (1.76)	0.471 J	0.35 J	0.633 J	0.56 J	***9.88***	ND (1.68)	ND (1.7)
Silver	0.288 J	ND (0.423)	ND (0.441)	ND (0.443)	0.399 J	ND (0.518)	ND (0.552)	ND (0.444)	ND (0.419)	ND (0.425)
Sodium	153 J	201	175 J	136 J	179	254	289	221	258	84.6 J
Thallium	ND (1.81)	ND (1.69)	ND (1.76)	ND (1.77)	ND (1.78)	ND (2.07)	ND (2.21)	ND (1.78)	ND (1.68)	ND (1.7)
Vanadium	32.6	22	22.4	27.6	19.2	11.6	17.8	32.5	27.2	22.3
Zinc	126	48	60.4	62.7	195	79.6	295	188	216	77.2

ABBREVIATIONS AND NOTES:

mg/kg: milligram per kilogram

-: Not Analyzed
bgs: below ground surface
ft: feet
J: Value is estimated.
R: Rejected
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

- For test methods used, see the laboratory data sheets.
- Soil analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 375 Unrestricted Use Soil Cleanup Objectives (SCO), Restricted-Use Residential SCOs, and Protection of Groundwater SCO's.
- ***Bold italic*** values indicate an exceedance of the Protection of Groundwater Criteria.
- Grey shading indicates an exceedance of the Unrestricted Use Soil Cleanup Objectives.
- Yellow shading indicates an exceedance of the Restricted Use Residential Soil Cleanup Objectives.

TABLE 2f
REMEDIAL INVESTIGATION - METALS ANALYTICAL RESULTS IN SOIL
556 BALTIC STREET
BROOKLYN, NEW YORK

	Action Level																				
Location Name	Restricted Use Soil Cleanup Objectives - Protection of Groundwater	Restricted Use Soil Cleanup Objectives - Residential	Unrestricted Use Soil Cleanup Objectives	HA-08	HA-08	HA-09	HA-09	HA-09	HA-09	HA-10	HA-10	HA-10	HA-10	HA-11	HA-11	HA-11	HA-11	HA-12	HA-12	HA-12	HA-12
Sample Name				HA-08 (10-12)	HA-08 (14-16)	HA-09 (2-4)	HA-09 (6-8)	HA-09 (10-12)	HA-09 (14-16)	HA-10 (2-4)	HA-10 (6-8)	HA-10 (10-12)	HA-10 (14-16)	HA-11 (2-4)	HA-11 (6-8)	HA-11 (10-12)	HA-11 (14-16)	HA-12 (2-4)	HA-12 (6-8)	HA-12 (10-12)	HA-12 (14-16)
Sample Date				02/01/2023	02/01/2023	02/09/2023	02/09/2023	02/09/2023	02/09/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/09/2023	02/09/2023	02/09/2023	02/09/2023	02/09/2023	02/09/2023	02/09/2023	02/09/2023
Lab Sample ID				L2305570-07	L2305570-08	L2307196-05	L2307196-06 L2310952-14	L2307196-07	L2307196-08 L2310952-15	L2306883-09 L2310952-33	L2306883-10	L2306883-11 L2310952-34	L2306883-12 L2310952-35	L2307196-09 L2310952-16	L2307196-10	L2307196-11 L2310952-17	L2307196-12 L2310952-18	L2307196-13 L2310952-19	L2307196-14 L2310952-20	L2307196-15 L2310952-21	L2307196-16
Sample Depth (bgs)				10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)
General Chemistry																					
Total Solids (%)	NA	NA	NA	75	66.2	88.2	79.6	82.7	84.1	87.1	74.6	82.8	82.3	87.8	80.9	89.6	83.7	82	85.7	83.6	83.5
Total Metals (mg/kg)																					
Aluminum	NA	NA	NA	4490	3120	6940	4790	8370	8450	6600	9240	8180	6660	6350	8450	6570	8250	5500	5760	6380	7480
Antimony	NA	NA	NA	ND (5.08)	ND (5.76)	0.604 J-	1.14 J-	0.426 J-	0.82 J-	ND (4.38)	ND (5.07)	ND (4.55)	ND (4.58)	3.8 J-	0.558 J-	1.92 J-	ND (4.6) J	7.62 J-	4.56 J-	1.77 J-	0.726 J-
Arsenic	16	16	13	13.8	8.41	3.7	8.22	3.04	5.54	11.2	5.39	5.23	***28.3***	6.33	4.73	***19.8***	6.5	***24***	9.72	8.07	5.04
Barium	820	400	350	253	132	34.8	300	44.2	59.6	126	81.1	65.1	141	186	78.4	331	50.6	82.2	77	57.4	48.9
Beryllium	47	72	7.2	0.463 J	0.307 J	0.354 J	0.276 J	0.656	0.426 J	0.384 J	0.405 J	0.434 J	0.388 J	0.262 J	0.455 J	0.522	0.425 J	0.297 J	0.317 J	0.282 J	0.447 J
Cadmium	7.5	4.3	2.5	ND (1.02)	ND (1.15)	ND (0.878)	0.541 J	ND (0.943)	ND (0.947)	0.153 J	0.293 J	0.196 J	0.336 J	0.435 J	ND (0.949)	0.192 J	ND (0.92)	ND (0.934)	0.136 J	ND (0.934)	ND (0.909)
Calcium	NA	NA	NA	6940	3370	1510 J-	32000 J-	1800 J-	8310 J-	9190	71200	3880	11300	38100 J-	11500 J-	7580 J-	5450 J-	52500 J-	3210 J-	11100 J-	8350 J-
Chromium	NA	NA	NA	9.29	6.49	9.56	12.5	16.8	13.8	10.3	15.3	14.8	16.8	12.8	14.6	15.2	17	12.5	13.3	8.38	12.8
Cobalt	NA	NA	NA	5.06	4.06	4.1	7.97	7.46	5.73	5.06	4.4	5.72	5.33	3.49	6.27	5.77	5.8	7.73	6.77	4.42	6.21
Copper	1720	270	50	41.8	29.7	6.39	34.7	21.8	17.3	33.2	18.5	22	33.8	47.3	15.4	121	19	47.9	52.6	11.8	22.4
Iron	NA	NA	NA	8440	5700	12300 J-	11800 J-	13600 J-	15400 J-	14300	13000	13600	13500	11700 J-	14300 J-	16200 J-	13400 J-	30100 J-	43600 J-	11700 J-	14300 J-
Lead	450	400	63	***1620***	243	13.2	324	16.3	121	382	47	178	***510***	238	44.2	***5320***	115	223	371	434	59.8
Magnesium	NA	NA	NA	609	250	1370	4860	3690	2210	1610	15200	2590	3340	5920	2410	1580	2450	2350	1990	1780	2290
Manganese	2000	2000	1600	130	41.8	138 J-	354 J-	328 J-	326 J-	358	730	210	200	194 J-	319 J-	157 J-	149 J-	237 J-	274 J-	194 J-	342 J-
Mercury	0.73	0.81	0.18	***1.03***	0.286	ND (0.077)	***1.15***	ND (0.087)	0.22	0.557	0.1 J	0.426	0.503	***0.913***	0.291	***2.05***	0.178	***0.888***	***2.31***	0.236	0.087
Nickel	130	310	30	12.6	10.4	9.02	16	32	18.6	12.2	18.4	19.2	16.7	15.1	22.8	15.3	23.1	29.5	20.8	12	22.3
Potassium	NA	NA	NA	540	393	372	630	1580	951	557	1460	810	891	747	728	538	1020	1310	900	509	1010
Selenium	4	180	3.9	1.33 J	1.04 J	0.302 J	0.501 J	0.26 J	0.348 J	0.236 J	ND (2.03)	ND (1.82)	***4.07***	0.379 J	0.257 J	0.968 J	0.369 J	0.248 J	0.696 J	0.272 J	ND (1.82)
Silver	8.3	180	2	ND (0.508)	ND (0.576)	ND (0.439)	ND (0.496)	ND (0.472)	ND (0.474)	0.284 J	0.535	0.359 J	0.396 J	0.452	ND (0.474)	0.58	ND (0.46)	0.298 J	ND (0.458)	ND (0.467)	ND (0.455)
Sodium	NA	NA	NA	314	204 J	52.1 J	134 J	91.6 J	91.2 J	232	436	99.7 J	271	454	73.8 J	320	150 J	187	92.6 J	63.1 J	109 J
Thallium	NA	NA	NA	ND (2.03)	ND (2.3)	ND (1.76)	ND (1.98)	ND (1.89)	ND (1.89)	ND (1.75)	ND (2.03)	ND (1.82)	ND (1.83)	ND (1.78)	ND (1.9)	ND (1.7)	ND (1.84)	ND (1.87)	ND (1.83)	ND (1.87)	ND (1.82)
Vanadium	NA	NA	NA	28	25.9	16.2	23.7	27.1	30.7	20.2	23.5	22.1	24	17.4	23.2	28.9	21	18.7	17.6	13.8	19.7
Zinc	2480	10000	109	126	59	21.5	463	55.4	51.1	62.2	48.8	45.2	128	218	39.3	173	49	108	242	58.1	47.6

Location Name	HA-13	HA-13	HA-13	HA-13	HA-14	HA-14	HA-14	HA-14	HA-15	HA-15	HA-15	HA-15	HA-16	HA-16
Sample Name	HA-13 (2-4)	HA-13 (6-8)	HA-13 (10-12)	HA-13 (14-16)	HA-14 (2-4)	HA-14 (6-8)	HA-14 (10-12)	HA-14 (14-16)	HA-15 (2-4)	HA-15 (6-8)	HA-15 (10-12)	HA-15 (14-16)	HA-16 (2-4)	HA-16 (6-8)
Sample Date	02/13/2023	02/13/2023	02/13/2023	02/13/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023	02/01/2023
Lab Sample ID	L2307677-01 L2310952-01	L2307677-02 L2310952-02	L2307677-03 L2310952-03	L2307677-04 L2310952-04	L2305570-09	L2305570-10	L2305570-11	L2305570-12	L2305570-13	L2305570-14	L2305570-15	L2305570-16	L2305570-17	L2305570-18
Sample Depth (bgs)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)
General Chemistry														
Total Solids (%)	89.3	87.8	75.6	62.5	87.6	85.7	89.6	64.2	93	90.2	73.3	74.9	91.5	88.1
Total Metals (mg/kg)														
Aluminum	6250	7560	4960	4520	6320	7720	10900	4730	5530	5680	2540	3820	3940	10300
Antimony	1.37 J	0.35 J	0.444 J	0.768 J	3.93 J	0.503 J	ND (4.24)	0.639 J	0.918 J	ND (4.22)	ND (5.16)	0.628 J	0.547 J	1.47 J
Arsenic	8.6	7.04	***22.8***	11	11.3	5.42	3.02	***28.6***	5.75	4.6	6.18	8.36	4.56	2.82
Barium	221 J-	104 J-	100 J-	166 J-	613	46.3	61.8	176	189	56.3	642	109	121	93
Beryllium	0.312 J	0.352 J	0.329 J	0.413 J	0.378 J	0.437 J	0.797	0.47 J	0.331 J	0.352 J	0.3 J	0.323 J	0.198 J	0.386 J
Cadmium	0.41 J	0.906	0.163 J	0.125 J	1.65	ND (0.884)	ND (0.849)	0.17 J	0.273 J	ND (0.844)	0.893 J	ND (1.02)	0.205 J	ND (0.859)
Calcium	15800	6000	14400	4960	19100	2350	1100	14800	22200	2820	2230	2540	26500	15200
Chromium	26.1 J-	12.1 J-	14.8 J-	10.4 J-	25.7	14.9	22.6	8.7	13.1	12	5.65	6.86	7.54	20.5
Cobalt	5.62	4.77	5.99	6.48	7.97	6.61	7.81	5.15	4.97	6.54	3.64	6.35	2.85	10.3
Copper	57.7 J-	32.1 J-	54.7 J-	28.3 J-	87.1	15.8	23.2	184	43.5	20.6	41.9	26.2	14.3	30.5
Iron	13100	19200	19200	11200	20200	20500	15700	13600	11800	11000	6210	9230	6380	17500
Lead	379	***766***	286	109	***1020***	65	20	***574***	228	125	***1570***	134	112	49.4
Magnesium	3310 J-	2410 J-	1580 J-	602 J-	6070	2920	5110	828	2850	3350	259	218	2140	6920
Manganese	353	220	178	83.4	317	282	214	164	212	250	56.8	42.1	138	209
Mercury	***2.36 J-***	***1.43 J-***	***1.3 J-***	***0.876 J-***	***0.886***	0.214	***1.23***	ND (0.104)	0.573	0.334	***7.21***	0.661	0.2	0.142
Nickel	27.4	15.7	16.8	16.1	74	18.3	26.5	13.1	25.5	34.1	10.4	16	11.4	36.4
Potassium	948	666	893	460	1010	790	3410	486	921	779	354	455	586	5800
Selenium	ND (1.74)	ND (1.78)	1.86 J	ND (2.5)	0.627 J	ND (1.77)	ND (1.7)	2.76	0.293 J	ND (1.69)	0.948 J	0.597 J	ND (1.64)	ND (1.72)
Silver	0.247 J	0.696	0.804	0.5 J	0.587	ND (0.442)	ND (0.424)	ND (0.597)	ND (0.406)	ND (0.422)	ND (0.516)	ND (0.511)	ND (0.411)	ND (0.429)
Sodium	196	94.8 J	162 J	237 J	268	349	118 J	395	907	90.9 J	137 J	171 J	130 J	260
Thallium	0.509 J	0.311 J	0.406 J	ND (2.5)	ND (1.73)	ND (1.77)	ND (1.7)	ND (2.39)	ND (1.62)	ND (1.69)	ND (2.06)	ND (2.04)	ND (1.64)	0.717 J
Vanadium	20.6	17.2	16.4	23.8	40.1	22.9	38.9	27.9	18.1	20.4	14.9	22.5	19	32.4
Zinc	320	735	294	41.6	635	48.5	52.2	110	166	53.4	2120	336	89	69.5

ABBREVIATIONS AND NOTES:

mg/kg: milligram per kilogram

-: Not Analyzed
bgs: below ground surface
ft: feet
J: Value is estimated.
R: Rejected
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

- For test methods used, see the laboratory data sheets.
- Soil analytical results are compared to the New York State Department of Environm
Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rule
Regulations (NYCRR) Part 375 Unrestricted Use Soil Cleanup Objectives (SCO),
Restricted-Use Residential SCOs, and Protection of Groundwater SCO's.
- ***Bold Italic*** values indicate an exceedance of the Protection of Groundwater Criteri
- Grey shading indicates an exceedance of the Unrestricted Use Soil Cleanup Objecti
- Yellow shading indicates an exceedance of the Restricted Use Residential Soil Clea

TABLE 2f
REMEDIAL INVESTIGATION - METALS ANALYTICAL RESULTS IN SOIL
556 BALTIC STREET
BROOKLYN, NEW YORK

	Action Level													
Location Name	Restricted Use Soil Cleanup Objectives - Protection of Groundwater	Restricted Use Soil Cleanup Objectives - Residential	Unrestricted Use Soil Cleanup Objectives	HA-16	HA-16	HA-17	HA-17	HA-17	HA-17	HA-18	HA-18	HA-18	HA-18	HA-18
Sample Name				HA-16 (10-12)	HA-16 (14-16)	HA-17 (2-4)	HA-17 (6-8)	HA-17 (10-12)	HA-17 (14-16)	HA-18 (2-4)	HA-18 (6-8)	HA-18 (10-12)	DUP_1_02132023	HA-18 (14-16)
Sample Date				02/01/2023	02/01/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/13/2023	02/13/2023	02/13/2023	02/13/2023	02/13/2023
Lab Sample ID				L2305570-19	L2305570-20	L2306883-13 L2310952-36	L2306883-14	L2306883-15	L2306883-16 L2310952-37	L2307677-05 L2310952-05	L2307677-06 L2310952-06	L2307677-07 L2310952-07	L2307677-09 L2310952-09	L2307677-08 L2310952-08
Sample Depth (bgs)				10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	10 - 12 (ft)	14 - 16 (ft)
General Chemistry														
Total Solids (%)	NA	NA	NA	88.8	89.3	85.4	80.9	78.8	80	85.4	85.2	75.7	90	81.1
Total Metals (mg/kg)														
Aluminum	NA	NA	NA	8500	6320	5550	7690	10500	6580	4650	7080	3510	4840	4950
Antimony	NA	NA	NA	1.29 J	0.778 J	ND (4.44)	ND (4.69)	ND (4.82)	ND (4.76)	2.07 J	0.739 J	1.23 J	0.688 J	ND (4.74)
Arsenic	16	16	13	5.07	5.81	7.03	2.29	3.25	4.64	11.7	7.34	***17***	***19.3***	8.17
Barium	820	400	350	41.6	52.5	140	43.3	50.8	55.1	222 J-	188 J-	222 J-	300 J-	83 J-
Beryllium	47	72	7.2	0.4 J	0.33 J	0.329 J	0.432 J	0.388 J	0.385 J	0.348 J	0.328 J	0.269 J	0.347 J	0.346 J
Cadmium	7.5	4.3	2.5	ND (0.858)	ND (0.846)	0.374 J	0.208 J	0.172 J	0.154 J	1.26	0.511 J	ND (1.02)	ND (0.835)	ND (0.948)
Calcium	NA	NA	NA	1550	1430	6250	1130	878	2500	11800	12300	4240	6430	2670
Chromium	NA	NA	NA	13.4	13	14	19	16.7	14.5	16.4 J-	16 J-	18.6 J-	13.9 J-	10.4 J-
Cobalt	NA	NA	NA	5.12	7	4.23	6.79	5.1	5.65	5.35	4.66	3.05 J	8.36 J	5.67
Copper	1720	270	50	14.9	16.2	55.6	19.5	13.3	23.3	76.7 J-	58.6 J-	324 J-	475 J-	24.8 J-
Iron	NA	NA	NA	16200	11900	10800	14000	13200	13800	13100	12100	8260	10900	10300
Lead	450	400	63	89.5	75	314	21.2	11.9	188	***997***	228	***518***	***1220***	142
Magnesium	NA	NA	NA	1980	1860	1750	2710	1990	2540	2540 J-	3340 J-	355 J-	549 J-	1490 J-
Manganese	2000	2000	1600	274	113	197	502	130	265	191	197	40.7	52.8	134
Mercury	0.73	0.81	0.18	0.059 J	0.171	0.714	0.1	ND (0.081)	0.276	***0.769 J-***	0.376 J-	***11.7 J-***	***5.28 J-***	0.638 J-
Nickel	130	310	30	11.3	29.4	16.9	33.7	15.8	29	19.6	17.2	ND (7.39)	ND (12)	16.5
Potassium	NA	NA	NA	590	547	743	993	608	863	665	1060	543	628	619
Selenium	4	180	3.9	0.461 J	ND (1.69)	0.375 J	ND (1.88)	ND (1.93)	ND (1.9)	ND (1.76)	ND (1.78)	2.06	0.995 J	ND (1.9)
Silver	8.3	180	2	ND (0.429)	ND (0.423)	ND (0.444)	0.29 J	ND (0.482)	ND (0.476)	ND (0.44)	ND (0.444)	5.3 J	1.43 J	0.451 J
Sodium	NA	NA	NA	170 J	172	451	218	302	281	188	488	441	535	157 J
Thallium	NA	NA	NA	ND (1.72)	ND (1.69)	ND (1.78)	ND (1.88)	ND (1.93)	ND (1.9)	0.299 J	ND (1.78)	ND (2.04)	ND (1.67)	ND (1.9)
Vanadium	NA	NA	NA	20.9	19.7	18.5	23.6	23.6	22.6	26.7	26.4	19.9	22.1	20.2
Zinc	2480	10000	109	55.1	38.8	178	37.2	23.9	43.7	396	211	64.1 J	160 J	49.3

Location Name	HA-19	HA-19	HA-19	HA-19	HA-19	HA-19	HA-20	HA-20	HA-20	HA-20	HA-21	HA-21	HA-21	HA-21	HA-21
Sample Name	HA-19 (2-4)	HA-19 (6-8)	HA-19 (10-12)	DUP_1_02082023	HA-19 (14-16)	HA-19 (20-22)	HA-20 (2-4)	HA-20 (6-8)	HA-20 (10-12)	HA-20 (14-16)	HA-21 (2-4)	HA-21 (6-8)	HA-21 (10-12)	HA-21 (14-16)	HA-21 (20-22)
Sample Date	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/10/2023	02/10/2023	02/10/2023	02/10/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023	02/08/2023
Lab Sample ID	L2306883-17 L2310952-38	L2306883-18 L2310952-39	L2306883-19 L2310952-40	L2306883-27 L2310952-46	L2306883-20 L2310952-41	L2306883-21	L2307511-05 L2310952-24	L2307511-06 L2310952-25	L2307511-07 L2310952-26	L2307511-08	L2306883-22 L2310952-47	L2306883-23 L2310952-42	L2306883-24 L2310952-43	L2306883-25 L2310952-44	L2306883-26 L2310952-45
Sample Depth (bgs)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	10 - 12 (ft)	14 - 16 (ft)	20 - 22 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	2 - 4 (ft)	6 - 8 (ft)	10 - 12 (ft)	14 - 16 (ft)	20 - 22 (ft)
General Chemistry															
Total Solids (%)	77.2	84.8	81.5	86.5	82.2	86.7	79.6	73.7	74.3	58.5	84.2	85.3	84.7	79.5	71.7
Total Metals (mg/kg)															
Aluminum	5960	4070	4270	2980	3440	9660	4820	5780	7420	9110	5370	5260	2780	3920	12700
Antimony	ND (4.91)	ND (4.48)	1.32 J	1.01 J	1.16 J	0.474 J	1.93 J	ND (5.1)	2.88 J	ND (6.48)	2.99 J	1.69 J	0.563 J	0.941 J	1.08 J
Arsenic	7.95	6.96	15.3	15.4	14.1	3.42	12.5	15	5.64	13.7	10.9	***16.9***	14.1	***25.9***	11.5
Barium	207	92.5	105	149	124	48.3	136	163	67.6	69.5	65.7	202	151	251	120
Beryllium	0.361 J	0.234 J	0.403 J	0.311 J	0.362 J	0.48	0.254 J	0.548	0.428 J	0.397 J	0.327 J	0.292 J	0.275 J	0.323 J	0.685
Cadmium	1.06	0.747 J	0.152 J	0.402 J	0.136 J	ND (0.876)	0.824 J	0.187 J	0.222 J	0.172 J	0.888 J	0.431 J	0.092 J	0.13 J	0.31 J
Calcium	12800	19700	12800 J	6080 J	8760	2300	11100	4610	7250	23800	7350	4090	7160	7150	5860
Chromium	15.8	12.4	19.9 J	6.89 J	8.48	18.6	13.6	11.4	19.1	14.7	16.9	188	6.31	9.42	21.2
Cobalt	4.89	3.29	4.98	4.22	3.68	7.54	4.91	7.2	8.35	9.38	5.2	4.88	3.18	3.83	10.5
Copper	65.1	31.6	24	22.6	28	17.3	52.2	31.3	23.2	17.6	94.3	64.4	24	43.8	29.4
Iron	12300	8750	15700 J	8890 J	8800	16400	13600	11000	15500	22300	18700	13800	7770	8160	20400
Lead	***578***	259	***602 J***	***1010 J***	***677***	34.2	335	***476***	***1120***	91.8	305	***1760***	299	***520***	***486***
Magnesium	2470	4420	552	384	609	2990	2010	854	2420	2830	2210	1680	384	941	3260
Manganese	196	161	63.7	87	76.6	350	314	103	519	426	273	141	98.2	129	384
Mercury	0.476	0.343	***15.4***	***0.858***	***1.51***	ND (0.077)	0.139	0.142	0.338	***1.11***	0.228	***0.905***	0.665	***1.32***	***5.12***
Nickel	20.6	12.5	13.6	10.8	9.95	31.4	19.5	18	24.4	19	31.1	33.7	7.63	9.17	26.7
Potassium	940	651	446	287	608	1230	666	610	893	1000	557	548	279	827	1130
Selenium	0.387 J	0.313 J	1.36 J	3.47	2.36	ND (1.75)	0.522 J	0.635 J	0.915 J	0.715 J	0.313 J	***6.31***	1.17 J	1.79 J	0.511 J
Silver	0.484 J	0.306 J	0.477	ND (0.454)	4.34	ND (0.438)	ND (0.477)	ND (0.51)	ND (0.508)	ND (0.648)	ND (0.469)	0.848	ND (0.461)	0.334 J	ND (0.524)
Sodium	365	291	561	268	250	191	284	248	59 J	172 J	486	155 J	200	388	422
Thallium	ND (1.96)	ND (1.79)	ND (1.87)	ND (1.81)	ND (1.91)	ND (1.75)	0.334 J	ND (2.04)	0.561 J	ND (2.59)	ND (1.88)	ND (1.83)	ND (1.84)	ND (2.01)	ND (2.09)
Vanadium	24.9	16.9	21.8	21.7	17.6	25.8	21.4	30.7	20.7	26.3	28.2	19.3	16.4	17.2	32
Zinc	247	1100	184	217	***3450***	37.4	367	191	95.4	55.4	210	321	166	157	86.1

ABBREVIATIONS AND NOTES:

mg/kg: milligram per kilogram

-: Not Analyzed
bgs: below ground surface
ft: feet
J: Value is estimated.
R: Rejected
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

- For test methods used, see the laboratory data sheets.
- Soil analytical results are compared to the New York State Department of Environm Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rule Regulations (NYCRR) Part 375 Unrestricted Use Soil Cleanup Objectives (SCO), Restricted-Use Residential SCOs, and Protection of Groundwater SCO's.
- ***Bold italic*** values indicate an exceedance of the Protection of Groundwater Criteri
- Grey shading indicates an exceedance of the Unrestricted Use Soil Cleanup Objecti
- Yellow shading indicates an exceedance of the Restricted Use Residential Soil Clear

TABLE 3
REMEDIAL INVESTIGATION - DELINEATION SOIL SAMPLING ANALYTICAL RESULTS
556 BALTIC STREET
BROOKLYN, NEW YORK

	Action Level														
Location Name Sample Name Sample Date Lab Sample ID Sample Depth (bgs)	Restricted Use Soil Cleanup Objectives - Protection of Groundwater	Restricted Use Soil Cleanup Objectives - Residential	Unrestricted Use Soil Cleanup Objectives	EPA Toxicity Characteristic (TCLP) Regulatory Levels Criteria	HA-24 HA-24 (0-2) 02/02/2023 L2305935-01 0 - 2 (ft)	HA-24 HA-24 (2-4) 02/02/2023 L2305935-02 2 - 4 (ft)	HA-24 HA-24 (4-6) 02/02/2023 L2305935-03 4 - 6 (ft)	HA-25 HA-25 (10-12) 02/02/2023 L2305935-04 10 - 12 (ft)	HA-25 HA-25 (12-14) 02/02/2023 L2305935-05 12 - 14 (ft)	HA-25 HA-25 (14-16) 02/02/2023 L2305935-06 14 - 16 (ft)	HA-26 HA-26 (11-13) 02/10/2023 L2307512-01 11 - 13 (ft)	HA-26 DUP-1_02102023 02/10/2023 L2307512-04 11 - 13 (ft)	HA-26 HA-26 (13-15) 02/10/2023 L2307512-02 13 - 15 (ft)	HA-26 DUP-2_02102023 02/10/2023 L2307512-05 13 - 15 (ft)	HA-26 HA-26 (15-17) 02/10/2023 L2307512-03 15 - 17 (ft)
Total Metals (mg/kg)															
Lead	450	400	63	NA	33.7	31.3	397	-	-	-	-	-	-	-	-
Mercury	0.73	0.81	0.18	NA	-	-	-	0.337	0.508	***1.07***	0.502 J+	0.162 J+	***7.1 J+***	***1.84 J+***	0.352 J+
TCLP Metals (mg/kg)															
Lead	NA	NA	NA	5	0.17 J	ND (0.5)	0.0572 J	-	-	-	-	-	-	-	-
Mercury	NA	NA	NA	0.2	-	-	-	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)

ABBREVIATIONS AND NOTES:
mg/kg: milligram per kilogram

-: Not Analyzed
bgs: below ground surface
CVOCs: Chlorinated volatile organic compounds
ft: feet
J: Value is estimated.
R: Rejected
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

- For test methods used, see the laboratory data sheets.
- Soil analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 375 Unrestricted Use Soil Cleanup Objectives (SCO), Restricted-Use Residential SCOs, and Protection of Groundwater SCO's.
  TCLP Metals analytical results were compared to the EPA Toxicity Characteristic (TCLP) Regulatory Levels Criteria
- ***Bold italic*** values indicate an exceedance of the Protection of Groundwater Criteria.
- Grey shading indicates an exceedance of the Unrestricted Use Soil Cleanup Objectives.
- Yellow shading indicates an exceedance of the Restricted Use Residential Soil Cleanup Objectives.

TABLE 4a
REMEDIAL INVESTIGATION - VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS IN GROUNDWATER
556 BALTIC STREET
BROOKLYN, NEW YORK

Sample Name Sample Date Lab Sample ID	Action Level New York TOGS 111 Ambient Water Quality Standards	MW-01 02/16/2023 L2308425-01	MW-02 02/10/2023 L2307510-04	MW-03 02/16/2023 L2308425-02	MW-04 02/10/2023 L2307510-03	MW-04 2/10/2023 L2307510-03	MW-05 02/10/2023 L2307510-02	MW-06 02/09/2023 L2307194-01	DUP-1_02092023 02/09/2023 L2307194-02	MW-07 02/16/2023 L2308425-03	MW-08 02/10/2023 L2307510-01	MW-09 02/16/2023 L2308425-04
Volatile Organic Compounds (ug/L)												
1,1,1,2-Tetrachloroethane	5	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
1,1,1-Trichloroethane	5	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
1,1,2,2-Tetrachloroethane	5	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	-	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1,2-Trichloroethane	1	ND (1.5)	ND (3)	ND (1.5)	ND (1.5)	-	ND (1.5)	ND (1.5)	ND (1.5)	ND (1.5)	ND (1.5)	ND (1.5)
1,1-Dichloroethane	5	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
1,1-Dichloroethene	5	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	-	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloropropene	5	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
1,2,3-Trichlorobenzene	5	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
1,2,3-Trichloropropane	0.04	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
1,2,4,5-Tetramethylbenzene	5	ND (2)	**63**	**9.8**	ND (2)	-	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)
1,2,4-Trichlorobenzene	5	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
1,2,4-Trimethylbenzene	5	ND (2.5)	2.9 J	**33**	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
1,2-Dibromo-3-chloropropane (DBCP)	0.04	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
1,2-Dibromoethane (Ethylene Dibromide)	0.0006	ND (2)	ND (4)	ND (2)	ND (2)	-	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)
1,2-Dichlorobenzene	3	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
1,2-Dichloroethane	0.6	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	-	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethene (total)	NA	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	5.3	ND (2.5)	ND (2.5)
1,2-Dichloropropane	1	ND (1)	ND (2)	ND (1)	ND (1)	-	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
1,3,5-Trimethylbenzene	5	ND (2.5)	2 J	**13**	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
1,3-Dichlorobenzene	3	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
1,3-Dichloropropane	5	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
1,3-Dichloropropene	0.4	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	-	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,4-Dichlorobenzene	3	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
1,4-Diethylbenzene	NA	ND (2)	23	18	ND (2)	-	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)
1,4-Dioxane	NA	ND (250)	ND (500)	ND (250)	ND (250)	-	ND (250)	ND (250)	ND (250)	ND (250)	ND (250)	ND (250)
2,2-Dichloropropane	5	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
2-Butanone (Methyl Ethyl Ketone)	50	ND (5)	ND (10)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
2-Chlorotoluene	5	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
2-Hexanone (Methyl Butyl Ketone)	50	ND (5)	ND (10)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
2-Phenylbutane (sec-Butylbenzene)	5	ND (2.5)	**22**	1.7 J	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
4-Chlorotoluene	5	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
4-Ethyltoluene (1-Ethyl-4-Methylbenzene)	NA	ND (2)	4.2	18	ND (2)	-	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	NA	ND (5)	ND (10)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Acetone	50	1.6 J	ND (10)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Acrylonitrile	5	ND (5)	ND (10)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Benzene	1	0.21 J	**170**	0.41 J	ND (0.5)	-	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Bromobenzene	5	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
Bromodichloromethane	50	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	-	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Bromoform	50	ND (2)	ND (4)	ND (2)	ND (2)	-	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)
Bromomethane (Methyl Bromide)	5	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
Carbon disulfide	60	ND (5)	ND (10)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Carbon tetrachloride	5	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	-	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Chlorobenzene	5	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
Chlorobromomethane	5	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
Chloroethane	5	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
Chloroform (Trichloromethane)	7	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
Chloromethane (Methyl Chloride)	5	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5) J	ND (2.5) J	ND (2.5)	ND (2.5)	ND (2.5)
cis-1,2-Dichloroethene	5	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	**5.3**	ND (2.5)	ND (2.5)
cis-1,3-Dichloropropene	0.4	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	-	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Cymene (p-Isopropyltoluene)	5	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
Dibromochloromethane	50	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	-	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Dibromomethane	5	ND (5)	ND (10)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Dichlorodifluoromethane (CFC-12)	5	ND (5)	ND (10)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Ethyl Ether	NA	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
Ethylbenzene	5	ND (2.5)	**19**	**15**	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
Hexachlorobutadiene	0.5	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
Isopropylbenzene (Cumene)	5	ND (2.5)	**140**	4.2	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
m,p-Xylenes	5	ND (2.5)	**12**	**13**	ND (2.5)	-	ND (2.5)	1.1 J	1.1 J	ND (2.5)	ND (2.5)	ND (2.5)
Methyl Tert Butyl Ether (MTBE)	10	2.4 J	**12**	ND (2.5)	2.6	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
Methylene chloride (Dichloromethane)	5	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
Naphthalene	10	ND (2.5)	**13**	7.4	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
n-Butylbenzene	5	ND (2.5)	**19**	**6.8**	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
n-Propylbenzene	5	ND (2.5)	**220**	**14**	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
o-Xylene	5	ND (2.5)	2.9 J	1.2 J	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
Styrene	5	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
tert-Butylbenzene	5	ND (2.5)	1.4 J	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
Tetrachloroethene	5	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	-	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	0.31 J
Toluene	5	ND (2.5)	4.3 J	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
trans-1,2-Dichloroethene	5	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
trans-1,3-Dichloropropene	0.4	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	-	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
trans-1,4-Dichloro-2-butene	5	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5) J	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
Trichloroethene	5	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	-	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Trichlorofluoromethane (CFC-11)	5	ND (2.5)	ND (5)	ND (2.5)	ND (2.5)	-	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
Vinyl acetate	NA	ND (5)	ND (10)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Vinyl chloride	2	ND (1)	ND (2)	ND (1)	ND (1)	-	ND (1)	ND (1)	ND (1)	0.48 J	ND (1)	0.08 J
Xylene (Total)	5	ND (2.5)	**15 J**	**14 J**	ND (2.5)	-	ND (2.5)	1.1 J	1.1 J	ND (2.5)	ND (2.5)	ND (2.5)

ABBREVIATIONS AND NOTES:
µg/L: micrograms per liter

-: Not Analyzed
bgs: below ground surface
ft: feet
J: Value is estimated.
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

- For test methods used, see the laboratory data sheets.
- Water analytical results are compared to the New York State Department of Environmental New York TOGS 111 Ambient Water Quality Standards (AWQS)
- Bold indicates an exceedance of AWQS criteria.

TABLE 4b
REMEDIAL INVESTIGATION - SEMI-VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS IN GROUNDWATER
556 BALTIC STREET
BROOKLYN, NEW YORK

Sample Name / Sample Date / Lab Sample ID	Action Level New York TOGS 111 Ambient Water Quality Standards	MW-01 02/16/2023 L2308425-01	MW-02 02/10/2023 L2307510-04	MW-03 02/16/2023 L2308425-02	MW-04 02/10/2023 L2307510-03	MW-04 2/10/2023 L2307510-03	MW-05 02/10/2023 L2307510-02	MW-06 02/09/2023 L2307194-01	DUP-1_02092023 02/09/2023 L2307194-02	MW-07 02/16/2023 L2308425-03	MW-08 02/10/2023 L2307510-01	MW-09 02/16/2023 L2308425-04
Semi-Volatile Organic Compounds (ug/L)												
1,2,4,5-Tetrachlorobenzene	5	ND (10)	ND (10)	ND (10)	ND (10)	-	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
1,2,4-Trichlorobenzene	5	ND (5)	ND (5)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
1,2-Dichlorobenzene	3	ND (2)	ND (2)	ND (2)	ND (2)	-	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)
1,3-Dichlorobenzene	3	ND (2)	ND (2)	ND (2)	ND (2)	-	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)
1,4-Dichlorobenzene	3	ND (2)	ND (2)	ND (2)	ND (2)	-	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)
2,2'-oxybis(1-Chloropropane)	5	ND (2)	ND (2)	ND (2)	ND (2)	-	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)
2,4,5-Trichlorophenol	NA	ND (5)	ND (5)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
2,4,6-Trichlorophenol	NA	ND (5)	ND (5)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
2,4-Dichlorophenol	5	ND (5)	ND (5)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
2,4-Dimethylphenol	50	ND (5)	ND (5)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
2,4-Dinitrophenol	10	ND (20)	ND (20)	ND (20)	ND (20)	-	ND (20)	ND (20)	ND (20)	ND (20)	ND (20)	ND (20)
2,4-Dinitrotoluene	5	ND (5)	ND (5)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
2,6-Dinitrotoluene	5	ND (5)	ND (5)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
2-Chlorophenol	NA	ND (2)	ND (2)	ND (2)	ND (2)	-	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)
2-Methylphenol (o-Cresol)	NA	ND (5)	ND (5)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
2-Nitroaniline	5	ND (5)	ND (5)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
2-Nitrophenol	NA	ND (10)	ND (10)	ND (10)	ND (10)	-	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
3&4-Methylphenol	NA	ND (5)	ND (5)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
3,3'-Dichlorobenzidine	5	ND (5)	ND (5)	ND (5)	ND (5)	-	ND (5)	ND (5) J	ND (5)	ND (5)	ND (5)	ND (5)
3-Nitroaniline	5	ND (5)	ND (5)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
4,6-Dinitro-2-methylphenol	NA	ND (10)	ND (10)	ND (10)	ND (10)	-	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
4-Bromophenyl phenyl ether (BDE-3)	NA	ND (2)	ND (2)	ND (2)	ND (2)	-	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)
4-Chloro-3-methylphenol	NA	ND (2)	ND (2)	ND (2)	ND (2)	-	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)
4-Chloroaniline	5	ND (5)	ND (5)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
4-Chlorophenyl phenyl ether	NA	ND (2)	ND (2)	ND (2)	ND (2)	-	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)
4-Nitroaniline	5	ND (5)	ND (5)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
4-Nitrophenol	NA	ND (10)	ND (10)	ND (10)	ND (10)	-	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
Acetophenone	NA	ND (5)	ND (5)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Benzoic acid	NA	ND (50)	ND (50)	ND (50)	ND (50)	-	ND (50)	ND (50)	ND (50)	6.6 J	ND (50)	ND (50)
Benzyl Alcohol	NA	ND (2)	ND (2)	ND (2)	ND (2)	-	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)
Biphenyl	5	ND (2)	ND (2)	ND (2)	ND (2)	-	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)
bis(2-Chloroethoxy)methane	5	ND (5)	ND (5)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
bis(2-Chloroethyl)ether	1	ND (2)	ND (2)	ND (2)	ND (2)	-	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)
bis(2-Ethylhexyl)phthalate	5	ND (3)	ND (3)	ND (3)	ND (3)	-	ND (3)	ND (3)	ND (3)	ND (3)	ND (3)	ND (3)
Butyl benzylphthalate (BBP)	50	ND (5)	ND (5)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Carbazole	NA	ND (2)	ND (2)	ND (2)	ND (2)	-	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)
Dibenzofuran	NA	ND (2)	ND (2)	ND (2)	ND (2)	-	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)
Diethyl phthalate	50	ND (5)	ND (5)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Dimethyl phthalate	50	ND (5)	ND (5)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Di-n-butylphthalate (DBP)	50	ND (5)	ND (5)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Di-n-octyl phthalate (DnOP)	50	ND (5)	ND (5)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Hexachlorocyclopentadiene	5	ND (20)	ND (20)	ND (20)	ND (20)	-	ND (20)	ND (20)	ND (20)	ND (20)	ND (20)	ND (20)
Isophorone	50	ND (5)	ND (5)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Nitrobenzene	0.4	ND (2)	ND (2)	ND (2)	ND (2)	-	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)
N-Nitrosodi-n-propylamine	NA	ND (5)	ND (5)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
N-Nitrosodiphenylamine	50	ND (2)	ND (2)	ND (2)	ND (2)	-	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)
Phenol	1	ND (5)	**1.5 J**	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Semi-Volatile Organic Compounds (SIM) (ug/L)												
2-Chloronaphthalene	10	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.2)	-	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.2)
2-Methylnaphthalene	NA	0.06 J	3.1	3.6	ND (0.1)	-	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Acenaphthene	20	1.4	0.36	0.25	ND (0.1)	-	0.05 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Acenaphthylene	NA	ND (0.1)	0.03 J	ND (0.1)	ND (0.1)	-	0.02 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Anthracene	50	0.03 J	0.08 J	0.12	ND (0.1)	-	0.04 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.02 J
Benzo(a)anthracene	0.002	ND (0.1)	ND (0.1)	**0.14**	ND (0.1)	-	**0.14 J+**	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	**0.03 J**
Benzo(a)pyrene	0	ND (0.1)	ND (0.1)	0.13	ND (0.1)	-	0.12 J+	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.02 J
Benzo(b)fluoranthene	0.002	**0.01 J**	ND (0.1)	**0.15**	ND (0.1)	-	**0.16 J+**	ND (0.1)	ND (0.1)	ND (0.1)	**0.1 J+**	**0.02 J**
Benzo(g,h,i)perylene	NA	ND (0.1)	ND (0.1)	0.07 J	ND (0.1)	-	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Benzo(k)fluoranthene	0.002	ND (0.1)	ND (0.1)	**0.05 J**	ND (0.1)	-	**0.05 J**	ND (0.1)	ND (0.1)	ND (0.1)	**0.04 J**	**0.01 J**
Chrysene	0.002	ND (0.1)	ND (0.1)	**0.13**	ND (0.1)	-	**0.11**	ND (0.1)	ND (0.1)	ND (0.1)	**0.08 J**	**0.01 J**
Dibenz(a,h)anthracene	NA	ND (0.1)	ND (0.1)	0.02 J	ND (0.1)	-	0.02 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Fluoranthene	50	0.05 J	0.08 J	0.35	ND (0.1)	-	0.31	ND (0.1)	ND (0.1)	ND (0.1)	0.07 J	0.06 J
Fluorene	50	0.16	0.22	0.13	ND (0.1)	-	0.02 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Hexachlorobenzene	0.04	ND (0.8)	ND (0.8)	ND (0.8)	ND (0.8)	-	ND (0.8)	ND (0.8)	ND (0.8)	ND (0.8)	ND (0.8)	ND (0.8)
Hexachlorobutadiene	0.5	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	-	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Hexachloroethane	5	ND (0.8)	ND (0.8)	ND (0.8)	ND (0.8)	-	ND (0.8)	ND (0.8)	ND (0.8)	ND (0.8)	ND (0.8)	ND (0.8)
Indeno(1,2,3-cd)pyrene	0.002	ND (0.1)	ND (0.1)	**0.08 J**	ND (0.1)	-	**0.08 J**	ND (0.1)	ND (0.1)	ND (0.1)	**0.05 J**	ND (0.1)
Naphthalene	10	0.06 J	9.4 J+	3.5	ND (0.1)	-	ND (0.1)	0.09 J+	0.21 J+	ND (0.1)	ND (0.1)	ND (0.1)
Pentachlorophenol	1	ND (0.8)	ND (0.8)	ND (0.8)	ND (0.8)	-	ND (0.8)	ND (0.8)	ND (0.8)	ND (0.8)	ND (0.8)	ND (0.8)
Phenanthrene	50	0.08 J	0.38	0.49	ND (0.1)	-	0.16	ND (0.1)	ND (0.1)	ND (0.1)	0.03 J	ND (0.1)
Pyrene	50	0.04 J	0.06 J	0.3	ND (0.1)	-	0.26	ND (0.1)	ND (0.1)	ND (0.1)	0.06 J	0.05 J

ABBREVIATIONS AND NOTES:
µg/L: micrograms per liter

-: Not Analyzed
bgs: below ground surface
ft: feet
J: Value is estimated.
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

- For test methods used, see the laboratory data sheets.
- Water analytical results are compared to the New York State Department of Environmental New York TOGS 111 Ambient Water Quality Standards (AWQS).
- Bold indicates an exceedance of AWQS criteria.

TABLE 4c
REMEDIAL INVESTIGATION - POLYCHLORINATED BIPHENYL ANALYTICAL RESULTS IN GROUNDWATER
556 BALTIC STREET
BROOKLYN, NEW YORK

	Action Level											
Sample Name Sample Date Sample Type Lab Sample ID	New York TOGS 111 Ambient Water Quality Standards	MW-01 02/16/2023 Primary L2308425-01	MW-02 02/10/2023 Primary L2307510-04	MW-03 02/16/2023 Primary L2308425-02	MW-04 02/10/2023 Primary L2307510-03	MW-04 2/10/2023 Primary L2307510-03	MW-05 02/10/2023 Primary L2307510-02	MW-06 02/09/2023 Primary L2307194-01	DUP-1_02092023 02/09/2023 Duplicate L2307194-02	MW-07 02/16/2023 Primary L2308425-03	MW-08 02/10/2023 Primary L2307510-01	MW-09 02/16/2023 Primary L2308425-04
PCBs (ug/L)												
Aroclor-1016 (PCB-1016)	NA	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	-	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)
Aroclor-1221 (PCB-1221)	NA	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	-	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)
Aroclor-1232 (PCB-1232)	NA	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	-	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)
Aroclor-1242 (PCB-1242)	NA	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	-	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)
Aroclor-1248 (PCB-1248)	NA	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	-	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)
Aroclor-1254 (PCB-1254)	NA	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	-	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)
Aroclor-1260 (PCB-1260)	NA	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	-	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)
Aroclor-1262 (PCB-1262)	NA	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	-	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)
Aroclor-1268 (PCB-1268)	NA	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	-	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)
SUM of PCBs	0.09	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	-	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)	ND (0.071)

ABBREVIATIONS AND NOTES:
µg/L: micrograms per liter

-: Not Analyzed
bgs: below ground surface
ft: feet
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

- For test methods used, see the laboratory data sheets.
- Water analytical results are compared to the New York State Department of Environmental New York TOGS 111 Ambient Water Quality Standards (AWQS).
- Bold indicates an exceedance AWQS criteria.

TABLE 4d
REMEDIAL INVESTIGATION - PESTICIDES ANALYTICAL RESULTS IN GROUNDWATER
556 BALTIC STREET
BROOKLYN, NEW YORK

	Action Level											
Sample Name	New York TOGS 111	MW-01	MW-02	MW-03	MW-04	MW-04	MW-05	MW-06	DUP-1_02092023	MW-07	MW-08	MW-09
Sample Date	Ambient Water Quality	02/16/2023	02/10/2023	02/16/2023	02/10/2023	2/10/2023	02/10/2023	02/09/2023	02/09/2023	02/16/2023	02/10/2023	02/16/2023
Lab Sample ID	Standards	L2308425-01	L2307510-04	L2308425-02	L2307510-03	L2307510-03	L2307510-02	L2307194-01	L2307194-02	L2308425-03	L2307510-01	L2308425-04
Pesticides (ug/L)												
4,4'-DDD	0.3	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	-	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)
4,4'-DDE	0.2	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	-	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)
4,4'-DDT	0.2	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	-	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)
Aldrin	0	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	-	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)
alpha-BHC	0.01	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	-	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)
alpha-Chlordane (cis)	NA	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	-	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)
beta-BHC	0.04	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	-	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)
Chlordane	0.05	ND (0.143)	ND (0.143)	ND (0.143)	ND (0.143)	-	ND (0.143)	ND (0.143)	ND (0.143)	ND (0.143)	ND (0.143)	ND (0.143)
delta-BHC	0.04	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	-	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)
Dieldrin	0.004	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	-	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)
Endosulfan I	NA	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	-	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)
Endosulfan II	NA	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	-	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)
Endosulfan sulfate	NA	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	-	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)
Endrin	0	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	-	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)
Endrin aldehyde	5	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	-	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)
Endrin ketone	5	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	-	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)
gamma-BHC (Lindane)	0.05	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	-	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)
gamma-Chlordane (trans)	NA	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	-	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)
Heptachlor	0.04	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	-	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	0.003 J	ND (0.014)
Heptachlor epoxide	0.03	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	-	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014)
Methoxychlor	35	ND (0.143)	ND (0.143)	ND (0.143)	ND (0.143)	-	ND (0.143)	ND (0.143)	ND (0.143)	ND (0.143)	ND (0.143)	ND (0.143)
Toxaphene	0.06	ND (0.143)	ND (0.143)	ND (0.143)	ND (0.143)	-	ND (0.143)	ND (0.143)	ND (0.143)	ND (0.143)	ND (0.143)	ND (0.143)

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- For test methods used, see the laboratory data sheets.
- Water analytical results are compared to the New York State Department of Environmental New York TOGS 111 Ambient Water Quality Standards (AWQS).
- Bold indicates an exceedance of AWQS criteria.

TABLE 4e
REMEDIAL INVESTIGATION - EMERGING CONTAMINANTS ANALYTICAL RESULTS IN GROUNDWATER
556 BALTIC STREET
BROOKLYN, NEW YORK

	Action Level												
Sample Name Sample Date Lab Sample ID	New York TOGS 111 Ambient Water Quality Standards	NYSDEC Part 375 PFAS and 1,4-Dioxane Guidance Values	MW-01 02/16/2023 L2308425-01	MW-02 02/10/2023 L2307510-04	MW-03 02/16/2023 L2308425-02	MW-04 02/10/2023 L2307510-03	MW-04 2/10/2023 L2307510-03	MW-05 02/10/2023 L2307510-02	MW-06 02/09/2023 L2307194-01	DUP-1_02092023 02/09/2023 L2307194-02	MW-07 02/16/2023 L2308425-03	MW-08 02/10/2023 L2307510-01	MW-09 02/16/2023 L2308425-04
Semi-Volatile Organic Compounds (SIM) (ug/L)													
1,4-Dioxane	NA	0.35	**0.43**	ND (0.139)	ND (0.147)	-	0.0703 J	ND (0.142)	**0.664**	**0.655**	0.101 J	**1.23**	ND (0.147)
PFAS (ng/L)													
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NA	NA	ND (5.96)	ND (5.8)	ND (5.98)	ND (5.77)	-	ND (5.84)	ND (6.15)	ND (6.05)	ND (5.83)	ND (5.9)	ND (5.93)
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NA	NA	ND (5.96)	ND (5.8) J	ND (5.98)	ND (5.77)	-	ND (5.84)	ND (6.15)	ND (6.05)	ND (5.83)	ND (5.9) J	ND (5.93)
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	NA	NA	ND (1.49) J	0.797 J	ND (1.49) J	ND (1.44)	-	ND (1.46)	2.77	2.27	ND (1.46)	ND (1.47)	ND (1.48)
N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	NA	NA	ND (1.49) J	ND (1.45)	ND (1.49) J	ND (1.44)	-	ND (1.46)	ND (1.54)	ND (1.51)	ND (1.46) J	ND (1.47)	ND (1.48) J
Perfluorobutanesulfonic acid (PFBS)	NA	NA	10.3	7.25	11.3	6.06	-	3.58	2.46 J	2.72 J	1.75	ND (1.47)	3.04
Perfluorobutanoic acid (PFBA)	NA	NA	12.2	3.48 J	7.4	7.93	-	6.64	ND (6.15)	ND (6.05)	1.6 J	1.77 J	3.63 J
Perfluorodecanesulfonic acid (PFDS)	NA	NA	ND (1.49)	ND (1.45)	ND (1.49)	ND (1.44)	-	ND (1.46)	ND (1.54)	ND (1.51)	ND (1.46)	ND (1.47)	ND (1.48)
Perfluorodecanoic acid (PFDA)	NA	NA	ND (1.49)	1.09 J	1.05 J	1.37 J	-	ND (1.46)	1.77	1.97	0.655 J	0.958 J	ND (1.48)
Perfluorododecanoic acid (PFDoDA)	NA	NA	ND (1.49) J	ND (1.45)	ND (1.49) J	ND (1.44)	-	ND (1.46)	ND (1.54)	ND (1.51)	ND (1.46) J	ND (1.47)	ND (1.48) J
Perfluoroheptanesulfonic acid (PFHpS)	NA	NA	1.19 J	ND (1.45)	0.598 J	ND (1.44)	-	ND (1.46)	ND (1.54)	0.53 J	0.437 J	ND (1.47)	0.89 J
Perfluoroheptanoic acid (PFHpA)	NA	NA	10.2	5	7.77	4.97	-	6.42	1.31 J	1.21 J	0.947 J	2.21	6.6
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	8.26	4.35	6.95	3.96	-	5.55	1.84	1.59	1.46	2.06	6.38
Perfluorohexanoic acid (PFHxA)	NA	NA	20	8.04 J	9.72	8.15 J	-	7.15 J	1.08 J	1.29 J	1.82	3.46 J	7.56
Perfluorononanoic acid (PFNA)	NA	NA	2.38	3.04	3.06	4.32	-	7.15	1.54 J	2.65 J	0.874 J	0.811 J	5.34
Perfluorooctane sulfonamide (PFOSA)	NA	NA	ND (1.49) J	ND (1.45) J	ND (1.49) J	ND (1.44) J	-	ND (1.46) J	3.92	4.39	ND (1.46)	ND (1.47) J	ND (1.48) J
Perfluorooctanesulfonic acid (PFOS)	NA	2.7	**25.1**	**57.3**	**35.1**	**61.2**	-	**108**	**63.6 J**	**71.2**	**19.9**	**14.2**	**28.9**
Perfluorooctanoic acid (PFOA)	NA	6.7	**61.5**	**25.7**	**67.5**	**25.7**	-	**41.1**	**8.22**	**9.3**	3.57	**10.9**	**51.2**
Perfluoropentanoic acid (PFPeA)	NA	NA	23.3	7.18	11	10.1	-	11.4	1.84 J	1.29 J	2.11 J	2.8 J	7.78
Perfluorotetradecanoic acid (PFTeDA)	NA	NA	ND (1.49) J	ND (1.45) J	ND (1.49) J	ND (1.44)	-	ND (1.46)	ND (1.54)	ND (1.51)	ND (1.46)	ND (1.47) J	ND (1.48)
Perfluorotridecanoic acid (PFTrDA)	NA	NA	ND (1.49) J	ND (1.45)	ND (1.49) J	ND (1.44)	-	ND (1.46)	ND (1.54)	ND (1.51)	ND (1.46) J	ND (1.47)	ND (1.48) J
Perfluoroundecanoic acid (PFUnDA)	NA	NA	ND (1.49)	ND (1.45)	ND (1.49) J	ND (1.44)	-	ND (1.46)	ND (1.54)	ND (1.51)	ND (1.46)	ND (1.47)	ND (1.48)
US EPA PFAS (PFOS + PFOA)	NA	NA	86.6	83	103	86.9	-	149	71.8	80.5	23.5	25.1	80.1

ABBREVIATIONS AND NOTES:
ng/L: nanogram per liter

-: Not Analyzed
bgs: below ground surface
ft: feet
J: Value is estimated.
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

- For test methods used, see the laboratory data sheets.
- Water analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Part 375 Remedial Programs March 2023 Guidance on the Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) and 1,4-Dioxane and New York TOGS 111 Ambient Water Quality Standards (AWQS).
- Bold indicates an exceedance of NYSDEC GV or AWQS criteria.

TABLE 4f
REMEDIAL INVESTIGATION - METALS ANALYTICAL RESULTS IN GROUNDWATER
556 BALTIC STREET
BROOKLYN, NEW YORK

Sample Name Sample Date Lab Sample ID	Action Level New York TOGS 111 Ambient Water Quality Standards	MW-01 02/16/2023 L2308425-01	MW-02 02/10/2023 L2307510-04	MW-03 02/16/2023 L2308425-02	MW-04 02/10/2023 L2307510-03	MW-04 2/10/2023 L2307510-03	MW-05 02/10/2023 L2307510-02	MW-06 02/09/2023 L2307194-01	DUP-1_02092023 02/09/2023 L2307194-02	MW-07 02/16/2023 L2308425-03	MW-08 02/10/2023 L2307510-01	MW-09 02/16/2023 L2308425-04
Dissolved Metals (ug/L)												
Aluminum, Dissolved	NA	6.25 J	ND (10)	3.83 J	3.93 J	-	5.32 J	9.64 J	8.93 J	9.14 J	6.86 J	7.56 J
Antimony, Dissolved	3	ND (4)	0.68 J	ND (4)	ND (4)	-	ND (4)	0.43 J	ND (4)	1.16 J	ND (4)	ND (4)
Arsenic, Dissolved	25	0.9	4.53	0.41 J	0.67	-	1.34	3.41	3.31	3.32	1.41	2.67
Barium, Dissolved	1000	229.5	98.97	84.09	226.9	-	74.17	35.64	35.71	245.5	52.76	34.18
Beryllium, Dissolved	3	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	-	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Cadmium, Dissolved	5	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.2)	-	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.2)
Calcium, Dissolved	NA	178000	100000 J+	123000	120000 J+	-	90700 J+	46600	44800	62400	43800 J+	43500
Chromium, Dissolved	50	ND (1)	ND (1)	ND (1)	ND (1)	-	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	0.52 J
Cobalt, Dissolved	NA	0.51	0.33 J	0.36 J	ND (0.5)	-	0.27 J	ND (0.5)	ND (0.5)	1.75	ND (0.5)	0.28 J
Copper, Dissolved	200	ND (1)	ND (1)	0.39 J	1.45	-	0.4 J	0.7 J	ND (1)	0.73 J	ND (1)	ND (1)
Iron, Dissolved	300	271	**1550**	**634**	**1560**	-	**304**	96.1	80.8	**802**	195	24.1 J
Lead, Dissolved	25	ND (1)	0.34 J	0.56 J	ND (1)	-	ND (1)	ND (1)	ND (1)	1.35	ND (1)	ND (1)
Magnesium, Dissolved	35000	26200	7310	10700	8850	-	8990	2530	2500	10500	3990	4510
Manganese, Dissolved	300	**1043**	**657.8**	**823**	**588.6**	-	**384.3**	**333.2**	**321.8**	122	298	177.2
Mercury, Dissolved	0.7	ND (0.2)	0.22 J-	ND (0.2)	0.2 J-	-	0.17 J-	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.2) J	ND (0.2)
Nickel, Dissolved	100	2.61	1.49 J	3.67	1.98 J	-	0.98 J	0.7 J	ND (2)	5.52	2.29	2.53
Potassium, Dissolved	NA	32500	8620	14800	7610	-	9250	1810	1850	8550	2770	9080
Selenium, Dissolved	10	ND (5)	ND (5)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Silver, Dissolved	50	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	-	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)
Sodium, Dissolved	20000	**559000**	**80900 J+**	**246000**	**86700 J+**	-	**84400 J+**	10600 J+	10700 J+	**23200**	**20500 J+**	**151000**
Thallium, Dissolved	0.5	ND (1)	ND (2)	ND (1)	ND (2)	-	ND (2)	ND (2)	ND (2)	ND (1)	ND (2)	ND (1)
Vanadium, Dissolved	NA	ND (5)	ND (5)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	3.19 J	ND (5)	ND (5)
Zinc, Dissolved	2000	ND (10)	ND (10)	4.68 J	ND (10)	-	ND (10)	ND (10)	ND (10)	106.4	ND (10)	ND (10)
Total Metals (ug/L)												
Aluminum, Total	NA	239	69.9	872	12.9	-	572	23.4	23.6	38.2	198	1220
Antimony, Total	3	0.44 J	0.66 J	ND (4)	ND (4)	-	ND (4)	0.72 J	0.49 J	1.22 J	ND (4)	ND (4)
Arsenic, Total	25	2.83	8.17	1.49	0.98	-	2.29	3.61	3.02	4.24	2.93	3.71
Barium, Total	1000	309.1	135.2 J+	158.5	274.1 J+	-	96.46 J+	44.83	47.45	274.2	92.7 J+	52.39
Beryllium, Total	3	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	-	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Cadmium, Total	5	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.2)	-	ND (0.2)	ND (0.4)	ND (0.4)	ND (0.2)	ND (0.2)	ND (0.2)
Calcium, Total	NA	152000 J+	103000 J+	133000 J+	122000 J+	-	86600 J+	47600	46800	65300 J+	48000 J+	47800 J+
Chromium, Total	50	0.65 J	0.34 J	6.01	ND (1)	-	0.94 J	ND (1)	ND (1)	0.57 J	0.5 J	2.2
Cobalt, Total	NA	0.71	0.42 J	1.06	ND (0.5)	-	0.71	ND (0.5)	ND (0.5)	1.77	0.24 J	1.26
Copper, Total	200	0.89 J	0.56 J	33.22	ND (1)	-	2.15	0.43 J	ND (1)	1.48	1.37	3.02
Iron, Total	300	**11200**	**5040**	**10500**	**4220**	-	**3110**	**1080**	**995**	**983**	**3330**	**2140**
Lead, Total	25	3.52	11.48	19.58	0.47 J	-	17.95	0.77 J	0.63 J	6.21	12.43	8.42
Magnesium, Total	35000	27500	7670	11600	9620	-	9190	2470	2350	11000	4550	5150
Manganese, Total	300	**1092**	**668.3**	**920**	**617.9**	-	**386.5**	**328.7**	**324.4**	120.6	**335.5**	212.6
Mercury, Total	0.7	ND (0.2)	ND (0.2) J	ND (0.2)	ND (0.2) J	-	ND (0.2) J	ND (0.2) J	0.19 J-	ND (0.2)	ND (0.2) J	ND (0.2)
Nickel, Total	100	3.37	1.3 J	6	1.99 J	-	3.16	ND (2)	ND (2)	5.34	2.43	6.48
Potassium, Total	NA	31300 J-	9110	14600 J-	8070	-	9050	1930	1970	7850 J-	3080	8760 J-
Selenium, Total	10	ND (5)	ND (5)	ND (5)	ND (5)	-	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Silver, Total	50	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	-	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)
Sodium, Total	20000	**591000**	**86200**	**261000**	**89800**	-	**85600**	11300	10700	**23200**	**23600**	**154000**
Thallium, Total	0.5	ND (1)	ND (1)	ND (1)	ND (1)	-	ND (1)	ND (2)	ND (2)	ND (1)	ND (1)	ND (1)
Vanadium, Total	NA	2.17 J	3.09 J	3.2 J	ND (5)	-	ND (5)	ND (5)	ND (5)	3.68 J	ND (5)	3.62 J
Zinc, Total	2000	ND (10)	20.07	18.16	ND (10)	-	5.03 J	ND (10)	ND (10)	109.6	9.02 J	6.11 J

ABBREVIATIONS AND NOTES:
µg/L: micrograms per liter

-: Not Analyzed
bgs: below ground surface
ft: feet
J: Value is estimated.
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

- For test methods used, see the laboratory data sheets.
- Water analytical results are compared to the New York State Department of Environmental New York TOGS 111 Ambient Water Quality Standards.
- Bold indicates an exceedance of AWQS criteria.

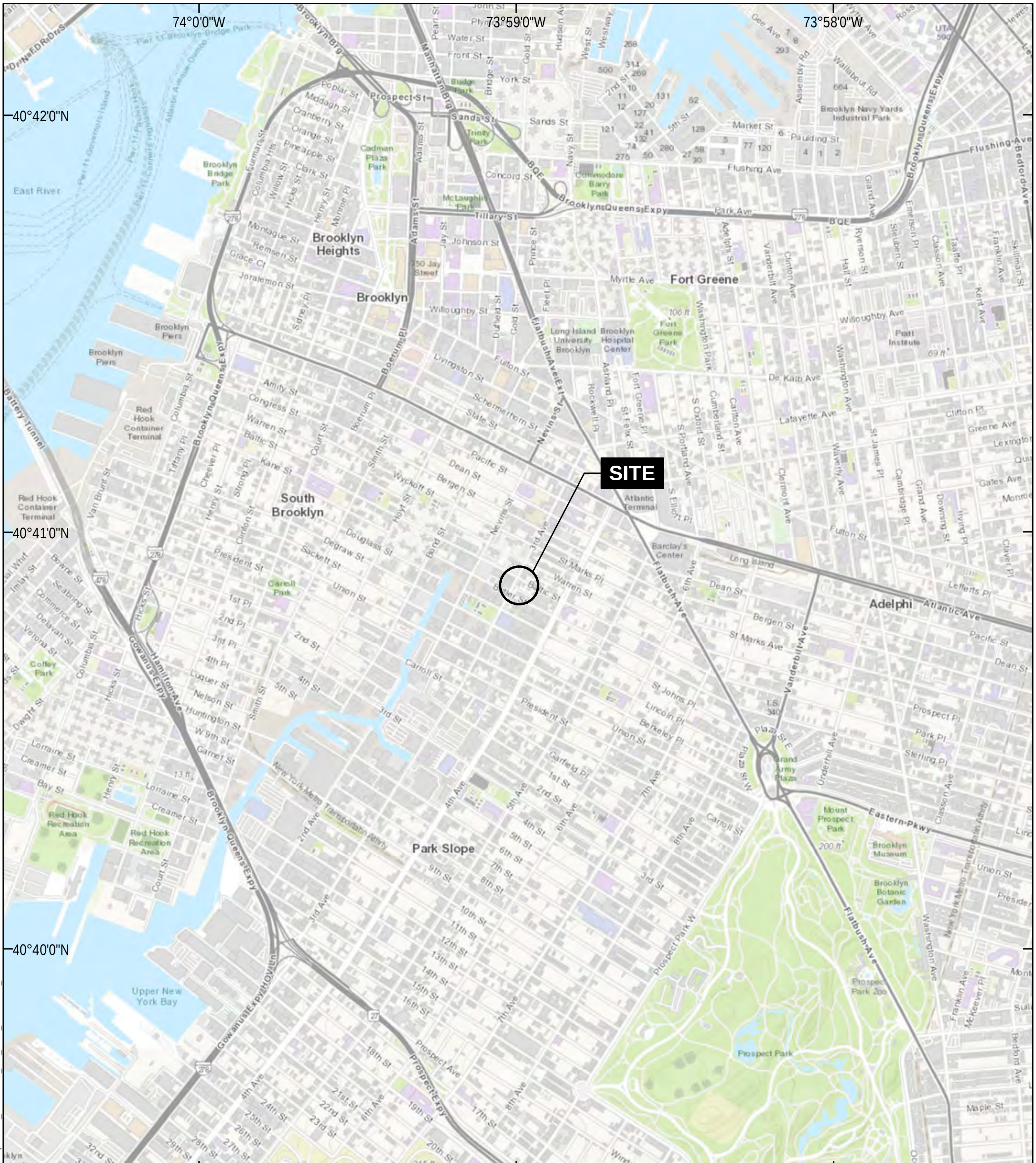
TABLE 5
REMEDIAL INVESTIGATION – VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS IN SOIL VAPOR
556 BALTIC STREET
BROOKLYN, NEW YORK

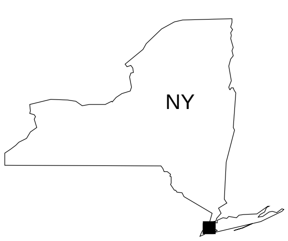
Location Name	VP-01	VP-02	VP-03	VP-04	VP-05	VP-06	VP-07	VP-08
Sample Name	VP-01-20230213	VP-02-20230213	VP-03-20230210	VP-04-20230210	VP-05-20230210	VP-06-20230213	VP-07-20230210	VP-08-20230210
Sample Date	02/13/2023	02/13/2023	02/10/2023	02/10/2023	02/10/2023	02/13/2023	02/10/2023	02/10/2023
Lab Sample ID	L2307679-03	L2307679-02	L2307530-04	L2307530-02	L2307530-01	L2307679-01	L2307530-03	L2307530-05
Volatile Organic Compounds (ug/m3)								
1,1,1-Trichloroethane	ND (2.6)	ND (971)	ND (57.3)	ND (2.1)	ND (2.48)	ND (1.09)	ND (2.37)	ND (1.09)
1,1,2,2-Tetrachloroethane	ND (3.27)	ND (1220)	ND (72.1)	ND (2.64)	ND (3.12)	ND (1.37)	ND (2.99)	ND (1.37)
1,1,2-Trichloroethane	ND (2.6)	ND (971)	ND (57.3)	ND (2.1)	ND (2.48)	ND (1.09)	ND (2.37)	ND (1.09)
1,1-Dichloroethane	ND (1.93)	ND (720)	ND (42.5)	ND (1.56)	ND (1.84)	ND (0.809)	ND (1.76)	ND (0.809)
1,1-Dichloroethene	ND (1.89)	ND (706)	ND (41.6)	ND (1.53)	ND (1.8)	ND (0.793)	ND (1.72)	ND (0.793)
1,2,4-Trichlorobenzene	ND (3.53)	ND (1320)	ND (77.9)	ND (2.86)	ND (3.38)	ND (1.48)	ND (3.23)	ND (1.48)
1,2,4-Trimethylbenzene	4.82	ND (875)	ND (51.6)	4.1	5.06	19.8	3.89	6.88
1,2-Dibromoethane (Ethylene Dibromide)	ND (3.66)	ND (1370)	ND (80.7)	ND (2.96)	ND (3.5)	ND (1.54)	ND (3.34)	ND (1.54)
1,2-Dichlorobenzene	ND (2.86)	ND (1070)	ND (63.1)	ND (2.31)	ND (2.74)	ND (1.2)	ND (2.62)	ND (1.2)
1,2-Dichloroethane	ND (1.93)	ND (720)	ND (42.5)	ND (1.56)	ND (1.84)	ND (0.809)	ND (1.76)	ND (0.809)
1,2-Dichloropropane	ND (2.2)	ND (823)	ND (48.5)	ND (1.78)	ND (2.1)	ND (0.924)	ND (2.01)	ND (0.924)
1,2-Dichlorotetrafluoroethane (CFC 114)	ND (3.33)	ND (1240)	ND (73.4)	ND (2.69)	ND (3.18)	ND (1.4)	ND (3.04)	ND (1.4)
1,3,5-Trimethylbenzene	ND (2.34)	ND (875)	ND (51.6)	ND (1.89)	ND (2.24)	4.26	ND (2.14)	1.92
1,3-Butadiene	ND (1.05)	ND (394)	ND (23.2)	3.38	ND (1.01)	3.1	ND (0.962)	ND (0.442)
1,3-Dichlorobenzene	ND (2.86)	ND (1070)	ND (63.1)	ND (2.31)	ND (2.74)	ND (1.2)	ND (2.62)	ND (1.2)
1,4-Dichlorobenzene	ND (2.86)	ND (1070)	ND (63.1)	ND (2.31)	ND (2.74)	ND (1.2)	ND (2.62)	ND (1.2)
1,4-Dioxane	ND (1.72)	ND (641)	ND (37.8)	ND (1.39)	ND (1.64)	ND (0.721)	ND (1.57)	ND (0.721)
2,2,4-Trimethylpentane	537	251000	17500	180	ND (2.13)	2.1	440	1.27
2-Butanone (Methyl Ethyl Ketone)	5.07	ND (1320)	ND (77.3)	ND (2.84)	ND (3.36)	5.31	23.4	ND (1.47)
2-Hexanone (Methyl Butyl Ketone)	ND (1.95)	ND (729)	ND (43)	ND (1.58)	ND (1.86)	ND (0.82)	ND (1.78)	ND (0.82)
4-Ethyltoluene (1-Ethyl-4-Methylbenzene)	ND (2.34)	ND (875)	ND (51.6)	ND (1.89)	ND (2.24)	2.89	ND (2.14)	1.64
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ND (4.88)	ND (1830)	ND (107)	ND (3.94)	ND (4.67)	ND (2.05)	ND (4.47)	ND (2.05)
Acetone	54.4	ND (2120)	ND (124)	287	28	49.6	143	26.4
Allyl chloride	ND (1.49)	ND (557)	ND (32.9)	ND (1.21)	ND (1.42)	ND (0.626)	ND (1.36)	ND (0.626)
Benzene	2.35	ND (569)	ND (33.5)	2.89	ND (1.45)	3.11	3.55	0.728
Benzyl Chloride (alpha-Chlorotoluene)	ND (2.46)	ND (922)	ND (54.4)	ND (1.99)	ND (2.36)	ND (1.04)	ND (2.25)	ND (1.04)
Bromodichloromethane	ND (3.19)	ND (1190)	ND (70.3)	ND (2.58)	ND (3.05)	ND (1.34)	ND (2.91)	ND (1.34)
Bromoform	ND (4.92)	ND (1840)	ND (109)	ND (3.98)	ND (4.7)	ND (2.07)	ND (4.5)	ND (2.07)
Bromomethane (Methyl Bromide)	ND (1.85)	ND (691)	ND (40.8)	ND (1.49)	ND (1.77)	ND (0.777)	ND (1.69)	ND (0.777)
Carbon disulfide	1.58	ND (554)	ND (32.7)	7.6	ND (1.42)	8.13	27	0.831
Carbon tetrachloride	ND (2.99)	ND (1120)	ND (66)	ND (2.42)	ND (2.86)	ND (1.26)	ND (2.74)	ND (1.26)
Chlorobenzene	ND (2.19)	ND (820)	ND (48.4)	ND (1.77)	ND (2.1)	ND (0.921)	ND (2)	ND (0.921)
Chloroethane	ND (1.26)	ND (470)	ND (27.7)	ND (1.02)	ND (1.2)	ND (0.528)	ND (1.15)	ND (0.528)
Chloroform (Trichloromethane)	ND (2.32)	ND (869)	ND (51.3)	ND (1.88)	20	92.8	2.89	16.8
Chloromethane (Methyl Chloride)	1.65	ND (368)	ND (21.7)	ND (0.795)	ND (0.94)	ND (0.413)	ND (0.898)	ND (0.413)
cis-1,2-Dichloroethene	ND (1.89)	ND (706)	ND (41.6)	ND (1.53)	ND (1.8)	ND (0.793)	ND (1.72)	ND (0.793)
cis-1,3-Dichloropropene	ND (2.16)	ND (808)	ND (47.7)	ND (1.75)	ND (2.07)	ND (0.908)	ND (1.97)	ND (0.908)
Cyclohexane	ND (1.64)	3130	ND (36.1)	3.39	ND (1.57)	3.89	5.27	1.21
Dibromochloromethane	ND (4.06)	ND (1520)	ND (89.5)	ND (3.28)	ND (3.88)	ND (1.7)	ND (3.71)	ND (1.7)
Dichlorodifluoromethane (CFC-12)	ND (2.35)	ND (880)	ND (51.9)	2.23	ND (2.25)	2.38	ND (2.15)	2.21
Ethanol	ND (22.4)	ND (8400)	ND (494)	ND (18.1)	ND (21.5)	ND (9.42)	ND (20.5)	ND (9.42)
Ethyl acetate	ND (4.29)	ND (1610)	ND (94.4)	ND (3.47)	ND (4.11)	ND (1.8)	ND (3.93)	ND (1.8)
Ethylbenzene	11.5	ND (773)	ND (45.6)	13	10.9	11	8.47	9.47
Hexachlorobutadiene	ND (5.08)	ND (1900)	ND (112)	ND (4.11)	ND (4.85)	ND (2.13)	ND (4.64)	ND (2.13)
Hexane	12.4	3320	ND (37)	14.3	6.31	26.9	43.7	7.4
Isopropyl Alcohol (2-Propanol)	ND (2.93)	ND (1100)	ND (64.4)	2.88	ND (2.8)	1.51	3.83	1.52
m,p-Xylenes	31.9	ND (1550)	ND (90.8)	34	33.5	46	22.4	29.9
Methyl Tert Butyl Ether (MTBE)	18.6	ND (642)	ND (37.9)	ND (1.39)	ND (1.64)	ND (0.721)	ND (1.57)	ND (0.721)
Methylene chloride (Dichloromethane)	ND (4.13)	ND (1550)	ND (91)	ND (3.34)	ND (3.96)	ND (1.74)	ND (3.79)	ND (1.74)
N-Heptane	4.84	2020	ND (43)	35.4	ND (1.86)	4.02	24.8	ND (0.82)
o-Xylene	11	ND (773)	ND (45.6)	10.6	11.1	15.6	7.38	10.3
Styrene	ND (2.03)	ND (758)	ND (44.7)	ND (1.64)	ND (1.94)	ND (0.852)	ND (1.85)	ND (0.852)
Tert-Butyl Alcohol (tert-Butanol)	16.4	ND (1350)	ND (79.4)	7.49	5.06	1.99	7.03	7.91
Tetrachloroethene	382	ND (1210)	464	316	375	204	354	324
Tetrahydrofuran	ND (3.51)	ND (1320)	ND (77.3)	ND (2.84)	ND (3.36)	ND (1.47)	ND (3.21)	3.54
Toluene	584	708	531	501	584	309	588	501
trans-1,2-Dichloroethene	ND (1.89)	ND (706)	ND (41.6)	ND (1.53)	ND (1.8)	ND (0.793)	ND (1.72)	ND (0.793)
trans-1,3-Dichloropropene	ND (2.16)	ND (808)	ND (47.7)	ND (1.75)	ND (2.07)	ND (0.908)	ND (1.97)	ND (0.908)
Trichloroethene	ND (2.56)	ND (957)	ND (56.4)	ND (2.07)	ND (2.45)	ND (1.07)	ND (2.34)	ND (1.07)
Trichlorofluoromethane (CFC-11)	ND (2.67)	ND (1000)	ND (59)	ND (2.16)	ND (2.56)	ND (1.12)	ND (2.44)	1.18
Trifluorotrichloroethane (Freon 113)	ND (3.65)	ND (1360)	ND (80.5)	ND (2.95)	ND (3.49)	ND (1.53)	ND (3.33)	ND (1.53)
Vinyl Bromide (Bromoethene)	ND (2.08)	ND (778)	ND (45.9)	ND (1.68)	ND (1.99)	ND (0.874)	ND (1.9)	ND (0.874)
Vinyl chloride	ND (1.22)	ND (455)	ND (26.8)	ND (0.984)	ND (1.16)	ND (0.511)	ND (1.11)	ND (0.511)
SUM of BTEX	641	708	531	561	640	385	630	551
SUM of VOCs	1679.51	260178	18495	1425.26	1078.93	817.39	1708.61	956.109

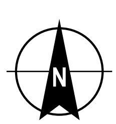
ABBREVIATIONS AND NOTES:

$\mu g/m^3$: micrograms per cubic meter
BTEX: Benzene, Toluene, Ethylbenzene, Xylenes
CVOCs: Chlorinated volatile organic compounds
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit
VOCs: Volatile Organic Compounds
- For test methods used, see the laboratory data sheets.

FIGURES







MAP SOURCE: ESRI
SITE COORDINATES: 40°40'52"N, 73°58'59"W

HALEY ALDRICH

556 BALTIC STREET
BROOKLYN, NY

PROJECT LOCUS

APPROXIMATE SCALE: 1 IN = 2000 FT
MARCH 2023

FIGURE 1

GIS: \\haleyaldrich.com\share\CF\Projects\0204090\GIS\Maps\2021_12\204090_000_0001_PROJECT_LOCUS.mxd - anichols - 1/28/2022 1:39:47 PM

LEGEND

SITE BOUNDARY

UST LOCATION

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: NEARMAP, 19 OCTOBER 2021

N

0 30 60

SCALE IN FEET

HALEY ALDRICH

556 BALTIC STREET
BROOKLYN, NY

SITE MAP

MARCH 2023

FIGURE 2

GIS:\\haleyaldrich.com\share\CF\Projects\0204090\GIS\Maps\2021_12\204090_000_0002_SITE_PLAN.mxd - khensen - 12/2/2021 9:56:07 AM

LEGEND

- FORMER MONITORING WELL
- MONITORING WELL
- SOIL BORING/MONITORING WELL
- SOIL BORING
- SOIL VAPOR
- UST LOCATION
- SITE BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: NEARMAP, 19 OCTOBER 2021

N

0 30 60
SCALE IN FEET

HALEY ALDRICH

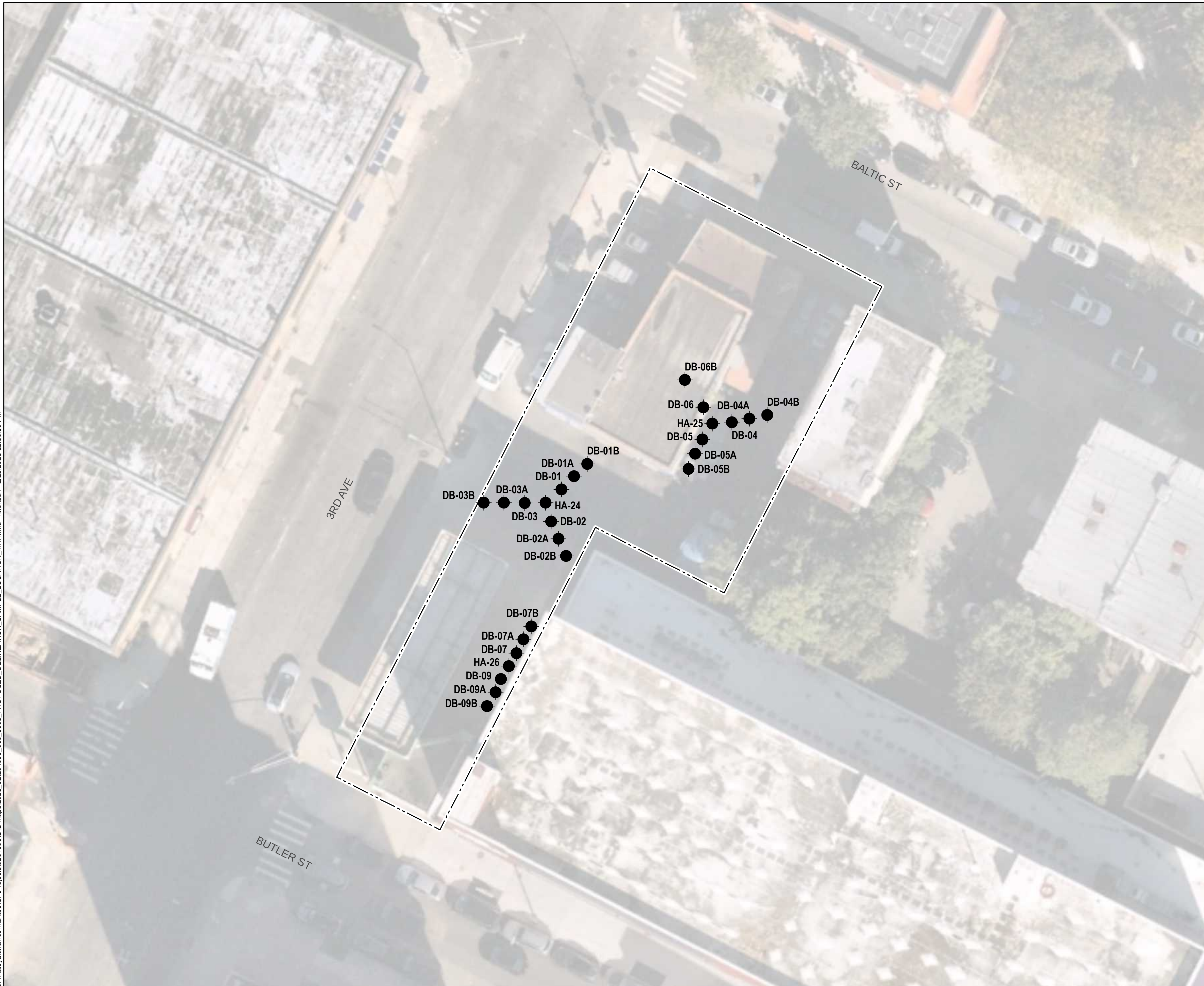
556 BALTIC STREET
BROOKLYN, NY

SAMPLE LOCATION MAP

MARCH 2023

FIGURE 3

GIS:\\haleyaldrich.com\share\CF\Projects\0204090\GIS\Maps\2023_02\0204090_000_0002_SAMPLE_LOCATION_MAP.mxd - khensen - 2/23/2023 12:40:45 PM



LEGEND

- DELINEATION SOIL BORING
- SITE FEATURE
- SITE BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: NEARMAP, 19 OCTOBER 2021

N

0 30 60
SCALE IN FEET

HALEY ALDRICH

556 BALTIC STREET
BROOKLYN, NY

DELINEATION
SAMPLE LOCATION MAP

MARCH 2023

FIGURE 4

GIS:\\haleyaldrich.com\share\CF\Projects\0204090\GIS\Maps\2023_02\0204090_000_0003_PROPOSED_DELINEATION_SAMPLE_LOCATION_MAP.mxd - khensen - 2/23/2023 12:56:30 PM

LEGEND

- GCM/NAPL INVESTIGATION BORING
- SITE FEATURE
- SITE BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. GCM/NAPL INVESTIGATION BORINGS WILL BE INSTALLED TO A MINIMUM OF 100 FT BGS
3. AERIAL IMAGERY SOURCE: NEARMAP, 19 OCTOBER 2021

N

0 30 60
SCALE IN FEET

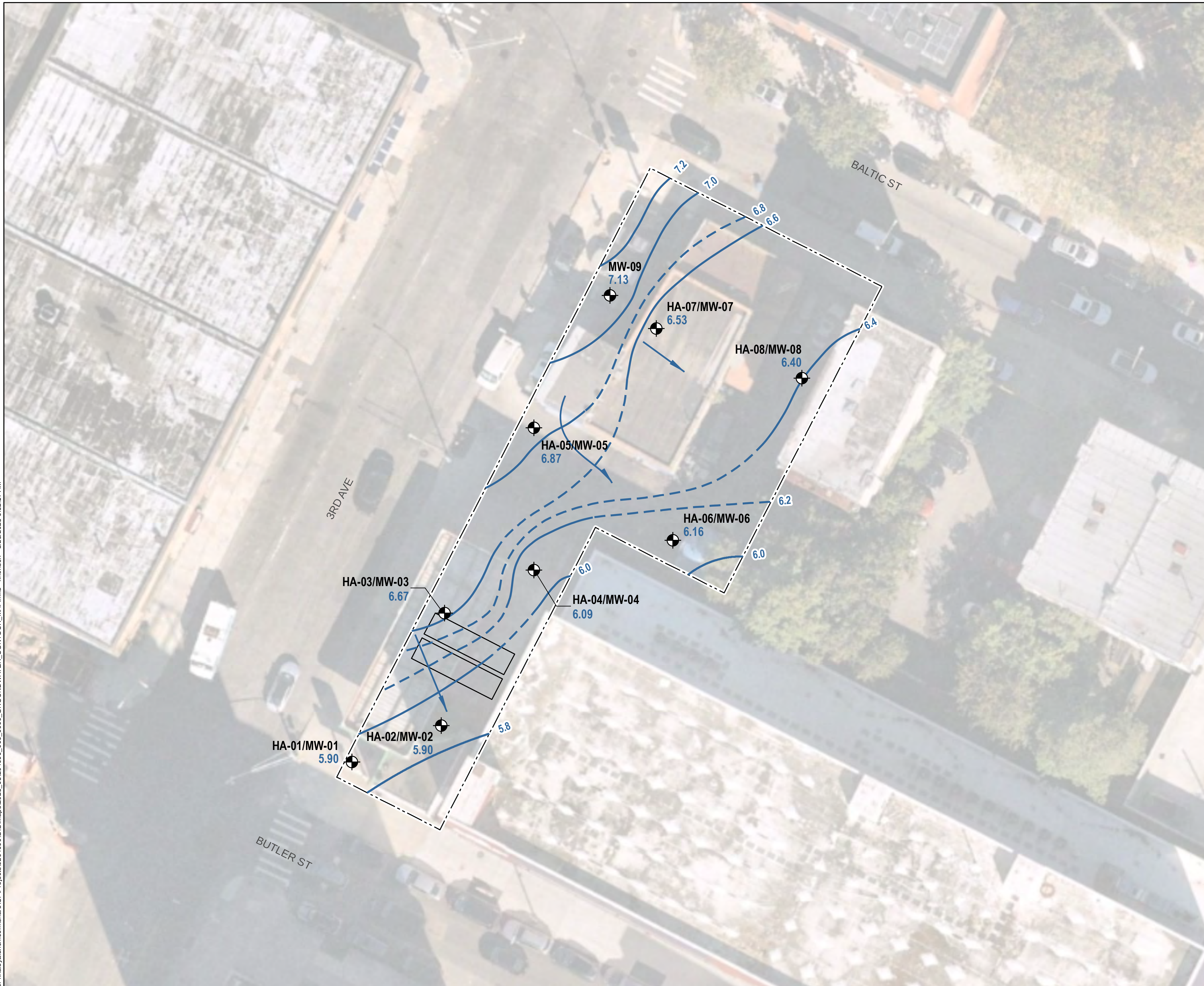
HALEY ALDRICH

556 BALTIC STREET
BROOKLYN, NY

NAPL/GCM INVESTIGATION MAP

MARCH 2023

FIGURE 5



LEGEND

- MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR, IN FEET (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION
- UST LOCATION
- SITE BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: NEARMAP, 19 OCTOBER 2021

N

0 30 60

SCALE IN FEET

HALEY ALDRICH

REMEDIAL INVESTIGATION WORK PLAN
556 BALTIC STREET
BROOKLYN, NEW YORK

GROUNDWATER CONTOUR MAP

MARCH 2023

FIGURE 6

GIS:\\haleyaldrich.com\share\CF\Projects\0204090\GIS\Maps\2023_03\204090_000_0006_GROUNDWATER_CONTOUR_MAP.mxd - khensen - 3/23/2023 6:52:17 AM

LEGEND

- FORMER MONITORING WELL
- MONITORING WELL
- SOIL BORING/MONITORING WELL
- SOIL BORING
- SOIL VAPOR
- SITE BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. SOIL SAMPLE ANALYTICAL RESULTS ARE COMPARED TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) TITLE 6 OF THE OFFICIAL COMPILATION OF NEW YORK CODES, RULES, AND REGULATIONS (NYCRR) PART 375 UNRESTRICTED USE SOIL CLEANUP OBJECTIVES (SCOS), RESTRICTED-RESIDENTIAL SCOS, AND 40 CFR 261 SUBPART C AND TABLE 1 OF 40 CFR 261.24.
3. NY-RESR = NYSDEC PART 375 RESTRICTED-RESIDENTIAL USE SCO
4. NY-UNRES = NYSDEC PART 375 UNRESTRICTED USE SCO
5. NY-PGW = NYDEC PART 375 PROTECTION OF GROUNDWATER CRITERIA
6. EXCEEDANCES OF THE NY-UNRES SCOS ARE SHADED GRAY
7. EXCEEDANCES OF THE NY-UNRES AND NY-RESRR ARE SHADED YELLOW
8. EXCEEDANCES OF THE NY-PGW ARE SHOWN IN BLACK TEXT AND IN ITALICS
9. PFAS RESULTS SHOWN IN NANOGRAMS PER GRAM (ng/g). ALL OTHER RESULTS SHOWN IN MILLIGRAMS PER KILOGRAM (mg/kg).
10. AERIAL IMAGERY SOURCE: NEARMAP, 19 OCTOBER 2021

0 25 50 75 100
SCALE IN FEET

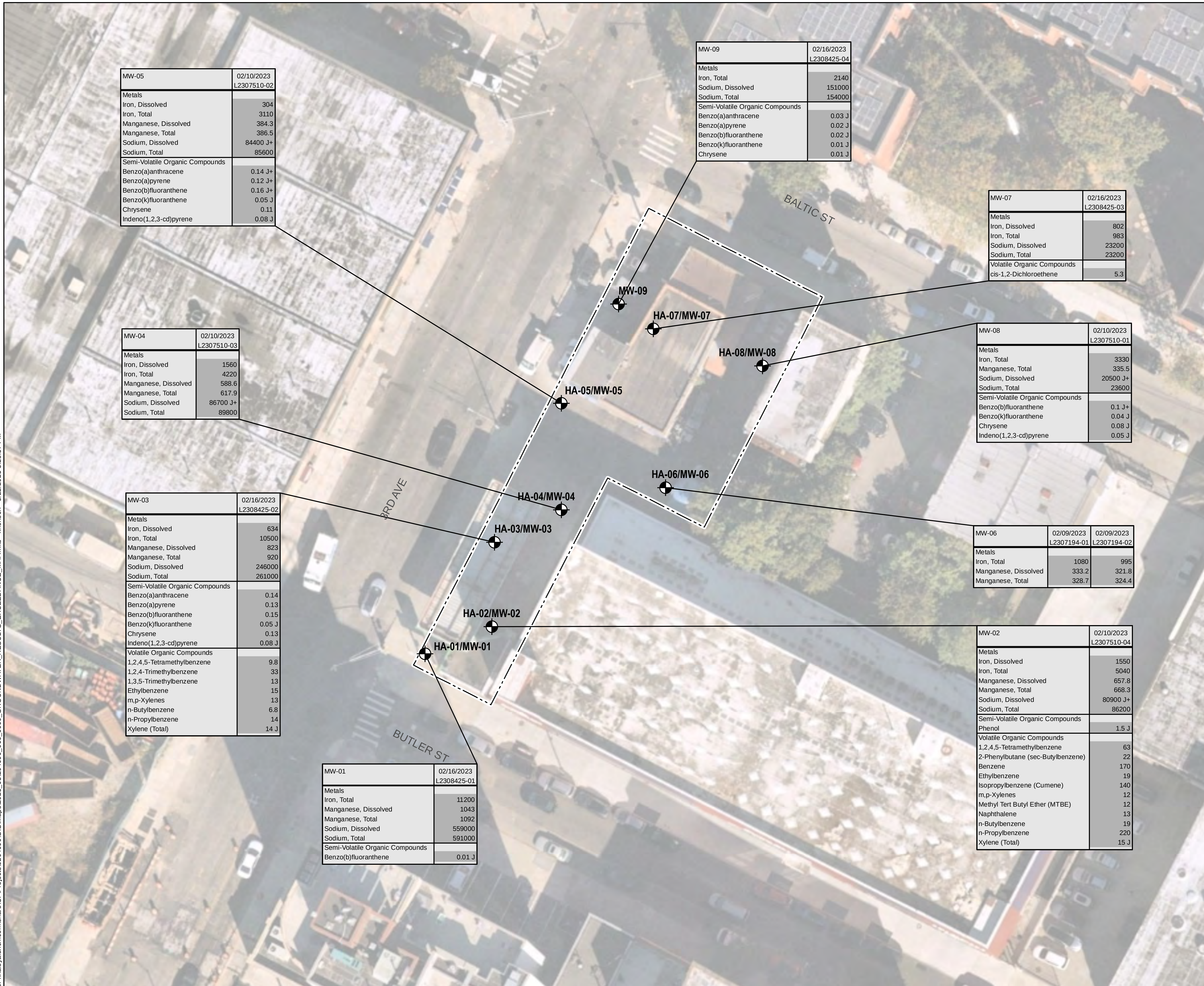
HALEY ALDRICH

REMEDIAL INVESTIGATION WORK PLAN
556 BALTIC STREET
BROOKLYN, NEW YORK

SOIL RESULTS EXCEEDANCE MAP

MARCH 2023

FIGURE 7



MW-05	02/10/2023 L2307510-02
Metals	
Iron, Dissolved	304
Iron, Total	3110
Manganese, Dissolved	384.3
Manganese, Total	386.5
Sodium, Dissolved	84400 J+
Sodium, Total	85600
Semi-Volatile Organic Compounds	
Benzo(a)anthracene	0.14 J+
Benzo(a)pyrene	0.12 J+
Benzo(b)fluoranthene	0.16 J+
Benzo(k)fluoranthene	0.05 J
Chrysene	0.11
Indeno(1,2,3-cd)pyrene	0.08 J

MW-09	02/16/2023 L2308425-04
Metals	
Iron, Total	2140
Sodium, Dissolved	151000
Sodium, Total	154000
Semi-Volatile Organic Compounds	
Benzo(a)anthracene	0.03 J
Benzo(a)pyrene	0.02 J
Benzo(b)fluoranthene	0.02 J
Benzo(k)fluoranthene	0.01 J
Chrysene	0.01 J

MW-07	02/16/2023 L2308425-03
Metals	
Iron, Dissolved	802
Iron, Total	983
Sodium, Dissolved	23200
Sodium, Total	23200
Volatile Organic Compounds	
cis-1,2-Dichloroethene	5.3

MW-04	02/10/2023 L2307510-03
Metals	
Iron, Dissolved	1560
Iron, Total	4220
Manganese, Dissolved	588.6
Manganese, Total	617.9
Sodium, Dissolved	86700 J+
Sodium, Total	89800

MW-08	02/10/2023 L2307510-01
Metals	
Iron, Total	3330
Manganese, Total	335.5
Sodium, Dissolved	20500 J+
Sodium, Total	23600
Semi-Volatile Organic Compounds	
Benzo(b)fluoranthene	0.1 J+
Benzo(k)fluoranthene	0.04 J
Chrysene	0.08 J
Indeno(1,2,3-cd)pyrene	0.05 J

MW-03	02/16/2023 L2308425-02
Metals	
Iron, Dissolved	634
Iron, Total	10500
Manganese, Dissolved	823
Manganese, Total	920
Sodium, Dissolved	246000
Sodium, Total	261000
Semi-Volatile Organic Compounds	
Benzo(a)anthracene	0.14
Benzo(a)pyrene	0.13
Benzo(b)fluoranthene	0.15
Benzo(k)fluoranthene	0.05 J
Chrysene	0.13
Indeno(1,2,3-cd)pyrene	0.08 J
Volatile Organic Compounds	
1,2,4,5-Tetramethylbenzene	9.8
1,2,4-Trimethylbenzene	33
1,3,5-Trimethylbenzene	13
Ethylbenzene	15
m,p-Xylenes	13
n-Butylbenzene	6.8
n-Propylbenzene	14
Xylene (Total)	14 J

MW-06	02/09/2023 L2307194-01	02/09/2023 L2307194-02
Metals		
Iron, Total	1080	995
Manganese, Dissolved	333.2	321.8
Manganese, Total	328.7	324.4

MW-02	02/10/2023 L2307510-04
Metals	
Iron, Dissolved	1550
Iron, Total	5040
Manganese, Dissolved	657.8
Manganese, Total	668.3
Sodium, Dissolved	80900 J+
Sodium, Total	86200
Semi-Volatile Organic Compounds	
Phenol	1.5 J
Volatile Organic Compounds	
1,2,4,5-Tetramethylbenzene	63
2-Phenylbutane (sec-Butylbenzene)	22
Benzene	170
Ethylbenzene	19
Isopropylbenzene (Cumene)	140
m,p-Xylenes	12
Methyl Tert Butyl Ether (MTBE)	12
Naphthalene	13
n-Butylbenzene	19
n-Propylbenzene	220
Xylene (Total)	15 J

MW-01	02/16/2023 L2308425-01
Metals	
Iron, Total	11200
Manganese, Dissolved	1043
Manganese, Total	1092
Sodium, Dissolved	559000
Sodium, Total	591000
Semi-Volatile Organic Compounds	
Benzo(b)fluoranthene	0.01 J

LEGEND

MONITORING WELL

SITE BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. GROUNDWATER SAMPLE ANALYTICAL RESULTS ARE COMPARED TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION(NYSDEC) TECHNICAL AND OPERATIONAL GUIDANCE SERIES (TOGS) 1.1.1 AMBIENT WATER QUALITY STANDARDS (AWQS)
3. ALL RESULTS SHOWN EXCEED THE NYSDEC AWQS.
4. RESULTS ARE DISPLAYED IN MICROGRAMS PER LITER (ug/L).
5. AERIAL IMAGERY SOURCE: NEARMAP, 19 OCTOBER 2021

N

0 40 80

SCALE IN FEET

HALEY ALDRICH

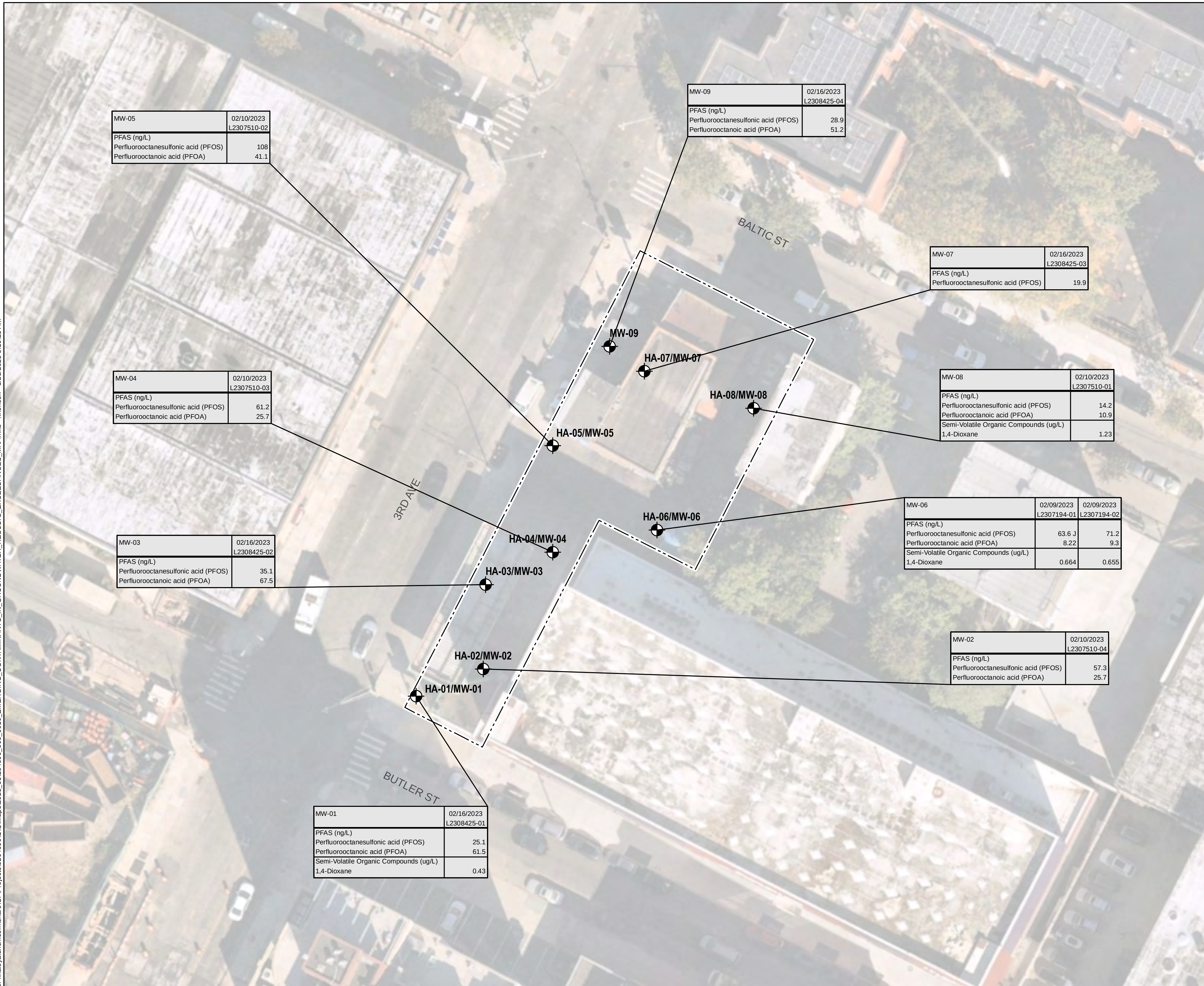
556 BALTIC STREET
BROOKLYN, NY

GROUNDWATER RESULTS
EXCEEDANCE MAP

MARCH 2023

FIGURE 8

GIS:\\haleyaldrich.com\share\CF\Projects\0204090\GIS\Maps\2023_03\0204090_000_0009_GROUNDWATER_RESULTS_EXCEEDANCE_MAP.mxd - khensen - 3/22/2023 3:28:37 PM



MW-05	02/10/2023 L2307510-02
PFAS (ng/L)	
Perfluorooctanesulfonic acid (PFOS)	108
Perfluorooctanoic acid (PFOA)	41.1

MW-09	02/16/2023 L2308425-04
PFAS (ng/L)	
Perfluorooctanesulfonic acid (PFOS)	28.9
Perfluorooctanoic acid (PFOA)	51.2

MW-07	02/16/2023 L2308425-03
PFAS (ng/L)	
Perfluorooctanesulfonic acid (PFOS)	19.9

MW-08	02/10/2023 L2307510-01
PFAS (ng/L)	
Perfluorooctanesulfonic acid (PFOS)	14.2
Perfluorooctanoic acid (PFOA)	10.9
Semi-Volatile Organic Compounds (ug/L)	
1,4-Dioxane	1.23

MW-04	02/10/2023 L2307510-03
PFAS (ng/L)	
Perfluorooctanesulfonic acid (PFOS)	61.2
Perfluorooctanoic acid (PFOA)	25.7

MW-06	02/09/2023 L2307194-01	02/09/2023 L2307194-02
PFAS (ng/L)		
Perfluorooctanesulfonic acid (PFOS)	63.6 J	71.2
Perfluorooctanoic acid (PFOA)	8.22	9.3
Semi-Volatile Organic Compounds (ug/L)		
1,4-Dioxane	0.664	0.655

MW-03	02/16/2023 L2308425-02
PFAS (ng/L)	
Perfluorooctanesulfonic acid (PFOS)	35.1
Perfluorooctanoic acid (PFOA)	67.5

MW-02	02/10/2023 L2307510-04
PFAS (ng/L)	
Perfluorooctanesulfonic acid (PFOS)	57.3
Perfluorooctanoic acid (PFOA)	25.7

MW-01	02/16/2023 L2308425-01
PFAS (ng/L)	
Perfluorooctanesulfonic acid (PFOS)	25.1
Perfluorooctanoic acid (PFOA)	61.5
Semi-Volatile Organic Compounds (ug/L)	
1,4-Dioxane	0.43

LEGEND

MONITORING WELL

SITE BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. EMERGING CONTAMINANTS ANALYTICAL RESULTS COMPARED TO THE NYSDEC FEBRUARY 2023 GUIDANCE VALUES (NYSDEC GV) FOR PFOA, PFOS, AND 1,4-DIOXANE.
3. PFAS RESULTS SHOWN IN NG/L. 1,4-DIOXANE RESULTS SHOWN IN MICROGRAMS PER LITER (µg/L).
4. ONLY EXCEEDANCES SHOWN FIGURE.
5. AERIAL IMAGERY SOURCE: NEARMAP, 19 OCTOBER 2021

0 40 80
SCALE IN FEET

HALEY ALDRICH

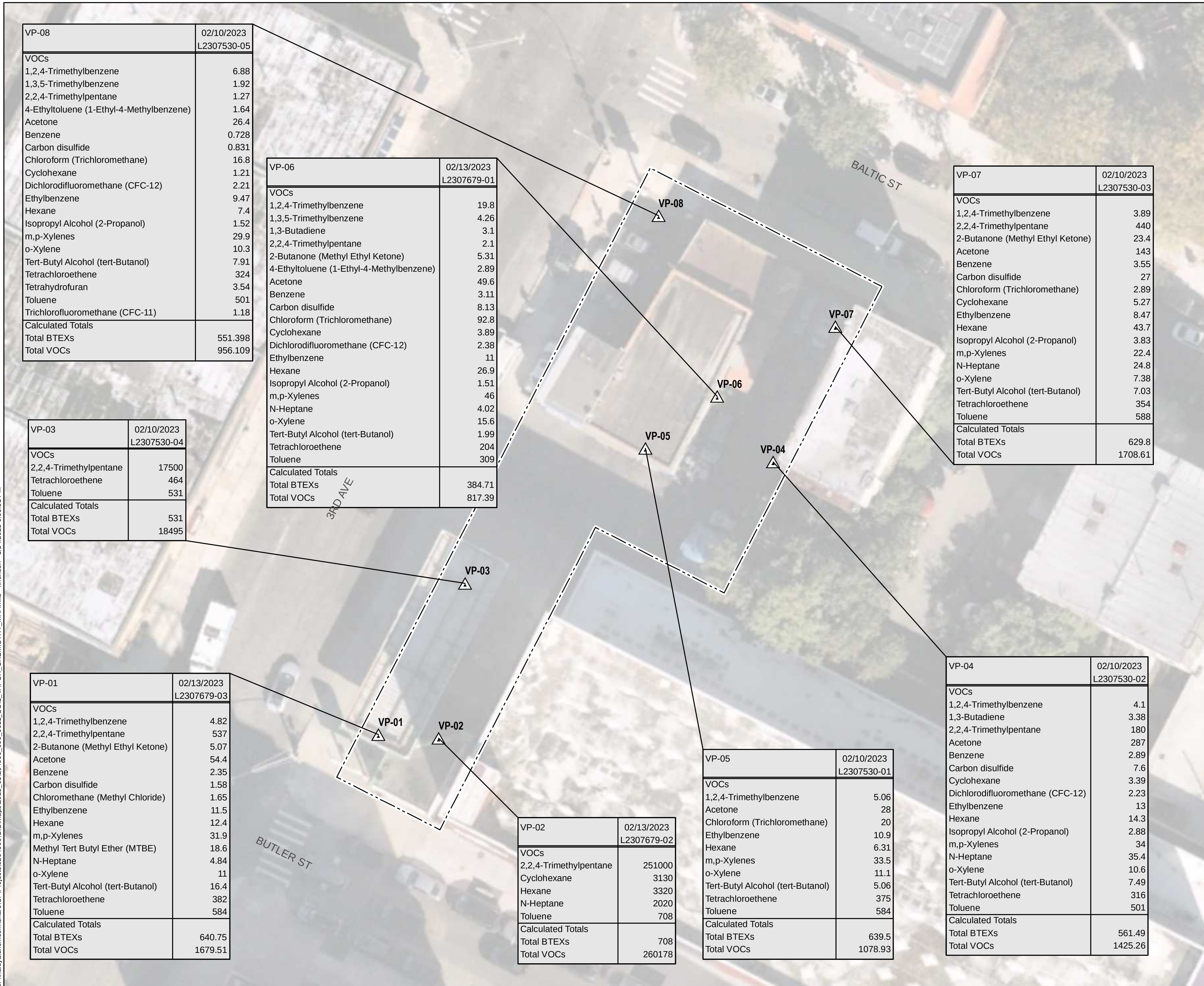
556 BALTIC STREET
BROOKLYN, NY

EMERGING CONTAMINANTS IN GROUNDWATER RESULTS EXCEEDANCES MAP

MARCH 2023

FIGURE 9

GIS:\\haleyaldrich.com\share\CF\Projects\0204090\GIS\Maps\2023_03\0204090_000_0010_EMERGING_CONTAMINANTS_IN_GROUNDWATER_RESULTS_EXCEEDANCES_MAP.mxd - khensen - 3/23/2023 8:10:25 AM



VP-08	02/10/2023 L2307530-05
VOCs	
1,2,4-Trimethylbenzene	6.88
1,3,5-Trimethylbenzene	1.92
2,2,4-Trimethylpentane	1.27
4-Ethyltoluene (1-Ethyl-4-Methylbenzene)	1.64
Acetone	26.4
Benzene	0.728
Carbon disulfide	0.831
Chloroform (Trichloromethane)	16.8
Cyclohexane	1.21
Dichlorodifluoromethane (CFC-12)	2.21
Ethylbenzene	9.47
Hexane	7.4
Isopropyl Alcohol (2-Propanol)	1.52
m,p-Xylenes	29.9
o-Xylene	10.3
Tert-Butyl Alcohol (tert-Butanol)	7.91
Tetrachloroethene	324
Tetrahydrofuran	3.54
Toluene	501
Trichlorofluoromethane (CFC-11)	1.18
Calculated Totals	
Total BTEXs	551.398
Total VOCs	956.109

VP-06	02/13/2023 L2307679-01
VOCs	
1,2,4-Trimethylbenzene	19.8
1,3,5-Trimethylbenzene	4.26
1,3-Butadiene	3.1
2,2,4-Trimethylpentane	2.1
2-Butanone (Methyl Ethyl Ketone)	5.31
4-Ethyltoluene (1-Ethyl-4-Methylbenzene)	2.89
Acetone	49.6
Benzene	3.11
Carbon disulfide	8.13
Chloroform (Trichloromethane)	92.8
Cyclohexane	3.89
Dichlorodifluoromethane (CFC-12)	2.38
Ethylbenzene	11
Hexane	26.9
Isopropyl Alcohol (2-Propanol)	1.51
m,p-Xylenes	46
N-Heptane	4.02
o-Xylene	15.6
Tert-Butyl Alcohol (tert-Butanol)	1.99
Tetrachloroethene	204
Toluene	309
Calculated Totals	
Total BTEXs	384.71
Total VOCs	817.39

VP-07	02/10/2023 L2307530-03
VOCs	
1,2,4-Trimethylbenzene	3.89
2,2,4-Trimethylpentane	440
2-Butanone (Methyl Ethyl Ketone)	23.4
Acetone	143
Benzene	3.55
Carbon disulfide	27
Chloroform (Trichloromethane)	2.89
Cyclohexane	5.27
Ethylbenzene	8.47
Hexane	43.7
Isopropyl Alcohol (2-Propanol)	3.83
m,p-Xylenes	22.4
N-Heptane	24.8
o-Xylene	7.38
Tert-Butyl Alcohol (tert-Butanol)	7.03
Tetrachloroethene	354
Toluene	588
Calculated Totals	
Total BTEXs	629.8
Total VOCs	1708.61

VP-03	02/10/2023 L2307530-04
VOCs	
2,2,4-Trimethylpentane	17500
Tetrachloroethene	464
Toluene	531
Calculated Totals	
Total BTEXs	531
Total VOCs	18495

VP-01	02/13/2023 L2307679-03
VOCs	
1,2,4-Trimethylbenzene	4.82
2,2,4-Trimethylpentane	537
2-Butanone (Methyl Ethyl Ketone)	5.07
Acetone	54.4
Benzene	2.35
Carbon disulfide	1.58
Chloromethane (Methyl Chloride)	1.65
Ethylbenzene	11.5
Hexane	12.4
m,p-Xylenes	31.9
Methyl Tert Butyl Ether (MTBE)	18.6
N-Heptane	4.84
o-Xylene	11
Tert-Butyl Alcohol (tert-Butanol)	16.4
Tetrachloroethene	382
Toluene	584
Calculated Totals	
Total BTEXs	640.75
Total VOCs	1679.51

VP-02	02/13/2023 L2307679-02
VOCs	
2,2,4-Trimethylpentane	251000
Cyclohexane	3130
Hexane	3320
N-Heptane	2020
Toluene	708
Calculated Totals	
Total BTEXs	708
Total VOCs	260178

VP-05	02/10/2023 L2307530-01
VOCs	
1,2,4-Trimethylbenzene	5.06
Acetone	28
Chloroform (Trichloromethane)	20
Ethylbenzene	10.9
Hexane	6.31
m,p-Xylenes	33.5
o-Xylene	11.1
Tert-Butyl Alcohol (tert-Butanol)	5.06
Tetrachloroethene	375
Toluene	584
Calculated Totals	
Total BTEXs	639.5
Total VOCs	1078.93

VP-04	02/10/2023 L2307530-02
VOCs	
1,2,4-Trimethylbenzene	4.1
1,3-Butadiene	3.38
2,2,4-Trimethylpentane	180
Acetone	287
Benzene	2.89
Carbon disulfide	7.6
Cyclohexane	3.39
Dichlorodifluoromethane (CFC-12)	2.23
Ethylbenzene	13
Hexane	14.3
Isopropyl Alcohol (2-Propanol)	2.88
m,p-Xylenes	34
N-Heptane	35.4
o-Xylene	10.6
Tert-Butyl Alcohol (tert-Butanol)	7.49
Tetrachloroethene	316
Toluene	501
Calculated Totals	
Total BTEXs	561.49
Total VOCs	1425.26

LEGEND

SOIL VAPOR PROBE

SITE BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. ALL DETECTED ANYLTES SHOWN ON FIGURE.
3. SOIL VAPOR ANALYSIS - VOLATILE ORGANIC COMPOUNDS (VOCs)
4. RESULTS ARE DISPLAYED IN MICROGRAMS PER CUBIC METER (µg/m3)
5. TOTAL DETECTED CONCENTRATION OF BENZENE, TOLUENE, ETHYLBENZENE AND XYLENES (BTEX)
6. TOTAL VOCs IS THE SUM OF ALL THE DECTECTED CONCENTRATIONS.
7. AERIAL IMAGERY SOURCE: NEARMAP, 19 OCTOBER 2021

0 30 60
SCALE IN FEET

HALEY ALDRICH

REMEDIAL INVESTIGATION WORK PLAN
556 BALTIC STREET
BROOKLYN, NEW YORK

SOIL VAPOR CHEMISTRY MAP

MARCH 2023

FIGURE 10

GIS:\\haleyaldrich.com\share\CF\Projects\0204090\GIS\Maps\2023_03\204090_000_0011_SOIL_VAPOR_CHEMISTRY_MAP.mxd - khensen - 3/14/2023 6:03:31 PM

APPENDIX A
Remedial Investigation Work Plan

www.haleyaldrich.com

REMEDIAL INVESTIGATION WORK PLAN
556 BALTIC STREET SITE
NYSDEC BCP SITE C224375
BROOKLYN, NEW YORK

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

for
159 Third Realty LLC
199 Lee Avenue
Brooklyn, New York 11211

File No. 0204090
January 2023

Certification

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

Mari Cate Conlon

13 January 2023

Mari C. Conlon, P.G. | *Date*

Table of Contents

Table of Contents

List of Appendices

List of Tables

List of Figures

1. Introduction

On behalf of the Applicant, 159 Third Realty LLC, Haley & Aldrich of New York (Haley & Aldrich) has prepared this Remedial Investigation Work Plan (RIWP) for the 556 Baltic Street (referred to as "159 Third Avenue" in previous investigations) BCP Site C224375, located at 151-169 Third Avenue (see Figure 1) in Brooklyn, New York (Site). This RIWP was prepared in accordance with the regulations and guidance applicable to the BCP.

The Site is located in the Gowanus neighborhood of Brooklyn and is identified as Block 407 and Lot 1 on the New York City tax map. The Site is approximately 11,800 square-feet and is bound to the north by Baltic Street followed by a multi-story residential building, to the west by Third Avenue followed by a single-story commercial/manufacturing building, to the east by a four-story residential building and a Cube Smart storage building, and to the south by Butler Street followed by a hotel.

The Site is currently located within a residential and manufacturing zoning district (M1-4/R7X). The Site is located in an urban area surrounded by commercial and industrial properties served by municipal water.

The Site is listed with an environmental E-Designation (E-601) for hazardous materials, noise, and air quality (HVAC limited to natural gas and exhaust stack location limitations) resulting from a City Environmental Quality Review (CEQR) effective March 2019 CEQR # 19DCP157K). Satisfaction of the E-Designation requirements is subject to review and approval by the New York City Mayor's Office of Environmental Remediation (OER) prior to redevelopment. A site location map is provided as Figure 1 and a site plan showing the property boundaries and adjacent properties is provided as Figure 2.

We understand that 159 Third Realty LLC plan to redevelop the Site for mixed residential (including 421-a affordable housing) and commercial purposes which is consistent with current zoning. The new development is anticipated to include a one level cellar requiring remedial excavations extending to up to approximately 14 feet below ground surface (ft bgs).

1.1 PURPOSE

Previous investigations conducted at the Site identified the presence of elevated concentrations of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and metals in soil at the Site. In addition, the Remedial Investigations detected high BTEX and total VOCs in soil vapor concentrations indicating source material contamination which was not identified to date. These findings will require additional investigation to ascertain and delineate on Site source(s) of the high total VOCs. The results from the RI indicate the need for additional investigation and sampling in order to comprehensively understand the extent of contamination on the Site. A summary of the historical soil and groundwater analytical data collected at the Site is displayed in Figures 6 and 7.

Previous investigations did not comprehensively delineate the extent of soil and groundwater contamination on the Site. Results of the additional sample analyses will be used to confirm the results of the previous Site characterization activities, delineate any on-site source(s), and determine a course for remedial action.

2. Background

2.1 CURRENT LAND USE

Currently, the Site is vacant and was most recently operated by a BP Gas Station which ceased operations in early 2022. The northern portion of the Site was occupied by Baltic Street Car Wash and Auto Detailing operation, which ceased operations in December 2021. The Site is improved with the former one-story car wash building, a one-story kiosk and three pump islands associated with the former gas station. The remainder of the Site is paved and was previously used for ingress/egress and parking. The Site is located within an urban area characterized by low-rise commercial, industrial, and residential buildings.

2.2 SITE HISTORY

Based on a Phase I ESA by GEI Consultants dated September 2021, the Site was initially developed in the 1920s with multiple 4-story commercial stores. By 1978 a car wash was constructed on the northern portion of the Site. The Site has operated as a gasoline service station, auto rental and car wash since the 1970s and with two 4,000-gallon gasoline Underground Storage Tanks which were installed in 1972. The Site also reportedly has a 550-gallon tank installed in 1974 and closed-removed in 1997. There are three previously closed spill cases reported for the Site including two that were reportedly the result of failed tank tightness testing and a third case pertaining to impacted groundwater on the Site and the neighboring site across Third Avenue.

The Brownfield Cleanup Program (BCP) site is currently owned by 159 Third Realty LLC, which is a New York State Domestic Limited Liability Corporation. 159 Third Realty LLC plans to develop the Site for residential and commercial purposes, consistent with current zoning.

2.3 SURROUNDING LAND USE

The Site is located along Third Avenue between Butler Street and Baltic Street in an urban area identified as the Gowanus neighborhood in the Borough of Brooklyn. There are three sensitive receptors that are within a 500 ft radius of the Site. The following sensitive receptors can be found below and are shown in Figure 3:

1) Alonzo A Daughtry Day Care Center, 565 Baltic Street, #1704, Brooklyn, New York, 11217, listed as a day care center.

2) Fresnius Kidney Care, 595 Degraw Street, Brooklyn, New York, 11217, listed as a health care facility.

3) Renaissance Home Health Care Services (Bumble Bee), 267 Douglass Street, 3rd Floor, Brooklyn NY 11217 listed as a daycare center.

Properties immediately surrounding the Site are within the recently approved Gowanus Neighborhood Plan (rezoning) and are now zoned for residential, commercial and use.

2.4 SURROUNDING LAND USE HISTORY

The area surrounding the Site has been used primarily for manufacturing, commercial, residential and auto-related uses from the late 1800s through the present day.

2.5 PREVIOUS INVESTIGATIONS

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

1. November 2006 Investigation Summary Report Prepared by Impact Environmental
2. February 2007 Update to Subsurface Investigation Report Prepared by Impact Environmental
3. 2017-2019 Quarterly Groundwater Monitoring Reports Spill #95-06588 Prepared by Berninger Environmental Inc.
4. September 2021 Phase I Environmental Site Assessment, prepared by GEI Consultants
5. December 2001 Limited Phase II Environmental Site Investigation Report, prepared by Haley & Aldrich of New York
6. March 2022 Remedial Investigation Report, prepared by Haley & Aldrich of New York

Full investigation findings are included in Appendix A. A summary of environmental findings of these investigations is provided below.

November 2006 Investigation Summary Report
Prepared by Impact Environmental
This investigation was conducted to define what, if any, contaminants have impacted the environmental quality of the Site. The objectives of this investigation were: 1) to determine the extent of any gasoline-related soil or groundwater contamination associated with the NYSDEC Spill# 95-06588 and; 2) to determine the site-specific groundwater flow direction, determined to be to the east-northeast. In November 2006, Impact Environmental (Impact) installed four soil borings and four groundwater monitoring wells. Soil analytical results did not detect elevated VOC concentrations in soil with the exception of one detection of benzene at 6.6 ppb. Elevated PAHs were detected in soil samples collected at 4 to 11 ft bgs throughout the Site. Groundwater analytical results detected elevated concentrations of naphthalene, BTEX and methyl-tert-butyl-ether (MTBE) above applicable standards. Impact concluded the extent of the dissolved phase gasoline groundwater contamination was not fully delineated under the scope of this investigation. Accordingly, it was recommended that monitoring wells be installed hydraulically down gradient.

February 2007 Update to Subsurface Investigation Report
Prepared by Impact Environmental
This letter served as an update to the Subsurface Investigation Report prepared for the Site and included results from installation and sampling of monitoring wells installed downgradient from impacted wells observed in the 2006 investigation. Additional soil samples co-located with the monitoring wells were also collected. Soil and groundwater analytical results did not detect concentrations of VOCs. Impact concluded that contamination did not migrate beyond the Site, considered the contamination fully delineated and proposed corrective action via a Remedial Action Plan which was submitted in April 2007 and approved in May 2007. Proposed remedial actions included enhance bioremediation combining Waterloo Emitter™, oxygen gas diffusive release technology, and BioCritter®, naturally occurring

microbial blend, in order to enhance growth of microorganism required for in-situ bioremediation. According to the spill report, remedial systems were implemented in October of 2007 and quarterly monitoring began in 2008.

2017-2019 Quarterly Groundwater Monitoring Reports Spill #95-06588
Prepared by Berninger Environmental Inc. (BEI)

Quarterly groundwater monitoring reports were received via Freedom of Information Law request dated March 2017 through March 2019. Reports found no free product in monitoring wells at the site and fluctuating levels of BTEX and petroleum related VOCs. Spill closure was requested when VOC concentrations continued a downward trend with only three remaining wells exhibiting minor detections above groundwater standards. Remaining impacts were expected to naturally attenuate over time and the BEI concluded the Site did not pose a threat to human health or the environment. NYSDEC approved spill closure on 16 May 2019.

September 2021 Phase I Environmental Site Assessment
Prepared by GEI Consultants

A Phase I Environmental Site Assessment (ESA) was performed by GEI Consultants, Inc. in September 2021 for the purpose of identifying Recognized Environmental Conditions (RECs) in connection with the Site. As identified in the Phase I ESA, the site was initially developed in the 1920s with multiple 4-story commercial stores. Between 1972 and 1980, a gasoline service station began operations and by 1978, the former car wash facility was developed.

The Phase I identified the following RECs at the Site:

- NYSDEC Spill Incident 9607280 – Open NYSDEC Spill incident located at the adjacent property across Third Avenue to the west of the subject Site. A monitoring well was required to be installed on the subject Site for gauging and sampling related to the open spill case
- The Site has been operating as a gasoline service station since the 1970s.
- The Site was utilized for auto repair and detailing.

Additionally, three HRECs were identified, each corresponding to a closed spill case reported at the Site. Details of each spill case are included below:

Spill #1402248:

Spill #1402248 was reported on 2 June 2014 due to a failed tank tightness test. The source of the leak was identified as a vent line at the vent stack. Repairs were made and the system passed retesting and the spill case was closed on 9 July 2014.

Spill #0902974

Spill #0902974 was reported on 12 June 2019 due to a failed tank tightness test. No contamination was observed, and a manway gasket was replaced. The tank passed the tank tightness test following the repair, and NYSDEC closed the spill case on 18 August 2009.

Spill #9506588
This spill was reported on August 17, 1995. This spill was investigated and remediated under Spill Number 9607280. NYSDEC determined that the remediation was complete and closed the Spill Number on May 16, 2019.

***December* 2021 Limited Phase II Environmental Site Investigation Report**
Prepared by Haley & Aldrich of New York
Haley & Aldrich of New York (Haley & Aldrich) completed a limited sampling event at the Site to investigate soil, soil vapor, and groundwater quality beneath the Site. Fill material, generally consisting of brown to dark brown coarse to medium sand with varying amounts of gravel, concrete, brick, asphalt, and silt, was observed from surface grade to approximately 8 to 10 ft bgs. The fill layer was underlain by brown fine silty sand extending to each boring terminus (approximately 15 ft bgs). Petroleum-like odors and elevated PID readings were encountered in borings B-4 and B-6 from 10 to 15 ft bgs with a maximum detected VOC concentration of 141.1 part per million (ppm) in B-4. A groundwater sample was collected from the pre-existing groundwater monitoring well on site (MW-1) associated with Spill #9607280 on the west-adjacent property. Three temporary soil vapor points, SV-1 through SV-3, were installed approximately 12 ft bgs (just above the groundwater interface).

Four petroleum related VOCS were detected in site soils above UUSCOs from 13 to 15 ft bgs. Multiple SVOCs, specifically polycyclic aromatic hydrocarbons (PAHs), were identified at concentrations above the UUSCOs and RRSCOs in soil samples from the surface down to 4 ft bgs. Metals were detected exceeding both UUSCOs and RRSCOs in shallow and deep borings site wide. Arsenic was detected in one sample at concentrations above the RRSCO and another sample at concentrations above the UUSCO. Barium was detected at concentrations above the RRSCO in one sample. Copper, lead, mercury, nickel and selenium were detected in multiple samples throughout the site above the UUSCOs.

No VOCs were detected above AWQS, however, multiple SVOCs, specifically polycyclic aromatic hydrocarbons (PAHs), were identified in MW-1 with estimated concentrations above the applicable AWQS including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene and indeno(1,2,3-cd)pyrene.

Total VOC concentrations ranged between 121,290 µg/m3 in sample SV-3 to 5,168,000 µg/m3 in sample SV-2, which were installed just above the groundwater interface at 12 ft bgs. Total benzene, toluene, ethylbenzene, and xylenes (BTEX) concentrations ranged concentrations in soil vapor samples ranged from non-detect in sample SV-1 to 28,000 µg/m3 in SV-2.

The soil vapor sample results were also evaluated using the NYSDOH Decision Matrices A, B and C (updated May 2017) as referenced in the 2006 NYSDOH Soil Vapor Intrusion Guidance document. Indoor air was not sampled; therefore, the soil vapor concentrations were compared to the matrices to provide a range of recommended potential response measures. Of the compounds evaluated in the NYSDOH Decision Matrices, concentrations were not detected above criteria thresholds for action.

It was noted that high method detection limits were reported for soil vapor samples. This is likely due to the fact that samples were diluted in the laboratory to accommodate for the high concentration of a non-target compound that was detected in the soil vapor sample (i.e., a compound outside of the TO-15 compound list). Based on the analytical data provided, it can be stated that concentrations of TO-15 compounds do not exist at or above the method detection limits reported; however, concentrations may be present below this reported value. Non-target compounds with high detections include 2,2,4-trimethylpentane, a known component of gasoline, at 30,900 µg/m3. Additional compounds associated with solvent usage were detected above laboratory detection limits including n-hexane (72,200 µg/m3), cyclohexane (14,300 µg/m3) and heptane (3,130 µg/m3). Detections of these compounds are indicative of a source associated with gasoline and solvents.

March 2022 Remedial Investigation Report
Prepared by Haley & Aldrich
On behalf of the Requestor, Haley & Aldrich completed a Phase II/RI for NYCOER in January 2022 to investigate and delineate the nature and extent of contamination identified at the Site during the previous Limited Phase II ESI. The stratigraphy of the Site, from the surface down, consists of approximately 8-10 feet of urban fill material, comprised of brown to dark brown coarse to medium to fine sand with varying amounts of gravel, concrete brick, asphalt, and silt, underlain by a potential native layer consisting of brown fine silty sand. Petroleum-like odors and staining were observed in SB-05 from 18 to 20 ft bgs. PID readings ranged from non-detect at 0.0 parts per million (ppm) to 36.3 ppm in SB-05 at approximately 20 ft bgs. A total of 15 soil samples, four groundwater samples, six soil vapor samples were collected (plus quality assurance/ quality control [QA/QC] samples).

No VOCs were detected in soil samples at concentrations exceeding the applicable soil cleanup objectives. Seven semi-volatile organic compounds (SVOC), specifically polycyclic aromatic hydrocarbons (PAHs) were detected above RRSCOs. One SVOC, 3-Methylphenol/4-Methylphenol was detected above the UUSCO in SB-07. No other SVOCs were detected above the UUSCOs or RRSCOs in soil samples. One PCB, Total PCBs, was detected exceeding UUSCO in a shallow sample in SB-1. PCBs were not detected above UUSCOs or RRSCOs in any other sample. Four pesticides were detected above the UUSCOs but not the RRSCOs in SB-07. No other pesticides were detected above either UUSCOs or RRSCOs in any other sample. The four metals arsenic, copper, lead, and mercury were detected above both UUSCOs and RRSCOs and three metals, nickel, selenium, and zinc, were detected above the UUSCO in SB-7 at 12-14 ft bgs. No other metals were detected above either the UUSCOs or RRSCOs in any other sample.

One soil sample, SB-02 (0-2'), was further analyzed for the emerging contaminants. Four (4) compounds, including Perfluoroheptanoic Acid, Perfluorooctanesulfonic Acid, Perfluorooctanoic Acid, and Perfluorotetradecanoic Acid, were identified above detection limits. No other PFOA/PFAS were identified above detection limits. 1,4-dioxane was not detected above laboratory detection limits in soil samples analyzed.

VOCs were not detected above AWQS in any sample. Two SVOCs were detected above the AWQS in TW-1. One SVOC was detected above the AWQS in TW-1 and TW-3. No other SVOCs were detected above the AWQS in any other groundwater. Six metals, arsenic, iron, lead, manganese, mercury, and sodium, were detected above the AWQS in all four groundwater samples. No other metals were detected above the AWQS in any other groundwater samples. Three dissolved metals, iron, manganese, and sodium, were detected above the AWQS in MW-1 and TW-2. No other dissolved metals were detected above the AWQS in any other groundwater sample. PCBs and Pesticides were not detected above the AWQS in any groundwater sample.

While a groundwater cleanup regulatory criterion does not exist for 1,4-dioxane in New York State, concentrations of were compared to New York State's drinking water MCL of 1 µg/L. 1,4-dioxane was not detected above the laboratory detection limit of 1 µg/L in any of the groundwater samples. PFAS compounds in groundwater are compared to the NYSDEC June 2021 guidance values. One (1) PFOA/PFAs, was detected above the NYDEC target limit of 10 ng/l at 14.4 ng/l in TW-2. Eighteen (18) additional PFOA/PFAs, were identified above detection limits.

Total VOC concentrations in soil vapor samples ranged from 56.04 µg/m3 in sample SV-5 to 3,189.51 µg/m3 in sample SV-2. The total concentration of petroleum related VOCs (total BTEX) ranged from non-detect in SV-2 to 23.45 µg/m3 in SV-6. The chlorinated VOCs, 1,1,1-trichloroethane (1,1,1-TCA), tetrachloroethene (PCE), trichloroethene (TCE), carbon tetrachloride, 1,1-dichloroethene, cis-1,2-dichloroethene, and vinyl chlorine were not detected in soil vapor samples.

High method detection limits were reported in soil vapor samples. While soil vapor samples were run for SIM analysis in order to achieve the lowest possible detection limits, interference from target compounds required the laboratory to dilute the samples in order to run on the instrumentation. Upon discussion with the air analysis group at Alpha Analytical Inc. (Alpha) the explanation for elevated detection limits is because target compounds cannot be ignored by their instrumentation and dilution is required to allow for a compliant analysis and in order to not saturate the instrumentation detector nor cause sample carryover and instrument contamination.

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 1 and Figure 2. 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

A geophysical survey was performed by GPRS, Inc. across the entire 556 Baltic Street Site on 30 November 2021. Electrical utility lines were identified along the eastern Site boundary. A stormwater utility line was identified in the southern portion of the gasoline station. Multiple underground anomalies associated with fuel/gas/oil product were identified primarily under the pump islands. The geophysical survey findings, reports, and approximate locations of the anomalies are presented in Appendix C. The findings report, provided by GPRS, dated 01 December 2021, is provided as Appendix C.

3.2 SELECTIVE DEMOLITION

The existing structures prohibit the implementation of a comprehensive remedial investigation due to configuration of the interior structural walls and low clearance under the fueling canopy and interior layout of the existing structures on the Site. Prior to commencing the remedial investigation, demolition of above grade structures will be completed as needed to facilitate the implementation of the remedial investigation. Existing asphalt paving and foundation slabs will remain in place serving as an engineering control until a remedial action plan is approved and implemented.

3.3 SOIL SAMPLING

To further characterize subsurface 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 1.

A total of 21 soil borings will be installed to 20 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 or encores.

Soils will be logged continuously by a geologist or engineer using the Modified Burmister 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 D. Laboratory data will be reported in ASP Category B deliverable format.

Soil samples representative of Site conditions will be collected at 21 locations widely distributed across the Site, as shown in Figure 2. Samples will be collected from 2 to 4, 6 to 8, 10 to 12, and 14 to 16 ft bgs.

Additional samples will be collected from any interval exhibiting elevated PID readings 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
- TCL Pesticides using EPA method 8081B
- PCBs using EPA method 8082
- Per- and polyfluoroalkyl substances (PFAS) by EPA Method 1633
- 1,4-dioxane by EPA Method 8270

Samples to be analyzed for PFAS and 1,4-dioxane will be collected and analyzed in accordance with the Sampling for “1,4-dioxane and Per- and Polyfluoroalkyl Substances (PFAS) Under DECs Part 375 Remedial Programs,” respectively.

Soil analytical results will be compared to NYSDEC 6NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives (UUSCOs), Protection of Groundwater SCOs (PGWSCOs), and Restricted Residential Use SCOs (RRSCOs).

Additionally, a lead delineation and mercury delineation will be conducted at the Site. A lead delineation will be performed at former December 2021 Limited Phase II boring location B-7 where elevated concentrations of lead were detected at 5,900 mg/kg. From the location of former boring B-7, 5-foot step out borings (DB-01 through DB-03) will be performed in three directions with samples collected from 0 to 2, 2 to 4, and 4 to 6 ft bgs and analyzed for TAL and Toxicity Characteristic Leachate Procedure (TCLP) lead. A mercury delineation will be performed at former January 2022 Phase II soil boring location SB-7 where elevated mercury was detected at 10.1 mg/kg at 12 to 14 ft bgs and at former December 2021 Limited Phase II boring location B-4 where elevated mercury was detected at 8.38 mg/kg. From the location of former boring SB-7, 5-foot step out borings (DB-04 through DB-06) will be performed in three directions with samples collected from 10 to 12, 12 to 14, and 14 to 16 ft bgs, and from former boring B-4 5-foot step out borings (DB-07 through DB-09) will be performed in three directions with samples collected from 11 to 13, 13 to 15 and 15 to 17 ft bgs and analyzed for TAL and TCLP mercury. Additional step-out samples will be collected at each delineation location and placed on hold pending the initial analytical results. Delineation boring locations are shown in Figure 3.

3.4 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.

Nine two-inch permanent monitoring wells will be installed to approximately 20 ft bgs or to at least five feet below the groundwater interface (if encountered at a shallower depth). Monitoring wells will have a 2-inch annular space and be installed using either #0 or #00 certified clean sand fill. Wells will be screened from approximately 10 to 20 ft bgs and screen will straddle the groundwater interface. Groundwater was encountered at approximately 14 to 16 ft bgs during the previous RI completed in

March 2022. Monitoring wells will be developed after installation 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 ten well volumes are removed, if possible. Groundwater sampling will occur at a minimum of one week after monitoring well installation and development. The well casings will be surveyed by a New York State licensed surveyor and gauged during a round of synoptic groundwater depth readings to facilitate the preparation of a groundwater contour map and to determine the direction of groundwater flow.

The sampling and analysis plan is summarized in Table 1. Proposed and existing monitoring well locations are provided in Figure 2.

Monitoring wells will be sampled and analyzed for:

- TCL VOCs using EPA method 8260B;
- TCL SVOCs using EPA method 8270C;
- Total Metals using EPA methods 6010/7471;
- Dissolved Metals using EPA methods 6010/7471;
- TCL Pesticides using EPA method 8081B;
- PCBs using EPA method 8082
- PFAS using EPA method 1633; and
- 1,4-Dioxane using EPA method 8270 SIM.

Samples to be analyzed for PFAS and 1,4-dioxane will be collected and analyzed in accordance with the NYSDEC issued November 2022 "Sampling, Analysis and Assessment of PFAS" and the November 2022 Sampling for "1,4-dioxane and Per- and Polyfluoroalkyl Substances (PFAS) Under DECs Part 375 Remedial Programs," respectively.

Groundwater wells will be sampled using low-flow sampling methods 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. Groundwater sampling will be conducted at least one week after monitoring well development.

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

Groundwater analytical results will be compared to 6NYCRR Part 703.5 NYSDEC Technical and Operational Guidance Series 1.1.1 Ambient Water Quality Standards and Guidance Values (AWQS).

3.5 NAPL/GCM EVALUATION

The following will be conducted to investigate the potential for the presence of non-aqueous phase liquid/grossly contaminated material (NAPL/GCM) at the Site.

Two (2) deep soil borings will be installed, on the south and western boundaries of the Site to a minimum of 100 ft bgs (vicinity of HA-01 and HA-05). Boring locations are shown on Figure 4. For soil borings where NAPL/GCM is observed, soil samples will be collected at and immediately below each distinct interval of NAPL/GCM and will be analyzed for the full suite TCL/TAL (including PFAS and 1,4-dioxane), plus cyanide. If NAPL is not readily observed, a shake test will be performed per the Field Descriptions of Samples for Former Manufactured Gas Plant (MGP) Sites (Appendix H). If NAPL/GCM is not observed in the soil boring interval collected at 100 feet, no further advancement of the boring is required. If NAPL/GCM is observed in accordance with the Field Descriptions of Samples for Former MGP Sites, the boring will be advanced past 100 feet until vertical delineation of NAPL/GCM has been determined. Final vertical delineation can only be determined is soil borings have a minimum recovery of 50%.

If NAPL/GCM is observed in the initial soil borings (above), additional investigation to delineate the full extent of NAPL/GCM will be conducted. Soil borings shall be advanced 20 ft north, south, east, and west in the horizontal direction from soil borings where NAPL/GCM was observed. To ensure vertical delineation of NAPL/GCM, the new borings will be advanced to a minimum depth of where NAPL/GCM was observed in the parent boring. Final soil boring depths will be determined based on field observations of NAPL/GCM using the attached Field Descriptions of Samples for Former MGP Sites. If NAPL/GCM is not observed at the minimum required depth, no further advancement of the boring is required. If NAPL/GCM is observed, the boring will be advanced until vertical delineation of NAPL/GCM has been determined.

For soil borings where NAPL/GCM has been observed, soil samples will be collected at and immediately below each distinct interval of NAPL/GCM and will be analyzed for the full suite TCL/TAL, plus cyanide. All preliminary analytical results and draft soil boring logs will be submitted to NYSDEC to facilitate review of delineation. Delineation will only be deemed completed upon receipt of NYSDEC concurrence and approval.

If NAPL is identified in a soil boring by the presence of saturated material or free phase product, to delineate groundwater contamination associated with NAPL/GCM, monitoring wells will be installed at soil boring locations directly downgradient of where NAPL/GCM is observed. Monitoring wells will be installed and screened at the groundwater interface and below the deepest observation of NAPL/GCM. Monitoring wells will be installed in accordance with the NYSDEC Guidelines on Installation of Overburden Wells (Monitoring Wells) for Environmental Investigations. Any observations of sheen, blebs, free-phase product/tar, staining or coating of the sampling equipment, odor, etc. made during sampling of groundwater are to be included in the groundwater sample collection log. If NAPL/GCM is observed in the well at the time of sampling, NAPL thickness will be documented in sampling logs and NAPL will be removed prior to groundwater sample collection. Samples will be collected for full suite TCL/TAL.

A synoptic groundwater elevation gauging event will be performed following the installation and development of groundwater monitoring wells. Monitoring well locations will be surveyed by a licensed surveyor and tied into the NAVD88 datum. Monitoring well construction data, groundwater elevation, and surveyed locations in NAVD88 will be submitted electronically to the NYSDEC EQuIS database. All preliminary analytical results and draft groundwater sampling logs will be submitted to NYSDEC as soon as they are available to facilitate a timely review of delineation. Delineation will only be deemed completed upon receipt of NYSDEC concurrence and approval.

If NAPL is identified in a soil boring by the presence of saturated material or free phase product, NAPL mobility will be assessed. To assess NAPL mobility, 2'' PVC wells will be installed and screened over the impacted interval. Wells will have minimum annular space of two inches around the entire monitoring well circumference, have a sand pack a minimum of 2-ft above the top of the monitoring well screen, and have a bentonite seal a minimum of 2-ft thick. A minimum of a five (5) foot sump will be installed below the screened interval. Wells will be monitored no sooner than seven days post development for NAPL. Any observations of sheen, blebs, free-phase product, staining or coating of the sampling equipment, odor, etc. that are made during sampling of groundwater will be included in a log. Monitoring well locations will be surveyed by a licensed surveyor and tied into the NAVD88 datum. Monitoring well construction data, and surveyed locations in NAVD88 will be submitted to the NYSDEC EQuIS database. NAPL mobility observations will be submitted to NYSDEC in draft to facilitate review of the assessment. In areas where significant amounts of fill will be placed to raise the grade and/or building construction may result in significant loading and/or vibration to the subsurface, NAPL monitoring (and provisions for NAPL collection and removal) must be implemented throughout and beyond development to ensure NAPL isn't mobilized, nor migrates off-site. The mobility assessment will only be deemed completed upon receipt of NYSDEC concurrence and approval.

3.6 INVESTIGATION DERIVED WASTE

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

3.7 SOIL VAPOR SAMPLING

Samples will be collected in accordance with the New York State Department of Health (NYSDOH) Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH October 2006). Eight soil vapor probes will be installed to approximately 10 to 12 ft bgs, or approximately one to two ft above the groundwater interface. 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 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 United States Environmental Protection Agency (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.

3.8 PROPOSED SAMPLING RATIONALE

Haley & Aldrich has proposed the sample plan described herein and as shown in Figure 2, in consideration of the data generated during the previous investigations conducted at the Site. Remedial Investigations were performed from December 2021 through March 2022 to further investigate and delineate the petroleum-related contamination previously identified in Site. This RI revealed elevated VOC, SVOC and metal concentrations in soil samples collected throughout the Site. The sampling map from this RI (included in Appendix A) shows data gaps throughout the Site, including a lack of analytical data for potentially high-risk areas that may have been impacted during historical Site operations. In order to properly characterize the Site and identify potential source areas, all phases of media will be comprehensively investigated as part of this RI and data gaps will be evaluated.

In addition, the Remedial Investigations detected high BTEX and total VOCs in soil vapor concentrations indicating source material contamination which was not identified to date. These findings in conjunction with spill case #9506588 at the Site require additional investigation to ascertain and delineate on Site source(s) of the high total VOCs.

The Proposed Sample Location Map (included as Figure 2) is designed to generate sufficient data to identify the source of contamination and classify subsurface conditions throughout the Site, as a whole, with a particular focus on sample locations in areas of the Site that have historically revealed evidence of contamination.

4. Quality Assurance and Quality Control

Quality Assurance/Quality Control (QA/QC) procedures will be used to provide performance information with regard to the 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 QAPP included in Appendix D.

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. Validated data will be submitted to the NYSDEC EQuIS database in an EDD package.

5.2 DATA VALIDATION

Data packages will be sent to a qualified data validation specialist to evaluate the 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 the usability of the data for project-related decisions. Data validation will be completed in accordance with the DUSR guidelines from the 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 successfully completing the project.

The NYSDEC designated Case Manager, Ruth Curley, will be responsible for overseeing the successful completion of the project work and adherence to the work plan on behalf of NYSDEC.

The NYSDOH designated Case Manager, Christopher Budd, will be responsible for overseeing the successful completion of the project work and adherence to the work plan on behalf of NYSDOH.

James Bellew will be the 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.

Mari Conlon, P.G. will be the Project Manager and the Qualified Environmental Professional (QEP) 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 in accordance with the DER-10 guidance 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.

Elizabeth Scheuerman will be the Assistant Project Manager for this work and will also act as the Quality Assurance Officer (QAO). The QAO will assure the application and effectiveness of the QAPP by the analytical laboratory and the project staff, provide input to field team as to corrective actions that may be required as a result of the above-mentioned evaluations and prepare and/or review data validation and audit reports.

Zach Simmel. will be the field geologist 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 drilling subcontractor will be Lakewood Environmental. Lakewood Environmental 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 F 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 the 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 primarily outdoors, with few locations indoors, at the Site. Where intrusive drilling operations are planned, community air monitoring will be implemented to protect 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 the air at concentrations as low as 1 part per million (ppm). A downwind and upwind CAMP station will be in place for all ground intrusive activities. 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). CAMP data will be provided to NYSDEC in the daily reports, further detailed in Section 8. The NYSDOH CAMP guidance document is included as Appendix G.

7.3 QUALITATIVE HUMAN HEALTH EXPOSURE ASSESSMENT (QHHEA)

A comprehensive QHHEA (on-Site and off-Site) will be performed following the collection of all RI data. The exposure assessment will be performed in accordance with Section 3.3(c)4 of DER-10 and the NYSDOH guidance for performing a qualitative EA (DER-10; Appendix 3B). The results of the QHHEA will be provided in the RIR. According to Section 3.10 of DER-10, and the Fish and Wildlife Resources Impact Analysis Decision Key in DER-10 Appendix 3C, a Fish and Wildlife exposure assessment will be performed (if needed) based on the results of the RI results.

8. Reporting

Daily reports will be submitted to NYSDEC and NYSDOH summarizing the Site activities completed during the remedial investigation. Daily reports will include a Site figure, a description of Site activities, a photo log, and CAMP data. Daily reports will be submitted the following morning after Site work is completed.

Following the completion of the work, a summary of the RI will be provided to NYSDEC in a Remedial Investigation Report (RIR) to support the 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 an RIR/RAWP. The RIR/RAWP will include all data collected during the RI and adhere to the technical requirements of DER-10.

9. Schedule

The Site owner plans to implement this RIWP promptly after approval of this RIWP.

Anticipated RI Schedule	
BCP Application, RIWP and 30-Day Public Comment Period (Concurrent with BCP application)	August 2022- January 2023
Executed Brownfield Cleanup Agreement	December 2022
NYSDEC Approval of RIWP	January 2023
RI Implementation	February 2023 – March 2023
RIR/RAWP Submittal and 45-Day Public Comment Period	March 2023 – April 2023
NYSDEC Approval of RIR/RAWP	May 2023

References

1. Brownfield Cleanup Program Application. 556 Baltic Street, Brooklyn, New York. Prepared by 159 Third Realty LLC & Haley & Aldrich of New York, prepared for the New York State Department of Environmental Conservation. Submitted July 2022.

2. ASTM Phase I Environmental Site Assessment, 169 Third Avenue, Brooklyn, New York, Prepared by GEI Consultants, prepared for The Macchia Group, Inc., September 2021.

3. NYCOER Remedial Investigation Report (151-169 Third Avenue), March 2022, prepared by Haley & Aldrich.

4. Investigation Summary Report, 169 Third Avenue, Brooklyn, New York, prepared by Impact Environmental, prepared for ASTI Holding Corp, dated 28 November 2006.

5. Update to Investigation Summary Report, 169 Third Avenue, Brooklyn, New York, prepared by Impact Environmental, prepared for ASTI Holding Corp, dated 21 February 2007.

6. Remedial Action Plan 169 Third Avenue, Brooklyn, New York, prepared by Impact Environmental, prepared for ASTI Holding Corp, dated 21 April 2007.

7. Quarterly Update Report prepared by Berninger Environmental, dated 31 March 2019.

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

TABLES

Table 1. Sample and Analysis Plan
556 Baltic Street
Brooklyn New York

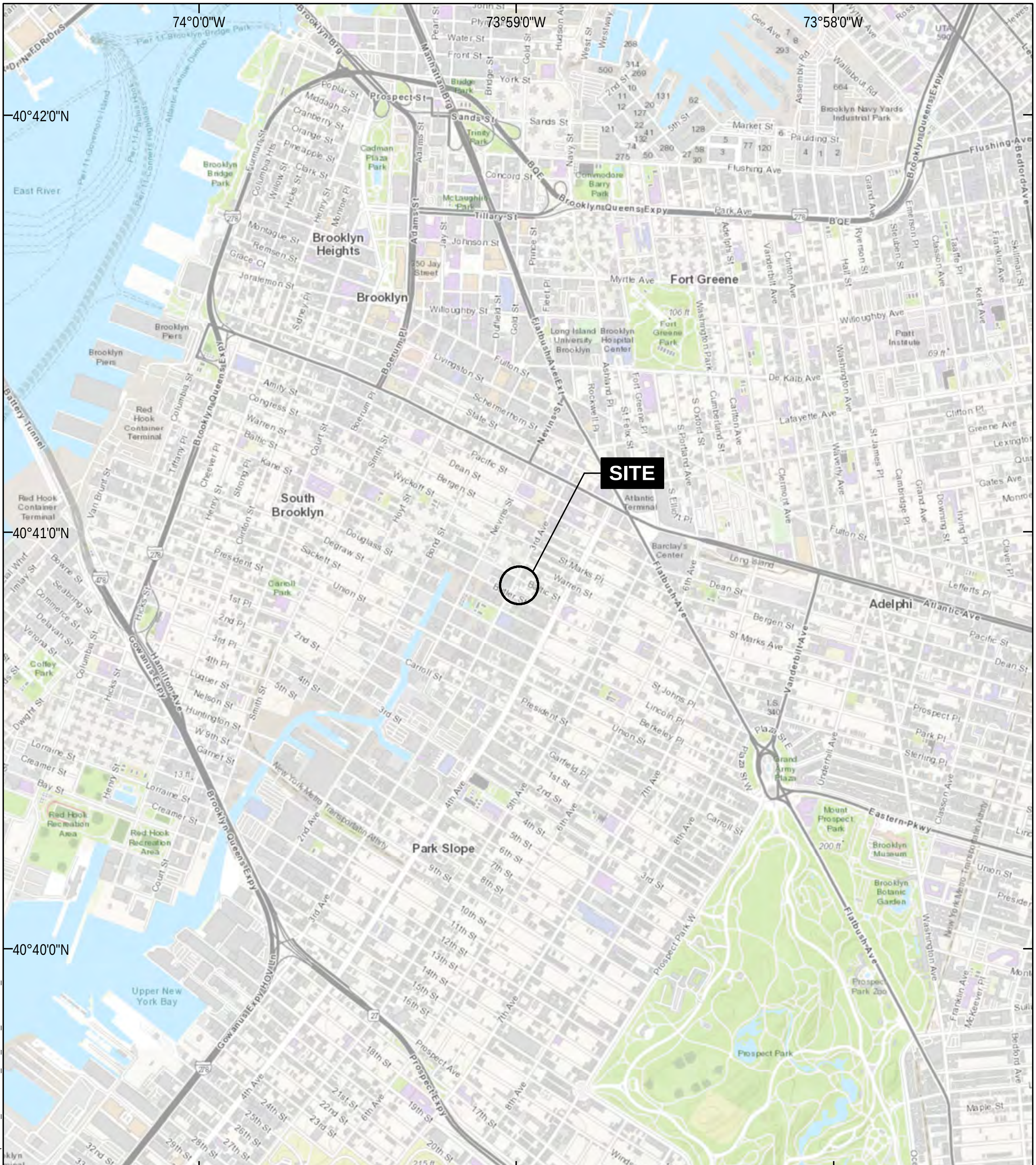
Boring Number	Sample Depth	Target Compound List VOCs (8260B)	Target Compound List SVOCs (8270C)	Total Analyte List Metals (6010)	PCBs (8082)	Pesticides (8081B)	PFAS (1633)	1,4-Dioxane (8270 SIM)	VOCs (TO-15)	TAL and TCLP Lead	TAL and TCLP Mercury
SOIL											
HA-01	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-02	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-03	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-04	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-05	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-06	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-07	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-08	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-09	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-10	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-11	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-12	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-13	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-14	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-15	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-16	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-17	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-18	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-19	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-20	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-21	2-4'	X	X	X	X	X	X	X			
	6-8'	X	X	X	X	X	X	X			
	10-12'	X	X	X	X	X	X	X			
	14-16'	X	X	X	X	X	X	X			
HA-22	Sample depths to be determined based on field observation	X	X	X	X	X	X	X			
HA-23	Sample depths to be determined based on field observation	X	X	X	X	X	X	X			
HA-24	0-2'									X	
	2-4'									X	
	4-6'									X	
HA-25	10-12'										X
	12-14'										X
	14-16'										X
HA-26	11-13'										X
	13-15'										X
	15-17'										X
DB-01 through DB-03	0-2'									X	
	2-4'									X	
	4-6'									X	
DB-04 through DB-06	10-12'										X
	12-14'										X
	14-16'										X
DB-07 through DB-09	11-13'										X
	13-15'										X
	15-17'										X
GROUNDWATER											
MW-01	-	X	X	X	X		X	X			
MW-02	-	X	X	X	X		X	X			
MW-03	-	X	X	X	X		X	X			
MW-04	-	X	X	X	X		X	X			
MW-05	-	X	X	X	X		X	X			
MW-06	-	X	X	X	X		X	X			
MW-07	-	X	X	X	X		X	X			
MW-08	-	X	X	X	X		X	X			
MW-09	-	X	X	X	X		X	X			
SOIL VAPOR											
VP-01	10-12'								X	X	X
VP-02	10-12'								X	X	X
VP-03	10-12'								X	X	X
VP-04	10-12'								X	X	X
VP-05	10-12'								X	X	X
VP-06	10-12'								X	X	X
VP-07	10-12'								X	X	X
VP-08	10-12'								X	X	X

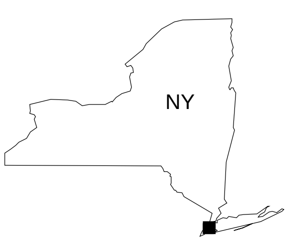
Notes:
VOCs - Volatile Organic Compounds
SVOCs - Semi-volatile Organic Compounds
PCBs - Polychlorinated biphenyls
PFAS - Per- and Polyfluoroalkyl Substances

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

Additional samples will be collected from any interval exhibiting elevated PID readings or where visual and olfactory evidence of impacts are observed.
Delineation borings (DB) at 5-foot step-outs from the central boring location will be conducted based on the analytical results of the central boring location HA-24 or HA-25

FIGURES





N

MAP SOURCE: ESRI
SITE COORDINATES: 40°40'52"N, 73°58'59"W

HALEY ALDRICH

REMEDIAL INVESTIGATION WORK PLAN
159 3RD AVENUE
BROOKLYN, NEW YORK

PROJECT LOCUS

APPROXIMATE SCALE: 1 IN = 2000 FT
JANUARY 2022

FIGURE 1

GIS: \\haleyaldrich.com\share\CF\Projects\0204090\GIS\Maps\2021_12\204090_000_0001_PROJECT_LOCUS.mxd - anichols - 1/28/2022 1:39:47 PM

LEGEND

- FORMER MONITORING WELL
- MONITORING WELL
- SOIL BORING/MONITORING WELL
- SOIL BORING
- SOIL VAPOR POINT
- UST LOCATION
- SITE BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: NEARMAP, 19 OCTOBER 2021

N

0 30 60
SCALE IN FEET

HALEY ALDRICH

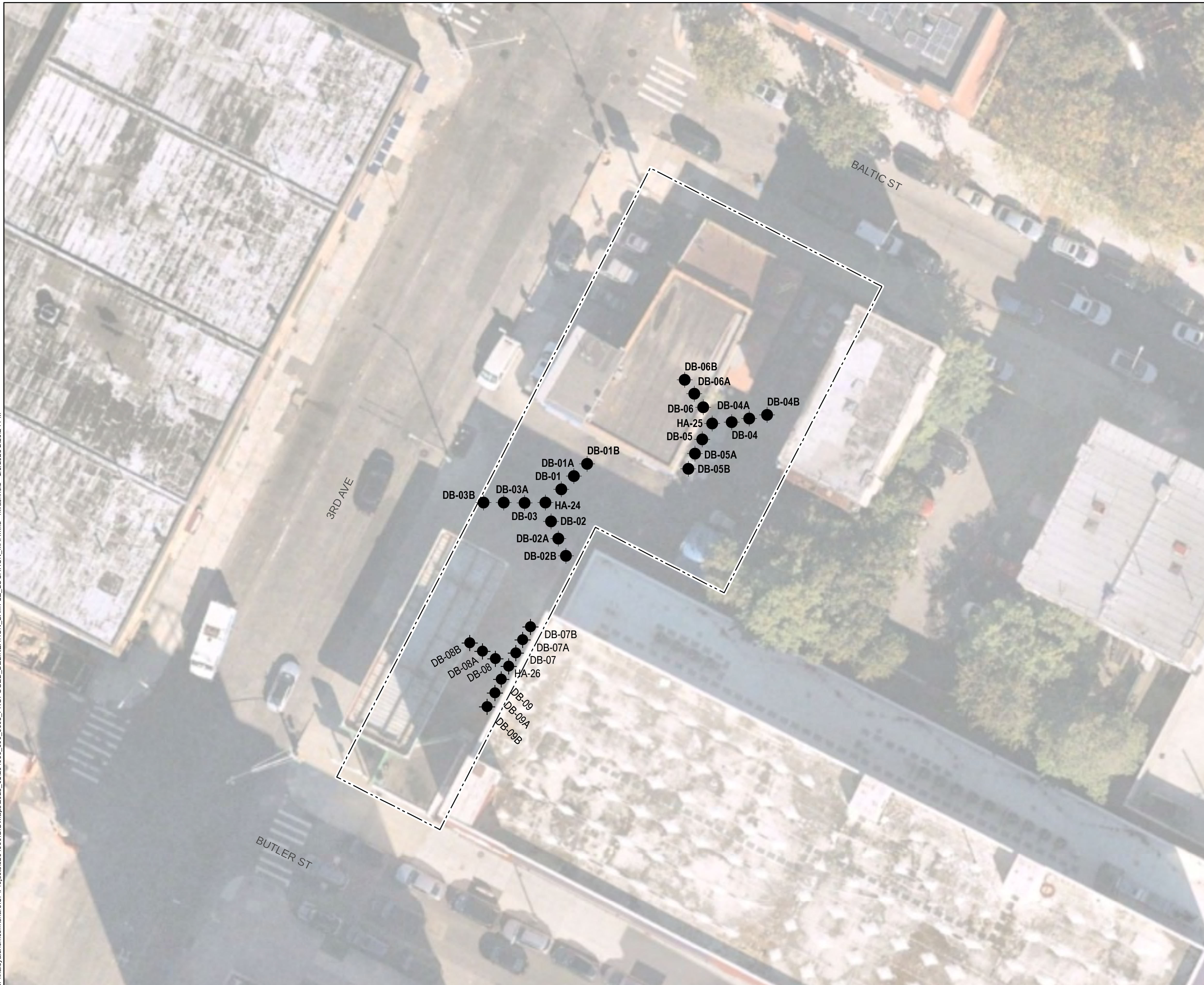
REMEDIAL INVESTIGATION WORK PLAN
556 BALTIC STREET
BROOKLYN, NEW YORK

PROPOSED SAMPLE LOCATION MAP

JANUARY 2023

FIGURE 2

GIS:\\haleyaldrich.com\share\CF\Projects\0204090\GIS\Maps\2023_01\0204090_000_0002_PROPOSED_SAMPLE_LOCATION_MAP.mxd - hwachholz - 1/6/2023 9:58:31 AM



LEGEND

DELINEATION SOIL BORING

SITE FEATURE

SITE BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: NEARMAP, 19 OCTOBER 2021

0 30 60

SCALE IN FEET

HALEY ALDRICH

REMEDIAL INVESTIGATION WORK PLAN
556 BALTIC STREET
BROOKLYN, NEW YORK

PROPOSED DELINEATION SAMPLE LOCATION MAP

JANUARY 2023

FIGURE 3

GIS:\\haleyaldrich.com\share\CF\Projects\0204090\GIS\Maps\2023_01\0204090_000_0003_PROPOSED_DELINEATION_SAMPLE_LOCATION_MAP.mxd - hwachholz - 1/5/2023 2:26:24 PM

LEGEND

GCM/NAPL INVESTIGATION BORING

SITE FEATURE

SITE BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. GCM/NAPL INVESTIGATION BORINGS WILL BE INSTALLED TO A MINIMUM OF 100 FT BGS
3. AERIAL IMAGERY SOURCE: NEARMAP, 19 OCTOBER 2021

0 30 60
SCALE IN FEET

HALEY ALDRICH

REMEDIAL INVESTIGATION WORK PLAN
556 BALTIC STREET
BROOKLYN, NEW YORK

PROPOSED NAPL/GCM INVESTIGATION MAP

JANUARY 2023

FIGURE 4

GIS: \\haleyaldrich.com\share\CF\Projects\0204090\GIS\Maps\2023_01\204090_000_0004_PROPOSED_NAPLGCM INVESTIGATION_MAP.mxd - hwachholz - 1/6/2023 10:00:37 AM

LEGEND

SITE FEATURE

SITE BOUNDARY

500-FT BUFFER

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: NEARMAP, 19 OCTOBER 2021

0 130 260

SCALE IN FEET

HALEY ALDRICH

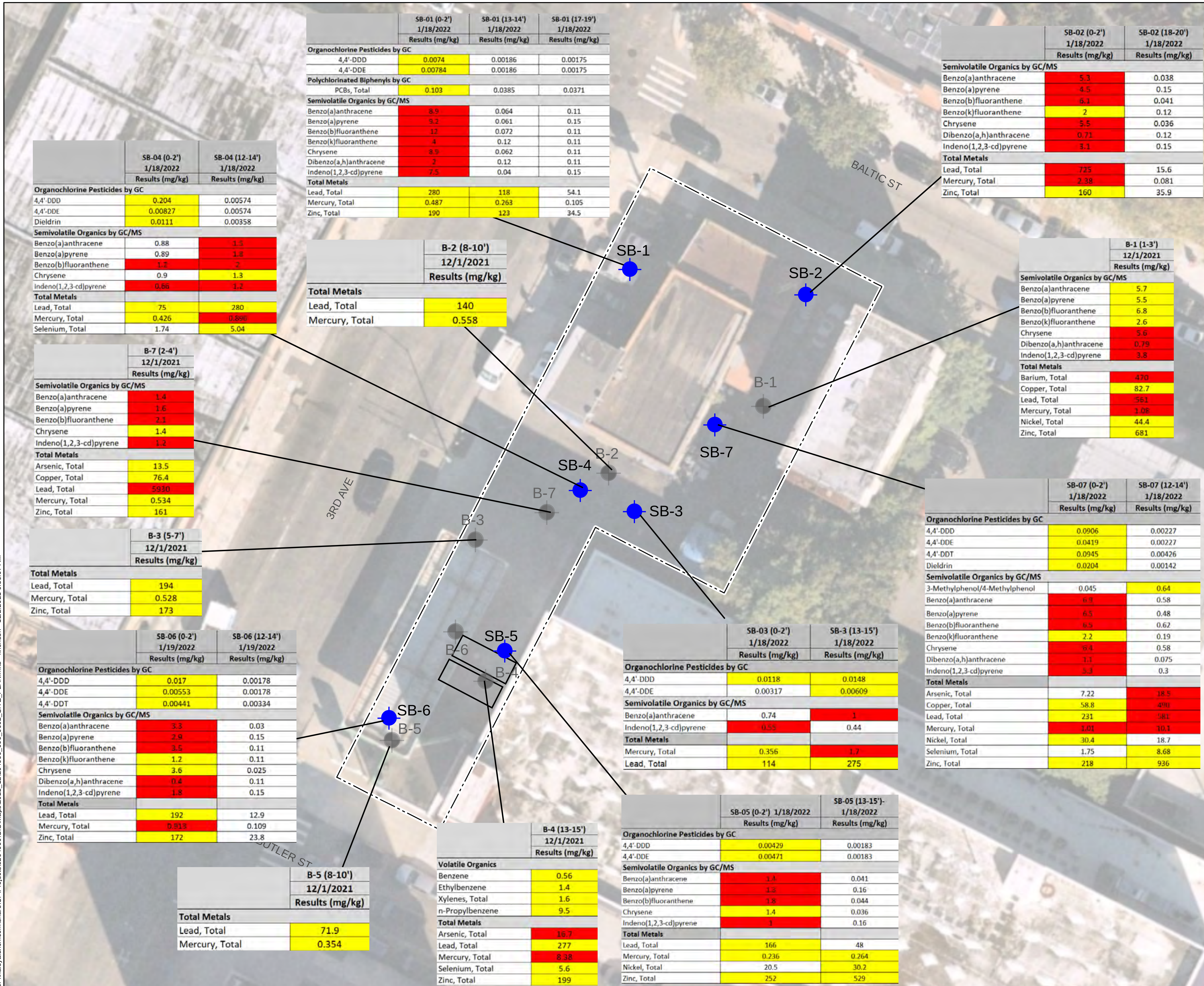
REMEDIAL INVESTIGATION WORK PLAN
556 BALTIC STREET
BROOKLYN, NEW YORK

SITE PLAN

JULY 2022

FIGURE 5

GIS:\\haleyaldrich.com\share\CF\Projects\0204090\GIS\Maps\2022_07\204090_000_0002_SITE_PLAN.mxd - hwachholz - 7/26/2022 4:01:23 PM



	SB-01 (0-2') 1/18/2022 Results (mg/kg)	SB-01 (13-14') 1/18/2022 Results (mg/kg)	SB-01 (17-19') 1/18/2022 Results (mg/kg)
Organochlorine Pesticides by GC			
4,4'-DDD	0.0074	0.00186	0.00175
4,4'-DDE	0.00784	0.00186	0.00175
Polychlorinated Biphenyls by GC			
PCBs, Total	0.103	0.0385	0.0371
Semivolatile Organics by GC/MS			
Benzo(a)anthracene	8.9	0.064	0.11
Benzo(a)pyrene	9.2	0.061	0.15
Benzo(b)fluoranthene	12	0.072	0.11
Benzo(k)fluoranthene	4	0.12	0.11
Chrysene	8.9	0.062	0.11
Dibenzo(a,h)anthracene	2	0.12	0.11
Indeno(1,2,3-cd)pyrene	7.5	0.04	0.15
Total Metals			
Lead, Total	280	118	54.1
Mercury, Total	0.487	0.263	0.105
Zinc, Total	190	123	34.5

	SB-02 (0-2') 1/18/2022 Results (mg/kg)	SB-02 (18-20') 1/18/2022 Results (mg/kg)
Semivolatile Organics by GC/MS		
Benzo(a)anthracene	5.3	0.038
Benzo(a)pyrene	4.5	0.15
Benzo(b)fluoranthene	6.1	0.041
Benzo(k)fluoranthene	2	0.12
Chrysene	5.5	0.036
Dibenzo(a,h)anthracene	0.71	0.12
Indeno(1,2,3-cd)pyrene	3.1	0.15
Total Metals		
Lead, Total	725	15.6
Mercury, Total	2.38	0.081
Zinc, Total	160	35.9

	SB-04 (0-2') 1/18/2022 Results (mg/kg)	SB-04 (12-14') 1/18/2022 Results (mg/kg)
Organochlorine Pesticides by GC		
4,4'-DDD	0.204	0.00574
4,4'-DDE	0.00827	0.00574
Dieldrin	0.0111	0.00358
Semivolatile Organics by GC/MS		
Benzo(a)anthracene	0.88	1.5
Benzo(a)pyrene	0.89	1.8
Benzo(b)fluoranthene	1.2	2
Chrysene	0.9	1.3
Indeno(1,2,3-cd)pyrene	0.66	1.2
Total Metals		
Lead, Total	75	280
Mercury, Total	0.426	0.896
Selenium, Total	1.74	5.04

	B-2 (8-10') 12/1/2021 Results (mg/kg)
Total Metals	
Lead, Total	140
Mercury, Total	0.558

	B-1 (1-3') 12/1/2021 Results (mg/kg)
Semivolatile Organics by GC/MS	
Benzo(a)anthracene	5.7
Benzo(a)pyrene	5.5
Benzo(b)fluoranthene	6.8
Benzo(k)fluoranthene	2.6
Chrysene	5.6
Dibenzo(a,h)anthracene	0.79
Indeno(1,2,3-cd)pyrene	3.8
Total Metals	
Barium, Total	470
Copper, Total	82.7
Lead, Total	561
Mercury, Total	1.08
Nickel, Total	44.4
Zinc, Total	681

	B-7 (2-4') 12/1/2021 Results (mg/kg)
Semivolatile Organics by GC/MS	
Benzo(a)anthracene	1.4
Benzo(a)pyrene	1.6
Benzo(b)fluoranthene	2.1
Chrysene	1.4
Indeno(1,2,3-cd)pyrene	1.2
Total Metals	
Arsenic, Total	13.5
Copper, Total	76.4
Lead, Total	5930
Mercury, Total	0.534
Zinc, Total	161

	B-3 (5-7') 12/1/2021 Results (mg/kg)
Total Metals	
Lead, Total	194
Mercury, Total	0.528
Zinc, Total	173

	SB-07 (0-2') 1/18/2022 Results (mg/kg)	SB-07 (12-14') 1/18/2022 Results (mg/kg)
Organochlorine Pesticides by GC		
4,4'-DDD	0.0906	0.00227
4,4'-DDE	0.0419	0.00227
4,4'-DDT	0.0945	0.00426
Dieldrin	0.0204	0.00142
Semivolatile Organics by GC/MS		
3-Methylphenol/4-Methylphenol	0.045	0.64
Benzo(a)anthracene	6.9	0.58
Benzo(a)pyrene	6.5	0.48
Benzo(b)fluoranthene	6.5	0.62
Benzo(k)fluoranthene	2.2	0.19
Chrysene	6.4	0.58
Dibenzo(a,h)anthracene	1.1	0.075
Indeno(1,2,3-cd)pyrene	5.3	0.3
Total Metals		
Arsenic, Total	7.22	18.5
Copper, Total	58.8	490
Lead, Total	231	581
Mercury, Total	1.01	10.1
Nickel, Total	30.4	18.7
Selenium, Total	1.75	8.68
Zinc, Total	218	936

	SB-03 (0-2') 1/18/2022 Results (mg/kg)	SB-3 (13-15') 1/18/2022 Results (mg/kg)
Organochlorine Pesticides by GC		
4,4'-DDD	0.0118	0.0148
4,4'-DDE	0.00317	0.00609
Semivolatile Organics by GC/MS		
Benzo(a)anthracene	0.74	1
Indeno(1,2,3-cd)pyrene	0.55	0.44
Total Metals		
Mercury, Total	0.356	1.7
Lead, Total	114	275

	SB-06 (0-2') 1/19/2022 Results (mg/kg)	SB-06 (12-14') 1/19/2022 Results (mg/kg)
Organochlorine Pesticides by GC		
4,4'-DDD	0.017	0.00178
4,4'-DDE	0.00553	0.00178
4,4'-DDT	0.00441	0.00334
Semivolatile Organics by GC/MS		
Benzo(a)anthracene	3.3	0.03
Benzo(a)pyrene	2.9	0.15
Benzo(b)fluoranthene	3.5	0.11
Benzo(k)fluoranthene	1.2	0.11
Chrysene	3.6	0.025
Dibenzo(a,h)anthracene	0.4	0.11
Indeno(1,2,3-cd)pyrene	1.8	0.15
Total Metals		
Lead, Total	192	12.9
Mercury, Total	0.913	0.109
Zinc, Total	172	23.8

	B-5 (8-10') 12/1/2021 Results (mg/kg)
Total Metals	
Lead, Total	71.9
Mercury, Total	0.354

	B-4 (13-15') 12/1/2021 Results (mg/kg)
Volatile Organics	
Benzene	0.56
Ethylbenzene	1.4
Xylenes, Total	1.6
n-Propylbenzene	9.5
Total Metals	
Arsenic, Total	16.7
Lead, Total	277
Mercury, Total	8.38
Selenium, Total	5.6
Zinc, Total	199

	SB-05 (0-2') 1/18/2022 Results (mg/kg)	SB-05 (13-15')- 1/18/2022 Results (mg/kg)
Organochlorine Pesticides by GC		
4,4'-DDD	0.00429	0.00183
4,4'-DDE	0.00471	0.00183
Semivolatile Organics by GC/MS		
Benzo(a)anthracene	1.4	0.041
Benzo(a)pyrene	1.3	0.16
Benzo(b)fluoranthene	1.8	0.044
Chrysene	1.4	0.036
Indeno(1,2,3-cd)pyrene	1	0.16
Total Metals		
Lead, Total	166	48
Mercury, Total	0.236	0.264
Nickel, Total	20.5	30.2
Zinc, Total	252	529

LEGEND

SITE BOUNDARY

DECEMBER 2021 LIMITED PHASE II SOIL BORING

JANUARY 2022 PHASE II SOIL BORING

APPROXIMATE UST LOCATION

	NY-RRSCO	NY-UUSCO
Volatile Organics		
Benzene	4.8	0.06
Ethylbenzene	41	1
Xylenes, Total	100	0.26
n-Propylbenzene	100	3.9
Semivolatile Organics by GC/MS		
3-Methylphenol/4-Methylphenol	100	0.33
Benzo(a)anthracene	1	1
Benzo(a)pyrene	1	1
Benzo(b)fluoranthene	1	1
Benzo(k)fluoranthene	3.9	0.8
Chrysene	3.9	1
Dibenzo(a,h)anthracene	0.33	0.33
Indeno(1,2,3-cd)pyrene	0.5	0.5
Total Metals		
Arsenic, Total	16	13
Barium, Total	400	350
Copper, Total	270	50
Lead, Total	400	63
Mercury, Total	0.81	0.18
Nickel, Total	310	30
Selenium, Total	180	3.9
Zinc, Total	10000	109
Polychlorinated Biphenyls by GC		
PCBs, Total	1	0.1
Organochlorine Pesticides by GC		
4,4'-DDD	13	0.0033
4,4'-DDE	8.9	0.0033
4,4'-DDT	7.9	0.0033
Dieldrin	0.2	0.005

NY-RESRR: New York NYCRR Part 375 Restricted-Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

NY-UNRES: New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: NEARMAP, 19 OCTOBER 2021
3. MILLIGRAMS PER KILOGRAMS (mg.kg)

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SCALE IN FEET

HALEY ALDRICH

REMEDIAL INVESTIGATION WORK PLAN
556 BALTIC STREET
BROOKLYN, NEW YORK

SOIL RESULTS EXCEEDANCE MAP

FEBURARY 2022

FIGURE 6

TW-01 - 1/19/2022	Results (µg/L)
Dissolved Metals	
Sodium, Dissolved	175000
Semivolatile Organics by GC/MS-SIM	
Benzo(a)anthracene	0.02
Benzo(b)fluoranthene	0.02
Indeno(1,2,3-cd)pyrene	0.01
Total Metals	
Iron, Total	18600
Lead, Total	1325
Manganese, Total	596.4
Mercury, Total	1
Sodium, Total	150000

TW-2 - 1/19/2022	Results (µg/L)
Dissolved Metals	
Manganese, Dissolved	786.4
Sodium, Dissolved	146000
Total Metals	
Iron, Total	22700
Lead, Total	211.7
Manganese, Total	1002
Sodium, Total	112000

MW-01 - 1/19/2022	Results (µg/L)
Dissolved Metals	
Iron, Dissolved	567
Sodium, Dissolved	350000
Total Metals	
Iron, Total	3140
Sodium, Total	279000

TW-3 - 1/19/2022	Results (µg/L)
Dissolved Metals	
Manganese, Dissolved	353.8
Sodium, Dissolved	26000
Semivolatile Organics by GC/MS	
Benzo(b)fluoranthene	0.02
Total Metals	
Arsenic, Total	27.1
Iron, Total	2850
Lead, Total	77.92
Manganese, Total	374
Sodium, Total	20500

MW-01 - 12/1/2021	Results µg/L)
Semivolatile Organics by GC/MS	
Benzo(a)anthracene	0.04
Benzo(a)pyrene	0.03
Benzo(b)fluoranthene	0.05
Benzo(ghi)perylene	0.02
Benzo(k)fluoranthene	0.03
Indeno(1,2,3-cd)pyrene	0.03

LEGEND

SITE BOUNDARY

EXISISTING PERMANENT GROUNDWATER MONITORING WELL

TEMPORARY MONITORING WELL

APPROXIMATE UST LOCATION

	NY-AWQS	Units
Dissolved Metals		
Iron, Dissolved	300	ug/l
Manganese, Dissolved	300	ug/l
Sodium, Dissolved	20000	ug/l
Total Metals		
Arsenic, Total	25	ug/l
Iron, Total	300	ug/l
Lead, Total	25	ug/l
Manganese, Total	300	ug/l
Mercury, Total	0.7	ug/l
Sodium, Total	20000	ug/l
Semivolatile Organics		
Benzo(a)anthracene	0.002	ug/l
Benzo(a)pyrene	0	ug/l
Benzo(b)fluoranthene	0.002	ug/l
Benzo(ghi)perylene		ug/l
Benzo(k)fluoranthene	0.002	ug/l
Indeno(1,2,3-cd)pyrene	0.002	ug/l

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: NEARMAP, 19 OCTOBER 2021
3. ASSESSOR PARCEL DATA SOURCE: NYC DEPARTMENT OF CITY PLAN
4. GROUNDWATER ANALYTICAL RESULTS COMPARED TO NYSDEC TECHNICAL AND OPERATIONAL GUIDANCE SERIES (TOGS) 1.1.1 AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES FOR CLASS A DRINKING WATER.
5. RESULTS SHOWN IN MICROGRAMS PER LITER (ug/L)
6. RESULTS IN EXCEEDANCE OF NYSDEC TOGS AWQS ARE HIGHLIGHTED

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SCALE IN FEET

HALEY ALDRICH

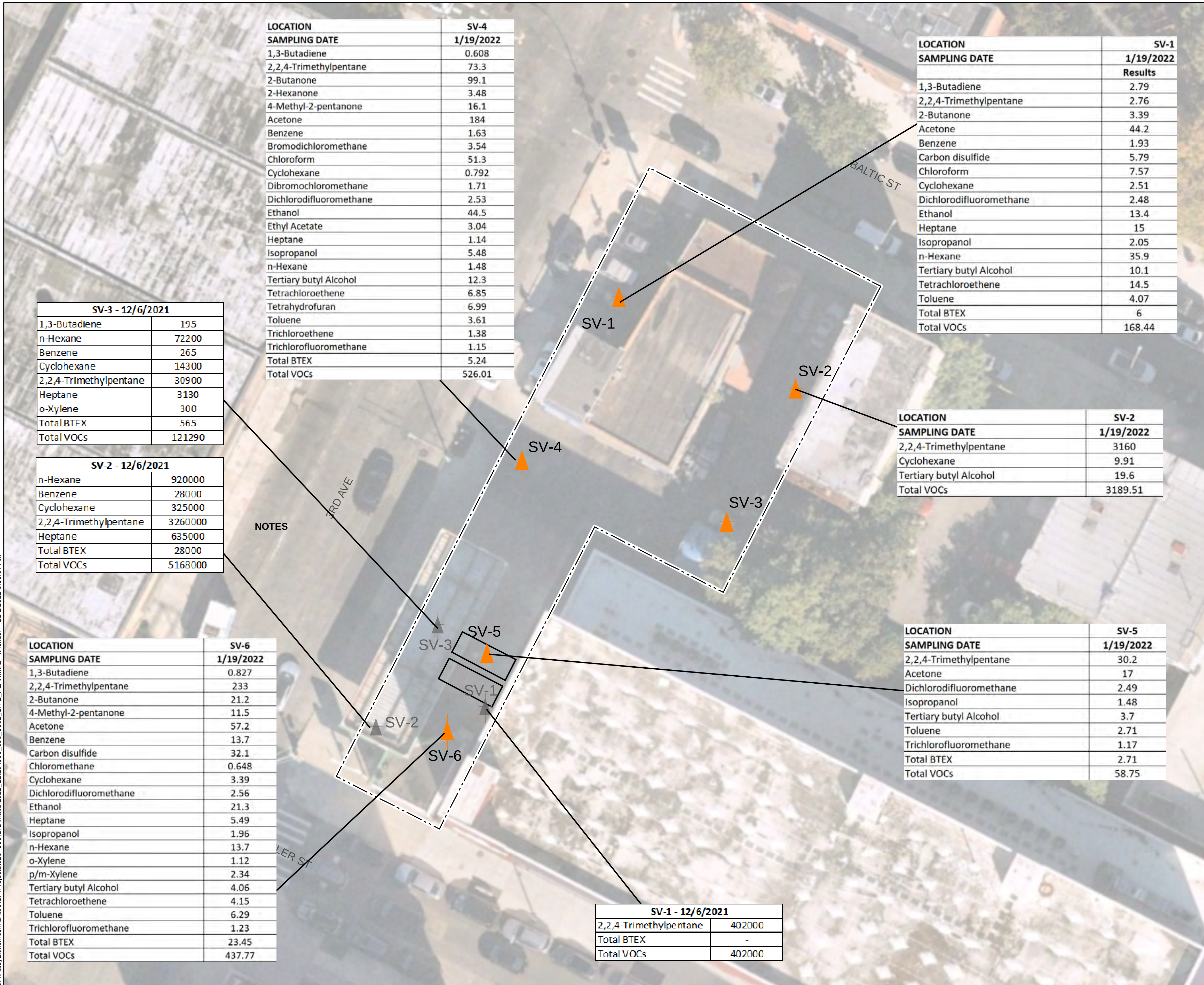
REMEDIAL INVESTIGATION WORK PLAN
556 BALTIC STREET
BROKLYN, NEW YORK

GROUNDWATER RESULTS EXCEEDANCE MAP

JANUARY 2022

FIGURE 7

GIS:\\haleyaldrich.com\share\CF\Projects\0204090\GISMaps\2021_12\0204090_000_0002_SITE_PLAN.mxd - khensen - 12/2/2021 9:56:07 AM



LOCATION	SV-4
SAMPLING DATE	1/19/2022
1,3-Butadiene	0.608
2,2,4-Trimethylpentane	73.3
2-Butanone	99.1
2-Hexanone	3.48
4-Methyl-2-pentanone	16.1
Acetone	184
Benzene	1.63
Bromodichloromethane	3.54
Chloroform	51.3
Cyclohexane	0.792
Dibromochloromethane	1.71
Dichlorodifluoromethane	2.53
Ethanol	44.5
Ethyl Acetate	3.04
Heptane	1.14
Isopropanol	5.48
n-Hexane	1.48
Tertiary butyl Alcohol	12.3
Tetrachloroethene	6.85
Tetrahydrofuran	6.99
Toluene	3.61
Trichloroethene	1.38
Trichlorofluoromethane	1.15
Total BTEX	5.24
Total VOCs	526.01

LOCATION	SV-1
SAMPLING DATE	1/19/2022
	Results
1,3-Butadiene	2.79
2,2,4-Trimethylpentane	2.76
2-Butanone	3.39
Acetone	44.2
Benzene	1.93
Carbon disulfide	5.79
Chloroform	7.57
Cyclohexane	2.51
Dichlorodifluoromethane	2.48
Ethanol	13.4
Heptane	15
Isopropanol	2.05
n-Hexane	35.9
Tertiary butyl Alcohol	10.1
Tetrachloroethene	14.5
Toluene	4.07
Total BTEX	6
Total VOCs	168.44

SV-3 - 12/6/2021	
1,3-Butadiene	195
n-Hexane	72200
Benzene	265
Cyclohexane	14300
2,2,4-Trimethylpentane	30900
Heptane	3130
o-Xylene	300
Total BTEX	565
Total VOCs	121290

SV-2 - 12/6/2021	
n-Hexane	920000
Benzene	28000
Cyclohexane	325000
2,2,4-Trimethylpentane	3260000
Heptane	635000
Total BTEX	28000
Total VOCs	5168000

LOCATION	SV-2
SAMPLING DATE	1/19/2022
2,2,4-Trimethylpentane	3160
Cyclohexane	9.91
Tertiary butyl Alcohol	19.6
Total VOCs	3189.51

LOCATION	SV-6
SAMPLING DATE	1/19/2022
1,3-Butadiene	0.827
2,2,4-Trimethylpentane	233
2-Butanone	21.2
4-Methyl-2-pentanone	11.5
Acetone	57.2
Benzene	13.7
Carbon disulfide	32.1
Chloromethane	0.648
Cyclohexane	3.39
Dichlorodifluoromethane	2.56
Ethanol	21.3
Heptane	5.49
Isopropanol	1.96
n-Hexane	13.7
o-Xylene	1.12
p/m-Xylene	2.34
Tertiary butyl Alcohol	4.06
Tetrachloroethene	4.15
Toluene	6.29
Trichlorofluoromethane	1.23
Total BTEX	23.45
Total VOCs	437.77

LOCATION	SV-5
SAMPLING DATE	1/19/2022
2,2,4-Trimethylpentane	30.2
Acetone	17
Dichlorodifluoromethane	2.49
Isopropanol	1.48
Tertiary butyl Alcohol	3.7
Toluene	2.71
Trichlorofluoromethane	1.17
Total BTEX	2.71
Total VOCs	58.75

SV-1 - 12/6/2021	
2,2,4-Trimethylpentane	402000
Total BTEX	-
Total VOCs	402000

LEGEND

SITE BOUNDARY

DECEMBER 2021 LIMITED PHASE II SOIL VAPOR POINT

JANUARY 2022 PHASE II ESI/RI SOIL VAPOR POINT

APPROXIMATE UST LOCATION

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: NEARMAP, 19 OCTOBER 2021
3. UNIT ON TABLE: UG/M3 = MICROGRAMS PER CUBIC METER
4. SAMPLE WAS NOT COLLECTED AT 2022 REMEDIAL INVESTIGATION SAMPLE POINT SV-3 DUE TO CLOGGED FLOW CONTROLLER PROVIDED BY THE LABORATORY.
5. BASED ON DISCUSSION WITH ALPHA ANALYTICAL INC., HIGH LABORATORY REPORTING LIMITS OF VOCS IN THE DECEMBER 2021 LIMITED PHASE II SAMPLES WAS DUE TO NON-TARGET COMPOUND INTERFERENCE WITH LABORATORY AIR INSTRUMENTAL ANALYSIS.

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SCALE IN FEET

HALEY ALDRICH

REMEDIAL INVESTIGATION WORK PLAN
556 BALTIC STREET
BROKLYN, NEW YORK

SOIL VAPOR RESULTS
SUMMARY MAP

JANUARY 2022

FIGURE 8

GIS:\\haleyaldrich.com\share\CF\Projects\0204090\GIS\Maps\2021_12\0204090_000_0002_SITE_PLAN.mxd - khensen - 12/2/2021 9:56:07 AM

APPENDIX A

Previous Reports (Included as sharefile link)

https://haleyaldrich.sharefile.com/d-s37d0bfeea6d246ec819a1b1e03fc8dba

APPENDIX B
Field Sampling Plan

www.haleyaldrich.com

FIELD SAMPLING PLAN
556 BALTIC STREET
BROOKLYN, NEW YORK

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

for
159 Third Residence LLC
199 Lee Avenue
Brooklyn, New York 11211

File No. 0204090
July 2022

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 subject Site located at 556 Baltic Street, 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) and the Sampling, Analysis and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) under NYSDEC Part 375 Remedial Program 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;
- Indoor and ambient air sampling; and,
- Sampling of investigation of derived wastes (IDW) as needed for disposal.

Previous investigations conducted at the Site identified the presence of liquid petroleum hydrocarbon (LPH) and elevated concentrations of volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) in groundwater at the Site. A Remedial Investigation Report for the NYCOER E-Designation Program were performed at the Site in December 2021 (Limited Phase II ESI) and March 2022 (NYCOER E-designation) by Haley & Aldrich. This SI's revealed the presence of elevated VOC, SVOC and metal concentrations in soil at the Site, indicating the need for additional investigation and sampling on order to comprehensively understand the extent of contamination on the Site.

Previous investigations did not comprehensively delineate the extent of soil, groundwater and soil vapor contamination at the Site. A RI will be performed upon acceptance of the Site into the BCP and approval of the RIWP that will include additional targeted soil, groundwater, and soil vapor sampling. 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 determine a course for remedial action.

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 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 considered 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 stakeouts have a limited time period for which they remain valid, typically two to three weeks. It is critical that this time period be considered 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 may 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

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.
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. Field log forms should be consecutively numbered.
4. Each day’s work must start a new form/page.
5. At the end of each day, the current log book page or forms must be signed and dated by the field personnel making the entries.

6. Make data entries immediately upon obtaining the data. Do not make temporary notes in other locations for later transfer; this only increases the potential for error or loss of data.
7. Entry errors are to be crossed out with a single line and initialed by the person making the correction.
8. Do not leave blanks on log forms, if no entry is applicable for a given data field, indicate so with "NA" or a dash ("--").
9. 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.
10. 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.

A synoptic gauging round will be completed to obtain water levels in monitoring wells. 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. Water levels will also be collected prior to any sample collection that day.

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, 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.

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
- When sampling for PFAS, acceptable materials for sampling include stainless steel, high density polyethylene (HDPE), PVC, silicone, acetate, and polypropylene.

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 watertight 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

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

- No sampling equipment components or sample containers should come in contact with aluminum foil, low density polyethylene, glass, or polytetrafluoroethylene (PTFE, Teflon™) materials including plumbers' tape and sample bottle cap liners with a PTFE layer.

- 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
  - Sampler's 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
- When sampling for PFAS, acceptable materials for sampling include stainless steel, HDPE, PVC, silicone, acetate, and polypropylene.

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). Acceptable groundwater pumps include stainless steel inertia pump with HDPE tubing, peristaltic pump equipped with HDPE tubing and silicone tubing, stainless steel bailer with stainless steel ball or bladder pump (identified as PFAS-free) with HDPE tubing.

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.

6.3 SUB-SLAB/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 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. 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 INDOOR AIR AND AMBIENT AIR SAMPLING

The following procedure is an introduction to indoor air and ambient air sampling techniques and an outline of field staff responsibilities.

6.4.1 Preparatory Requirements

Confirmatory PID readings will be recorded prior to sampling.

6.4.2 Sampling Techniques

Indoor and ambient air sampling will be conducted in general accordance with the applicable procedures described in the NYSDOH VI Guidance Document. 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. One 8-hour duration sample will be collected of indoor air and one of ambient air. A sample log sheet will be maintained summarizing sample identification, date and time of sample collection, identity of samplers, sampling methods and devices, vacuum of canisters before and after the samples are collected, and chain of custody protocols.

6.5 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.

6.5.1 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.

6.5.2 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 samples 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.

6.5.3 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.

6.5.4 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.

6.5.5 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, clearly define the full interpretation of your designation [i.e., polychlorinated biphenyls (PCBs)].

6.5.6 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.

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

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3. ASTM 4750 Test Method for Determining Subsurface Liquid Levels in a Borehole or Monitoring Well (Observation Well)
4. ASTM D6000 Guide for Presentation of Water Level Information from Ground Water Sites
5. ASTM D5474: Guide for Selection of Data Elements for Groundwater Investigations
6. ASTM D4696: Guide for Pore-liquid Sampling from the Vadose Zone
7. ASTM D5979: Guide for Conceptualization and Characterization of Groundwater Systems
8. ASTM D5903: Guide for Planning and Preparing for a Groundwater Sampling Event
9. ASTM D4448: Standard Guide for Sampling Groundwater Wells
10. ASTM D6001: Standard Guide for Direct Push Water Sampling for Geo-environmental Investigations.
11. ASTM (1991), Standard D1452-80, “Practice for Soil Investigation and Sampling by Auger Borings”, Annual Book of ASTM Standard, Section 4, Volume 04.08.
12. ASTM Standards on Environmental Sampling (1995), Standard D 2488-93, “Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)”
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15. ASTM D5088 - Practice for Decontamination of Field Equipment Used at Non-Radioactive Waste Sites
16. Geotechnical Gauge, Manufactured by W.F. McCollough, Beltsville, MD.
17. New York State Code Rule 753
18. New York State Department of Environmental Conservation Technical Guidance for Site Investigation and Remediation, DER-10, (3 May 2010).
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24. USEPA (1988), Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, OSWER-9950.1.
25. USEPA RCRA - Guidance and Policies: Management of Remediation Waste Under RCRA (October 1998).
26. USEPA RCRA - Management of Contaminated Media (October 1998).
27. USEPA CERCLA Guidance (Options Relevant to RCRA Facilities): Guide to Management of Investigation - Derived Wastes (January 1992).
28. USEPA: Low-flow (Minimal Drawdown) Groundwater Sampling Procedures (EPA/540/S-95/504)
29. USEPA: RCRA Groundwater Monitoring: Draft Technical guidance (EPA/530 R 93 001)
30. 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

HALEY ALDRICH

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

Page of

PROJECT
LOCATION
CLIENT
CONTRACTOR

H&A FILE NO.
PROJECT MGR.

Sample ID	Parent Sample ID	Location ID	Sample Date	Sample Time (military)	Sample Type Code	Filtered (Water Only T/D/N)	Composit e 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

GPR Findings Report

Summary of Underground Utility Locating for Soil Borings

Prepared For: HALEY ALDRICH

Prepared By:
Larklin Bryan
Larklin.Bryan@gprsinc.com
PROJECT MANAGER-NORTHEAST REGION
646.866.4225

December 1, 2021

December 1, 2021

HALEY ALDRICH
Attn: JARED
Site: 169 3RD AVE, BROOKLYN, NY 11217

We appreciate the opportunity to provide this report for our work completed on November 30, 2021.

PURPOSE

The purpose of the project was to search for underground utilities within a radius of approximately 15' around each proposed boring location. The scope of work consisted of 6-7 locations. GPRS was able to walk around the jobsite and mark the boring with spray paint with the client.

EQUIPMENT

- **Underground Scanning GPR Antenna**. The antenna with frequencies ranging from 250 MHz-450 MHz is mounted in a stroller frame which rolls over the surface. The surface needs to be reasonably smooth and unobstructed in order to obtain readable scans. Obstructions such as curbs, landscaping, and vegetation will limit the feasibility of GPR. The data is displayed on a screen and marked in the field in real time. The total depth achieved can be as much as 8’ or more with this antenna but can vary widely depending on the types of materials being scanned through. Some soil types such as clay may limit maximum depths to 3’ or less. As depth increases, targets must be larger in order to be detected and non-metallic targets can be especially difficult to locate. Depths provided should always be treated as estimates as their accuracy can be affected by multiple factors. For more information, please visit: Link
- **Electromagnetic Pipe Locator**. The EM locator can passively detect the electromagnetic fields from live AC power or from radio signals travelling along some conductive utilities. It can also be used in conjunction with a transmitter to connect directly to accessible, metallic pipes or tracer wires. A current is sent through the pipe or tracer wire at a specific frequency and the resulting EM field can then be detected by the receiver. A utility’s ability to be located depends on a variety of factors including access to the utility, conductivity, grounding, interference from other fields, and many others. Depths provided should always be treated as estimates as their accuracy can be affected by multiple factors. For more information, please visit: Link

PROCESS

The process typically begins with using the EM pipe locator to locate pipes or utilities throughout the scan area. First, the transmitter is used to connect to and trace any visible risers, tracer wires, or accessible, conductive utilities provided that there is an exposed, metallic surface. The areas are then swept with the receiver to detect live power or radio frequency signals. Locations and depths are painted or flagged on the surface. Depths cannot always be provided depending on the location method and can be prone to error.

Initial GPR scans were then collected in order to evaluate the data and calibrate the equipment. Based on these findings, a scanning strategy is formed, typically consisting of scanning the entire area in a grid with 4x4 scan spacing in order to locate any potential utilities that were not found with the pipe locator. The GPR data is viewed in real time and anomalies in the data are located and marked on the surface along with their depths using spray paint, pin flags, etc. A higher frequency concrete scanning antenna is typically used for locations that are placed on reinforced concrete.

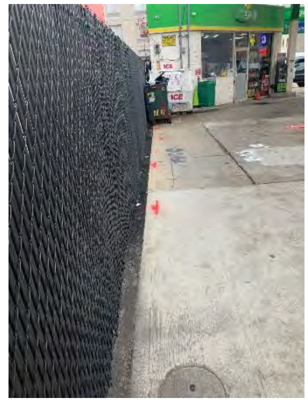
LIMITATIONS

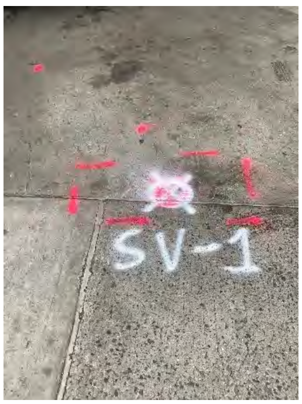
Please keep in mind that there are limitations to any subsurface investigation. The equipment may not achieve maximum effectiveness due to soil conditions, above ground obstructions, reinforced concrete, and a variety of other factors. No subsurface investigation or equipment can provide a complete image of what lies below. Our results should always be used in conjunction with as many methods as possible including consulting existing plans and drawings, exploratory excavation or potholing, visual inspection of above-ground features, and utilization of services such as One Call/811. Depths are dependent on the dielectric of the materials being scanned so depth accuracy can vary throughout a site. Relevant scan examples were saved and will be provided in this report.

FINDINGS

The subsurface conditions at the time of the scanning allowed for maximum GPR depth penetration of 1’ in most areas. Multiple utilities were able to be located, these utilities were placed on the surface with a regular mark out color code. Utilities that were able to be identified by type include electrical and drain storm drains. Some utilities were not able to be located such as tank lines, underground tank, and water. Unknowns marked within the scope of work may represent utilities but they could not be traced to a termination point or identifying structure. The GPRS system was unable to penetrate the surface and locate the tanks and pipes. Please do not work within 2 feet of any GPRS-placed markers on the surface. To guarantee safety, GPRS suggests hand digging down to 5'. The following pages will provide further explanation of the findings.

Picture 1 FILLED STORM DRAIN.

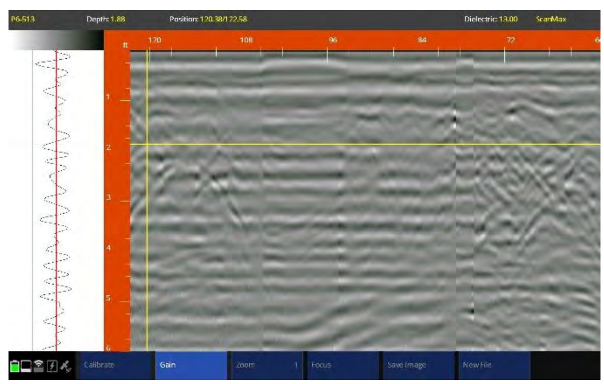

Picture 2: MAIN LECTRICAL FROM THE CAR WASH GOING TO THE BP SGTATION.



Picture 3: SV-1 LOCATION PRESENTED A LOT OF DISTORTION WITH THE EM LOCATIOR.


Picture 4: STORM DRAIN LINE 1-2’ IN DEPTH


Picture 5: ELECTRICAL FROM THE BP STATION GOING TO THE TANK.


Picture 6: DAT SHOT OF THE SCAN AREA.

GPR Data Screenshots and Photos	169 3RD AVE, BROOKLYN, NY 11217	GPRS

CLOSING

GPRS, Inc. has been in business since 2001, specializing in underground storage tank location, concrete scanning, utility locating, and shallow void detection for projects throughout the United States. I encourage you to visit our website (www.gprsinc.com) and contact any of the numerous references listed.

JOB SUMMARY

This BP property included two pump stations, a convenience store, and a car wash building. Most of the work will be conducted around the BP station. GPRS started with the storm drains. Most of the storm drains were either clogged or abandoned. Two catch basins outside the store were discovered to be connected by a storm line around 1'-2' depth. The main electric to the BP station was found in the bathroom along with the electrical conduits to the rest of the gas stations. Direct connections were used to locate the BP sign, pumps, and main electrical connections. Access to the car wash confirmed the main electrical location. GPRS was granted restricted access the car wash building. Some desired borings were placed close to the suspected tanks and tank line's locations. GPRS was granted restricted access to the car wash building. The GPRS system was unable to penetrate the surface and locate the tanks and pipes. Please do not work within 2 feet of any GPRS-placed markers on the surface. To guarantee safety, GPRS suggests hand digging down to 5'.

GPRS appreciates the opportunity to offer our services, and we look forward to continuing to work with you on future projects. Please feel free to contact us for additional information or with any questions you may have regarding this report.

Signed,

Larklin Bryan
PROJECT MANAGER—NORTHEAST REGION

Direct: 646.866.4225

Larklin.Bryan@gprsinc.com

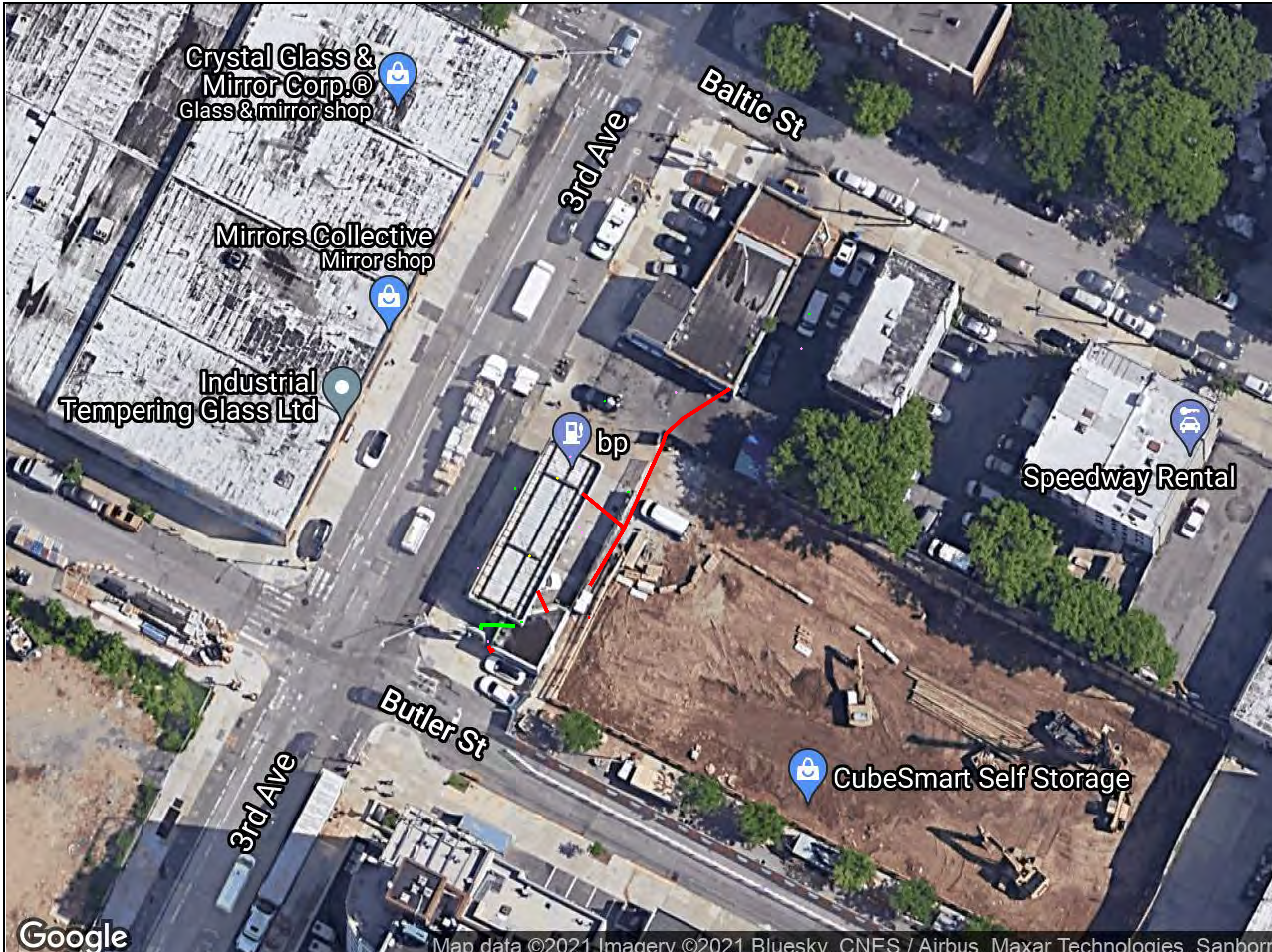
www.gprsinc.com

Reviewed,

—

Direct:

www.gprsinc.com



DISCLAIMERS

1. THIS PDF IS AN AUTOMATED OUTPUT CREATED DIRECTLY FROM DATA COLLECTED IN THE FIELD. IT IS INTENDED TO DOCUMENT MARKINGS AND COMMENTS COLLECTED BY GPRS, LLC. THE FIELD FINDINGS MAY BE CORRECTED AND/OR ADDITIONAL DELIVERABLES CREATED AFTER THE DATA IS FURTHER REVIEWED.
2. AERIAL IMAGERY IS SOMETIMES SHIFTED, OUTDATED, OR INACCURATE WHILE THE LINE AND POINT DATA REMAIN AS COLLECTED IN THE FIELD. IN THE EVENT THE AERIAL IMAGE LOCATION NEEDS CORRECTION, ADDITIONAL CAD SERVICES CAN BE ORDERED.
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6. PRIVATE UTILITY LOCATING IS NEVER A REPLACEMENT FOR ONE CALL/811 SERVICES. STATE LAW REQUIRES 811 TO BE CALLED PRIOR TO ANY AND ALL EXCAVATION ACTIVITIES.

LEGEND

- ELECTRICAL
- FUEL/GAS/OIL
- MISCELLANEOUS
- STORM

0' 10' 20' 30' 40' 50'

Know what's below. Call before you dig.

GPRS IS NOT AFFILIATED WITH 811 BUT DOES RECOMMEND THAT THE SERVICE IS USED ON EVERY PROJECT IN ADDITION TO OUR OWN. SEE NOTE #6 ABOVE.

FOR INFORMATION ONLY

GPRS FINDINGS MAP

PREPARED FOR:
HALEY.ALDRICH

LOCATION:

169 3RD AVE
BROOKLYN, NY

PROJECT MANAGER:
LARKLIN BRYAN
LARKLIN.BRYAN@GPRSINC.COM

DATE	2021 DEC 03		
DRAWING NO.	1	REV.	0

312957

APPENDIX D

Quality Assurance Project Plan

www.haleyaldrich.com

QUALITY ASSURANCE PROJECT PLAN
556 BALTIC STREET
BROOKLYN, NEW YORK

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

for
159 Third Residence LLC
199 Lee Avenue
Brooklyn, New York 11211

File No. 0204090
January 2023

Executive Summary

This Quality Assurance Project Plan outlines the scope of the quality assurance and quality control activities associated with the site monitoring activities associated with the Remedial Investigation Work Plan for 556 Baltic Street in Brooklyn, New York (Site).

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.

Table of Contents

Table of Contents

Table of Contents

List of Tables

1. Project Description

This Quality Assurance Project Plan (QAPP) has been prepared as a component of the Remedial Investigation Work Plan (RIWP) for 556 Baltic Street in Brooklyn, New York (Site).

1.1 PROJECT OBJECTIVES

The primary objective for data collection activities is to collect sufficient data necessary to characterize the subsurface conditions at the Site and determine the nature and extent of contamination.

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
- TCL Pesticides using EPA method 8081B
- Polychlorinated biphenyls (PCBs) using EPA method 8082
- Per- and polyfluoroalkyl substances (PFAS) using EPA method 1633
- 1,4-Dioxane using EPA method 8270

The laboratory parameters for groundwater include:

- Target Compound List VOCs using EPA method 8260C
- Target Compound List SVOCs using EPA method 8270C
- TAL Metals using EPA method 6010
- PFAS using EPA method 1633
- 1,4-Dioxane using EPA method 8270 SIM

Note: 1,4-Dioxane and PFAS sampling techniques will be conducted following the NYSDEC Collection of Groundwater Samples for 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 until stabilized.

The analytical laboratory parameters for soil vapor samples include:

- VOCs using EPA method TO-15

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 borings, soil vapor implants and groundwater monitoring wells that will be sampled (as applicable).

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 (QC) 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,
- Assure compliance with Site health and safety plan.

2.2 QUALITY ASSURANCE RESPONSIBILITIES

The Quality Assurance (QA) team will consist of a QA Officer and the Data Validation Staff. QA responsibilities are described as follows:

2.2.1 Quality Assurance 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; and,
- 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 Personnel 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 QC 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 HSO and take reasonable precautions to prevent injury.

3. Sampling Procedures

The FSP provides the SOPs for sampling required by the RIWP. Sampling will be conducted in general accordance with the NYSDEC Technical Guidance for Site Investigation and Remediation (DER-10) and the Sampling, Analysis and Assessment of PFAS under NYSDEC Part 375 Remedial Program when applicable.

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 USEPA, "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. 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; and,
- 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; and,
- A 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 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 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 VOC during the collection of soil samples.

6.2 LABORATORY ANALYTICAL PROCEDURES

Laboratory analyses will be based on the USEPA 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 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 QC checks that will be employed for field and laboratory measurements.

7.1 FIELD QUALITY CONTROL

7.1.1 Field Blanks

Internal QC 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 matrix spike and matrix spike duplicate (MS/MSD) samples using the following equation.

$$\% \; Recovery = \frac{Spiked \; Sample \text{ - } Background}{Known \, Value \; of \; Spike} \; x\,100\%$$

If the QC 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 Analyses

The laboratory will perform Laboratory Control Sample (LCS) analyses prepared from 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 SVOC 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 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 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 RL.

8.1.3 Laboratory Precision Sample Objectives

Laboratory precision will be assessed through the analysis of LCS and laboratory control duplicate samples (LCS/LCSD) and 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 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 set of MS/MSD analyses will be performed with each batch of 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 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 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 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 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 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 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

QC data (e.g., laboratory duplicates, surrogates, matrix spikes, and matrix spike duplicates) will be compared to the method acceptance criteria. Data determined to be acceptable will be entered into the laboratory information management system.

Unacceptable data will be appropriately qualified in the project report. Case narratives will be prepared which will include information concerning data that fell outside acceptance limits and any other anomalous conditions encountered during sample analysis.

9.2 DATA VALIDATION

Data validation procedures of the analytical data will be performed by the Haley & Aldrich QA Officer or designee using the following documents as guidance for the review process:

- "U.S. EPA National Functional Guidelines for Organic Data Review”, and the "U.S. EPA National Functional Guidelines for Inorganic Data Review".

- The specific data qualifiers used will be applied to the reported results as presented and defined in the EPA National Functional Guidelines. Validation will be performed by qualified personnel at the direction of the Haley & Aldrich QAO. Tier 1 data validation (the equivalent of USEPA’s Stage 2A validation) will be performed to evaluate data quality.

- The completeness of each data package will be evaluated by the Data Validator. Completeness checks will be administered on all data to determine that the deliverables are consistent with the NYSDEC 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; and,
- 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; and,
- 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; and,
- 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; and,
- 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; and,
- 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; and,
- 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.

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 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:

$$\text{Completeness} = \frac{\text{Valid (usable) Data Obtained}}{\text{Total Data Planned}} \text{ X } 100$$

12.2 LABORATORY DATA

Surrogate, internal standard and matrix spike recoveries will be used to evaluate data quality. The laboratory QA/QC program will include the following elements:

- Precision, in terms of 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%. 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.

- 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.

$$\frac{\textit{Number of Valid Sample Results}}{\textit{Total Number of Samples Planned}}\ X\ 100 = \%\ \textit{Complete}$$

13. Quality Assurance 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; and,
- 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.

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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.

10. New York State Department of Environmental Conservation, NYSDEC, Division of Environmental Remediation, Sampling, Analysis and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) under NYSDEC's Part 375 Remedial Programs, November 2022.

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TABLES

TABLE I
SUMMARY OF ANALYSIS METHOD, PRESERVATION METHOD, HOLDING TIME, SAMPLE SIZE REQUIREMENTS AND SAMPLE CONTAINERS
556 Baltic 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, Cool, 4 ± 2 °C	14 days[1]	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
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
PFAS 1633	Soil	Cool, 4 ± 2 °C	14 days	250 mL	1 - 8 oz Glass
1,4-Dioxane 8270	Soil	Cool, 4 ± 2 °C	14 days	250 mL	1 - 8 oz Glass
Volatile Organic Compounds/8260C	Groundwater	HCl, Cool, 4 ± 2 °C	14 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 °C	180 days	500 mL	1 - 500 mL plastic bottle
PFAS 1633	Groundwater	H2O Cool, 4 ± 2 °C	14 days	500 mL	2 - teflon free 250 ml plastic containers
1,4-Dioxane 8270 SIM	Groundwater	Cool, 4 ± 2 °C	7 days	500 mL	1 - 500 mL plastic bottle
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. Terracores and encores must be frozen within 48 hours of collection
2. Refer to text for additional information.

APPENDIX E

NYSDEC Emerging Contaminant Field Sampling Guidance

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

SAMPLING, ANALYSIS, AND ASSESSMENT OF PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Under NYSDEC's Part 375 Remedial Programs

November 2022

Table of Contents

November 2022

ERRATA SHEET for

SAMPLING, ANALYSIS, AND ASSESSMENT OF PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) Under NYSDEC's Part 375 Remedial Programs Issued January 17, 2020

Citation and Page Number	Current Text	Corrected Text	Date
Title of Appendix I, page 32	Appendix H	Appendix I	2/25/2020
Document Cover, page 1	Guidelines for Sampling and Analysis of PFAS	Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs	9/15/2020
Routine Analysis, page 9	"However, laboratories analyzing environmental samples…PFOA and PFOS in drinking water by EPA Method 537, 537.1 or ISO 25101."	"However, laboratories analyzing environmental samples…PFOA and PFOS in drinking water by EPA Method 537, 537.1, ISO 25101, or Method 533."	9/15/2020
Additional Analysis, page 9, new paragraph regarding soil parameters	None	"In cases where site-specific cleanup objectives for PFOA and PFOS are to be assessed, soil parameters, such as Total Organic Carbon (EPA Method 9060), soil pH (EPA Method 9045), clay content (percent), and cation exchange capacity (EPA Method 9081), should be included in the analysis to help evaluate factors affecting the leachability of PFAS in site soils."	9/15/2020
Data Assessment and Application to Site Cleanup Page 10	Until such time as Ambient Water Quality Standards (AWQS) and Soil Cleanup Objectives (SCOs) for PFAS are published, the extent of contaminated media potentially subject to remediation should be determined on a case-by-case basis using the procedures discussed below and the criteria in DER-10. Target levels for cleanup of PFAS in other media, including biota and sediment, have not yet been established by the DEC.	Until such time as Ambient Water Quality Standards (AWQS) and Soil Cleanup Objectives (SCOs) for PFOA and PFOS are published, the extent of contaminated media potentially subject to remediation should be determined on a case-by-case basis using the procedures discussed below and the criteria in DER-10. Preliminary target levels for cleanup of PFOA and PFOS in other media, including biota and sediment, have not yet been established by the DEC.	9/15/2020

Citation and Page Number	Current Text	Corrected Text	Date
Water Sample Results Page 10	PFAS should be further assessed and considered as a potential contaminant of concern in groundwater or surface water (…) If PFAS are identified as a contaminant of concern for a site, they should be assessed as part of the remedy selection process in accordance with Part 375 and DER-10.	PFOA and PFOS should be further assessed and considered as potential contaminants of concern in groundwater or surface water (…) If PFOA and/or PFOS are identified as contaminants of concern for a site, they should be assessed as part of the remedy selection process in accordance with Part 375 and DER-10.	9/15/2020
Soil Sample Results, page 10	"The extent of soil contamination for purposes of delineation and remedy selection should be determined by having certain soil samples tested by Synthetic Precipitation Leaching Procedure (SPLP) and the leachate analyzed for PFAS. Soil exhibiting SPLP results above 70 ppt for either PFOA or PFOS (individually or combined) are to be evaluated during the cleanup phase."	"Soil cleanup objectives for PFOA and PFOS will be proposed in an upcoming revision to 6 NYCRR Part 375-6. Until SCOs are in effect, the following are to be used as guidance values. " [Interim SCO Table] "PFOA and PFOS results for soil are to be compared against the guidance values listed above. These guidance values are to be used in determining whether PFOA and PFOS are contaminants of concern for the site and for determining remedial action objectives and cleanup requirements. Site-specific remedial objectives for protection of groundwater can also be presented for evaluation by DEC. Development of site-specific remedial objectives for protection of groundwater will require analysis of additional soil parameters relating to leachability. These additional analyses can include any or all the parameters listed above (soil pH, cation exchange capacity, etc.) and/or use of SPLP. As the understanding of PFAS transport improves, DEC welcomes proposals for site-specific remedial objectives for protection of groundwater. DEC will expect that those may be dependent on additional factors including soil pH, aqueous pH, % organic carbon, % Sand/Silt/Clay, soil cations: K, Ca, Mg, Na, Fe, Al, cation exchange capacity, and anion exchange capacity. Site-specific remedial objectives should also consider the dilution attenuation factor (DAF). The NJDEP publication on DAF can be used as a reference: https://www.nj.gov/dep/srp/guidance/rs/daf.pdf. "	9/15/2020

Citation and Page Number	Current Text	Corrected Text	Date
Testing for Imported Soil Page 11	Soil imported to a site for use in a soil cap, soil cover, or as backfill is to be tested for PFAS in general conformance with DER-10, Section 5.4(e) for the PFAS Analyte List (Appendix F) using the analytical procedures discussed below and the criteria in DER-10 associated with SVOCs. If PFOA or PFOS is detected in any sample at or above 1 µg/kg, then soil should be tested by SPLP and the leachate analyzed for PFAS. If the SPLP results exceed 10 ppt for either PFOA or PFOS (individually) then the source of backfill should be rejected, unless a site-specific exemption is provided by DER. SPLP leachate criteria is based on the Maximum Contaminant Levels proposed for drinking water by New York State's Department of Health, this value may be updated based on future Federal or State promulgated regulatory standards. Remedial parties have the option of analyzing samples concurrently for both PFAS in soil and in the SPLP leachate to minimize project delays. Category B deliverables should be submitted for backfill samples, though a DUSR is not required.	Testing for PFAS should be included any time a full TAL/TCL analyte list is required. Results for PFOA and PFOS should be compared to the applicable guidance values. If PFOA or PFOS is detected in any sample at or above the guidance values then the source of backfill should be rejected, unless a site-specific exemption is provided by DER based on SPLP testing, for example. If the concentrations of PFOA and PFOS in leachate are at or above 10 ppt (the Maximum Contaminant Levels established for drinking water by the New York State Department of Health), then the soil is not acceptable. PFOA, PFOS and 1,4-dioxane are all considered semi-volatile compounds, so composite samples are appropriate for these compounds when sampling in accordance with DER-10, Table 5.4(e)10. Category B deliverables should be submitted for backfill samples, though a DUSR is not required.	9/15/2020

Citation and Page Number	Current Text	Corrected Text	Date
Footnotes	None	[1] TOP Assay analysis of highly contaminated samples, such as those from an AFFF (aqueous film-forming foam) site, can result in incomplete oxidation of the samples and an underestimation of the total perfluoroalkyl substances. [2] The movement of PFAS in the environment is being aggressively researched at this time; that research will eventually result in more accurate models for the behaviors of these chemicals. In the meantime, DEC has calculated the soil cleanup objective for the protection of groundwater using the same procedure used for all other chemicals, as described in Section 7.7 of the Technical Support Document (http://www.dec.ny.gov/docs/remediation_hudson_pdf/techsuppdoc.pdf).	9/15/2020
Additional Analysis, page 9	In cases… soil parameters, such as Total Organic Carbon (EPA Method 9060), soil…	In cases… soil parameters, such as Total Organic Carbon (Lloyd Kahn), soil…	1/8/2021
Appendix A, General Guidelines, fourth bullet	List the ELAP-approved lab(s) to be used for analysis of samples	List the ELAP- certified lab(s) to be used for analysis of samples	1/8/2021
Appendix E, Laboratory Analysis and Containers	Drinking water samples collected using this protocol are intended to be analyzed for PFAS by ISO Method 25101.	Drinking water samples collected using this protocol are intended to be analyzed for PFAS by EPA Method 537, 537.1, 533, or ISO Method 25101	1/8/2021
Water Sample Results Page 9	“In addition, further assessment of water may be warranted if either of the following screening levels are met: a. any other individual PFAS (not PFOA or PFOS) is detected in water at or above 100 ng/L; or b. total concentration of PFAS (including PFOA and PFOS) is detected in water at or above 500 ng/L”	Deleted	6/15/2021

Citation and Page Number	Current Text	Corrected Text	Date
Routine Analysis, Page XX	Currently, New York State Department of Health's Environmental Laboratory Approval Program (ELAP)… criteria set forth in the DER's laboratory guidelines for PFAS in non-potable water and solids (Appendix H - Laboratory Guidelines for Analysis of PFAS in Non-Potable Water and Solids).	Deleted	5/31/2022
Analysis and Reporting, Page XX	As of October 2020, the United States Environmental Protection Agency (EPA) does not have a validated method for analysis of PFAS for media commonly analyzed under DER remedial programs (non-potable waters, solids). DER has developed the following guidelines to ensure consistency in analysis and reporting of PFAS.	Deleted	5/31/2022
Routine Analysis, Page XX	LC-MS/MS analysis for PFAS using methodologies based on EPA Method 537.1 is the procedure to use for environmental samples. Isotope dilution techniques should be utilized for the analysis of PFAS in all media.	EPA Method 1633 is the procedure to use for environmental samples.	
Soil Sample Results, Page XX	Soil cleanup objectives for PFOA and PFOS will be proposed in an upcoming revision to 6 NYCRR Part 375-6	Soil cleanup objectives for PFOA and PFOS have been proposed in an upcoming revision to 6 NYCRR Part 375-6	
Appendix A	"Include in the text… LC-MS/MS for PFAS using methodologies based on EPA Method 537.1"	"Include in the text ….EPA Method 1633"	
Appendix A	"Laboratory should have ELAP certification for PFOA and PFOS in drinking water by EPA Method 537, 537.1, EPA Method 533, or ISO 25101"	Deleted	
Appendix B	"Samples collected using this protocol are intended to be analyzed for PFAS using methodologies based on EPA Method 537.1"	"Samples collected using this protocol are intended to be analyzed for PFAS using EPA Method 1633"	

Citation and Page Number	Current Text	Corrected Text	Date
Appendix C	“Samples collected using this protocol are intended to be analyzed for PFAS using methodologies based on EPA Method 537.1”	“Samples collected using this protocol are intended to be analyzed for PFAS using EPA Method 1633”	
Appendix D	“Samples collected using this protocol are intended to be analyzed for PFAS using methodologies based on EPA Method 537.1”	“Samples collected using this protocol are intended to be analyzed for PFAS using EPA Method 1633”	
Appendix G		Updated to include all forty PFAS analytes in EPA Method 533	
Appendix H		Deleted	
Appendix I	Appendix I	Appendix H	
Appendix H	“These guidelines are intended to be used for the validation of PFAS analytical results for projects within the Division of Environmental Remediation (DER) as well as aid in the preparation of a data usability summary report.”	“These guidelines are intended to be used for the validation of PFAS using EPA Method 1633 for projects within the Division of Environmental Remediation (DER).”	
Appendix H	“The holding time is 14 days…”	“The holding time is 28 days…”	
Appendix H, Initial Calibration	“The initial calibration should contain a minimum of five standards for linear fit…”	“The initial calibration should contain a minimum of six standards for linear fit…”	
Appendix H, Initial Calibration	Linear fit calibration curves should have an R^2 value greater than 0.990.	Deleted	
Appendix H, Initial Calibration Verification	Initial Calibration Verification Section	Deleted	
Appendix H	secondary Ion Monitoring Section	Deleted	
Appendix H	Branched and Linear Isomers Section	Deleted	

Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs

Objective

New York State Department of Environmental Conservation's Division of Environmental Remediation (DER) performs or oversees sampling of environmental media and subsequent analysis of PFAS as part of remedial programs implemented under 6 NYCRR Part 375. To ensure consistency in sampling, analysis, reporting, and assessment of PFAS, DER has developed this document which summarizes currently accepted procedures and updates previous DER technical guidance pertaining to PFAS.

Applicability

All work plans submitted to DEC pursuant to one of the remedial programs under Part 375 shall include PFAS sampling and analysis procedures that conform to the guidelines provided herein.

As part of a site investigation or remedial action compliance program, whenever samples of potentially affected media are collected and analyzed for the standard Target Analyte List/Target Compound List (TAL/TCL), PFAS analysis should also be performed. Potentially affected media can include soil, groundwater, surface water, and sediment. Based upon the potential for biota to be affected, biota sampling and analysis for PFAS may also be warranted as determined pursuant to a Fish and Wildlife Impact Analysis. Soil vapor sampling for PFAS is not required.

Field Sampling Procedures

DER-10 specifies technical guidance applicable to DER's remedial programs. Given the prevalence and use of PFAS, DER has developed "best management practices" specific to sampling for PFAS. As specified in DER-10 Chapter 2, quality assurance procedures are to be submitted with investigation work plans. Typically, these procedures are incorporated into a work plan, or submitted as a stand-alone document (e.g., a Quality Assurance Project Plan). Quality assurance guidelines for PFAS are listed in Appendix A - Quality Assurance Project Plan (QAPP) Guidelines for PFAS.

Field sampling for PFAS performed under DER remedial programs should follow the appropriate procedures outlined for soils, sediments, or other solids (Appendix B), non-potable groundwater (Appendix C), surface water (Appendix D), public or private water supply wells (Appendix E), and fish tissue (Appendix F).

QA/QC samples (e.g. duplicates, MS/MSD) should be collected as specified in DER-10, Section 2.3(c). For sampling equipment coming in contact with aqueous samples only, rinsate or equipment blanks should be collected. Equipment blanks should be collected at a minimum frequency of one per day per site or one per twenty samples, whichever is more frequent.

Analysis and Reporting

The investigation work plan should describe analysis and reporting procedures, including laboratory analytical procedures for the methods discussed below. As specified in DER-10 Section 2.2, laboratories should provide a full Category B deliverable. In addition, a Data Usability Summary Report (DUSR) should be prepared by an independent, third party data validator. Electronic data submissions should meet the requirements provided at: https://www.dec.ny.gov/chemical/62440.html.

DER has developed a *PFAS Analyte List* (Appendix G) for remedial programs to understand the nature of contamination at sites. It is expected that reported results for PFAS will include, at a minimum, all the compounds listed. If lab and/or matrix specific issues are encountered for any analytes, the DER project manager, in consultation with the DER chemist, will make case-by-case decisions as to whether certain analytes may be temporarily or permanently discontinued from analysis at each site. As with other contaminants that are analyzed for at a site, the *PFAS Analyte List* may be refined for future sampling events based on investigative findings.

Routine Analysis

EPA Method 1633 is the procedure to use for environmental samples. Reporting limits for PFOA and PFOS in aqueous samples should not exceed 2 ng/L. Reporting limits for PFOA and PFOS in solid samples should not exceed 0.5 µg/kg. Reporting limits for all other PFAS in aqueous and solid media should be as close to these limits as possible. If laboratories indicate that they are not able to achieve these reporting limits for the entire *PFAS Analyte List*, site-specific decisions regarding acceptance of elevated reporting limits for specific PFAS can be made by the DER project manager in consultation with the DER chemist. Data review guidelines were developed by DER to ensure data comparability and usability (Appendix H - Data Review Guidelines for Analysis of PFAS in Non-Potable Water and Solids).

Additional Analysis

Additional laboratory methods for analysis of PFAS may be warranted at a site, such as the Synthetic Precipitation Leaching Procedure (SPLP) and Total Oxidizable Precursor Assay (TOP Assay).

In cases where site-specific cleanup objectives for PFOA and PFOS are to be assessed, soil parameters, such as Total Organic Carbon (Lloyd Kahn), soil pH (EPA Method 9045), clay content (percent), and cation exchange capacity (EPA Method 9081), should be included in the analysis to help evaluate factors affecting the leachability of PFAS in site soils.

SPLP is a technique used to determine the mobility of chemicals in liquids, soils and wastes, and may be useful in determining the need for addressing PFAS-containing material as part of the remedy. SPLP by EPA Method 1312 should be used unless otherwise specified by the DER project manager in consultation with the DER chemist.

Impacted materials can be made up of PFAS that are not analyzable by routine analytical methodology. A TOP Assay can be utilized to conceptualize the amount and type of oxidizable PFAS which could be liberated in the environment, which approximates the maximum concentration of perfluoroalkyl substances that could be generated if all polyfluoroalkyl substances were oxidized. For example, some polyfluoroalkyl substances may degrade or transform to form perfluoroalkyl substances (such as PFOA or PFOS), resulting in an increase in perfluoroalkyl substance concentrations as contaminated groundwater moves away from a source. The TOP Assay converts, through oxidation, polyfluoroalkyl substances (precursors) into perfluoroalkyl substances that can be detected by routine analytical methodology.[1]

[1] TOP Assay analysis of highly contaminated samples, such as those from an AFFF (aqueous film-forming foam) site, can result in incomplete oxidation of the samples and an underestimation of the total perfluoroalkyl substances.

Commercial laboratories have adopted methods which allow for the quantification of targeted PFAS in air and biota. The EPA's Office of Research and Development (ORD) is currently developing methods which allow for air emissions characterization of PFAS, including both targeted and non-targeted analysis of PFAS. Consult with the DER project manager and the DER chemist for assistance on analyzing biota/tissue and air samples.

Data Assessment and Application to Site Cleanup

Until such time as Ambient Water Quality Standards (AWQS) and Soil Cleanup Objectives (SCOs) for PFOA and PFOS are published, the extent of contaminated media potentially subject to remediation should be determined on a case-by-case basis using the procedures discussed below and the criteria in DER-10. Preliminary target levels for cleanup of PFOA and PFOS in other media, including biota and sediment, have not yet been established by the DEC.

Water Sample Results

PFOA and PFOS should be further assessed and considered as potential contaminants of concern in groundwater or surface water if PFOA or PFOS is detected in any water sample at or above 10 ng/L (ppt) and is determined to be attributable to the site, either by a comparison of upgradient and downgradient levels, or the presence of soil source areas, as defined below.

If PFOA and/or PFOS are identified as contaminants of concern for a site, they should be assessed as part of the remedy selection process in accordance with Part 375 and DER-10.

Soil Sample Results

Soil cleanup objectives for PFOA and PFOS have been proposed in an upcoming revision to 6 NYCRR Part 375-6. Until SCOs are in effect, the following are to be used as guidance values:

Guidance Values for Anticipated Site Use	PFOA (ppb)	PFOS (ppb)
Unrestricted	0.66	0.88
Residential	6.6	8.8
Restricted Residential	33	44
Commercial	500	440
Industrial	600	440
Protection of Groundwater[2]	1.1	3.7

PFOA and PFOS results for soil are to be compared against the guidance values listed above. These guidance values are to be used in determining whether PFOA and PFOS are contaminants of concern for the site and for determining remedial action objectives and cleanup requirements. Site-specific remedial objectives for protection of groundwater can also be presented for evaluation by DEC. Development of site-specific remedial objectives for protection of groundwater will require analysis of additional soil parameters relating to leachability. These additional analyses can include any or all the parameters listed above (soil pH, cation exchange capacity, etc.) and/or use of SPLP.

As the understanding of PFAS transport improves, DEC welcomes proposals for site-specific remedial objectives for protection of groundwater. DEC will expect that those may be dependent on additional factors including soil pH, aqueous pH, % organic carbon, % Sand/Silt/Clay, soil cations: K, Ca, Mg, Na, Fe, Al, cation exchange

[2] The movement of PFAS in the environment is being aggressively researched at this time; that research will eventually result in more accurate models for the behaviors of these chemicals. In the meantime, DEC has calculated the guidance value for the protection of groundwater using the same procedure used for all other chemicals, as described in Section 7.7 of the Technical Support Document (http://www.dec.ny.gov/docs/remediation_hudson_pdf/techsuppdoc.pdf).

capacity, and anion exchange capacity. Site-specific remedial objectives should also consider the dilution attenuation factor (DAF). The NJDEP publication on DAF can be used as a reference: https://www.nj.gov/dep/srp/guidance/rs/daf.pdf.

Testing for Imported Soil

Testing for PFAS should be included any time a full TAL/TCL analyte list is required. Results for PFOA and PFOS should be compared to the applicable guidance values. If PFOA or PFOS is detected in any sample at or above the guidance values then the source of backfill should be rejected, unless a site-specific exemption is provided by DER based on SPLP testing, for example. If the concentrations of PFOA and PFOS in leachate are at or above 10 ppt (the Maximum Contaminant Levels established for drinking water by the New York State Department of Health), then the soil is not acceptable.

PFOA, PFOS and 1,4-dioxane are all considered semi-volatile compounds, so composite samples are appropriate for these compounds when sampling in accordance with DER-10, Table 5.4(e)10. Category B deliverables should be submitted for backfill samples, though a DUSR is not required.

Appendix A - Quality Assurance Project Plan (QAPP) Guidelines for PFAS

The following guidelines (general and PFAS-specific) can be used to assist with the development of a QAPP for projects within DER involving sampling and analysis of PFAS.

General Guidelines in Accordance with DER-10

- Document/work plan section title – Quality Assurance Project Plan
- Summarize project scope, goals, and objectives
- Provide project organization including names and resumes of the project manager, Quality Assurance Officer (QAO), field staff, and Data Validator
    - The QAO should not have another position on the project, such as project or task manager, that involves project productivity or profitability as a job performance criterion
- List the ELAP certified lab(s) to be used for analysis of samples
- Include a site map showing sample locations
- Provide detailed sampling procedures for each matrix
- Include Data Quality Usability Objectives
- List equipment decontamination procedures
- Include an "Analytical Methods/Quality Assurance Summary Table" specifying:
    - Matrix type
    - Number or frequency of samples to be collected per matrix
    - Number of field and trip blanks per matrix
    - Analytical parameters to be measured per matrix
    - Analytical methods to be used per matrix with minimum reporting limits
    - Number and type of matrix spike and matrix spike duplicate samples to be collected
    - Number and type of duplicate samples to be collected
    - Sample preservation to be used per analytical method and sample matrix
    - Sample container volume and type to be used per analytical method and sample matrix
    - Sample holding time to be used per analytical method and sample matrix
- Specify Category B laboratory data deliverables and preparation of a DUSR

Specific Guidelines for PFAS

- Include in the text that sampling for PFAS will take place
- Include in the text that PFAS will be analyzed by EPA Method 1633
- Include the list of PFAS compounds to be analyzed (*PFAS Analyte List*)
- Include the laboratory SOP for PFAS analysis
- List the minimum method-achievable Reporting Limits for PFAS
    - Reporting Limits should be less than or equal to:
        - Aqueous – 2 ng/L (ppt)
        - Solids – 0.5 µg/kg (ppb)
- Include the laboratory Method Detection Limits for the PFAS compounds to be analyzed
-
- Include detailed sampling procedures
    - Precautions to be taken
    - Pump and equipment types
    - Decontamination procedures
    - Approved materials only to be used
- Specify that regular ice only will be used for sample shipment
- Specify that equipment blanks should be collected at a minimum frequency of 1 per day per site for each matrix

Appendix B - Sampling Protocols for PFAS in Soils, Sediments and Solids

General

The objective of this protocol is to give general guidelines for the collection of soil, sediment and other solid samples for PFAS analysis. The sampling procedure used should be consistent with Sampling Guidelines and Protocols – Technological Background and Quality Control/Quality Assurance for NYS DEC Spill Response Program – March 1991 (http://www.dec.ny.gov/docs/remediation_hudson_pdf/sgpsect5.pdf), with the following limitations.

Laboratory Analysis and Containers

Samples collected using this protocol are intended to be analyzed for PFAS using EPA Method 1633.

The preferred material for containers is high density polyethylene (HDPE). Pre-cleaned sample containers, coolers, sample labels, and a chain of custody form will be provided by the laboratory.

Equipment

Acceptable materials for sampling include stainless steel, HDPE, PVC, silicone, acetate, and polypropylene. Additional materials may be acceptable if pre-approved by New York State Department of Environmental Conservation's Division of Environmental Remediation.

No sampling equipment components or sample containers should come in to contact with aluminum foil, low density polyethylene, glass, or polytetrafluoroethylene (PTFE, Teflon™) materials including sample bottle cap liners with a PTFE layer.

A list of acceptable equipment is provided below, but other equipment may be considered appropriate based on sampling conditions.

- stainless steel spoon
- stainless steel bowl
- steel hand auger or shovel without any coatings

Equipment Decontamination

Standard two step decontamination using detergent (Alconox is acceptable) and clean, PFAS-free water will be performed for sampling equipment. All sources of water used for equipment decontamination should be verified in advance to be PFAS-free through laboratory analysis or certification.

Sampling Techniques

Sampling is often conducted in areas where a vegetative turf has been established. In these cases, a pre-cleaned trowel or shovel should be used to carefully remove the turf so that it may be replaced at the conclusion of sampling. Surface soil samples (e.g. 0 to 6 inches below surface) should then be collected using a pre-cleaned, stainless steel spoon. Shallow subsurface soil samples (e.g. 6 to ~36 inches below surface) may be collected by digging a hole using a pre-cleaned hand auger or shovel. When the desired subsurface depth is reached, a pre-cleaned hand auger or spoon shall be used to obtain the sample.

When the sample is obtained, it should be deposited into a stainless steel bowl for mixing prior to filling the sample containers. The soil should be placed directly into the bowl and mixed thoroughly by rolling the material into the middle until the material is homogenized. At this point the material within the bowl can be placed into the laboratory provided container.

Sample Identification and Logging

A label shall be attached to each sample container with a unique identification. Each sample shall be included on the chain of custody (COC).

Quality Assurance/Quality Control

- Immediately place samples in a cooler maintained at 4 ± 2º Celsius using ice
- Collect one field duplicate for every sample batch, minimum 1 duplicate per 20 samples. The duplicate shall consist of an additional sample at a given location
- Collect one matrix spike / matrix spike duplicate (MS/MSD) for every sample batch, minimum 1 MS/MSD per 20 samples. The MS/MSD shall consist of an additional two samples at a given location and identified on the COC
- Request appropriate data deliverable (Category B) and an electronic data deliverable

Documentation

A soil log or sample log shall document the location of the sample/borehole, depth of the sample, sampling equipment, duplicate sample, visual description of the material, and any other observations or notes determined to be appropriate. Additionally, care should be performed to limit contact with PFAS containing materials (e.g. waterproof field books, food packaging) during the sampling process.

Personal Protection Equipment (PPE)

For most sampling Level D PPE is anticipated to be appropriate. The sampler should wear nitrile gloves while conducting field work and handling sample containers.

Field staff shall consider the clothing to be worn during sampling activities. Clothing that contains PTFE material (including GORE-TEX®) or that have been waterproofed with PFAS materials should be avoided. All clothing worn by sampling personnel should have been laundered multiple times.

Appropriate rain gear (PVC, polyurethane, or rubber rain gear are acceptable), bug spray, and sunscreen should be used that does not contain PFAS. Well washed cotton coveralls may be used as an alternative to bug spray and/or sunscreen.

PPE that contains PFAS is acceptable when site conditions warrant additional protection for the samplers and no other materials can be used to be protective. Documentation of such use should be provided in the field notes.

Appendix C - Sampling Protocols for PFAS in Monitoring Wells

General

The objective of this protocol is to give general guidelines for the collection of groundwater samples for PFAS analysis. The sampling procedure used should be consistent with Sampling Guidelines and Protocols – Technological Background and Quality Control/Quality Assurance for NYS DEC Spill Response Program – March 1991 (http://www.dec.ny.gov/docs/remediation_hudson_pdf/sgpsect5.pdf), with the following limitations.

Laboratory Analysis and Container

Samples collected using this protocol are intended to be analyzed for PFAS using EPA Method 1633.

The preferred material for containers is high density polyethylene (HDPE). Pre-cleaned sample containers, coolers, sample labels, and a chain of custody form will be provided by the laboratory.

Equipment

Acceptable materials for sampling include: stainless steel, HDPE, PVC, silicone, acetate, and polypropylene. Additional materials may be acceptable if pre-approved by New York State Department of Environmental Conservation's Division of Environmental Remediation.

No sampling equipment components or sample containers should come in contact with aluminum foil, low density polyethylene, glass, or polytetrafluoroethylene (PTFE, Teflon™) materials including plumbers tape and sample bottle cap liners with a PTFE layer.

A list of acceptable equipment is provided below, but other equipment may be considered appropriate based on sampling conditions.

- stainless steel inertia pump with HDPE tubing
- peristaltic pump equipped with HDPE tubing and silicone tubing
- stainless steel bailer with stainless steel ball
- bladder pump (identified as PFAS-free) with HDPE tubing

Equipment Decontamination

Standard two step decontamination using detergent (Alconox is acceptable) and clean, PFAS-free water will be performed for sampling equipment. All sources of water used for equipment decontamination should be verified in advance to be PFAS-free through laboratory analysis or certification.

Sampling Techniques

Monitoring wells should be purged in accordance with the sampling procedure (standard/volume purge or low flow purge) identified in the site work plan, which will determine the appropriate time to collect the sample. If sampling using standard purge techniques, additional purging may be needed to reduce turbidity levels, so samples contain a limited amount of sediment within the sample containers. Sample containers that contain sediment may cause issues at the laboratory, which may result in elevated reporting limits and other issues during the sample preparation that can compromise data usability. Sampling personnel should don new nitrile gloves prior to sample collection due to the potential to contact PFAS containing items (not related to the sampling equipment) during the purging activities.

Sample Identification and Logging

A label shall be attached to each sample container with a unique identification. Each sample shall be included on the chain of custody (COC).

Quality Assurance/Quality Control

- Immediately place samples in a cooler maintained at 4 ± 2º Celsius using ice
- Collect one field duplicate for every sample batch, minimum 1 duplicate per 20 samples. The duplicate shall consist of an additional sample at a given location
- Collect one matrix spike / matrix spike duplicate (MS/MSD) for every sample batch, minimum 1 MS/MSD per 20 samples. The MS/MSD shall consist of an additional two samples at a given location and identified on the COC
- Collect one equipment blank per day per site and minimum 1 equipment blank per 20 samples. The equipment blank shall test the new and decontaminated sampling equipment utilized to obtain a sample for residual PFAS contamination. This sample is obtained by using laboratory provided PFAS-free water and passing the water over or through the sampling device and into laboratory provided sample containers
- Additional equipment blank samples may be collected to assess other equipment that is utilized at the monitoring well
- Request appropriate data deliverable (Category B) and an electronic data deliverable

Documentation

A purge log shall document the location of the sample, sampling equipment, groundwater parameters, duplicate sample, visual description of the material, and any other observations or notes determined to be appropriate. Additionally, care should be performed to limit contact with PFAS containing materials (e.g. waterproof field books, food packaging) during the sampling process.

Personal Protection Equipment (PPE)

For most sampling Level D PPE is anticipated to be appropriate. The sampler should wear nitrile gloves while conducting field work and handling sample containers.

Field staff shall consider the clothing to be worn during sampling activities. Clothing that contains PTFE material (including GORE-TEX®) or that have been waterproofed with PFAS materials should be avoided. All clothing worn by sampling personnel should have been laundered multiple times.

Appropriate rain gear (PVC, polyurethane, or rubber rain gear are acceptable), bug spray, and sunscreen should be used that does not contain PFAS. Well washed cotton coveralls may be used as an alternative to bug spray and/or sunscreen.

PPE that contains PFAS is acceptable when site conditions warrant additional protection for the samplers and no other materials can be used to be protective. Documentation of such use should be provided in the field notes.

Appendix D - Sampling Protocols for PFAS in Surface Water

General

The objective of this protocol is to give general guidelines for the collection of surface water samples for PFAS analysis. The sampling procedure used should be consistent with Sampling Guidelines and Protocols – Technological Background and Quality Control/Quality Assurance for NYS DEC Spill Response Program – March 1991 (http://www.dec.ny.gov/docs/remediation_hudson_pdf/sgpsect5.pdf), with the following limitations.

Laboratory Analysis and Container

Samples collected using this protocol are intended to be analyzed for PFAS using EPA Method 1633.

The preferred material for containers is high density polyethylene (HDPE). Pre-cleaned sample containers, coolers, sample labels, and a chain of custody form will be provided by the laboratory.

Equipment

Acceptable materials for sampling include: stainless steel, HDPE, PVC, silicone, acetate, and polypropylene. Additional materials may be acceptable if pre-approved by New York State Department of Environmental Conservation's Division of Environmental Remediation.

No sampling equipment components or sample containers should come in contact with aluminum foil, low density polyethylene, glass, or polytetrafluoroethylene (PTFE, Teflon™) materials including sample bottle cap liners with a PTFE layer.

A list of acceptable equipment is provided below, but other equipment may be considered appropriate based on sampling conditions.

- stainless steel cup

Equipment Decontamination

Standard two step decontamination using detergent (Alconox is acceptable) and clean, PFAS-free water will be performed for sampling equipment. All sources of water used for equipment decontamination should be verified in advance to be PFAS-free through laboratory analysis or certification.

Sampling Techniques

Where conditions permit, (e.g. creek or pond) sampling devices (e.g. stainless steel cup) should be rinsed with site medium to be sampled prior to collection of the sample. At this point the sample can be collected and poured into the sample container.

If site conditions permit, samples can be collected directly into the laboratory container.

Sample Identification and Logging

A label shall be attached to each sample container with a unique identification. Each sample shall be included on the chain of custody (COC).

Quality Assurance/Quality Control

- Immediately place samples in a cooler maintained at 4 ± 2º Celsius using ice
- Collect one field duplicate for every sample batch, minimum 1 duplicate per 20 samples. The duplicate shall consist of an additional sample at a given location
- Collect one matrix spike / matrix spike duplicate (MS/MSD) for every sample batch, minimum 1 MS/MSD per 20 samples. The MS/MSD shall consist of an additional two samples at a given location and identified on the COC
- Collect one equipment blank per day per site and minimum 1 equipment blank per 20 samples. The equipment blank shall test the new and decontaminated sampling equipment utilized to obtain a sample for residual PFAS contamination. This sample is obtained by using laboratory provided PFAS-free water and passing the water over or through the sampling device and into laboratory provided sample containers
- Request appropriate data deliverable (Category B) and an electronic data deliverable

Documentation

A sample log shall document the location of the sample, sampling equipment, duplicate sample, visual description of the material, and any other observations or notes determined to be appropriate. Additionally, care should be performed to limit contact with PFAS containing materials (e.g. waterproof field books, food packaging) during the sampling process.

Personal Protection Equipment (PPE)

For most sampling Level D PPE is anticipated to be appropriate. The sampler should wear nitrile gloves while conducting field work and handling sample containers.

Field staff shall consider the clothing to be worn during sampling activities. Clothing that contains PTFE material (including GORE-TEX®) or that have been waterproofed with PFAS materials should be avoided. All clothing worn by sampling personnel should have been laundered multiple times.

Appropriate rain gear (PVC, polyurethane, or rubber rain gear are acceptable), bug spray, and sunscreen should be used that does not contain PFAS. Well washed cotton coveralls may be used as an alternative to bug spray and/or sunscreen.

PPE that contains PFAS is acceptable when site conditions warrant additional protection for the samplers and no other materials can be used to be protective. Documentation of such use should be provided in the field notes.

Appendix E - Sampling Protocols for PFAS in Private Water Supply Wells

General

The objective of this protocol is to give general guidelines for the collection of water samples from private water supply wells (with a functioning pump) for PFAS analysis. The sampling procedure used should be consistent with Sampling Guidelines and Protocols – Technological Background and Quality Control/Quality Assurance for NYS DEC Spill Response Program – March 1991 (http://www.dec.ny.gov/docs/remediation_hudson_pdf/sgpsect5.pdf), with the following limitations.

Laboratory Analysis and Container

Drinking water samples collected using this protocol are intended to be analyzed for PFAS by EPA Method 537, 537.1, 533, or ISO Method 25101. The preferred material for containers is high density polyethylene (HDPE). Pre-cleaned sample containers, coolers, sample labels, and a chain of custody form will be provided by the laboratory.

Equipment

Acceptable materials for sampling include stainless steel, HDPE, PVC, silicone, acetate, and polypropylene. Additional materials may be acceptable if pre-approved by New York State Department of Environmental Conservation's Division of Environmental Remediation.

No sampling equipment components or sample containers should come in contact with aluminum foil, low density polyethylene, glass, or polytetrafluoroethylene (PTFE, Teflon™) materials (e.g. plumbers tape), including sample bottle cap liners with a PTFE layer.

Equipment Decontamination

Standard two step decontamination using detergent (Alconox is acceptable) and clean, PFAS-free water will be performed for sampling equipment. All sources of water used for equipment decontamination should be verified in advance to be PFAS-free through laboratory analysis or certification.

Sampling Techniques

Locate and assess the pressure tank and determine if any filter units are present within the building. Establish the sample location as close to the well pump as possible, which is typically the spigot at the pressure tank. Ensure sampling equipment is kept clean during sampling as access to the pressure tank spigot, which is likely located close to the ground, may be obstructed and may hinder sample collection.

Prior to sampling, a faucet downstream of the pressure tank (e.g., washroom sink) should be run until the well pump comes on and a decrease in water temperature is noted which indicates that the water is coming from the well. If the homeowner is amenable, staff should run the water longer to purge the well (15+ minutes) to provide a sample representative of the water in the formation rather than standing water in the well and piping system including the pressure tank. At this point a new pair of nitrile gloves should be donned and the sample can be collected from the sample point at the pressure tank.

Sample Identification and Logging

A label shall be attached to each sample container with a unique identification. Each sample shall be included on the chain of custody (COC).

Quality Assurance/Quality Control

- Immediately place samples in a cooler maintained at 4 ± 2º Celsius using ice
- Collect one field duplicate for every sample batch, minimum 1 duplicate per 20 samples. The duplicate shall consist of an additional sample at a given location
- Collect one matrix spike / matrix spike duplicate (MS/MSD) for every sample batch, minimum 1 MS/MSD per 20 samples. The MS/MSD shall consist of an additional two samples at a given location and identified on the COC
- If equipment was used, collect one equipment blank per day per site and a minimum 1 equipment blank per 20 samples. The equipment blank shall test the new and decontaminated sampling equipment utilized to obtain a sample for residual PFAS contamination. This sample is obtained by using laboratory provided PFAS-free water and passing the water over or through the sampling device and into laboratory provided sample containers.
- A field reagent blank (FRB) should be collected at a rate of one per 20 samples. The lab will provide a FRB bottle containing PFAS free water and one empty FRB bottle. In the field, pour the water from the one bottle into the empty FRB bottle and label appropriately.
- Request appropriate data deliverable (Category B) and an electronic data deliverable
- For sampling events where multiple private wells (homes or sites) are to be sampled per day, it is acceptable to collect QC samples at a rate of one per 20 across multiple sites or days.

Documentation

A sample log shall document the location of the private well, sample point location, owner contact information, sampling equipment, purge duration, duplicate sample, visual description of the material, and any other observations or notes determined to be appropriate and available (e.g. well construction, pump type and location, yield, installation date). Additionally, care should be performed to limit contact with PFAS containing materials (e.g. waterproof field books, food packaging) during the sampling process.

Personal Protection Equipment (PPE)

For most sampling Level D PPE is anticipated to be appropriate. The sampler should wear nitrile gloves while conducting field work and handling sample containers.

Field staff shall consider the clothing to be worn during sampling activities. Clothing that contains PTFE material (including GORE-TEX®) or that have been waterproofed with PFAS materials should be avoided. All clothing worn by sampling personnel should have been laundered multiple times.

Appendix F - Sampling Protocols for PFAS in Fish

This appendix contains a copy of the latest guidelines developed by the Division of Fish and Wildlife (DFW) entitled "General Fish Handling Procedures for Contaminant Analysis" (Ver. 8).

Procedure Name: General Fish Handling Procedures for Contaminant Analysis

Number: FW-005

Purpose: This procedure describes data collection, fish processing and delivery of fish collected for contaminant monitoring. It contains the chain of custody and collection record forms that should be used for the collections.

Organization: Environmental Monitoring Section
Bureau of Ecosystem Health
Division of Fish and Wildlife (DFW)
New York State Department of Environmental Conservation (NYSDEC)
625 Broadway
Albany, New York 12233-4756

Version: 8

Previous Version Date: 21 March 2018

Summary of Changes to this Version: Updated bureau name to Bureau of Ecosystem Health. Added direction to list the names of all field crew on the collection record. Minor formatting changes on chain of custody and collection records.

Originator or Revised by: Wayne Richter, Jesse Becker

Date: 26 April 2019

Quality Assurance Officer and Approval Date: Jesse Becker, 26 April 2019

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

<u>GENERAL FISH HANDLING PROCEDURES FOR CONTAMINANT ANALYSES</u>

A. Original copies of all continuity of evidence (i.e., Chain of Custody) and collection record forms must accompany delivery of fish to the lab. A copy shall be directed to the Project Leader or as appropriate, Wayne Richter. <u>All necessary forms will be supplied by the Bureau of Ecosystem Health.</u> Because some samples may be used in legal cases, it is critical that each section is filled out completely. Each Chain of Custody form has three main sections:

   1. The top box is to be filled out <u>**and signed**</u> by the person responsible for the fish collection (e.g., crew leader, field biologist, researcher). This person is responsible for delivery of the samples to DEC facilities or personnel (e.g., regional office or biologist).

   2. The second section is to be filled out <u>**and signed**</u> by the person responsible for the collections while being stored at DEC, before delivery to the analytical lab. This may be the same person as in (1), but it is still required that they complete the section. Also important is the **range of identification numbers** (i.e., tag numbers) included in the sample batch.

   3. Finally, the bottom box is to record any transfers between DEC personnel and facilities. Each subsequent transfer should be **identified, signed, and dated**, until laboratory personnel take possession of the fish.

B. The following data are required on <u>each</u> **Fish Collection Record** form:

   1. Project and Site Name.

   2. DEC Region.

   3. All personnel (and affiliation) involved in the collection.

   4. Method of collection (gill net, hook and line, etc.)

   5. Preservation Method.

C. The following data are to be taken on <u>each</u> fish collected and recorded on the **Fish Collection Record** form:

   1. Tag number - Each specimen is to be individually jaw tagged at time of collection with a unique number. Make sure the tag is turned out so that the number can be read without opening the bag. Use tags in sequential order. For small fish or composite samples place the tag inside the bag with the samples. The Bureau of Ecosystem Health can supply the tags.

   2. Species identification (please be explicit enough to enable assigning genus and species). Group fish by species when processing.

   3. Date collected.

   4. Sample location (waterway and nearest prominent identifiable landmark).

   5. Total length (nearest mm or smallest sub-unit on measuring instrument) and weight (nearest g or

smallest sub-unit of weight on weighing instrument). Take all measures as soon as possible with calibrated, protected instruments (e.g. from wind and upsets) and prior to freezing.

6. Sex - fish may be cut enough to allow sexing or other internal investigation, but do not eviscerate. Make any incision on the right side of the belly flap or exactly down the midline so that a left-side fillet can be removed.

D. General data collection recommendations:

1. It is helpful to use an ID or tag number that will be unique. It is best to use metal striped bass or other uniquely numbered metal tags. If uniquely numbered tags are unavailable, values based on the region, water body and year are likely to be unique: for example, R7CAY11001 for Region 7, Cayuga Lake, 2011, fish 1. If the fish are just numbered 1 through 20, we have to give them new numbers for our database, making it more difficult to trace your fish to their analytical results and creating an additional possibility for errors.

2. Process and record fish of the same species sequentially. Recording mistakes are less likely when all fish from a species are processed together. Starting with the bigger fish species helps avoid missing an individual.

3. If using Bureau of Ecosystem Health supplied tags or other numbered tags, use tags in sequence so that fish are recorded with sequential Tag Numbers. This makes data entry and login at the lab and use of the data in the future easier and reduces keypunch errors.

4. Record length and weight as soon as possible after collection and before freezing. Other data are recorded in the field upon collection. An age determination of each fish is optional, but if done, it is recorded in the appropriate “Age” column.

5. For composite samples of small fish, record the number of fish in the composite in the Remarks column. Record the length and weight of each individual in a composite. All fish in a composite sample should be of the same species and members of a composite should be visually matched for size.

6. Please submit photocopies of topographic maps or good quality navigation charts indicating sampling locations. GPS coordinates can be entered in the Location column of the collection record form in addition to or instead for providing a map. These records are of immense help to us (and hopefully you) in providing documented location records which are not dependent on memory and/or the same collection crew. In addition, they may be helpful for contaminant source trackdown and remediation/control efforts of the Department.

7. When recording data on fish measurements, it will help to ensure correct data recording for the data recorder to call back the numbers to the person making the measurements.

E. Each fish is to be placed in its own individual plastic bag. For small fish to be analyzed as a composite, put all of the fish for one composite in the same bag but use a separate bag for each composite. It is important to individually bag the fish to avoid difficulties or cross contamination when processing the fish for chemical analysis. Be sure to include the fish’s tag number inside the bag, preferably attached to the fish with the tag number turned out so it can be read. Tie or otherwise secure the bag closed. **<u>The Bureau of Ecosystem Health will supply the bags.</u>** If necessary, food grade bags may be procured from a suitable vendor (e.g., grocery store). It is preferable to redundantly label each bag with a manila tag tied between the knot and the body of the bag. This tag should be labeled with the project name, collection location, tag number, collection date, and fish species. If scales are collected, the scale envelope should be labeled with the same information.

F. Groups of fish, by species, are to be placed in one large plastic bag per sampling location. **The Bureau of Ecosystem Health will supply the larger bags.** Tie or otherwise secure the bag closed. Label the site bag with a manila tag tied between the knot and the body of the bag. The tag should contain: project, collection location, collection date, species and **tag number ranges**. Having this information on the manila tag enables lab staff to know what is in the bag without opening it.

G. Do not eviscerate, fillet or otherwise dissect the fish unless specifically asked to. If evisceration or dissection is specified, the fish must be cut along the exact midline or on the right side so that the left side fillet can be removed intact at the laboratory. If filleting is specified, the procedure for taking a standard fillet (SOP PREPLAB 4) must be followed, including removing scales.

H. Special procedures for PFAS: Unlike legacy contaminants such as PCBs, which are rarely found in day to day life, PFAS are widely used and frequently encountered. Practices that avoid sample contamination are therefore necessary. While no standard practices have been established for fish, procedures for water quality sampling can provide guidance. The following practices should be used for collections when fish are to be analyzed for PFAS:

    No materials containing Teflon.
    No Post-it notes.
    No ice packs; only water ice or dry ice.
    Any gloves worn must be powder free nitrile.
    No Gore-Tex or similar materials (Gore-Tex is a PFC with PFOA used in its manufacture).
    No stain repellent or waterproof treated clothing; these are likely to contain PFCs.
    Avoid plastic materials, other than HDPE, including clipboards and waterproof notebooks.
    Wash hands after handling any food containers or packages as these may contain PFCs. Keep pre-wrapped food containers and wrappers isolated from fish handling.
    Wear clothing washed at least six times since purchase.
    Wear clothing washed without fabric softener.
    Staff should avoid cosmetics, moisturizers, hand creams and similar products on the day of sampling as many of these products contain PFCs (Fujii et al. 2013). Sunscreen or insect repellent should not contain ingredients with "fluor" in their name. Apply any sunscreen or insect repellent well downwind from all materials. Hands must be washed after touching any of these products.

I. All fish must be kept at a temperature <45° F (<8° C) immediately following data processing. As soon as possible, freeze at -20° C ± 5° C. Due to occasional freezer failures, daily freezer temperature logs are required. The freezer should be locked or otherwise secured to maintain chain of custody.

J. In most cases, samples should be delivered to the Analytical Services Unit at the Hale Creek field station. Coordinate delivery with field station staff and send copies of the collection records, continuity of evidence forms and freezer temperature logs to the field station. For samples to be analyzed elsewhere, non-routine collections or other questions, contact Wayne Richter, Bureau of Ecosystem Health, NYSDEC, 625 Broadway, Albany, New York 12233-4756, 518-402-8974, or the project leader about sample transfer. Samples will then be directed to the analytical facility and personnel noted on specific project descriptions.

K. A recommended equipment list is at the end of this document.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF FISH AND WILDLIFE
FISH COLLECTION RECORD

Project and Site Name ____ DEC Region ________

Collections made by (include all crew) ____

Sampling Method: Electrofishing Gill netting Trap netting Trawling Seining Angling Other ________________

Preservation Method: Freezing Other ______________ Notes (SWFDB survey number): ________________

FOR LAB USE ONLY- LAB ENTRY NO.	COLLECTION OR TAG NO.	SPECIES	DATE TAKEN	LOCATION	AGE	SEX &/OR REPROD. CONDIT	LENGTH ( )	WEIGHT ( )	REMARKS

richter: revised 2011, 5/7/15, 10/4/16, 3/20/17; becker: 3/23/17, 4/26/19

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CHAIN OF CUSTODY

I, ______________________________, of ____ collected the
(Print Name) (Print Business Address)

following on ____________________, 20____ from ____
(Date) (Water Body)

in the vicinity of ____
(Landmark, Village, Road, etc.)

Town of _______________________________________, in _________________________________ County.

Item(s) ____

____

Said sample(s) were in my possession and handled according to standard procedures provided to me prior to collection. The sample(s) were placed in the custody of a representative of the New York State Department of Environmental Conservation on ___________________________________, 20______.

____ ___________________________
Signature Date

I, __________________________________, received the above mentioned sample(s) on the date specified and assigned identification number(s) ____ to the sample(s). I have recorded pertinent data for the sample(s) on the attached collection records. The sample(s) remained in my custody until subsequently transferred, prepared or shipped at times and on dates as attested to below.

______________________________________ ___________________
Signature Date

SECOND RECIPIENT (Print Name)	TIME & DATE	PURPOSE OF TRANSFER
SIGNATURE	UNIT	
THIRD RECIPIENT (Print Name)	TIME & DATE	PURPOSE OF TRANSFER
SIGNATURE	UNIT	
FOURTH RECIPIENT (Print Name)	TIME & DATE	PURPOSE OF TRANSFER
SIGNATURE	UNIT	
RECEIVED IN LABORATORY BY (Print Name)	TIME & DATE	REMARKS
SIGNATURE	UNIT	
LOGGED IN BY (Print Name)	TIME & DATE	ACCESSION NUMBERS
SIGNATURE	UNIT	

richter: revised 21 April 2014; becker: 23 March 2017, 26 April, 2019

NOTICE OF WARRANTY

By signature to the chain of custody (reverse), the signatory warrants that the information provided is truthful and accurate to the best of his/her ability. The signatory affirms that he/she is willing to testify to those facts provided and the circumstances surrounding the same. Nothing in this warranty or chain of custody negates responsibility nor liability of the signatories for the truthfulness and accuracy of the statements provided.

HANDLING INSTRUCTIONS

On day of collection, collector(s) name(s), address(es), date, geographic location of capture (attach a copy of topographic map or navigation chart), species, number kept of each species, and description of capture vicinity (proper noun, if possible) along with name of Town and County must be indicated on reverse.

Retain organisms in manila tagged plastic bags to avoid mixing capture locations. Note appropriate information on each bag tag.

Keep samples as cool as possible. Put on ice if fish cannot be frozen within 12 hours. If fish are held more than 24 hours without freezing, they will not be retained or analyzed.

Initial recipient (either DEC or designated agent) of samples from collector(s) is responsible for obtaining and recording information on the collection record forms which will accompany the chain of custody. This person will seal the container using packing tape and writing his signature, the time and the date across the tape onto the container with indelible marker. Any time a seal is broken, for whatever purpose, the incident must be recorded on the Chain of Custody (reason, time, and date) in the purpose of transfer block. Container then is resealed using new tape and rewriting signature, with time and date.

EQUIPMENT LIST

Scale or balance of appropriate capacity for the fish to be collected.

Fish measuring board.

Plastic bags of an appropriate size for the fish to be collected and for site bags.

Individually numbered metal tags for fish.

Manila tags to label bags.

Small envelops, approximately 2” x 3.5”, if fish scales are to be collected.

Knife for removing scales.

Chain of custody and fish collection forms.

Clipboard.

Pens or markers.

Paper towels.

Dish soap and brush.

Bucket.

Cooler.

Ice.

Duct tape.

Appendix G – PFAS Analyte List

Group	Chemical Name	Abbreviation	CAS Number
Perfluoroalkyl sulfonic acids	Perfluorobutanesulfonic acid	PFBS	375-73-5
	Perfluoropentanesulfonic acid	PFPeS	2706-91-4
	Perfluorohexanesulfonic acid	PFHxS	355-46-4
	Perfluoroheptanesulfonic acid	PFHpS	375-92-8
	Perfluorooctanesulfonic acid	PFOS	1763-23-1
	Perfluorononanesulfonic acid	PFNS	68259-12-1
	Perfluorodecanesulfonic acid	PFDS	335-77-3
	Perfluorododecanesulfonic acid	PFDoS	79780-39-5
Perfluoroalkyl carboxylic acids	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	PFUnA	2058-94-8
	Perfluorododecanoic acid	PFDoA	307-55-1
	Perfluorotridecanoic acid	PFTrDA	72629-94-8
	Perfluorotetradecanoic acid	PFTeDA	376-06-7
Per- and Polyfluoroether carboxylic acids	Hexafluoropropylene oxide dimer acid	HFPO-DA	13252-13-6
	4,8-Dioxa-3H-perfluorononanoic acid	ADONA	919005-14-4
	Perfluoro-3-methoxypropanoic acid	PFMPA	377-73-1
	Perfluoro-4-methoxybutanoic acid	PFMBA	863090-89-5
	Nonafluoro-3,6-dioxaheptanoic acid	NFDHA	151772-58-6
Fluorotelomer sulfonic acids	4:2 Fluorotelomer sulfonic acid	4:2-FTS	757124-72-4
	6:2 Fluorotelomer sulfonic acid	6:2-FTS	27619-97-2
	8:2 Fluorotelomer sulfonic acid	8:2-FTS	39108-34-4
Fluorotelomer carboxylic acids	3:3 Fluorotelomer carboxylic acid	3:3 FTCA	356-02-5
	5:3 Fluorotelomer carboxylic acid	5:3 FTCA	914637-49-3
	7:3 Fluorotelomer carboxylic acid	7:3 FTCA	812-70-4
Perfluorooctane sulfonamides	Perfluorooctane sulfonamide	PFOSA	754-91-6
	N-methylperfluorooctane sulfonamide	NMeFOSA	31506-32-8
	N-ethylperfluorooctane sulfonamide	NEtFOSA	4151-50-2
Perfluorooctane sulfonamidoacetic acids	N-methylperfluorooctane sulfonamidoacetic acid	N-MeFOSAA	2355-31-9
	N-ethylperfluorooctane sulfonamidoacetic acid	N-EtFOSAA	2991-50-6
Perfluorooctane sulfonamide ethanols	N-methylperfluorooctane sulfonamidoethanol	MeFOSE	24448-09-7
	N-ethylperfluorooctane sulfonamidoethanol	EtFOSE	1691-99-2

Group	Chemical Name	Abbreviation	CAS Number
Ether sulfonic acids	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (F-53B Major)	9Cl-PF3ONS	756426-58-1
	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (F-53B Minor)	11Cl-PF3OUdS	763051-92-9
	Perfluoro(2-ethoxyethane) sulfonic acid	PFEESA	113507-82-7

Appendix H - Data Review Guidelines for Analysis of PFAS in Non-Potable Water and Solids

General

These guidelines are intended to be used for the validation of PFAS using EPA Method 1633 for projects within the Division of Environmental Remediation (DER). Data reviewers should understand the methodology and techniques utilized in the analysis. Consultation with the end user of the data may be necessary to assist in determining data usability based on the data quality objectives in the Quality Assurance Project Plan. A familiarity with the laboratory's Standard Operating Procedure may also be needed to fully evaluate the data. If you have any questions, please contact DER's Quality Assurance Officer, Dana Barbarossa, at dana.barbarossa@dec.ny.gov.

Preservation and Holding Time

Samples should be preserved with ice to a temperature of less than 6°C upon arrival at the lab. The holding time is 28 days to extraction for aqueous and solid samples. The time from extraction to analysis for aqueous samples is 28 days and 40 days for solids.

Temperature greatly exceeds 6°C upon arrival at the lab*	Use professional judgement to qualify detects and non-detects as estimated or rejected
Holding time exceeding 28 days to extraction	Use professional judgement to qualify detects and non-detects as estimated or rejected if holding time is grossly exceeded

*Samples that are delivered to the lab immediately after sampling may not meet the thermal preservation guidelines. Samples are considered acceptable if they arrive on ice or an attempt to chill the samples is observed.

Initial Calibration

The initial calibration should contain a minimum of six standards for linear fit and six standards for a quadratic fit. The relative standard deviation (RSD) for a quadratic fit calibration should be less than 20%.

The low-level calibration standard should be within 50% - 150% of the true value, and the mid-level calibration standard within 70% - 130% of the true value.

%RSD >20%	J flag detects and UJ non detects

Continuing Calibration Verification

Continuing calibration verification (CCV) checks should be analyzed at a frequency of one per ten field samples. If CCV recovery is very low, where detection of the analyte could be in question, ensure a low level CCV was analyzed and use to determine data quality.

CCV recovery <70 or >130%	J flag results

Blanks

There should be no detections in the method blanks above the reporting limits. Equipment blanks, field blanks, rinse blanks etc. should be evaluated in the same manner as method blanks. Use the most contaminated blank to evaluate the sample results.

Blank Result	Sample Result	Qualification
Any detection	<Reporting limit	Qualify as ND at reporting limit
Any detection	>Reporting Limit and >10x the blank result	No qualification
>Reporting limit	>Reporting limit and <10x blank result	J+ biased high

Field Duplicates

A blind field duplicate should be collected at rate of one per twenty samples. The relative percent difference (RPD) should be less than 30% for analyte concentrations greater than two times the reporting limit. Use the higher result for final reporting.

RPD >30%	Apply J qualifier to parent sample

Lab Control Spike

Lab control spikes should be analyzed with each extraction batch or one for every twenty samples. In the absence of lab derived criteria, use 70% - 130% recovery criteria to evaluate the data.

Recovery <70% or >130% (lab derived criteria can also be used)	Apply J qualifier to detects and UJ qualifier to non detects

Matrix Spike/Matrix Spike Duplicate

One matrix spike and matrix spike duplicate should be collected at a rate of one per twenty samples. Use professional judgement to reject results based on out of control MS/MSD recoveries.

Recovery <70% or >130% (lab derived criteria can also be used)	Apply J qualifier to detects and UJ qualifier to non detects of parent sample only
RPD >30%	Apply J qualifier to detects and UJ qualifier to non detects of parent sample only

Extracted Internal Standards (Isotope Dilution Analytes)

Problematic analytes (e.g. PFBA, PFPeA, fluorotelomer sulfonates) can have wider recoveries without qualification. Qualify corresponding native compounds with a J flag if outside of the range.

Recovery <50% or >150%	Apply J qualifier
Recovery <25% or >150% for poor responding analytes	Apply J qualifier
Isotope Dilution Analyte (IDA) Recovery <10%	Reject results

Signal to Noise Ratio

The signal to noise ratio for the quantifier ion should be at least 3:1. If the ratio is less than 3:1, the peak is discernable from the baseline noise and symmetrical, the result can be reported. If the peak appears to be baseline noise and/or the shape is irregular, qualify the result as tentatively identified.

Reporting Limits

If project-specific reporting limits were not met, please indicate that in the report along with the reason (e.g. over dilution, dilution for non-target analytes, high sediment in aqueous samples).

Peak Integrations

Target analyte peaks should be integrated properly and consistently when compared to standards. Ensure branched isomer peaks are included for PFAS where standards are available. Inconsistencies should be brought to the attention of the laboratory or identified in the data review summary report.

APPENDIX F

Health and Safety Plan

HALEY ALDRICH

HALEY & ALDRICH, INC.
SITE-SPECIFIC SAFETY PLAN

FOR

BP Service Station

169 3rd Avenue, Brooklyn, NY

Project/File No. 0204090

Gensuite EZ Scan®

BI - Developers

Prepared By: Mari Conlon **Date: 11/23/2021**

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

Field Safety Manager: Brian Ferguson **Date: 11/24/2021**

Mari Cate Conlon

Project Manager: Mari Conlon **Date: 11/24/2021**

HASP Valid Through: 12-31-2021

Table of Contents

Attachments

STOP WORK AUTHORITY

In accordance with Haley & Aldrich (Haley & Aldrich) Stop Work Authority Operating Procedure (OP1035), any individual has the right to refuse to perform work that he or she believes to be unsafe without fear of retaliation. He or she also has the authority, obligation, and responsibility to stop others from working in an unsafe manner.

STOP Work Authority is the stop work policy for all personnel and subcontractors on the Site. When work has been stopped due to an unsafe condition, Haley & Aldrich site management (e.g., Project Manager [PM], Site Health & Safety Officer [SHSO], etc.) and the Haley & Aldrich Senior Project Manager (SPM) 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.
- An Haley & Aldrich subcontractor is in breach of site safety requirements and/or their own site HASP.
- Identifying a substandard 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/activities stopped, the duration, person stopping work, person in-charge of stopped activity/activities, and the corrective action agreed to and/or taken. Once work has been stopped, only the Haley & Aldrich SPM or SHSO can give the order to resume work. Haley & Aldrich senior management is committed to support anyone who exercises his or her "Stop Work" authority.

ISSUANCE AND COMPLIANCE

This HASP has been prepared in accordance with Occupational Safety and Health Administration (OSHA) regulations (CFR 29, Parts 1904, 1910, and 1926) if such are applicable.

The specific requirements of this HASP include precautions for hazards that exist during this project and may be revised as new information is received or as site conditions change.

- This HASP must be signed by all Haley & Aldrich personnel involved in implementation of the SOW (Section 2 of this HASP).
- This HASP, or a current signed copy, must be retained at all times when Haley & Aldrich staff are present.
- Revisions to this HASP must be outlined within the contents of the HASP. If immediate or minor changes are necessary, the Field Safety Manager (FSM), Haley & Aldrich, SSO and/or Project Manager (PM) may use Attachment 1 (HASP Amendment Form), presented at the end of this HASP. Any revision to the HASP requires employees and subcontractors to be informed of the changes so that they understand the requirements of the change.
- Deviations from this HASP are permitted with approval from the Haley & Aldrich FSM, PM, or Senior Health & Safety Manager (SHSM). Unauthorized deviations may constitute a violation of Haley & Aldrich company procedures/policies and may result in disciplinary action.
- This HASP will be relied upon by Haley & Aldrich's subcontractors and visitors to the site. Haley & Aldrich's subcontractors must have their own HASP which will address hazards specific to their trade that is not included in this HASP. This HASP will be made available for review to Haley & Aldrich's subcontractors and other interested parties (e.g. Facility personnel and regulatory agencies) to ensure that Haley & Aldrich has properly informed our subcontractors and others of the potential hazards associated with the implementation of the SOW to the extent that Haley &Aldrich is aware.

This site-specific HASP provides only site-specific descriptions and work procedures. General safety and health compliance programs in support of this HASP (e.g., injury reporting, medical surveillance, personal protective equipment (PPE) selection, etc.) are described in detail in the Haley &Aldrich Corporate Health and Safety Program Manual and within Haley & Aldrich's Standard Operating Procedures Both the manual and SOPs can be located on the Haley & Aldrich's Company Intranet. When appropriate, users of this HASP should always refer to these resources and incorporate to the extent possible. The manual and SOPs are available to clients and regulators upon request.

EMERGENCY EVENT PROCEDURES

1 - ASSESS THE SCENE

- STOP WORK
- Review the situation and ascertain if it's safe to enter the area.
- Evacuate the site if the conditions are unsafe.

2 - EVALUATE THE EMERGENCY

- **Call 911, or designated emergency number, if required.**
- **Provide first aid for the victim if qualified and safe to do so.**
  - First aid will be addressed using the onsite first aid kit. *
    - If providing first aid, remember to use proper first aid universal precautions if blood or bodily fluids are present.
- **If exposure to hazardous substance is suspected, immediately vacate the contaminated area.**
  - Remove any contaminated clothing and/or equipment.
  - Wash any affected dermal/ocular area(s) with water for at least 15 minutes.
  - Seek immediate medical assistance if any exposure symptoms are present.

** Note: Haley & Aldrich employees are not required or expected to administer first aid / CPR to any Haley & Aldrich staff member, Contractor, or Civilian personnel at any time; it is Haley & Aldrich´s position that those who do are doing so on their own behalf and not as a function of their job.*

3 - SECURE THE AREA

- **Cordon off the incident area, if possible.**
  - Notify any security personnel, if required.
  - Escort all non-essential personnel out of the area, if able.

4 - REPORT ON-SITE ACCIDENTS / INCIDENTS TO PM / SSO

- **Notify the PM and SSO as soon as it is safe to do so.**
  - Assist PM and SSO in completing any additional tasks, as required.

5 - INVESTIGATE / REPORT THE INCIDENT

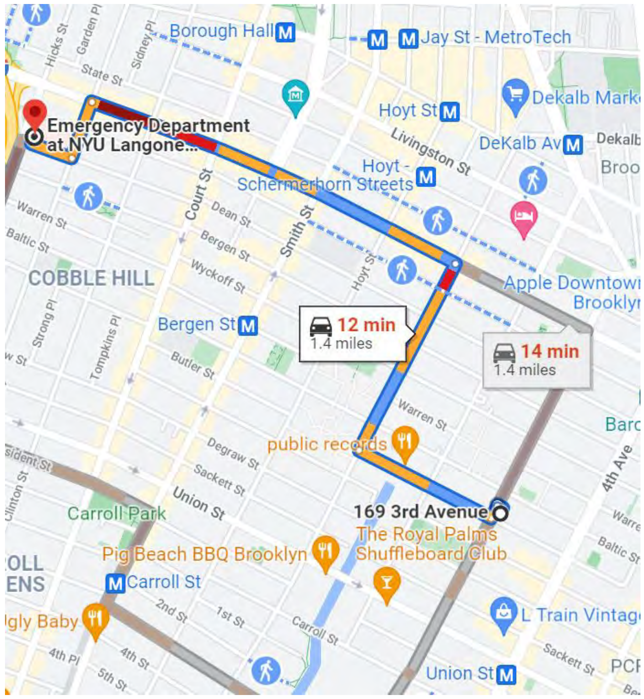
- **Record details of the incident for input to the Gensuite.**
  - Complete any additional forms as requested by the PM and SSO.

6 - TAKE CORRECTIVE ACTION

- **Implement corrective actions per the PM following root cause analysis.**
  - Complete Lessons Learned form.

PROJECT INFORMATION AND CONTACTS	
Project Name: BP Service Station	**Haley & Aldrich File No.:** 0204090
Location: 169 3rd Avenue, Brooklyn, NY	
Client/Site Contact: Phone Number:	YS Realty NY 347-731-3400
Haley & Aldrich Field Representative: Phone Number: Emergency Phone Number:	Zach Simmel (646) 277-5690 (646) 787-7669
Haley & Aldrich Project Manager: Office Phone Number: Cell Phone Number:	Mari Conlon 646.277.5688 347.271.1521
Field Safety Manager: Office Phone Number: Cell Phone Number:	Brian Ferguson 617.886.7439 617.908.2761
Subcontractor Project Manager: Phone Number:	Scott Hamarich 631.727.2700
Nearest Hospital: Address: (see map on next page) Phone Number:	NYU Langone 83 Amity Street Brooklyn, NY 11201 718.630.7185
Nearest Occ. Health Clinic: http://www.talispoint.com/liberty/ext/ Address: (see map on next page) Phone Number:	Med Rite Urgent Care Park Slope 245 4th Avenue Brooklyn, NY 11215 718.407.1270
Liberty Mutual Claim Policy	**WC6-Z11-254100-031**
Emergency Response Number:	**911**
Other Local Emergency Response Number:	N/A
Other Ambulance, Fire, Police, or Environmental Emergency Resources:	911

DIRECTIONS TO THE NEAREST HOSPITAL



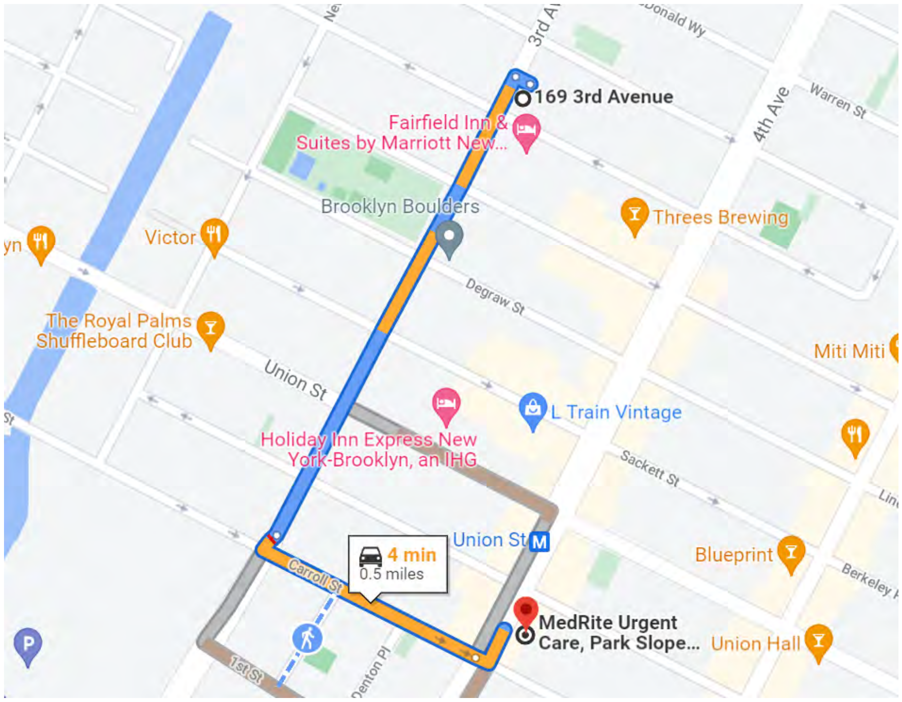
Directions to the Nearest Hospital:

169 3rd Ave
Brooklyn, NY 11217

- Head northwest toward 3rd Ave
  Restricted usage road
  52 ft
- Turn left onto 3rd Ave
  [illegible]
- Turn right at the 1st cross street onto Butler St
  [illegible]
- Turn right onto Bond St
  0.3 mi
- Turn left onto Atlantic Ave
  [illegible]
- Turn left onto Henry St
  0.1 mi
- Turn right onto Amity St
  Destination will be on the right
  [illegible]

Emergency Department at NYU Langone Health—Cobble Hill
83 Amity St, Brooklyn, NY 11201

DIRECTIONS TO THE NEAREST URGENT CARE



Directions to the Nearest Occupational Clinic:

169 3rd Ave
Brooklyn, NY 11217

Head northwest toward 3rd Ave
Restricted usage road

52 ft

Turn left onto 3rd Ave

0.3 mi

Turn left onto Carroll St

0.2 mi

Turn left onto 4th Ave

161 ft

MedRite Urgent Care, Park Slope, Brooklyn, NY
245 4th Ave, Brooklyn, NY 11215

1. WORK SCOPE

This Site-Specific Health and Safety Plan addresses the health and safety practices and procedures that will be exercised by all Haley & Aldrich employees participating in all work on the Project Site. This plan is based on an assessment of the site-specific health and safety risks available to Haley & Aldrich and Haley & Aldrich's experience with other similar project sites. The scope of work includes the following:

Oversee Ground Penetrating Radar survey (GPR). Oversee pre-clearing of eight soil boring locations using hand auger to approximately 5 ft bgs. Oversee Geoprobe installation of soil borings to 15 ft bgs below pre-clearing depth. Collect soil and soil vapor samples throughout site. Collect groundwater sample from existing monitoring well.

Project Task Breakdown

Task No.	Task Description	Employee(s) Assigned	Work Date(s) or Duration
1	**GPR survey-** Overseen GPR survey to be conducted by GPRS Inc. to clear boring locations and identify and underground utilities, tanks or other anomalies.	Zach Simmel	1 day
2	**Pre-clearing and Drilling**- Oversee pre-clearing via hand auger to 5 ft bgs and installation of soil borings and soil vapor points by Eastern Environmental Solutions using a Geoprobe drilling rig. A public markout, will be provided by Coastal.	Zach Simmel	2 days
3	**Soil, Groundwater and Soil Vapor Sampling**- Collect soil and soil vapor samples into laboratory provided containers. Collect groundwater sample from existing monitoring well.	Zach Simmel	2 days

Subcontractor(s) Tasks

Firm Name	Work Activity	Work Date(s) or Duration
Eastern Environmental Solutions	Drilling	2

Projected Start Date: 11/30/2021

Projected Completion Date: 12/2/2022

2. SITE OVERVIEW / DESCRIPTION

Site Classification

Commercial

Site Description

The Site is located at 169 3rd Avenue in Brooklyn, NY. The rectangular shaped Site is 11,800 square feet in size and is currently operated by an active retail petroleum service station. The Site is improved with a car wash one-story building on the northern of the Site.

Background and Historic Site Usage

The site was used as ladder storage from the 1940s through 1970s. Since the 1970s the site has been used for auto rental, car wash and as a service station.

Site Status

Indicate current activity status and describe operations at the site:

Active

The Site is operated by a retail petroleum service station.

Site Plan

Is a site plan or sketch available? Yes

Work Areas

List and identify each specific work areas(s) on the job site and indicate its location(s) on the site plan:

The work area consists of the entire property with exception of inside the building on the northern portion of the site.

Site Plan

Note: This HASP has been developed for Haley & Aldrich purposes only and is not for use by others.

3. HAZARD ASSESSMENT

Indicate all hazards that may be present at the site and for each task. If any of these potential hazards are checked, it is the Project Manager's responsibility to determine how to eliminate / minimize the hazard to protect onsite personnel.

Site Chemical Hazards

Is this Site impacted with chemical contamination? Yes

Source of information about contaminants: Owner Knowledge

Contaminant of Concern	Location/Media	Concentration	Units
Total Petroleum Hydrocarbons (TPH)	**Soil**	**Unknown**	**mg/kg**
Volatile Organic Compounds (VOCs)	**Groundwater**	**Unknown**	**ug/kg**
Urban Fill	**Soil**	**Unknown**	**mg/kg**
BTEX/VOCs	**Soil**	**Unknown**	**mg/kg**

Total Petroleum Hydrocarbons (TPH): is a term used to describe a large family of several hundred chemical compounds that originally come from crude oil. Crude oil is used to make petroleum products, which can contaminate the environment. Because there are so many different chemicals in crude oil and petroleum products, it is not practical to measure each one separately. However, it is useful to measure the total amount of TPH at a site.

TPH is a mixture of chemicals, but they are all made mainly from hydrogen and carbon, called hydrocarbons. Scientists divide TPH into groups of petroleum hydrocarbons that act alike in soil or water. These groups are called petroleum hydrocarbon fractions. Each fraction contains many individual chemicals.

VOCs: include all organic compounds (substances made up of predominantly carbon and hydrogen) with boiling temperatures in the range of 50-260 degrees C, excluding pesticides. This means that they are likely to be present as a vapor or gas in normal ambient temperatures. Substances which are included in the VOC category include aliphatic hydrocarbons (such as hexane), aldehydes, aromatic hydrocarbons (such as benzene, toluene, and the xylenes or BTEX), and oxygenated compounds (such as acetone and similar ketones). The term VOC often is used in a legal or regulatory context and in such cases the precise definition is a matter of law.

VOCs are released from oil and gasoline refining, storage and combustion as well as from a wide range of industrial processes. Processes involving fuels, solvents, paints or the use of chemicals are the most significant sources. VOCs may also be emitted from cleaning products, degreasing products, fabrics, carpets, plastic products, glues, printed material, varnishes, wax, disinfectants, and cosmetics.

Typically, VOCs are present in gas or vapor and will enter the body by breathing contaminated air. Higher concentrations of VOCs may occur in areas of poor ventilation.

BTEX/VOCs: BTEX is an acronym for benzene, toluene, ethylbenzene and xylenes. These compounds are VOCs, are common in petroleum-related products (e.g., oil, gasoline, coal-tar DNAPL, etc.), and frequently co-occur at hazardous waste sites. Benzene, toluene, ethylbenzene, and xylenes have acute and chronic harmful effects on the central nervous system. Benzene is classified as a carcinogen. Short-term health effects of low-level BTEX exposure include drowsiness, dizziness, accelerated heart rate, headaches, tremors, confusion, and unconsciousness.

Site Hazards Checklist

Weather

Cold Temperatures	High Winds	Select Hazard	

Cold Temperatures

Cold stress may occur at any time work is being performed at low ambient temperatures and high velocity winds. Because cold stress is common and has potentially serious illnesses associated with outdoor work during cold seasons, regular monitoring and other preventative measures are vital.

Refer to OP1003-Cold Stress for additional information and mitigation controls.

High Winds

While high winds are commonly associated with severe thunderstorms and hurricanes they may also occur as a result of differences in air pressures, such as when a cold front passes across the area. They can cause downed trees and power lines, and flying debris (such as dust or larger debris), which adds additional risks and could lead to power outages, transportation disruptions, damage to buildings and vehicles, and serious injury.

Wind Advisory are issued for sustained winds 25 to 39 mph and/or gusts to 57 mph. High Wind warnings are issued by the National Weather Service when high wind speeds may pose a hazard or is life threatening. The criteria for this warning will varies by state. The Beaufort Wind Scale is a helpful tool to when dealing with high winds.

Biological

Mosquitoes	Choose an item.	Choose an item.	Choose an item.

Mosquitos

Work outdoors with temperatures above freezing will likely bring staff into contact with mosquitos. There are a variety of mosquito species that can transmit a range of diseases. Birds act as reservoirs for the viruses that can be collected by the mosquito and transmitted to a person. Majority of mosquitos are mainly a nuisance but staff need to take appropriate precautions to minimize the potential transmission of a virus that can result in one of the following diseases: West Nile, Eastern Equine Encephalitides and Western Encephalitides. Knowing some key steps that can minimize the risk of mosquito bites is, therefore, important in reducing the risks. Workers working outdoors should be aware that the use of PPE techniques is essential to preventing mosquito bites especially when working at sites where mosquitoes may be active and biting.

Use repellents containing DEET, picaridin, IR3535, and some oil of lemon eucalyptus and para-menthane-diol products provide longer-lasting protection. To optimize safety and effectiveness, repellents should be used according to the label instructions. Cover as much of your skin as possible by wearing shirts with long-sleeves, long pants, and socks whenever possible. Avoid use of perfumes and colognes when working outdoors during peak times when mosquitoes may be active; mosquitoes may be more attracted to individuals wearing perfumes and colognes.

Location/Terrain			
Slip/Trip/Falls	Economically Depressed	Public Rd/Right of Way	Choose an item.

Slips, Trips & Falls

Slip and trip injuries are the most frequent injuries to workers. Statistics show most falls happen on the same level resulting from slips and trips. Both slips and trips result from unintended or unexpected change in the contact between the feet and the ground or walking surface. 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 riverbed maybe slick and may not be visible. Rocks, gradient changes, sandy bottoms, and debris may be present but not observable.

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 and remove hazards as appropriate.

Economically Depressed Areas

Economically depressed areas may have high crime rates. Projects involving work in and around inactive industrial sites may bring staff into contact with indigent and homeless persons. Staff could be subjected to crime that includes but may not be limited to thievery, vandalism, and violence. Prior to the start of work staff need to understand the work locations and the potential for exposure to low level crime.

Staff members should never work alone in these areas. A buddy system is required. Conduct during daylight hours. Secure equipment and vehicles. If warranted, contact the local police department for a security detail. Leave the work area immediately and contact the local authorities if staff members feel threatened or are threatened.

Public Right of Way

H&A staff and their subcontractors conducting work on public roads and/or right of ways can be exposed to vehicular traffic and expose the public to the hazards of the job site. Where a hazard exists to site workers because of traffic or haulage conditions at work sites that encroach public streets or highways, a system of traffic controls in conformance with the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), or state program, is required. A Temporary Traffic Control Plan (TCP) describes traffic controls to be used for facilitating vehicle and pedestrian traffic through a temporary traffic control zone TCPs are required to provide for worker protection and safe passage of traffic through and around job sites with as little inconvenience and delay as possible.

The plan may range in scope from being very detailed, to merely referencing typical drawings contained in the MUTCD. The degree of detail in the TCP depends entirely on the complexity of the situation, and TCP's should be prepared by persons knowledgeable about the fundamental principles of temporary traffic control and the work activities to be performed.

H&A Project Managers or their subcontractors need to establish appropriate control measures and obtain any permits when project work is on or encroaches public roadways. You may need flaggers or police details. Cease work and notify the field supervisor immediately if any conditions are such that safety is jeopardized. Utilize protective vehicles whenever appropriate or position equipment so in between the work and oncoming traffic.

Miscellaneous			
Choose an item.	Choose an item.	Choose an item.	Choose an item.
Click + to Add Additional Hazard Language			

Task Hazard Summary

Task 1 - Underground Utility Clearance

Ground disturbance activities such as excavating or drilling have the potential to contact underground utilities and may be considered a hazardous activity and a permit to work may be required. Once the H&A Project Manager has identified the work zone and the areas designated for ground disturbance the PM or designee is required to delineate the area with either white paint or flags so that the appropriate agencies know which area to check for their respective utilities. Haley & Aldrich staff members must ensure that permission has been gained from the property owner to access the property prior to site entry and before marking any proposed exploration or drilling locations.

The Project Manager shall verify that the proposed dig or drill zones are adequately marked or staked prior to the locators site visit, and that the appropriate Line Location Organization/ Contractor has been notified (a minimum of 72 business hours in advance) of all planned ground disturbance activities and a request for line location has been registered with the applicable One Call or dial Before You Dig organization when applicable. Personnel that are required to mark the area need to identify and understand the hazards associated with the project area which can range from a public roadway to a greenspace in a remote location.

See OP1020 Work Near Utilities.

Task 1 – Pre-Clearing and Drilling Oversight

Drilling is conducted for a range of services that can include but are not limited to: soil characterization, environmental investigation, well installation, and ore exploration. 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 drilling 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 for more information.

Task 2 – Soil Sampling

Soil sampling by H&A staff on active construction sites can be conducted in conjunction with a wide range activities such as building construction, earthwork and soil management related activities. These activities can include, but are not limited to: drill spoil characterization and management during building foundation element installation, characterization of excavated soils for management/disposal/reuse during earthwork activities, and as part of environmental remedial activities such as delineation and confirmation sampling. Familiarity with basic heavy construction safety, site conditions (geotechnical and environmental), and potential soil contaminants are essential components of soil sampling performed on active sites. Potential hazards related to soil sampling at construction sites include, but are not limited to: encountering site vehicle traffic and heavy equipment operations, manual lifting, generated waste, contact or exposure to impacted soil, and encountering unknown toxic or hazardous substances. Although soil sampling is commonly performed within active excavations, from stockpiles, or within trench excavations, sampling locations and situations will vary depending on site conditions. Care should be taken while entering and exiting excavations or trenches, and when accessing (climbing up or down) soil stockpiles, ensuring that the sampling area is not being actively accessed by construction equipment. Care should also be taken with handling of potentially environmentally impacted soil during sampling, with appropriate PPE identified and used. At no time during classification activities are personnel to reach for debris near machinery that is in operation, place any samples in their mouth, or come in contact with the soils without the use of gloves. Staff will have to carry and use a variety of sampling tools, equipment, containers, and potentially heavy sample bags. It is imperative that staff are aware of emergency / communication protocols with the Contractor prior to the start of work.

Task 2 – Water Sampling

Environmental water sampling could include activities such as groundwater sampling from permanent or temporary wells, or surface water sampling from streams, rivers, lakes, ponds, lagoons, and surface impoundments.

Sampling tasks could involve uncapping, purging (pumping water out of the well), and sampling, and/or monitoring, new or existing monitoring wells. A mechanical pump may be used to purge the wells and can be hand-, gas-, or electric-operated. Water samples taken from the wells are then placed in containers and shipped to an analytical laboratory for analysis. The physical hazards of these operations are primarily associated with the collection methods and procedures used.

When sampling bodies of water containing known or suspected hazardous substances, adequate precautions must be taken to ensure the safety of sampling personnel. The sampling team member collecting the sample should not get too close to the edge, where ground failure or slips, trips or falls may cause him/her to lose his/her balance. The person performing the sampling should have fall restraint or protection for the task. When conducting sampling from a boat in an impoundment or flowing waters, appropriate vessel safety procedures should be followed. Avoid lifting heavy coolers with back muscles; instead, use ergonomic lifting techniques, team lift or mechanical lifts. Wear proper gloves, such as when handling sample containers to avoid contacting any materials that may have spilled out of the sample containers.

Inhalation and absorption of COCs are the primary routes of entry associated with water sampling, due to the manipulation of sample media and equipment, manual transfer of media into sample containers, and proximity of operations to the breathing zone. During this project, several different groundwater sampling methodologies may be used based on equipment accessibility and the types of materials to be sampled. These sampling methods may include hand or mechanical bailing. The primary hazards associated with these specific sampling procedures are not potentially serious; however, other operations in the area or the conditions under which samples must be collected may present chemical and physical hazards. The hazards directly associated with groundwater sampling procedures are generally limited to strains or sprains from hand bailing, and potential eye hazards. Exposure to water containing COCs is also possible. All tools and equipment that will be used at the site must be intrinsically safe (electronics and electrical equipment) and non-sparking or explosion-proof (hand tools).

Task 2 – Soil Vapor Sampling

Soil gas sampling is employed as an indirect indicator of contamination in soil or groundwater particularly over and around landfill waste sites, or groundwater plumes. Soil gas sampling points can be installed manually using a slam bar or power driven mechanical devices (e.g., demolition hammer or

Geoprobe) may be used based on site conditions (i.e., pavement, frozen ground, very dense clays, etc.). Soil gas samples can be drawn through the probe itself, or through Teflon tubing inserted through the probe and attached to the probe point. Samples are collected and analyzed as described below. Other field air monitoring devices, such as the Combustible Gas Indicator (CGI) and the Organic Vapor Analyzer (OVA), can also be used, depending on specific site conditions.

Because the sample is being drawn from underground, and no contamination is introduced into the breathing zone, soil gas sampling usually occurs in Level D. Nevertheless, ambient air should be constantly monitored to obtain background and breathing zone readings during the sampling procedure in the event the seal around the sampling point is breached. As long as the levels in ambient air do not rise above background, no upgrade of the level of protection is needed. Also, an underground utility search must be performed prior to sampling.

Task Physical Hazards Checklist				
Potential Task Hazards	**Task 1** **GPR Survey Oversight**	**Task 2** **Pre-Clearing and Drilling Oversight**	**Task 3** **Soil, Groundwater &Soil Vapor Sampling**	**Task 4** Task Name
Ergonomics	☒	☒	☒	☐
Congested Area	☒	☒	☒	☐
Generated Wastes	☐	☒	☒	☐
Heavy Equipment	☐	☒	☐	☐
Manual Lifting	☐	☒	☒	☐
Underground Utilities	☒	☒	☐	☐
Line of Fire	☐	☒	☐	☐
Noise	☒	☒	☒	☐
Sharp Objects	☒	☒	☒	☐
Ground Disturbance	☐	☒	☐	☐
Traffic	☒	☒	☒	☐

Summary of Physical Hazards & Controls

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 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.

See OP1053 Ergonomics for more information.

Controls

- Ensure workstations are ergonomically correct so bad posture is not required to complete tasks.
- Take periodic breaks over the course of the day.
- Stretch during break times.
- Break up tasks that require repetitive motion.
- Contact Corporate H&S with any ergonomic concerns

Congested Areas

Working in congested areas can expose both workers and the public to a wide range of hazards depending upon the specific activities taking place. Staff Members need to understand the work scope, work areas, equipment on-site, and internal traffic patterns to minimize or eliminate exposure potential.

Controls

- Provide barricades, fencing, warning signs/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 always wear high visibility clothing.
- 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.

Generated Waste

Activities on environmental sites may generate waste that requires regulated handling and disposal. Excess sample solids, decontamination materials, poly sheeting, used PPE, 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.

Controls

- Manage waste properly through good work practices.
- Collect, store, containerize waste, and dispose of it properly.
- 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.
- 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.

Heavy Equipment

Staff must be careful and alert when working around heavy 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 chances of worker injury. Equipment of this nature shall be visually inspected and checked for proper working order prior to commencement of field work. Those operating heavy equipment must meet all requirements to operate the equipment. Haley & Aldrich, Inc. staff that supervise projects or are associated with 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., operator places the bucket on the ground).
- Always maintain visual contact with operators 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 all equipment and <u>never</u> go beneath a hoisted load.
- Avoid fumes created by heavy equipment exhaust.

Manual Lifting/Moving

Most materials associated with investigation, remedial, or construction-related activities are moved by hand. The human body is subject to damage in the forms of back injury, muscle strains, and hernia if caution is not observed in the handling process.

Controls

- Under no circumstances should any one person lift more than 49 pounds unassisted.
- Always push, not pull, the object when possible.

- Size up the load before lifting. If it is heavy or clumsy, get a mechanical aid or help from a worker.
- Bend the knees; it is the single most important aspect of lifting.
- When performing the lift:
  - Place your feet close to the object and center yourself over the load.
  - Get a good handhold.
  - Lift straight up, smoothly and let your legs do the work, not your back!
  - Avoid overreaching or stretching to pick up or set down a load.
  - Do not twist or turn your body once you have made the lift.
  - Make sure beforehand that you have a clear path to carry the load.
  - Set the load down properly.

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 SHSO, 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 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.

Line of Fire

Line of fire refers to the path an object will travel. Examples of line of fire situations typically observed on project sites include lifting/hoisting, lines under tension, objects that can fall or roll, pressurized objects or lines, springs or stored energy, work overhead, vehicles and heavy equipment.

Controls

- Never walk under a suspended load.
- Be aware and stay clear of tensioned lines such as cable, chain and rope.
- 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 and other items can release tremendous energy if compressed and suddenly released

- Items under tension and pressure can release tremendous energy if it is suddenly released.
- 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 clear of soil cuttings or soil stockpiles generated during drilling operations and excavations, be aware that chunks of soil, rocks, and debris can fall or roll.

Noise

Working around heavy equipment (drill rigs, excavators, etc.) often creates excessive noise. The effects of noise 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 working within 25 feet of operating heavy equipment 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.

Sharp Objects

Workers who handle sharp edged objects like sheets of steel or glass are at risk of cuts. Workers who handle sharp edged objects are also at risk of cuts. Injuries may occur to hands, fingers, or legs when they are in the way of the blade, when the blade slips, or if an open blade is handled unexpectedly. Other hazards at job sites include stepping on sharp objects (e.g. wooden boards with protruding nails, sharp work-tools, chisels, etc.) and colliding with sharp and/or protruding objects.

Controls

Always be alert when handling sharps. Never look away or become distracted while handling sharp objects. Use caution when working with tools; use right tool for the job. Keep tools sharp, dull blades are a safety hazard, requiring more force to make cuts which can lead to tool slippage. Wear appropriate PPE and do not handle sharp objects (i.e., broken glass) with bare hands. Use mechanical devices, when possible. Stay away from building debris; avoid handling site debris or placing your hand where you cannot see. Watch out for barbed wire and electrical fences; cover with a car mat or equivalent to cross or walk around; use the buddy system to avoid entanglement; wear gloves. Do not leave unprotected sharps unattended. Use protective shields, cases, styrofoam blocks, etc. Pass a sharp by handing it over carefully by the handle with the blade down or retracted. Fixed open blades are prohibited. Always cut away from the body, making several passes when cutting thicker materials. Make sure blades are fitted properly into the knife. Never cut items with a blade or other sharp object on your lap. Never try to catch a blade or cutting tool that is falling.

Ground Disturbance

Ground disturbance is defined as any activity disturbing the ground. Ground disturbance activities include, but are not limited to, excavating, trenching, drilling (either mechanically or by hand), digging, plowing, grading, tunneling and pounding posts or stakes.

Because of the potential hazards associated with striking an underground utility or structure, the operating procedure for underground utility clearance shall be followed prior to performing any ground disturbance activities.

See OP1020 Working Near Utilities

Controls

Prior to performing ground disturbance activities, the following requirements should be applied:

- Confirm all approvals and agreements (as applicable) either verbal or written have been obtained.
- Request for line location has been registered with the applicable One-Call or Dial Before You Dig organization, when applicable.
    - Whenever possible, ground disturbance areas should be adequately marked or staked prior to the utility locators site visit.
- Notification to underground facility operator/owner(s) that may not be associated with any known public notification systems such as the One-Call Program regarding the intent to cause ground disturbance within the search zone.
- Notifications to landowners and/or tenant, where deemed reasonable and practicable.
- Proximity and Common Right of Way Agreements shall be checked if the line locator information is inconclusive.

Traffic

To ensure worker protection and the safe passage of traffic through and around job sites, Site Traffic Control procedures may need to be implemented on project sites. Job zone control and traffic management are necessary when Simultaneous Operations (SIMOPS) or third parties could be at risk of injury by entering the work zone, or when the work crew is at risk of injury by other operations.

Traffic patterns shall be evaluated. Conditions such as high pedestrian traffic, peak periods, daily deliveries or SIMOPS known, Heavy equipment traffic volume and light duty traffic volume shall be evaluated

Early identification and planning for site operations that require job zone control and traffic management, including SIMOPS, is the responsibility of the Project Manager and primary contractor manager. Traffic control plans shall be consistent with the Manual on Uniform Traffic Control Devices.

See OP1025 Signs, Signals, and Barricades and/or OP1043 Site Traffic Control for more information.

Controls

- Alternate walkways where possible.
- Use of the local police to direct traffic.
- Use of an air horn to alert drivers or other workers.

- Maintain good housekeeping and clean the area as work is completed.
- Use the ‘buddy’ or ‘watchperson’ system while performing work.
- Use a spotter for backing, tight maneuvers and bin/tank/equipment drop-offs.
- Use traffic control devices, field vehicles and barricades and avoid the use of caution tape.
- Park all vehicles (with wheels in a safe direction away from work) to block traffic with a flashing yellow light. Park so that access to the vehicle is away from oncoming traffic while working.
- When parking a vehicle and equipment, utilize a ‘first move forward’ driving practice.
- Work in an upright position, face traffic and make eye contact with drivers when possible.
- Minimize work time in traffic.
- Establish a ‘Stop Work’ hand signal.
- Personnel shall always wear high visibility vest

If public sites, such as public roads, bicycle paths or footpaths, are closed or rerouted, local and regulatory requirements shall be followed and traffic control permits shall be put in place. Proper traffic guiding equipment includes stop/slow paddle signs, flaggers, flashing lights and directional signs.

All personnel on-site should be aware of the plan of the day and the Traffic Control Plan should be communicated with all parties involved during the pre-shift meeting.

4. PROTECTIVE MEASURES

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

Required Safety & Personal Protective Equipment

Required Personal Protective Equipment (PPE)	**Task 1**	**Task 2**	**Task 3**	**Task 4**
	GPR Survey Oversight	Pre-clearing and Drilling Oversight	Soil, Groundwater, & Soil Vapor Sampling	Enter task description.
Hard hat	☒	☒	☐	☐
Safety Glasses	☒	☒	☒	☐
Safety Toed Shoes	☒	☒	☒	☐
Class 2 Safety Vest	☒	☒	☒	☐
Hearing Protection	☒	☒	☒	☐
Nitrile Gloves	☐	☒	☒	☐
Face Shield	☐	☒	☐	☐
Level of protection required	D	D	D	Select
Required Safety Equipment				
First Aid Kit	☒	☒	☒	☐
Eyewash Bottles	☒	☒	☒	☐
Fire Extinguisher	☒	☒	☒	☐

5. TRAINING REQUIREMENTS

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

Site Specific Training Requirements

HAZWOPER - 40 Hour (Initial)
HAZWOPER - 8 Hour (Annual Refresher)
10-Hour OSHA
Site Specific Orientation

Task Specific Training Requirements

Required Training Type	**Task 1**	**Task 2**	**Task 3**	**Task 4**
	GPR Survey Oversight	Pre-clearing and Drilling Oversight	Soil &Groundwater Sampling	Enter task description.
HAZWOPER- 40 Hour (Initial), HAZWOPER- 8 Hour (Annual Refresher), 10-Hour OSHA & Site-Specific Orientation	☒	☒	☒	☐

6. AIR MONITORING PLAN AND EQUIPMENT

Exposures to airborne substances shall be fully characterized throughout project operations to ensure that exposure controls are effectively selected and modified as needed.

Is air/exposure monitoring required at this work site for personal protection? Yes

Is perimeter monitoring required for community protection? Yes

Air monitoring plan not applicable No

Air Monitoring/Screening Equipment Requirements

Photo-Ionization Detector (PID) 10.6eV

The required equipment listed above must be on site. Work shall not commence unless the equipment is present and in working order.

Monitoring Plans

Parameter/ Contaminant	Equipment	Action Level	Response Activity
VOCs	PID 10.6 eV	< 1 ppm	Continue work and monitoring.
		>1 ppm for 5 minutes >1 ppm for >5 minutes	Clear Instrument and Re-Monitor the Area. Implement PPE upgrades Evacuate the area and call the FSM and/or PM for further guidance. Implement engineering controls.

Zone Location and Monitoring Interval
Breathing zone and edge of Exclusion Zone.

***If chemical does not have an action level use TLV or REL, whichever is lowest, to be used as an action level. If TLV or REL are the same as PEL, cut the PEL in half for an action level.**

7. DECONTAMINATION & DISPOSAL METHODS

All possible and necessary steps shall be taken to reduce or minimize contact with chemicals and contaminated/impacted materials while performing field activities (e.g., avoid sitting or leaning on, walking through, dragging equipment through or over, tracking, or splashing potential or known contaminated/impacted materials.)

Personal Hygiene Safeguards

The following minimum personal hygiene safeguards shall be adhered to:

1. No smoking or tobacco products in any project work areas.
2. No eating or drinking in the exclusion zone.
3. It is required that personnel present on site wash hands before eating, smoking, taking medication, chewing gum/tobacco, using the restroom, or applying cosmetics and before leaving the site for the day.

It is recommended that personnel present on site shower or bathe at home at the end of each day of working on the site.

Decontamination Supplies

All decontamination should be conducted at the project site in designated zones or as dictated by Client requirements. Decontamination should not be performed on Haley & Aldrich owned or leased premises.

☐ Acetone	☐ Distilled Water	☐ Polyethylene Sheeting
☒ Alconox Soap	☐ Drums	☐ Pressure/Steam Cleaner
☒ Brushes	☐ Hexane	☒ Tap Water
☒ Disposal Bags	☐ Methanol	☐ Wash tubs
☒ 5 Gallon Buckets	☒ Paper Towels	☐ Other: Specify

Location of Decontamination Station

Decontamination will take place prior to leaving the site at the exit.

Standard Personal Decontamination Procedures

Outer gloves and boots should be decontaminated periodically as necessary and at the end of the day. Brush off solids with a hard brush and clean with soap and water or other appropriate cleaner whenever possible. Remove inner gloves carefully by turning them inside out during removal. Wash hands and forearms frequently. It is good practice to wear work-designated clothing while on-site which can be removed as soon as possible. Non-disposable overalls and outer work clothing should be bagged onsite prior to laundering. If gross contamination is encountered on-site contact the Project Manager and Field Safety Manager to discuss proper decontamination procedures.

The steps required for decontamination will depend upon the degree and type of contamination but will generally follow the sequence below.

1. Remove and wipe clean hard hat
2. Rinse boots and gloves of gross contamination
3. Scrub boots and gloves clean
4. Rinse boots and gloves
5. Remove outer boots (if applicable)
6. Remove outer gloves (if applicable)
7. Remove Tyvek coverall (if applicable)
8. Remove respirator, wipe clean and store (if applicable)
9. Remove inner gloves (if outer gloves were used)

PPE that is not grossly contaminated can be bagged and disposed in regular trash receptacles.

Small Equipment Decontamination

Pretreatment of heavily contaminated equipment may be conducted as necessary:

1. Remove gross contamination using a brush or wiping with a paper towel
2. Soak in a solution of Alconox and water (if possible)
3. Wipe off excess contamination with a paper towel

Standard decontamination procedure:

4. Wash using a solution of Alconox and water
5. Rinse with potable water
6. Rinse with methanol (or equivalent)
7. Rinse with distilled/deionized water

Inspect the equipment for any remaining contamination and repeat as necessary.

Disposal Methods
Procedures for disposal of contaminated materials, decontamination waste, and single use personal protective equipment shall meet applicable client, locate, State, and Federal requirements.
Disposal of Single Use Personal Protective Equipment
PPE that is not grossly contaminated can be bagged and disposed in regular trash receptacles. PPE that is grossly contaminated must be bagged (sealed and field personnel should communicate with the Project Manager to determine proper disposal.

Disposal Method for Contaminated Soil

- Contaminated soil cuttings and spoils must be containerized for disposal off-site unless otherwise specifically directed.
- Soil cuttings, purge water and spoils determined to be free of contamination through field screening can usually be returned to the boreholes or excavations from which they came.

8. 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

Haley & Aldrich site personnel will communicate with other Haley & Aldrich staff member and/or subcontractors or contractors with:

Face to Face Communication

External

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

Cellular Phones

Visitors

Project Site

Will visitors be required to check-in prior to accessing the project site?

Yes

Visitor Access

Authorized visitors that require access to the project site need to be provided with known information with respect to the site operations and hazards as applicable to the purpose of their site visit. Authorized visitors must have the required PPE and appropriate training to access the project site.

Yanxia Lin is responsible for facilitating authorized visitor access.

Zoning

Work Zone

The work zone will be clearly delineated to ensure that the general public or unauthorized worker access is prevented. The following will be used:

Cones

9. SITE SPECIFIC EMERGENCY RESPONSE PLAN

The Emergency Response Plan addresses potential emergencies at this site, procedures for responding to these emergencies, roles, responsibilities during emergency response, and training. This section also describes the provisions this project has made to coordinate its emergency response with other contractors onsite and with offsite emergency response organizations (as applicable).

During the development of this emergency response plan, local, state, and federal agency disaster, fire, and emergency response organizations were consulted (if required) to ensure that this plan is compatible and integrated with plans of those organizations. Documentation of the dates of these consultations are the names of individuals contacted is kept on file and available upon request.

The site has been evaluated for potential emergency occurrences, based on site hazards, and the major categories of emergencies that could occur during project work are:

- Fire(s)/Combustion
- Hazardous Material Event
- Medical Emergency
- Natural Disaster

A detailed list of emergency types and response actions are summarized in Table X below. Prior to the start of work, the SSO will update the table with any additional site-specific information regarding evacuations, muster points, or additional emergency procedures. The SSO will establish evacuation routes and assembly areas for the Site. All personnel entering the Site will be informed of these routes and assembly areas.

Pre-Emergency Planning

Before the start of field activities, the Project Manager will ensure preparation has been made in anticipation of emergencies. Preparatory actions include the following:

Meeting with the subcontractor/and or client concerning the emergency procedures in the event a person is injured. Appropriate actions for specific scenarios will be reviewed. These scenarios will be discussed, and responses determined before the sampling event commences. A form of emergency communication (i.e.; Cell phone, Air horn, etc.) between the Project Manager and subcontractor and/or client will be agreed on before the work commences.

A training session (i.e., “safety meeting”) given by the Project Manager or their designee informing all field personnel of emergency procedures, locations of emergency equipment and their use, and proper evacuation procedures.

Ensuring field personnel are aware of the existence of the emergency response HASP and ensuring a copy of the HASP accompanies the field team(s).

Onsite Emergency Response Equipment

Emergency procedures may require specialized equipment to facilitate work rescue, contamination control and reduction or post-emergency cleanup. Emergency response equipment stocked

Table 9.1 Emergency Equipment and Emergency PPE			
Emergency Equipment	**Specific Type**	**Quantity Stocked**	**Location Stored**
First Aid Kit	General First Aid Kit	1	With H&A personnel
Fire Extinguisher	A/B/C	1	25 feet of Drill Rig

EVACUATION ALARM
Verbal Communication (Site Personnel are adjacent in work zone)
EVACUATION ROUTES
Will be given a map after site specific training
EVACUATION MUSTER POINT(S)/ SHELTER AREA(S)
Will be given a locations after site specific training
EVACUTION RESPONSE DRILLS
The Site relies on outside emergency responders and a drill is not required.

Table 9-2 – Emergency Planning

Emergency Type	Notification	Response Action	Evacuation Plan/Route
Chemical Exposure	Report event to SSO immediately	Refer to Safety Data Sheet for required actions	Remove personnel from work zone
Fire - Small	Notify SSO and contact 911	Use fire extinguisher if safe and qualified to do so	Mobilize to *Muster Point*
Fire – Large/Explosion	Notify SSO and contact 911	Evacuate immediately	Mobilize to *Muster Point*
Hazardous Material – Spill/Release	Notify SSO; SSO will contact PM to determine if additional agency notification is	If practicable don PPE and use spill kit and applicable procedures to contain the release	See Evacuation Map for route, move at least 100 ft upwind of spill location
Medical – Bloodborne Pathogen	Notify SSO	If qualified dispose in container or call client or city to notify for further instruction.	None Anticipated
Medical – First Aid	Notify SSO	If qualified perform first aid duties	None Anticipated
Medical – Trauma	If life threatening or transport is required call 911, immediately	Wait at site entrance for ambulance	Noe Anticipated
Security Threat	Notify SSO who will call 911 as warranted	Keep all valuables out of site and work zones delineated.	None Anticipated
Weather – Earthquake/Tsunami's	STOP WORK and evacuate Site upon any earthquake	Turn off equipment and evacuate as soon as is safe to do so	Mobilize to *Shelter Location*
Weather – Lightning Storm	STOP WORK	Work may resume 30 minutes after the last observed lightning.	None Anticipated
Weather – Tornadoes/Hurricanes	Monitor weather conditions STOP WORK and evacuate the site	Evacuate to shelter location or shelter in place immediately	Mobilize to *Shelter Location*
MUSTER POINT Sidewalk along Wythe Avenue		*SHELTER LOCATION* Personal vehicle	
In case of site emergencies, site personnel shall be evacuated per this table and will not participate in emergency response activities. Site emergencies shall be reported to local, state, and federal governmental agencies as required.			

10. HASP ACKNOWLEDGEMENT FORM

All Haley & Aldrich employees onsite must sign this form prior to entering the site.

I hereby acknowledge receipt of, and briefing on, this HASP prior to the start of on-site work. I declare that I understand and agree to follow the provisions, processes, and procedures set forth herein at all times while working on this site.

Printed Name	Signature	Date

ATTACHMENT A
HASP AMENDMENT FORM

HASP AMENDMENT FORM	
This form is to be used whenever there is an immediate change in the project scope that will require an amendment to the HASP. For project scope changes associated with "add-on" tasks, the changes must be made in the body of the HASP. Before changes can be made, a review of the potential hazards must be initiated by the Haley & Aldrich Project Manager. This original form must remain on site with the original HASP. If additional copies of this HASP have been distributed, it is the Project Manager's responsibility to forward a signed copy of this amendment to those who have copies.	
Amendment No.	
Site Name	
Work Assignment No.	
Date	
Type of Amendment	
Reason for Amendment	
Alternate Safeguard Procedures	
Required Changes in PPE	

Project Manager Name (Print)	Project Manager Signature	Date

Health & Safety Approver Name (Print)	Health & Safety Approver Signature	Date

ATTACHMENT B
TRAINING REQUIREMENTS

TRAINING REQUIREMENTS

Health and Safety Training Requirements

Personnel will not be permitted to supervise or participate in field activities until they have been trained to a level required by their job function and responsibility. Haley & Aldrich staff members, contractors, subcontractors, and consultants who have the potential to be exposed to contaminated materials or physical hazards must complete the training described in the following sections.

The Haley & Aldrich Project Manager/FSM will be responsible for maintaining and providing to the client/site manager documentation of Haley & Aldrich staff members' compliance with required training as requested. Records shall be maintained per OSHA requirements.

40-Hour Health and Safety Training

The 40-Hour Health and Safety Training course provides instruction on the nature of hazardous waste work, protective measures, proper use of personal protective equipment, recognition of signs and symptoms which might indicate exposure to hazardous substances, and decontamination procedures. It is required for all personnel working on-site, such as equipment operators, general laborers, and supervisors, who may be potentially exposed to hazardous substances, health hazards, or safety hazards consistent with 29 CFR 1910.120.

8-hour Annual Refresher Training

Personnel who complete the 40-hour health and safety training are subsequently required to attend an annual 8-hour refresher course to remain current in their training. When required, site personnel must be able to show proof of completion (i.e., certification) at an 8-hour refresher training course within the past 12 months.

8-Hour Supervisor Training

On-site managers and supervisors directly responsible for, or who supervise staff members engaged in hazardous waste operations, should have eight additional hours of Supervisor training in accordance with 29 CFR 1910.120. Supervisor Training includes, but is not limited to, accident reporting/investigation, regulatory compliance, work practice observations, auditing, and emergency response procedures.

Additional Training for Specific Projects

Haley & Aldrich personnel will ensure their personnel have received additional training on specific instrumentation, equipment, confined space entry, construction hazards, etc., as necessary to perform their duties. This specialized training will be provided to personnel before engaging in the specific work activities including:

- Client specific training or orientation
- Competent person excavations
- Confined space entry (entrant, supervisor, and attendant)
- Heavy equipment including aerial lifts and forklifts
- First aid/ CPR
- Use of fall protection
- Use of nuclear density gauges
- Asbestos awareness

ATTACHMENT C
ROLES AND RESPONSIBILITIES

SITE ROLES AND RESPONSIBILITIES

Haley & Aldrich Personnel

Field Safety Manager (FSM)

The Haley & Aldrich FSM 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 FSM.

Specific duties of the FSM 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 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 FSM with updated information regarding environmental conditions at the site and the scope of site work;
- Providing adequate authority and resources to the on-site SHSO to allow for the successful implementation of all necessary safety procedures;
- Supporting the decisions made by the SHSO;
- Maintaining regular communications with the SHSO and, if necessary, the FSM;
- 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 (SHSO)

The SHSO is responsible for field implementation of this HASP and enforcement of safety rules and regulations. SHSO functions may include some or all of the following:

- Act as Haley & Aldrich´s liaison for health and safety issues with client, staff, subcontractors, and agencies.
- Verify that utility clearance has been performed by Haley & Aldrich subcontractors.
- Oversee day-to-day implementation of the Safety Plan by Haley & Aldrich 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 Haley & Aldrich safety equipment, including calibration of air monitoring instrumentation used by Haley & Aldrich.
- Perform changes to HASP and document in Appendix A of the HASP as needed and notify appropriate persons of changes.
- Investigate and report on-site accidents and incidents involving Haley & Aldrich 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 Haley & Aldrich PM and FSM as needed.

The SHSO will conduct initial site safety orientations with site personnel (including subcontractors) and conduct toolbox and safety meetings thereafter with Haley & Aldrich employees and Haley & Aldrich subcontractors at regular intervals and in accordance with Haley & Aldrich policy and contractual obligations. The SHSO will track the attendance of site personnel at Haley & Aldrich 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 PERSONNEL

Subcontractor Site Representative

Each contractor and subcontractor shall designate a Contractor Site Representative. The Contractor Site Representative will interface directly with Insert Staff Name Here, 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 contractor(s)/subcontractor(s) safety documentation will be at least as stringent as the health and safety requirements of the Haley & Aldrich Project specific HASP.

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.

ATTACHMENT D
JOB SAFETY ANALYSES

BP SERVICE STATION

KEY TASK ENTER TASK NUMBER.: ENTER TASK NAME.		
Subtask Category	**Potential Hazards**	**Controls**
Drilling	Utility Locators and Underground Hazards	• GPR survey and public utility markout
Drilling	Heavy equipment	• Personal protective equipment, licensed drill rig operators
Drilling	Noise reduction	• Personal protective equipment
Drilling, Sampling	Cold stress	• Adequate outerwear
Drilling, Sampling	Slips, trips, and falls	• Organized work areas, adequate lighting
Drilling, Sampling	General site hazards	• Personal protective equipment, Health & Safety tailgate meetings
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.

COVID-19 Policy
Working Safely on Project Sites

Safety in everything we do

Incorporate the following information to protect field staff, business partners, clients, and the general public at project sites:

All Staff:

- Must follow state/county/local mandates or client requirements, when they are stricter. Where requirements are stricter, they will be included in the Office or Project HASP.
- Must stay home if they are sick.
- Should be "face covering ready" (have a mask readily available). If working within 6', entering a shared indoor setting (e.g., job trailer), or anyone asks that staff wear a mask in an interaction, Haley & Aldrich staff must don a mask.
- Maintain physical distancing when feasible and virtual meetings are encouraged as a best practice to reduce the risk of in-person contact and reduce our environmental footprint.
- Staff may eat together outdoors. Are still required to avoid dining with others in an indoor setting. This includes Haley & Aldrich meetings and client luncheons
- Are required to review, understand, and communicate the site's controlling employer's COVID-19 mitigation plan prior to mobilization. It is your duty to obtain a copy of the site COVID plan.

Fully vaccinated staff who have been exposed or have symptoms must:

- Immediately isolate from others and, go home if symptoms manifest at work.
- Quarantine for 10 days and 24 hours past resolution of the last symptom. Follow site procedures if they are more stringent.
- Vaccinated staff must email COVIDHelp@haleyaldrich.com if you experience COVID-19 symptoms.
- Please use the CDC's COVID Symptom Checker or contact your physician if you have questions about your symptoms: https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html
- If you have been informed of a close contact, self-monitor for symptoms.
- Wear a mask for 14 days while you self-monitor for symptoms. If symptoms don't develop you may test between day 3-4. If the test comes back negative, you can return to work without a mask.

The risk associated with potential exposure to COVID-19 will be considered as part of the project planning and HASP development cycle.

Have Health & Safety review the HASP.

Business partners for sites managed by Haley & Aldrich (H&A Controlling Employer) will have completed the Self-Declaration Form.

Approved and appropriate Personal Protective Equipment and supplies are used as indicated by the HASP.

COVID-19 Policy
Working Safely on Project Sites

COVID-19 PROJECT SPECIFIC INFORMATION

Unvaccinated Staff:

- Are still required to always wear a mask while on remote work assignments.
- Are still required to self-certify through Gensuite each morning prior to entering the work environment (office, field, client site, travel or any other place you are to perform work duties.
- Are still required to stay home and quarantine when sick, experiencing COVID-19 like symptoms, or were in close contact with someone with COVID-19.
- Are still required to isolate from others if they become sick or develop COVID-19 symptoms in the work environment. Immediately report any illness, or close contact to COVIDHelp@haleyaldrich.com. Please refer to the "What to do if you have been exposed" policy for further information.
- Are still required to avoid dining with others in an indoor setting. This includes Haley & Aldrich meetings and client luncheons.

Fit for Duty:

- All subcontractors (if subcontracted to Haley & Aldrich), and visitors (if H&A is Controlling Employer) will complete the Subcontractor Self-Declaration form to affirm staff report fit for duty and symptom free each day.
- All employees working on a site controlled by another employer will follow site expectations for self-certification.
- Sub-contractors who do not show proof of vaccination will be expected to follow the unvaccinated staff requirements.

Things you can do to limit potential exposure (best practices for vaccinated staff/required for unvaccinated staff):

- Consider job trailers or offices as part of this risk assessment and follow all site requirements.
- Maintain a minimum distance of 6' when feasible If you can maintain greater distances, please do so.
- Avoid eating in groups
- Continue regular handwashing or hand sanitizing. Sanitize surfaces as needed.
- Avoid touching the face area (eyes, nose, mouth).

Does the client or Controlling Employer (if H&A is not controlling employer) have specific requirements related to COVID-19?

If yes, please attach the requirements. Yes No

Do we have the necessary supplies on hand (If needed)? Yes No

(Supplies include masks, disinfectant, hand washing stations or sanitizer, and PPE.)

The following **must** be onsite(☑ to acknowledge):

- ❑ Has the Tailgate Meeting Form been provided?
- ❑ Has the What To Do if You Have Been Exposed policy been provided?
- ❑ Has the mask policy been provided?
- ❑ Has the Field Office/Trailer been reviewed to ensure it is safe?
- ❑ Subcontractor Self-Declaration form

APPENDIX G

NYSDOH Generic Community Air Monitoring Plan

Appendix 1A
New York State Department of Health
Generic Community Air Monitoring Plan

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

Appendix 1B
Fugitive Dust and Particulate Monitoring

A program for suppressing fugitive dust and particulate matter monitoring at hazardous waste sites is a responsibility on the remedial party performing the work. These procedures must be incorporated into appropriate intrusive work plans. The following fugitive dust suppression and particulate monitoring program should be employed at sites during construction and other intrusive activities which warrant its use:

1. Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.

2. Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Remedial activities may also include the excavation, grading, or placement of clean fill. These control measures should not be considered necessary for these activities.

3. Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM10) with the following minimum performance standards:

(a) Objects to be measured: Dust, mists or aerosols;
(b) Measurement Ranges: 0.001 to 400 mg/m3 (1 to 400,000 :ug/m3);
(c) Precision (2-sigma) at constant temperature: +/- 10 :g/m3 for one second averaging; and +/- 1.5 g/m3 for sixty second averaging;
(d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized);
(e) Resolution: 0.1% of reading or 1g/m3, whichever is larger;
(f) Particle Size Range of Maximum Response: 0.1-10;
(g) Total Number of Data Points in Memory: 10,000;
(h) Logged Data: Each data point with average concentration, time/date and data point number
(i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number;
(j) Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required;
(k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger;
(l) Operating Temperature: -10 to 50^o C (14 to 122^o F);
(m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.

4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the remedial party to adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record keeping plan.

5. The action level will be established at 150 ug/m3 (15 minutes average). While conservative,

this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m3, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m3 above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m3 continue to be exceeded work must stop and DER must be notified as provided in the site design or remedial work plan. The notification shall include a description of the control measures implemented to prevent further exceedances.

6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM10 at or above the action level. Since this situation has the potential to allow for the migration of contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed. Activities that have a high dusting potential--such as solidification and treatment involving materials like kiln dust and lime--will require the need for special measures to be considered.

7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:

(a) Applying water on haul roads;
(b) Wetting equipment and excavation faces;
(c) Spraying water on buckets during excavation and dumping;
(d) Hauling materials in properly tarped or watertight containers;
(e) Restricting vehicle speeds to 10 mph;
(f) Covering excavated areas and material after excavation activity ceases; and
(g) Reducing the excavation size and/or number of excavations.

Experience has shown that the chance of exceeding the 150ug/m3 action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

8. The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended. There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require additional monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate suppression and monitoring requirements are established for protection of health and the environment.

APPENDIX H

Field Descriptions of Samples for Former Manufactured Gas Plant (MGP) Sites

HALEY ALDRICH

Field Descriptions of Samples for Former Manufactured Gas Plant (MGP) Sites

SOIL SAMPLE DESCRIPTIONS

It is important that descriptive qualifiers are consistently used to characterize degree and nature of contaminant impacts and visual-manual soil classification. The following presents some examples of descriptive qualifiers.

SOIL LOGGING

• All soils are to be logged using the **Unified Soil Classification** (ASTM D 2488 field descriptions)

• **PID or FID** used to screen all soil samples (Jar Headspace method) – maximum readings should be recorded and included on the logs. The PID/FID should be calibrated daily at a minimum

• **Moisture terms** are: Dry, Moist, and Wet

• **Color terms** - use geotechnical color charts - colors may be combined: e.g. red-brown. Color terms should be used to describe the "natural color" of the sample as opposed to staining caused by contamination (see below)

• **Log of each sample interval** should be prepared as follows:

[Coarse Grained Example] NARROWLY GRADED SAND (SP); mostly fine sand; <5% fines; red-brown, moist, environmental/depositional/geologic descriptions.

[Fine Grained Example] SANDY SILT (ML); heterogeneous till structure, nonplastic, ~30% fine to coarse, subangular sand; ~10% subangular fine gravel, max. size ~ 10 mm; brown; environmental/depositional/geologic descriptions.

• **Representativeness –** Soil logs should include particular notes if the field representative believes that there is a possibility that the soil sample being described is not representative of the interval sampled.

• **Intervals for Description –** if using a 2' (split spoon) or 4' (Macro-core) long sampler – the field description should not necessarily be for the entire sample interval. It is important to look for, identify, and describe small-scale units and changes within each sample interval.

DESCRIPTION OF CONTAMINANTS

Visible Contamination Descriptors

• **Sheen** - iridescent petroleum-like sheen. Not to be used to describe a "bacterial sheen", which can be distinguished by its tendency to break up on the water surface at angles, whereas a petroleum sheen will be continuous and will not break up. A field test for sheen is to put a soil sample in a jar of water and shake the sample (jar shake test) , then observe the presence/absence of sheen on the surface of the water in the jar.

• **Stained** - used w/ color (i.e. black or brown stained) to indicate that the soil matrix is stained a color other than the natural (unimpacted) color of the soil.

• **Coated** - soil grains are coated with tar/free product – there is not sufficient free-phase material present to saturate the pore spaces. The degree of coating should be described as light, moderate, or heavy.

• **Blebs** - observed discrete sphericals of tar/free product - but for the most part the soil matrix was not visibly contaminated or saturated. Typically this is residual product. The estimated size and number of blebs should be reported.

• **Saturated** - the entirety of the pore space for a sample is saturated with the tar/free product. Care should be taken to ensure that you're not observing water saturating the pore spaces if you use this term. Depending on viscosity, tar/free-phase saturated materials may freely drain from a soil sample.

• **Oil** - Used to characterize free and/or residual product that exhibits a distinct fuel oil or diesel fuel like odor; distinctly different from MGP-related odors/impacts.

• **Tar** - Used to describe free and/or residual product that exhibits a distinct "coal tar" type odor (e.g. naphthalene-like odor). Colors of product can be brown, black, reddish-brown, or gold.

• **Solid Tar** - Used to describe product that is solid or semi-solid phase. The magnitude of the observed solid tar should be described (e.g. discrete granules or a solid layer).

• **Purifier Material** - Purifier material is commonly brown/rust or blue/green wood chips or granular material. It is typically associated with a distinctive sulfur-like odor. Other colors may be present.

Olfactory Descriptors

• Use terms such as " tar-like odor" or "naphthalene-like odor" or "fuel oil-like odor" that provide a qualitative description (opinion) as to the possible source of the odor.

• Use modifiers such as strong, moderate, faint to indicate intensity of the observed odor.

DNAPL/LNAPL

- A jar shake test should be performed to identify and determine whether observed tar/free phase product is either denser or lighter than water. In addition, MGP residues can include both light and dense phases - this test can help determine if both light and dense phase materials are present at a particular location.

Viscosity of Free-Phase Product – If free-phase product/tar is present a qualitative description of viscosity should be made. Use descriptors such as:

- Highly viscous (e.g. taffy-like)
- Viscous (e.g. No. 6 fuel oil or bunker crude like)
- Low viscosity (e.g. No. 2 fuel oil like)

GROUNDWATER SAMPLING OBSERVATIONS

- Any observations of sheen, blebs, free-phase product/tar, staining or coating of the sampling equipment, odor, etc. that made during sampling of groundwater are to be included in the groundwater sample collection log.

Standard Colors for Reporting MGP Impacts

		RGB Color	Auto Cad Index
	TAR SATURATED	255,0,0	10
	COATED MATERIAL, LENSES	255,0,255	210
	HARDENED TAR	129,64,0	34
	BLEBS, GLOBS, SHEEN	255,191,0	40
	STAINING, ODOR	255,255,0	50
	PETROLEUM IMPACTS SATURATION & SHEENS	0,191,255	140
	PETROLEUM IMPACTS STAINING & ODORS	170,234,255	141
	PURIFIER WASTE AND ODOR	0,0,255	170
	NO OBSERVED IMPACTS	0,165,0	92

GUIDELINES ON INSTALLATION OF OVERBURDEN WELLS (MONITORING WELLS) FOR ENVIRONMENTAL INVESTIGATIONS

Contents

Introduction:

The New York State Department of Environmental Conservation Division of Environmental Remediation (the Department) utilizes the US EPA *Design and Installation of Monitoring Wells Guidance* and ASTM D5092, *Standard Practice for Design and Installation of Groundwater Monitoring Wells*, as standards for the design and installation of overburden monitoring wells (monitoring wells) for remedial investigations. Using these documents as a basis, the Department has developed the following which serves to standardize the design and construction of monitoring wells so that the environmental data and samples that are collected accurately represent the actual site conditions and can be relied upon when evaluating nature and extent of groundwater contamination and remedial alternatives.

This document does not address other types of wells or shallow groundwater conditions and may not be appropriate for various site-specific conditions or applications. For these other types of groundwater monitoring wells, the Department Project Manager (PM) will require a detailed site-specific plan be submitted in writing for review.

Purpose and Scope:

The purpose of this document is to provide standard construction requirements for the design and installation of groundwater monitoring wells installed during investigations performed pursuant subject to 6-NYCRR Part 375 and conducted under Department's Spills Program. This document is based on, and in general conformance with, US EPA Design and Installation of Monitoring Wells Guidance and ASTM D5092, Standard Practice for Design and Installation of Groundwater Monitoring Wells. The Department's standardization of monitoring well design and construction installation will:

1) Improve environmental work plan consistency throughout the regulated community;
2) Standardize and streamline the remedial investigation work plan process;
3) Limit the threat of contamination migration and surficial infiltration;
4) Improve the accuracy and precision of groundwater quality sample results; and
5) Provide a fixed monitoring points to ensure groundwater elevations can be accurately gauged with a high degree of reliability.

This document does not address the collection of borehole logging data, soil classification, screen interval placement, soil sampling procedures, drilling health and safety, decontamination, nor monitoring well decommissioning. NYSDEC's DER-10 Guidance and Commissioner's Policy 43 provide information relative to these activities.

Applicability:

Monitoring wells are utilized to access and observe groundwater conditions in the saturated water-bearing zone in unconsolidated material beneath the ground surface, in a specific location, at a known elevation, and over extended periods of time. Data collected from monitoring wells routinely includes the elevation of the water table, water quality parameter measurements, and representative groundwater samples for contaminant analysis. Monitoring wells are often accessed repeatedly throughout the course of an environmental project to obtain data to develop statistical trends and monitor the groundwater.

The following is a partial list of applications for the installation of groundwater monitoring wells in which this document applies:

- Site characterization;
- Remedial investigations;
- Determining the groundwater elevations;
- Determining the presence of non-aqueous phase liquid (NAPL);
- Long-term groundwater elevations and quality monitoring;
- Groundwater protection decision making; and
- Post-remedial Site Management groundwater monitoring.

This document does not apply to the following uses:

- Temporary wells;
- Pre-packed sand pack wells;
- Bedrock investigations;
- Groundwater less than five feet below the ground surface;
- Groundwater sample collection where the static head is above the well screen;

- Multi-cased wells;
- Dense non-aqueous phase liquid (DNAPL) gauging;
- NAPL or groundwater recovery;
- Multi-cased wells;
- Pump tests, bail-down tests, groundwater extraction, or construction dewatering;
- Chemical or biological injections points; and

For the above listed uses, designs shall be in conformance with industry standards and with consultation with the Department Project Manager (PM).

Drilling Considerations:

Several drilling methods are routinely employed in the installation of groundwater monitoring wells for various site conditions; therefore, the method of drilling the borehole will be proposed by the qualified environmental professional and approved by the Department's site PM. A qualified environmental professional, as recognized in New York State Department of Environmental Conservation (NYSDEC) DER-10, can be a: 1) Professional Engineer (PE) 2) Professional Geologist, or 3) recognized Qualified Environmental Professional (QEP) as defined in NYCRR-375-1.2(ak).

The chosen drilling method must produce a borehole sufficient in diameter to allow for the construction of the permanent groundwater monitoring well including a minimum annular space of two inches around the entire monitoring well circumference. For example, installation of a 2-inch monitoring well would require a minimum 6 3/8-inch borehole. The borehole diameter may be increased by the qualified environmental professional based on predicted, observed, or known subsurface soil characteristics (e.g., fine-grained soil) and need for a larger sand pack without approval by the Department.

Vertical over-drilling the borehole will be required to allow for the installation of an approximately six-inch thick sand pack that extends beneath the bottom of the monitoring well screen.

Monitoring well installation procedures may require changes during field activities due to unforeseen subsurface conditions. Deviations from the approved work plan must be discussed with the Department's PM/field representative prior to implementation and must be documented in monitoring well construction logs, boring logs, daily field logs, and in the final report.

Figures 1 and 2 depict typical construction details for flush mounted and stick-up type monitoring wells.

Screen and Casing Pipe:

The inside diameter of the monitoring well screen and riser pipe must be either two-inches or four-inches in diameter and installed straight and plumb to allow for the insertion of equipment for gauging, monitoring, and sampling. It may be necessary to install well centralizers on the screen and riser pipe to ensure a uniform filter pack. A permanent mark will be placed on the north side of the casing as a reference point for horizontal and vertical control and for groundwater measurements. Monitoring well construction materials must be comprised of either schedule 40 PVC, schedule 80 PVC, or stainless steel. Materials must be free of contaminants prior to installation. All joints are to be secured by flush-jointed threads. All caps and end plugs must be secured by either flush or jointed threads. If there is no information regarding the formation in which the well is to be installed, the monitoring well screen slot size shall be factory manufactured and 0.010-inches, unless approved by the Department PM.

Occasionally, during the extraction of the drilling equipment from the borehole, the monitoring well casing may be unintentionally drawn up within the borehole. If this occurs, the groundwater monitoring well should not be forced or driven back into the borehole. Instead, if conditions warrant, the qualified environmental professional may elect to shorten the length of the riser, or the borehole can be re-drilled and the well reset. If the original borehole needs to be abandoned, the abandonment will be in accordance with NYSDEC Commissioners Policy (CP) -43 *Groundwater Monitoring Well Decommissioning Policy,* and a replacement borehole drilled in a different location with approval from the Department's PM.

For monitoring wells designed to intersect the groundwater interface, the top of the monitoring well screen should be installed approximately two to three feet above the observed water table to account for seasonal fluctuations of the water table elevation. The maximum screen length shall be 15 feet and should not penetrate a lower aquitard. The qualified environmental professional will determine the lengths of monitoring well screen and riser along with the placement of the sand filter pack and bentonite seal in the field based on the observed groundwater elevation.

Sand Filter Pack:

A sand filter pack (aka filter pack) will be placed in the annular space around the monitoring well screen to perform as a filter between the formation material and the monitoring well screen. The sand filter pack must be compatible with the screen size; therefore, in the context of this document, the filter pack material must be:

- inert silica sand that is compatible with the formation material;
- has been manufactured as a filter sand; and
- has been certified as chemically clean by the manufacturer.

Prior to installing the monitoring well screen, an approximately six-inch thick bedding layer of sand must be installed in the bottom of the borehole. The annular space will allow for the uniform deposition of monitoring well materials around the screen and riser and for the passage of tremie pipes and monitoring well materials. The sand filter pack must fill the entire annular space over the entire length of the monitoring well screen and extend a minimum of 2-ft above the top of the monitoring well screen. The sand filter pack shall not extend higher than 5-ft below ground surface (bgs) to allow space for placement of the bentonite seal and protective casing.

A larger borehole with a wider sand pack should be considered if high levels of turbidity are expected that may result in the collection of groundwater samples that are not representative of dissolved conditions (i.e., inaccurately elevated metals and semi-volatile concentrations). The Department will allow the qualified environmental professional to advance a larger borehole without review or comment.

At sites where known or suspected contaminants are not compatible with PVC, or where NAPL may not pass through 0.010-inch slotted screen, the qualified environmental professional must consult the Department PM regarding the construction details of the monitoring well and provide proposed alternatives in a work plan for review and approval.

It may be advantageous to place a 6-inch layer of fine-grained sand above the filter pack prior to installing the bentonite seal. This layer improves the seal and prevents the bentonite from migrating into the filter pack well screen zone.

Bentonite Seal:

A bentonite seal will be placed immediately above the sand filter pack. The bentonite seal must be composed of commercially available pellets, granules, or chips and must be a minimum of 2-ft measured immediately after placement, without allowance for swelling. Following placement of the bentonite pellets or chips, water from a public water supply source or a potable private water supply, which has been verified to meet public water supplier standards/maximum contaminant levels for Per- and polyfluoroalkyl substances (PFAS), shall be poured into the annular space to hydrate the bentonite. The bentonite seal shall not be placed higher than 2-ft bgs to allow space for placement of the protective casing with cement or cement-bentonite grout. A minimum of eight hours or the manufacturer's recommended hydration time, whichever is longer, should be allotted for the hydration of the bentonite after placement in the borehole and before the remaining annular space is sealed.

Remaining Annular Space Above the Bentonite Seal:

The annular space above the bentonite seal must be sealed from surface infiltration with a cement-bentonite mixture. On certain occasions when there is 10 or more linear feet of remaining annular space to be sealed, or when the qualified environmental professional determines it is appropriate, a tremie pipe shall be used to install the cement-bentonite mixture. In these instances, installation shall start with the tremie pipe initially located within 1-ft above the top of the bentonite seal. To ensure proper gelling and low permeability, the bentonite grout must have a minimum density of 10 lbs./gallon of water. Water must be from a public water supply source or a potable private water supply, which has been verified to meet public water supplier standards/maximum contaminant levels for Per- and polyfluoroalkyl substances (PFAS). The tremie pipe shall be placed in the annulus between the drilling equipment or temporary steel casing and the riser pipe. Drill casing shall be removed from the borehole as the annular seal is installed to ensure the borehole remains stable. The grout shall be pumped through the tremie pipe to the bottom of the open annulus until a continuous, undiluted column of grout is formed from the bentonite seal to the frost line below the ground surface.

Alternatively, soil cuttings collected during the borehole advancement may be reused to fill the annular space from the top of the bentonite seal to the surface seal provided that the cuttings both: 1) exhibit no detectable photoionization detector (PID) measurements, and 2) are free of grossly contaminated material per NYCRR-375-1.2(u).

Concrete Surface Seal (Pad) and Outer Protective Casing:

At the time the surface seal is installed, a protective steel casing that is at least two-inches larger than the diameter of the monitoring well riser casing shall be installed. The protective casing must also be installed with adequate vertical space to allow for a locking well plug. A concrete surface seal (concrete pad) must then be installed around each monitoring well. Concrete shall be placed in the borehole (on top of the grout) to form a contiguous unit. The design must take into consideration pedestrian and/or vehicular traffic and must be sufficient to last the entire life cycle of the project. For two-inch or four-inch diameter monitoring wells, the Department will require a monitoring well pad that shall be 2-ft X 2-ft X 6-inches. The finished pad will be slightly sloped away from the protective steel casing to reduce the potential for surface water infiltration. In addition, the concrete must meet or exceed the minimum compressive strength required of the surrounding sidewalk flags as per local codes and permits.

The protective steel casing can be either flush mounted or a stick-up design. Flush mounted protective casings will have lids that are bolted in place while stick-up casings will have locking lids. Bollards will be emplaced to protect against damage, as needed. If the protective casing is flush mounted, a layer of sand should be installed across the bottom of the casing to allow water to drain from around the riser pipe. For stick-up design casings, a small hole should be drilled in the side of the pipe to enable accumulated water to drain. The diameter of the hole should be small enough to discourage wasps from entering.

The materials used in the construction of the seal will be of sufficient quality that the longevity of the concrete and outer protective casing will surpass the likely duration of the project. In instances where these items fail, the Department will require repair or replacement of the monitoring well pad and outer seal for public safety and monitoring well integrity.

Locking Well Plug:

All groundwater monitoring wells shall have chemical resistant gripper plugs that effectively seal the monitoring well by creating a watertight seal. Each well plug shall be outfitted with a lock that prohibits unauthorized access to the monitoring well. The lock shall be in kept good working condition.

Well Development:

Monitoring wells will be developed after the grout seal has sufficiently cured to remove water which may have been introduced during the drilling process and to ensure the collection of representative groundwater samples and water level measurements. Groundwater monitoring wells must be developed in accordance with ASTM D5521. Groundwater monitoring wells shall be developed until the monitoring well has reached equilibrium and turbidity of the purge water is measured to 50 nephelometric turbidity units (NTUs) or less.

(FIGURES ATTACHED)

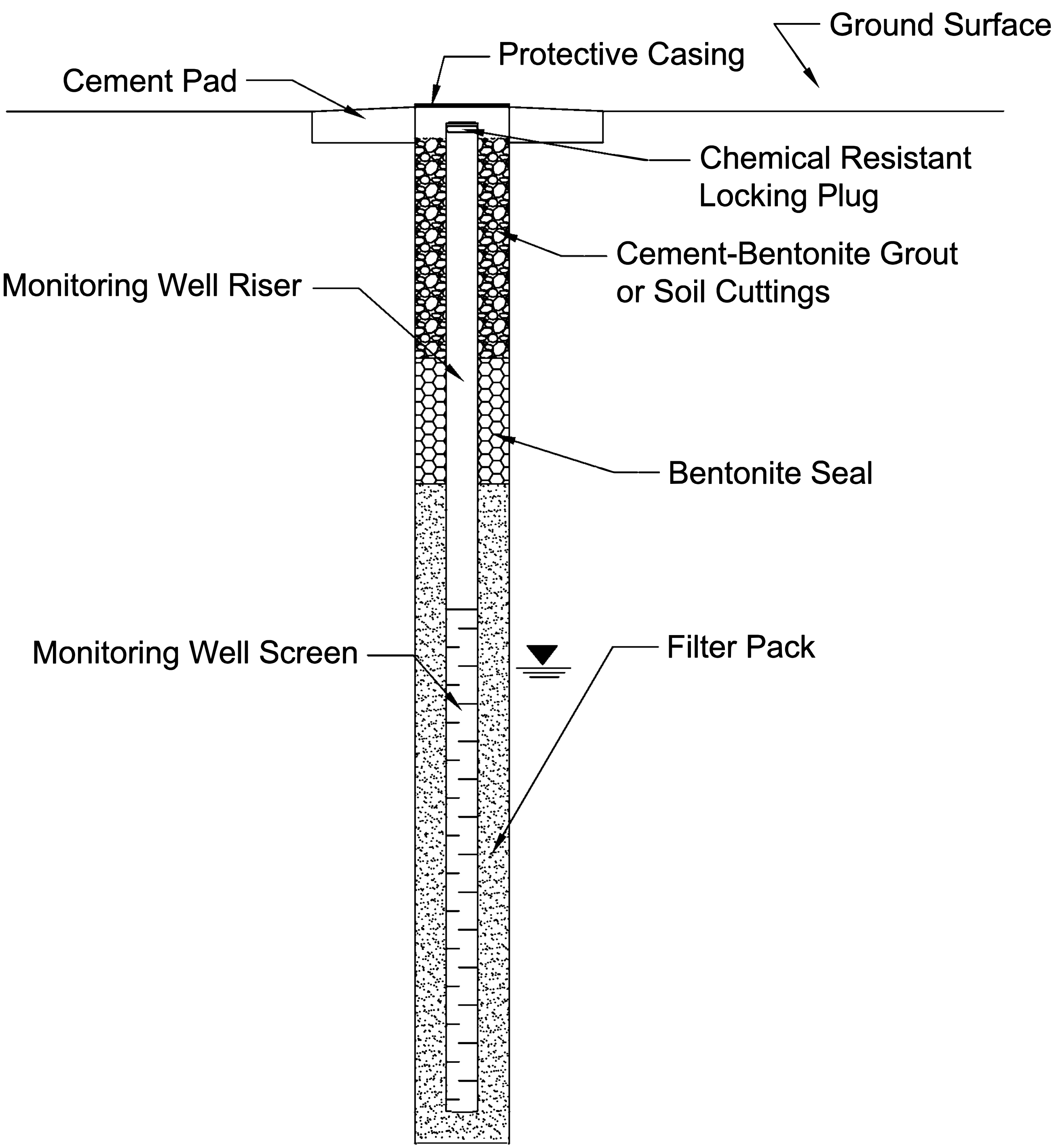


Figure 1: Flush Mounted Monitoring Well

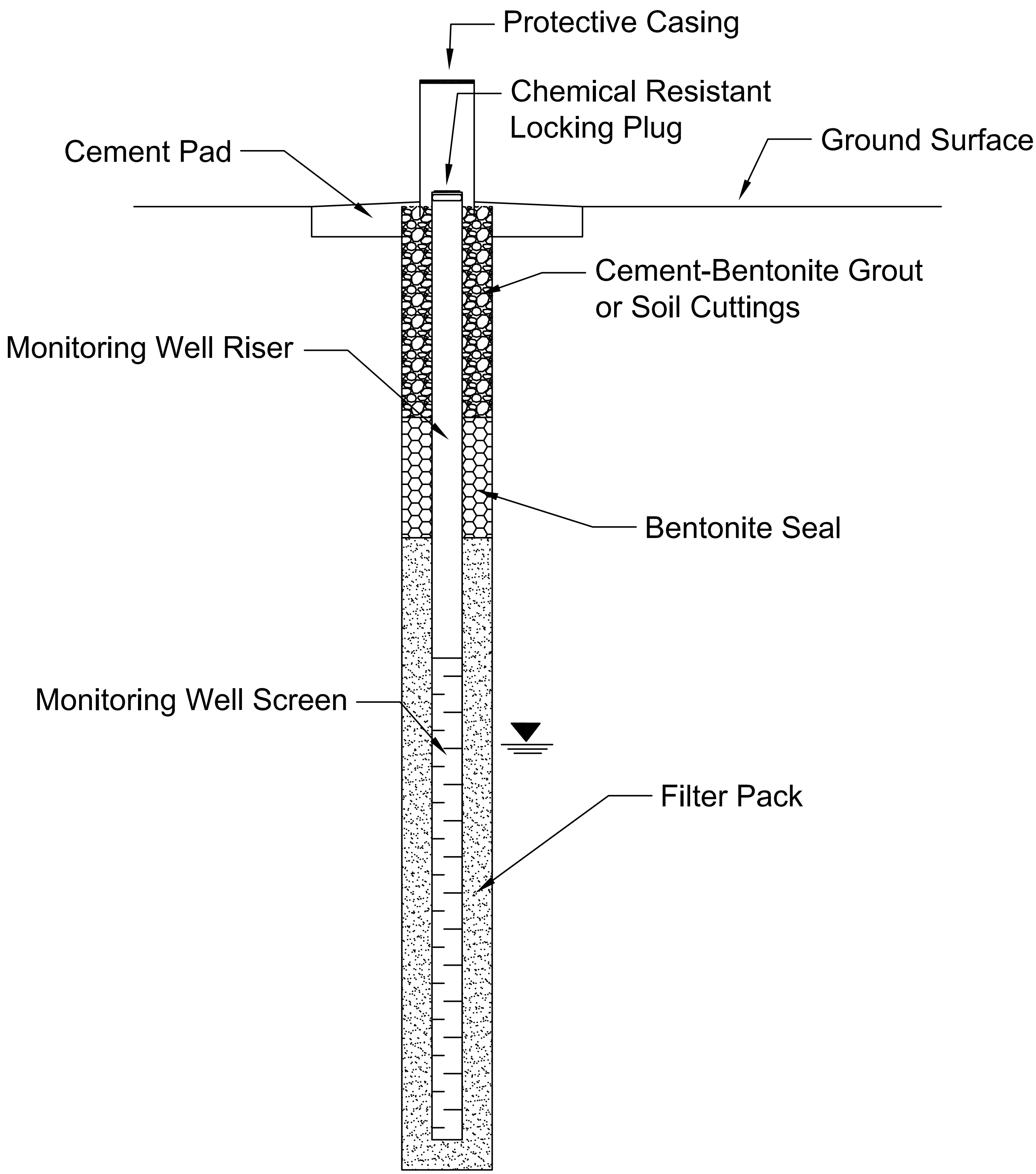


Figure 2: Stick-up Monitoring Well

APPENDIX B
Ground Penetrating Radar Survey Report

501 Cambria Avenue, Suite 281, Bensalem, PA 19020
215-366-7389
eastcoastgeophysics.com

Date:
3-5-2023

Site Location:
151-159 3rd Avenue, Brooklyn, New York

Attention:
Coastal Environmental Solutions, Inc.
100 Knickerbocker Avenue, Unit D, Bohemia, New York 11716

Regards:
Michael Mesaros
East Coast Geophysics Inc.
501 Cambria Avenue Suite 281, Bensalem, Pennsylvania, 19020

1. BACKGROUND AND PROJECT OBJECTIVES

On February 1st, 2023 East Coast Geophysics personnel performed a limited geophysical investigation at 151-159 3rd Avenue in Brooklyn New York. A former gas station and car wash occupied the property. Surface conditions were concrete and asphalt. Site project objectives are:

- Locate all detectable underground utilities adjacent to the client proposed soil borings.
- Scan the survey area for anomalies consistent with UST's and former excavations.

2. EQUIPMENT

This project used the following equipment to perform the geophysical survey on the property.

- *GSSI SIR-3000 Cart Mounted Ground Penetrating Radar System*

Ground Penetrating Radar is a non-invasive geophysical method in which electromagnetic pulses probe the subsurface, allowing targets to be imaged in real time. The EM pulses that are transmitted into the subsurface are reflected from various interfaces within the ground, including soil horizons, ground water, and manmade features such as underground storage tanks and utilities. The GPR antenna consists of a transmitter, which is used to create the EM pulse, and a receiver which collects returning signals. The high frequency waves created by the antenna can be generated in a range of 10 MHz to 2.6 GHz. The frequency of the antenna will vary the depth of penetrations, signal clarity, and attenuation into the subsurface. The antenna used for general field work by ECG is 400 MHz; this frequency range has the capability to transmit to a depth of up to 10 feet below ground surface. Surface and subsurface conditions can greatly reduce the effective depth of the signal penetration; these conditions include conductive soils, slag/fill material and standing water.

- *Radiodetection RD7000+*

RD7000 is an advanced high-range precision utility detector capable of detecting utilities up to 15 feet below ground surface. The RD7000+ has the capability of locating a variety of pipes and cables using either passive or active modes. **Passive** signals can be traced with only the transmitter using "natural" signals present in many conductors. These signals can be generated from an array of sources including power cables, power system return currents, and long wave radio frequencies. **Active** signals are known AC frequencies induced onto a target pipe or cable. User induced signals can help positively identify lines throughout areas of congested utilities.

- *Fisher TW-6 Pipe and Cable Locator*

The Fisher TW-6 Pipe and cable locator uses electromagnetic induction to locate conductive materials, such as manholes, tanks, pipes, cables, and other metallic materials in the subsurface. The transmitter generates an AC current which produces an electromagnetic field similar to a dipole magnet. When the transmitter passes over a conductive feature, the generated electromagnetic field becomes distorted as a result of the interference with the natural electromagnetic field created by the conductive feature. The distortion of the generated field is detected by the receiver which emits a tone that is correlated to the conductivity of the feature.

3. PROCEDURE

ECG personnel began with a utility survey utilizing active detection with the RD-7000+. This is done by directing hooking up to known surface features across the site such as lamp posts, electric / communication boxes, and valves. The surveyor then performed a passive scan with the RD-7000+ receiver to detect any energized utilities that may have not been located with the active scan. Any detected utilities were then marked in the field.

ECG personnel then walked across the survey area with the TW-6 in 3-5 foot spacing increments. The approximate size and shape of any conductive targets detected was then marked in white and will be further investigated with GPR.

GPR was then utilized to confirm the approximate depth of any utilities detected with the RD-7000+ and the size, shape, and depth of any anomalies located with the TW-6. ECG personnel then scanned the remaining portions of the property in 3-5 foot spacing increments for any other anomalous features or utilities not detected with the RD-7000+ or TW-6.

4. RESULTS

- Underground Utilities – All utilities were marked in APWA designated colors. Note water and natural gas servicing the car wash building exit north onto Baltic Street outside of the survey area.
    - Electric (Red) – 1-3' bgs
    - Telecommunications (Orange) – 2-3' bgs
    - Storm Sewer (Green) – 1-4' bgs
    - Sanitary Sewer (Green) 3-6' bgs
    - Product / Vent Piping (Pink) 2-3' bgs
    - Unknown (Pink)

- Metallic Anomalies / UST's – No metallic anomalies consistent with orphan UST's were detected throughout accessible areas of the survey area. Two known UST's associated with the former fueling activities at the site are located beneath the canopy.

- Former Excavations – GPR transects throughout accessible areas of the property did not image any soil disturbances consistent with former excavations.

A site map (020123) is attached portraying all detected subsurface features.

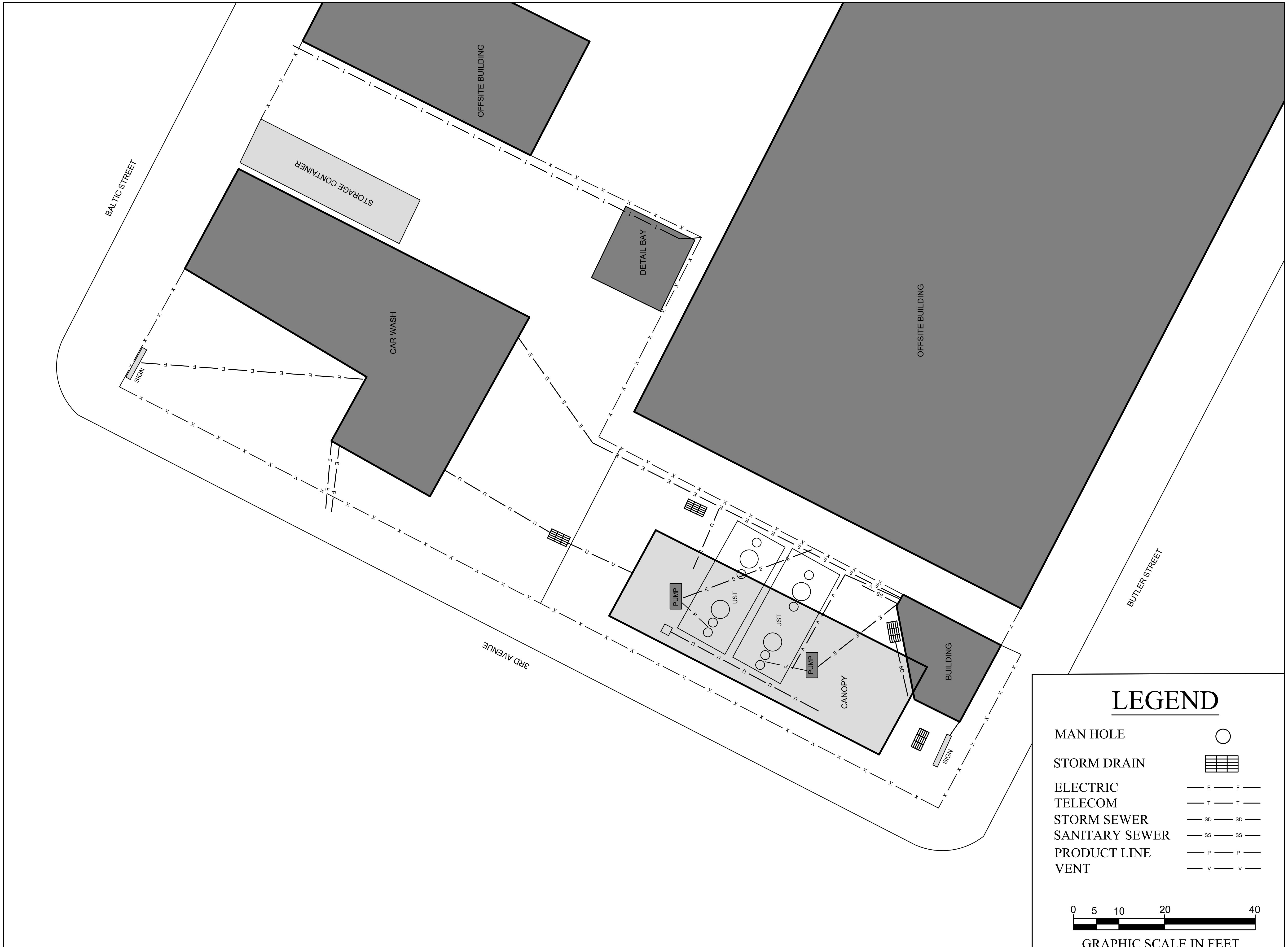
5. SITE LIMITATIONS

- Ground Penetrating Radar – GPR depth of penetration was limited to 1-3 feet bgs. The limiting factor was signal attenuation from near surface soils and reinforced concrete.

- Vehicles, jersey barriers, and miscellaneous debris were located beneath the canopy and west of the station building preventing ECG personnel from thoroughly surveying this area. There is a potential for additional piping or unknown anomalies to be located in this area.
- Vehicles were parked on the sidewalks surrounding the site preventing ECG from surveying the area for potential anomalies.

6. DISCLAIMER

The limitations of a geophysical survey from both the site and equipment are important to consider when performing intrusive work at a survey site. The equipment is unable to maintain a constant depth of penetration or a constant level of effectiveness over the course of a survey due to subsurface and environmental conditions. The results provided both in this report and in the field should be used in conjunction with other methods including but not limited to, site plans, as-builts, sanborn maps, field observations, public-mark out services, soft-digging, pre-clearing, and historical documentation of the site. No survey or survey method can accurately show an exact image of all subsurface conditions. The presence of non-detectable subsurface utilities and structures is always a risk at any site. Please take caution when proceeding with invasive work.



LEGEND

MAN HOLE	
STORM DRAIN	
ELECTRIC	E
TELECOM	T
STORM SEWER	SD
SANITARY SEWER	SS
PRODUCT LINE	P
VENT	V

0 5 10 20 40

GRAPHIC SCALE IN FEET

EAST COAST GEOPHYSICS, INC.

SITE
151-159 3RD AVENUE
BROOKLYN
NEW YORK

CLIENT
COASTAL ENVIRONMENTAL SOLUTIONS, INC.

DRAWING NO.
020123

PROJECT NO.

SHEET NO.
1 OF 1

N

DATE
02/01/2023

SCALE
1" : 20'

DRAWN
M. MESAROS

NOTES:

East Coast Geophysics, Inc. shall not be liable for damages of any kind arising out of the use of this information. Drawings are georeferenced based on satellite imagery and are not considered to be survey quality. These drawings are intended to be used as reference only.

APPENDIX C
Soil Boring Logs

GEOPROBE BORING REPORT

HALEY ALDRICH

BORING NO. **HA-01**

Page 1 of 1

PROJECT	556 Baltic Street Site		204090
LOCATION	556 Baltic Street, Brooklyn, New York	PROJECT MGR.	L. McCartney
CLIENT	159 Third Realty LLC	FIELD REP.	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	DATE STARTED	2/8/2023
DRILLER	P. Slavin	DATE FINISHED	2/8/2023

Elevation ft. | Datum | Boring Location: See Plan

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

Rig Make & Model: 6610DT

- ☐ Truck ☐ Tripod
- ☐ ATV ☑ Geoprobe
- ☑ Track ☐ Air Track
- ☐ Skid ☐ Other

- ☐ Cat-Head
- ☐ Winch
- ☐ Roller Bit
- ☐ Cutting Head

Hammer Type: ☐ Safety ☐ Doughnut ☐ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☐ None

Casing Advance — Type Method Depth: DP

Drilling Notes:

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample Depth (ft)	Sample ID	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
0		0.0	2-4'	HA-01 (2-4')	Brown fine SAND with angular gravel. Concrete fragments, moist. (FILL)
1					
2	36/60				
3					
4					
5		0.0	6-8'	HA-01 (6-8')	Brown fine SAND. Pulverized brick, asphalt, and concrete, moist. (FILL)
6					
7	36/60				
8					
9					
10		0.0	10-12'	HA-01 (10-12')	Dark brown fine SAND with gravel. Concrete and brick fragments, moist.(FILL)
11					
12	36/60				
13					
14					Groundwater at approximately 15 ft
15		0.0	14-16'	HA-01 (14-16')	Dark brown fine SAND with gravel. Concrete and brick fragments, wet. (FILL)
16					
17	12/60				
18					
19					
20					END OF BORING AT 20 FT

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

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

Summary

Overburden (Linear ft.)	20
Rock Cored (Linear ft.)	-
Number of Samples	4
BORING NO.	HA-01

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

Form #3000

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

HALEY ALDRICH

GEOPROBE BORING REPORT

BORING NO. **HA-02**

Page 1 of 1

PROJECT	556 Baltic Street Site		204090
LOCATION	556 Baltic Street, Brooklyn, New York	PROJECT MGR.	L. McCartney
CLIENT	159 Third Realty LLC	FIELD REP.	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	DATE STARTED	2/8/2023
DRILLER	P. Slavin	DATE FINISHED	2/8/2023

Elevation	ft.	Datum		Boring Location	See Plan

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

Rig Make & Model: 6610 DT

Rig		Bit	Hammer Type	Drilling Mud	Casing Advance Type Method Depth
☐ Truck	☐ Tripod	☐ Cat-Head	☐ Safety	☐ Bentonite	DP
☐ ATV	☑ Geoprobe	☐ Winch	☐ Doughnut	☐ Polymer	
☑ Track	☐ Air Track	☐ Roller Bit	☐ Automatic	☐ None	
☐ Skid	☐ Other	☐ Cutting Head	Drilling Notes:		

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample Depth (ft)	Sample ID	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
0		0.0			Brown to dark brown fine SAND. Concrete, brick, and asphalt fragments, moist. (FILL)
1					
2	40/60		2-4'	HA-02 (2-4')	
3					
4					
5		0.0			Dark brown fine SAND. Brick, asphalt, and wood fragments, moist. (FILL)
6			6-8'	HA-02 (6-8')	
7	42/60				
8					
9					
10		0.0	10-12'	HA-02 (10-12')	Gray coarse SAND. Brick, glass, and metal fragments, moist. (FILL)
11					
12	45/60				Gray coarse SAND. Brick, glass, and metal fragments, moist. (FILL)
13					
14			14-16'	HA-02 (14-16')	Groundwater at approximately 15 ft
15		0.0			Gray coarse SAND. Brick, glass, and metal fragments, wet. (FILL)
16					
17	36/60				
18					
19					
20					**END OF BORING AT 20 FT**

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

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

Summary

Overburden (Linear ft.)	20
Rock Cored (Linear ft.)	-
Number of Samples	4
BORING NO.	HA-02

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

Form #3000 NOTE: Soil descriptions based on a modified Burmister method of visual-manual identification as practiced by Haley & Aldrich, Inc.

GEOPROBE BORING REPORT

HALEY ALDRICH

BORING NO. **HA-03**

PROJECT	556 Baltic Street Site		204090
LOCATION	556 Baltic Street, Brooklyn, New York	PROJECT MGR.	L. McCartney
CLIENT	159 Third Realty LLC	FIELD REP.	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	DATE STARTED	2/10/2023
DRILLER	P. Slavin	DATE FINISHED	2/10/2023

Elevation ft. | Datum | Boring Location: See Plan

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

Rig Make & Model: 6610 DT

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

Hammer Type: ☐ Safety ☐ Doughnut ☐ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☐ None

Casing Advance Type Method Depth: DP

Drilling Notes:

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample Depth (ft)	Sample ID	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
0		0.0			Loose brown fine SAND with gravel. Brick, concrete, and asphalt fragments, moist. (FILL)
1		0.0			
2	40/60	0.0	2-4'	HA-03 (2-4')	
3		0.0			
4		0.0			
5		0.0			Dark brown fine SAND with gravel. Asphalt and brick, moist. (FILL)
6		0.0	6-8'	HA-03 (6-8')	
7	48/60	0.0			
8		0.0			
9		0.0			
10		0.7	10-12'	HA-03 (10-12')	Dark brown fine silty SAND with gravel and clay, petroleum-like odor. Brick fragments, moist. (FILL)
11		35.2			
12	54/60	120.9			
13		69.4			
14		111.7	14-16'	HA-03 (14-16')	Groundwater at approximately 15 ft
15		19.7			Gray medium SAND with gravel, petroleum-like odor, wet (FILL)
16		15.0			
17	50/60	13.0			
18		3.3			Gray to brown fine SAND with silt, wet (SM)
19		0.0			
20					**END OF BORING AT 20 FT**

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

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

Summary

Overburden (Linear ft.)	20
Rock Cored (Linear ft.)	-
Number of Samples	4

BORING NO. HA-03

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

Form #3000 NOTE: Soil descriptions based on a modified Burmister method of visual-manual identification as practiced by Haley & Aldrich, Inc.

GEOPROBE BORING REPORT

BORING NO. **HA-04**

PROJECT	556 Baltic Street Site		204090
LOCATION	556 Baltic Street, Brooklyn, New York	**PROJECT MGR.**	L. McCartney
CLIENT	159 Third Realty LLC	**FIELD REP.**	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	**DATE STARTED**	2/2/2023
DRILLER	P. Slavin	**DATE FINISHED**	2/2/2023

Elevation ft.	**Datum**	**Boring Location** See Plan

Item	**Casing**	**Sampler**	**Core Barrel**	**Rig Make & Model** Sonic CRS-XL-140 DUO			**Hammer Type**	**Drilling Mud**	**Casing Advance**
Type				☐ Truck	☐ Tripod	☐ Cat-Head	☐ Safety	☐ Bentonite	**Type Method Depth**
Inside Diameter (in.)				☐ ATV	☐ Geoprobe	☐ Winch	☐ Doughnut	☐ Polymer	DP
Hammer Weight (lb.)				☑ Track	☐ Air Track	☐ Roller Bit	☐ Automatic	☐ None	
Hammer Fall (in.)				☐ Skid	☑ Other	☐ Cutting Head	**Drilling Notes:**		

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample Depth (ft)	Sample ID	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
0		0.0			Pulverized concrete
1		0.0			
2	30/60	0.0	2-4'	HA-04 (2-4')	
3		0.0			Brown to dark brown medium SAND. Brick, asphalt, and glass fragments, moist. (FILL)
4		0.0			
5		0.0			Wood and brick fragments (FILL)
6		0.0			
			6-8'	HA-04 (6-8')	Brown fine to coarse SAND. Brick and asphalt fragments, moist. (FILL)
7	42/60	0.0	6-8'	DUP_1_02022023	
8		0.0			
9		0.0			
10		0.1	10-12'	HA-04 (10-12')	Gray coarse SAND. Metal and glass fragments, moist. (FILL)
11		0.1			
12	45/60	0.1			
13		0.1			
14		0.1	14-16'	HA-04 (14-16')	
					Groundwater at approximately 15 ft
15		0.1			Gray coarse SAND. Metal and glass fragments, wet. (FILL)
16		0.1			
17	44/60				
18					
19					
20					**END OF BORING AT 20 FT**

Water Level Data					
			Depth in feet to:		
Date	**Time**	**Elapsed Time (hr.)**	**Bottom of Casing**	**Bottom of Hole**	**Water**

Sample ID

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

Summary

Overburden (Linear ft.)	20
Rock Cored (Linear ft.)	-
Number of Samples	5
BORING NO.	HA-04

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

Form #3000

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

GEOPROBE BORING REPORT

HALEY ALDRICH

BORING NO.	HA-05
Page	1 of 1

PROJECT	556 Baltic Street Site		204090
LOCATION	556 Baltic Street, Brooklyn, New York	PROJECT MGR.	L. McCartney
CLIENT	159 Third Realty LLC	FIELD REP.	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	DATE STARTED	2/2/2023
DRILLER	P. Slavin	DATE FINISHED	2/2/2023

Elevation	ft.	Datum		Boring Location	See Plan

Item	Casing	Sampler	Core Barrel	Rig Make & Model	Sonic CRS-XL-140 DUO		Hammer Type	Drilling Mud	Casing Advance
Type				☐ Truck	☐ Tripod	☐ Cat-Head	☐ Safety	☐ Bentonite	Type Method Depth
Inside Diameter (in.)				☐ ATV	☐ Geoprobe	☐ Winch	☐ Doughnut	☐ Polymer	DP
Hammer Weight (lb.)				☑ Track	☐ Air Track	☐ Roller Bit	☐ Automatic	☐ None	
Hammer Fall (in.)				☐ Skid	☑ Other	☐ Cutting Head	Drilling Notes:		

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample Depth (ft)	Sample ID	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
0		0.0			Dark brown to gray medium SAND with gravel. Concrete and brick fragments, moist. (FILL)
1		0.0			
2	30/60	0.0	2-4'	HA-05 (2-4')	
3		0.0			Brown fine to medium SAND. Brick and asphalt fragments, moist. (FILL)
4		0.0			
5		0.0			Brown to dark brown fine SAND with granular gravel. Brick fragments, moist. (FILL)
6		0.0			
			6-8'	HA-05 (6-8')	
7	40/60	0.0	6-8'	HA-05_6-8'_MS	
			6-8'	HA-05_6-8'_MSD	Dark brown fine SAND with gravel. Brick and asphalt fragments, moist. (FILL)
8		0.0			
9		0.0			
10		0.0	10-12'	HA-05 (10-12')	Medium dense dark brown to gray fine SAND. Trace brick and asphalt fragments, moist. (FILL)
11		0.0			
12	50/60	0.0			
13		0.0			
14		0.0	14-16'	HA-05 (14-16')	
					Groundwater at approximately 15 ft
15		0.0			Gray silty fine to medium SAND with rounded to angular fine grained gravel. Trace brick fragments, wet. (FILL)
16		0.0			
17	52/60	0.0			
18		0.0			
19		0.0			
20					**END OF BORING AT 20 FT**

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	Overburden (Linear ft.)	20
						T Thin Wall Tube	Rock Cored (Linear ft.)	-
						U Undisturbed Sample	Number of Samples	6
						S Split Spoon Sample	BORING NO.	HA-05
						G Geoprobe		

*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.

Form #3000

GEOPROBE BORING REPORT

HALEY ALDRICH

BORING NO. **HA-06**

PROJECT	556 Baltic Street Site		204090
LOCATION	556 Baltic Street, Brooklyn, New York	**PROJECT MGR.**	L. McCartney
CLIENT	159 Third Realty LLC	**FIELD REP.**	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	**DATE STARTED**	2/1/2023
DRILLER	P. Slavin	**DATE FINISHED**	2/1/2023

Elevation ft. **Datum** **Boring Location** See Plan

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

Rig Make & Model: Sonic CRS-XL-140 DUO

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

Hammer Type: ☐ Safety ☐ Doughnut ☐ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☐ None

Casing Advance — Type Method Depth: DP

Drilling Notes:

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample Depth (ft)	Sample ID	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
0		0.1			Dark brown fine SAND with gravel. Asphalt and brick fragments, moist. (FILL)
1		0.1			
2	50/60	0.1	2-4'	HA-06 (2-4')	
3		0.1			Brown silty fine to medium SAND with gravel. Asphalt and brick fragments, moist. (FILL)
4		0.0			
5		0.0			Brown fine grained SAND. Asphalt and brick fragments, moist. (FILL)
6		0.0	6-8'	HA-06 (6-8')	
7	52/60	0.0			
8		0.0			Dark brown fine to medium SAND with gravel. Asphalt fragments, moist. (FILL)
9		0.0			
10		0.0	10-12'	HA-06 (10-12')	Brown to dark brown silty fine SAND with gravel. Brick fragments, moist. (FILL)
11		0.0			
12	52/60	0.0			
13		0.0			Gray coase SAND. Brick fragments, moist (FILL)
14		0.0	14-16'	HA-06 (14-16')	Groundwater at approximately 15 ft
15		0.0			Dark brown to gray coarse SAND. Brick fragments, moist. (FILL)
16		0.1			
17	51/60	0.1			
18		0.1			Gray coarse SAND, wet. (FILL)
19		0.1			
20					**END OF BORING AT 20 FT**

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

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

Summary

Overburden (Linear ft.)	20
Rock Cored (Linear ft.)	-
Number of Samples	4
BORING NO.	**HA-06**

***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.

GEOPROBE BORING REPORT

HALEY ALDRICH

BORING NO. HA-07

PROJECT	556 Baltic Street Site		204090
LOCATION	556 Baltic Street, Brooklyn, New York	**PROJECT MGR.**	L. McCartney
CLIENT	159 Third Realty LLC	**FIELD REP.**	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	**DATE STARTED**	2/9/2023
DRILLER	P. Slavin	**DATE FINISHED**	2/9/2023

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

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample Depth (ft)	Sample ID	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
0		0.0			Dark gray fine SAND with gravel. Concrete, asphalt, and brick fragments, moist. (FILL)
1		0.0			
2	42/60	0.0	2-4'	HA-07 (2-4')	
3		0.0			Brown fine SAND. Brick, concrete, and asphalt fragments, moist. (FILL)
4		0.0			
5		0.0			Brown fine SAND. Brick, concrete, and asphalt fragments, moist. (FILL)
6		0.0	6-8'	HA-07 (6-8')	
7	38/60	0.0			
8		0.0			Dark gray fine SAND. Trace brick, moist. (FILL)
9		0.0			
10		0.0	10-12'	HA-07 (10-12')	Gray coarse SAND. Metal and glass shards, moist. (FILL)
11		0.0			
12	45/60	0.0			
13		0.0			
14		0.0	14-16'	HA-07 (14-16')	Groundwater at approximately 15 ft
15		0.0			Brown to gray fine silty SAND with gravel, wet. (FILL)
16		0.0			
17	45/60	0.0			
18		0.0			
19		0.0			
20					**END OF BORING AT 20 FT**

Water Level Data					
			Depth in feet to:		
Date	**Time**	**Elapsed Time (hr.)**	**Bottom of Casing**	**Bottom of Hole**	**Water**

Sample ID

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

Summary	
Overburden (Linear ft.)	20
Rock Cored (Linear ft.)	-
Number of Samples	4
BORING NO.	HA-07

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

Form #3000

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

GEOPROBE BORING REPORT

HALEY ALDRICH

BORING NO. **HA-08**

Page 1 of 1

PROJECT	556 Baltic Street Site		204090
LOCATION	556 Baltic Street, Brooklyn, New York	PROJECT MGR.	L. McCartney
CLIENT	159 Third Realty LLC	FIELD REP.	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	DATE STARTED	2/1/2023
DRILLER	P. Slavin	DATE FINISHED	2/1/2023

Elevation ft. | Datum | Boring Location: See Plan

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

Rig Make & Model: Sonic CRS-XL-140 DUO

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

Hammer Type: ☐ Safety ☐ Doughnut ☐ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☐ None

Casing Advance — Type Method Depth: DP

Drilling Notes:

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample Depth (ft)	Sample ID	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
0		0.0			Dark brown medium SAND. Asphalt and brick fragments, moist. (FILL)
1		0.0			
2	24/60	0.0	2-4'	HA-08 (2-4')	
3		0.0			
4		0.0			
5		0.0			Dark gray fine to medium SAND with gravel. Brick and wood fragments, moist. (FILL)
6		0.0			
			6-8'	HA-08 (6-8')	Brown fine to medium SAND with coarse gravel. Glass, brick, and asphalt fragments, moist. (FILL)
7	34/60	0.0			
8		0.0			
9		0.0			
10		0.0	10-12'	HA-08 (10-12')	Gray coarse SAND. Glass and metal fragments, moist. (FILL)
11		0.0			
12	50/60	0.0			
13		0.0			
14		0.0	14-16'	HA-08 (14-16')	
					Groundwater at approximately 15 ft
15		0.0			Gray coarse SAND. Glass and metal fragments, wet. (FILL)
16		0.0			
17	52/60	0.0			
18		0.0			
19		0.0			
20					**END OF BORING AT 20 FT**

Water Level Data			Depth in feet to:		
Date	Time	Elapsed Time (hr.)	Bottom of Casing	Bottom of Hole	Water

Sample ID

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

Summary

Overburden (Linear ft.)	20
Rock Cored (Linear ft.)	-
Number of Samples	4
BORING NO.	HA-08

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

Form #3000

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

HALEY ALDRICH

GEOPROBE BORING REPORT

BORING NO.	HA-09
Page	1 of 1

PROJECT	556 Baltic Street Site		204090
LOCATION	556 Baltic Street, Brooklyn, New York	PROJECT MGR.	L. McCartney
CLIENT	159 Third Realty LLC	FIELD REP.	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	DATE STARTED	2/9/2023
DRILLER	P. Slavin	DATE FINISHED	2/9/2023

Elevation	ft.	Datum	Boring Location	See Plan

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

Rig Make & Model: 6610 DT

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

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

Drilling Notes:

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample Depth (ft)	Sample ID	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
0					
		0.0			Brown silty fine to medium SAND with gravel. Asphalt fragments, moist. (FILL)
1					
		0.0			
2					
	46/60	0.0	2-4'	HA-09 (2-4')	Brown silty fine to medium SAND. Some brick and asphalt fragments, moist. (FILL)
3				HA-09_2-4'_MS	
		0.0		HA-09_2-4'_MSD	
4					
		0.0			
5					
		0.0			Dark brown silty fine to medium SAND. Brick and asphalt fragments, moist. (FILL)
6		0.0			
			6-8'	HA-09 (6-8')	
7	48/60	0.0			
8		0.0			
					Brown to dark brown fine SAND with gravel. Brick and asphalt fragments, moist. (FILL)
9		0.0			
10					
		0.0	10-12'	HA-09 (10-12')	Dense brown fine silty SAND with clay, moist [SM]
11					
		0.0			
12					
	36/60	0.0			
13					
		0.0			Dense gray silty fine SAND with clay, moist. [SM]
14					
		0.0			
					Groundwater at approximately 15 ft
15					
		0.0	14-16'	HA-09 (14-16')	Dense gray silty fine SAND with clay, moist. [SM]
16					
		0.0			
17					
	24/60	0.0			
18					
		0.0			
19					
		0.0			
20					**END OF BORING AT 20 FT**

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

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

Summary

Overburden (Linear ft.)	20
Rock Cored (Linear ft.)	-
Number of Samples	4
BORING NO.	HA-09

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

Form #3000

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

GEOPROBE BORING REPORT

HALEY ALDRICH

BORING NO. HA-10

Page 1 of 1

PROJECT	556 Baltic Street Site		204090
LOCATION	556 Baltic Street, Brooklyn, New York	**PROJECT MGR.**	L. McCartney
CLIENT	159 Third Realty LLC	**FIELD REP.**	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	**DATE STARTED**	2/8/2023
DRILLER	P. Slavin	**DATE FINISHED**	2/8/2023

Elevation ft. **Datum** **Boring Location** See Plan

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

Rig Make & Model 6610 DT

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

Hammer Type: ☐ Safety ☐ Doughnut ☐ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☐ None

Casing Advance Type Method Depth: DP

Drilling Notes:

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample Depth (ft)	Sample ID	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
0		0.0			Asphalt
1		0.0			Brown fine SAND with fine angular gravel. Concrete and brick fragments, moist. (FILL)
2	40/60	0.0	2-4'	HA-10 (2-4')	
3		0.0			
4		0.0			
5		0.0			Brown fine SAND. Brick, asphalt, and concrete fragments, moist. (FILL)
6		0.0			
			6-8'	HA-10 (6-8')	
7	12/60	0.0			
8		0.0			
9		0.0			
10		0.0	10-12'	HA-10 (10-12')	Dark brown fine SAND with subangular gravel. Brick fragments, moist. (FILL)
11		0.0			
12	36/60	0.0			
13		0.0			
14		0.0			Groundwater at approximately 15 ft
15		0.0	14-16'	HA10 (14-16')	Medium-dense gray silty SAND, wet [SM]
16		0.0			
17	44/60	0.0			
18		0.0			Medium-dense gray silty fine SAND with trace clay, wet [SM]
19		0.0			
20					**END OF BORING AT 20 FT**

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

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

Summary

- Overburden (Linear ft.) 20
- Rock Cored (Linear ft.) -
- Number of Samples 4

BORING NO. HA-10

*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.

Form #3000

GEOPROBE BORING REPORT

HALEY ALDRICH

BORING NO. **HA-11**

PROJECT	556 Baltic Street Site		204090
LOCATION	556 Baltic Street, Brooklyn, New York	PROJECT MGR.	L. McCartney
CLIENT	159 Third Realty LLC	FIELD REP.	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	DATE STARTED	2/9/2023
DRILLER	P. Slavin	DATE FINISHED	2/9/2023

Elevation ft. | Datum | Boring Location: See Plan

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

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample Depth (ft)	Sample ID	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
0		0.0			Gray to brown fine SAND, dry. Pulverized brick and 1/2 inch of concrete at 2 ft. (FILL)
1		0.0			
2	48/60	0.0	2-4'	HA-11 (2-4')	
3		0.0			
4		0.0			
5		0.0			Concrete
					Light brown fine SAND. Some pulverized concrete, moist. (FILL)
6		0.0	6-8'	HA-11 (6-8')	
7	40/60	0.0			
					Brown silty fine SAND with gravel. Trace asphalt fragments, moist. (FILL)
8		0.0			
9		0.0			
10		0.0	10-12'	HA-11 (10-12')	Brown to gray silty fine SAND with angular gravel, moist (FILL)
11		0.0			
12	40/60	0.0			
13		0.0			
14		0.0			
					Groundwater at approximately 15 ft
15		0.0	14-16'	HA11 (14-16')	Gray silty fine SAND with angular gravel, wet (FILL)
16		0.0			
17	44/60	0.0			
18		0.0			
19		0.0			
20					**END OF BORING AT 20 FT**

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

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

Summary

Overburden (Linear ft.)	20
Rock Cored (Linear ft.)	-
Number of Samples	4
BORING NO.	HA-11

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

Form #3000

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

GEOPROBE BORING REPORT

BORING NO.	HA-12
Page	1 of 1

PROJECT	556 Baltic Street Site		204090
LOCATION	556 Baltic Street, Brooklyn, New York	PROJECT MGR.	L. McCartney
CLIENT	159 Third Realty LLC	FIELD REP.	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	DATE STARTED	2/9/2023
DRILLER	P. Slavin	DATE FINISHED	2/9/2023

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

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample Depth (ft)	Sample ID	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
0		0.0			Dark brown fine grained SAND. Brick, concrete, and asphalt fragments, moist. (FILL)
1		0.0			
2	48/60	0.0	2-4'	HA-12 (2-4')	
3		0.0			
4		0.0			Dark brown silty fine to medium SAND. Concrete, brick, and asphalt fragments, moist. (FILL)
5		0.0			Brown silty fine SAND with gravel. Asphalt fragments, moist. (FILL)
6		0.0	6-8'	HA-12 (6-8')	
7	48/60	0.0			Brown to dark brown silty fine SAND. Trace brick fragments, moist. (FILL)
8		0.0			
9		0.0			
10		0.0	10-12'	HA-12 (10-12')	Gray silty fine to medium SAND, with angular gravel. Trace brick fragments, moist. (FILL)
11		0.0			
12	40/60	0.0			
13		0.0			
14		0.0			Groundwater at approximately 15 ft
15		0.0	14-16'	HA12 (14-16')	Gray silty fine SAND. Trace brick fragments, wet. (FILL)
16		0.0			
17	40/60	0.0			
18		0.0			
19		0.0			
20					**END OF BORING AT 20 FT**

Water Level Data			Depth in feet to:		
Date	Time	Elapsed Time (hr.)	Bottom of Casing	Bottom of Hole	Water

Sample ID

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

Summary	
Overburden (Linear ft.)	20
Rock Cored (Linear ft.)	-
Number of Samples	4
BORING NO.	HA-12

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

Form #3000 NOTE: Soil descriptions based on a modified Burmister method of visual-manual identification as practiced by Haley & Aldrich, Inc.

HALEY ALDRICH

GEOPROBE BORING REPORT

BORING NO. **HA-13**

PROJECT	556 Baltic Street Site		204090
LOCATION	556 Baltic Street, Brooklyn, New York	PROJECT MGR.	L. McCartney
CLIENT	159 Third Realty LLC	FIELD REP.	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	DATE STARTED	2/13/2023
DRILLER	P. Slavin	DATE FINISHED	2/13/2023

Elevation ft. Datum | Boring Location See Plan

Item	Casing	Sampler	Core Barrel	Rig Make & Model: 420M		Hammer Type	Drilling Mud	Casing Advance
Type				☐ Truck ☐ Tripod	☐ Cat-Head	☐ Safety	☐ Bentonite	Type Method Depth
Inside Diameter (in.)				☐ ATV ☑ Geoprobe	☐ Winch	☐ Doughnut	☐ Polymer	DP
Hammer Weight (lb.)				☑ Track ☐ Air Track	☐ Roller Bit	☐ Automatic	☐ None	
Hammer Fall (in.)				☐ Skid ☐ Other	☐ Cutting Head	Drilling Notes:		

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample Depth (ft)	Sample ID	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
0		0.0			Pulverized concrete
1					Brown to dark brown fine SAND with gravel. Brick fragments, moist. (FILL)
		0.0			
2					
	40/60	0.0	2-4'	HA-13 (2-4')	
3			2-4'	HA-13_2-4'_MS	
		0.0	2-4'	HA-13_2-4'_MSD	
4					
		0.0			
5					
		0.0			Brown silty fine to medium SAND with gravel. Brick and asphalt fragments, moist. (FILL)
6		0.0			
			6-8'	HA-13 (6-8')	
7	40/60	0.0			
8		0.0			
9		0.0			
10					
		0.0	10-120	HA-13 (10-12')	Brown silty fine to medium SAND with gravel. Brick and asphalt fragments, moist. (FILL)
11					
		0.0			Gray coarse SAND. Metal fragments, moist. (FILL)
12					
	40/60	0.0			
13					
		0.0			
14					
		0.0			
					Groundwater at approximately 15 ft
15		0.0	14-16'	HA-13 (14-16')	Gray coarse SAND. Metal fragments, wet. (FILL)
16					
		0.0			
17					
	40/60	0.0			
18					
		0.0			
19					
		0.0			
20					**END OF BORING AT 20 FT**

Water Level Data			Depth in feet to:		
Date	Time	Elapsed Time (hr.)	Bottom of Casing	Bottom of Hole	Water

Sample ID

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

Summary

Overburden (Linear ft.)	20
Rock Cored (Linear ft.)	-
Number of Samples	4
BORING NO.	HA-13

*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.

GEOPROBE BORING REPORT

HALEY ALDRICH

BORING NO. **HA-14**

PROJECT	556 Baltic Street Site		204090
LOCATION	556 Baltic Street, Brooklyn, New York	**PROJECT MGR.**	L. McCartney
CLIENT	159 Third Realty LLC	**FIELD REP.**	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	**DATE STARTED**	2/1/2023
DRILLER	P. Slavin	**DATE FINISHED**	2/1/2023

Elevation	ft.	Datum		Boring Location	See Plan

Item	Casing	Sampler	Core Barrel	Rig Make & Model: Sonic CRS-XL-140 DUO			Hammer Type	Drilling Mud	Casing Advance
Type				☐ Truck	☐ Tripod	☐ Cat-Head	☐ Safety	☐ Bentonite	Type Method Depth
Inside Diameter (in.)				☐ ATV	☐ Geoprobe	☐ Winch	☐ Doughnut	☐ Polymer	DP
Hammer Weight (lb.)				☑ Track	☐ Air Track	☐ Roller Bit	☐ Automatic	☐ None	
Hammer Fall (in.)				☐ Skid	☑ Other	☐ Cutting Head	Drilling Notes:		

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample Depth (ft)	Sample ID	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
0		0.0			Dark brown medium SAND with gravel. Concrete and glass fragments, moist. (FILL)
1		0.0			
2	24/60	0.0	2-4'	HA-14 (2-4')	
3		0.0			
4		0.0			
5		0.0			Brown silty fine SAND with gravel. Brick fragments, moist. (FILL)
6		0.0	6-8'	HA-14 (6-8')	
7	52/60	0.0			
8		0.0			Brown fine SAND with gravel. Brick fragments, moist. (FILL)
9		0.0			
10		0.0	10-12'	HA-14 (10-12')	Gray silty fine SAND with gravel. Brick and glass, moist. (FILL)
11		0.0			
12	54/60	0.0			Gray coarse SAND.Metal and glass fragments, moist to wet. (FILL)
13		0.0			
14		0.0			Groundwater at approximately 15 ft
15		0.0	14-16'	HA-14 (14-16')	Gray coarse SAND. Metal and glass fragments, wet. (FILL)
16		0.0			
17	54/60	0.0			
18		0.0			
19		0.0			
20					**END OF BORING AT 20 FT**

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

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

Summary

Overburden (Linear ft.)	20
Rock Cored (Linear ft.)	-
Number of Samples	4
BORING NO.	**HA-14**

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

Form #3000

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

GEOPROBE BORING REPORT

HALEY ALDRICH

BORING NO. **HA-15**

PROJECT	556 Baltic Street Site		204090
LOCATION	556 Baltic Street, Brooklyn, New York	PROJECT MGR.	L. McCartney
CLIENT	159 Third Realty LLC	FIELD REP.	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	DATE STARTED	2/1/2023
DRILLER	P. Slavin	DATE FINISHED	2/1/2023

Elevation ft. Datum | Boring Location: See Plan

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

Rig Make & Model: Sonic CRS-XL-140 DUO

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

Hammer Type: ☐ Safety ☐ Doughnut ☐ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☐ None

Casing Advance — Type Method Depth: DP

Drilling Notes:

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample Depth (ft)	Sample ID	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
0		0.0			Gray medium SAND. Concrete and asphalt fragments, moist. (FILL)
1		0.0			
2	48/60	0.0	2-4'	HA-15 (2-4')	
3		0.0			Brown medium SAND. Brick fragments, moist. (FILL)
4		0.0			
5		0.0			Brown fine SAND with angular gravel. Brick and asphalt fragments, moist. (FILL)
6		0.0	6-8'	HA-15 (6-8')	
7	50/60	0.0			
8		0.0			
9		0.0			Gray to dark gray fine SAND with gravel. Asphalt fragments, moist. (FILL)
10		1.8	10-12'	HA-15 (10-12')	Dark gray medium SAND. Glass, and metal fragments, moist. (FILL)
11		17.2			
12	48/60	28.1			Gray medium to coarse SAND, petroleum-like odor, moist. Brick fragments (FILL)
13		16.4			
14		2.1			Groundwater at approximately 15 ft
15		0.0	14-16'	HA15 (14-16')	Gray coarse SAND. Glass, rubber, and metal fragments, wet. (FILL)
16		0.0			
17	52/60	0.0			
18		0.0			
19		0.0			
20					**END OF BORING AT 20 FT**

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

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

Summary

Overburden (Linear ft.)	20
Rock Cored (Linear ft.)	-
Number of Samples	4
BORING NO.	HA-15

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

Form #3000

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

GEOPROBE BORING REPORT

HALEY ALDRICH

BORING NO. **HA-16**

PROJECT	556 Baltic Street Site		204090
LOCATION	556 Baltic Street, Brooklyn, New York	PROJECT MGR.	L. McCartney
CLIENT	159 Third Realty LLC	FIELD REP.	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	DATE STARTED	2/1/2023
DRILLER	P. Slavin	DATE FINISHED	2/1/2023

Elevation ft. Datum | Boring Location: See Plan

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

Rig Make & Model: Sonic CRS-XL-140 DUO

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

Hammer Type: ☐ Safety ☐ Doughnut ☐ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☐ None

Casing Advance — Type Method Depth: DP

Drilling Notes:

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample Depth (ft)	Sample ID	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
0		0.0			Dark brown silty fine SAND with gravel. Concrete and brick fragments, moist. (FILL)
1		0.0			
2	38/60	0.0	2-4'	HA-16 (2-4')	
3		0.0			Brown fine SAND with gravel. Crushed brick and concrete fragments, moist. (FILL)
4		0.0			
5		0.0			Brown medium to coarse SAND with gravel, mica flakes. Brick fragments, moist. (FILL)
6		0.0	6-8'	HA-16 (6-8')	
7	48/60	0.0			Brown coarse SAND with gravel. Concrete and brick fragments, moist. (FILL)
8		0.0			
9		0.0			
10		0.0	10-12'	HA-16 (10-12')	Dark brown silty fine SAND with gravel. Trace brick fragments, moist. (FILL)
11		0.0			
12	48/60	0.0			
13		0.0			Dark brown fine SAND with gravel, moist. (FILL)
14		0.0	14-16'	HA-16 (14-16')	Groundwater at approximately 15 ft
15		0.0			Dark gray silty fine to medium SAND with gravel, moist. (FILL)
16		0.1			
17	52/60	0.1			
18		0.0			Brown medium SAND. Trace brick fragments, wet. (FILL)
19		0.0			
20					**END OF BORING AT 20 FT**

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

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

Summary

Overburden (Linear ft.)	20
Rock Cored (Linear ft.)	-
Number of Samples	4

BORING NO. HA-16

*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.

GEOPROBE BORING REPORT

HALEY ALDRICH

BORING NO. **HA-17**

PROJECT	556 Baltic Street Site		204090
LOCATION	556 Baltic Street, Brooklyn, New York	**PROJECT MGR.**	L. McCartney
CLIENT	159 Third Realty LLC	**FIELD REP.**	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	**DATE STARTED**	2/8/2023
DRILLER	P. Slavin	**DATE FINISHED**	2/8/2023

Elevation ft. **Datum** **Boring Location** See Plan

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

Rig Make & Model 6610 DT

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

Hammer Type: ☐ Safety ☐ Doughnut ☐ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☐ None

Casing Advance Type Method Depth: DP

Drilling Notes:

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample Depth (ft)	Sample ID	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
0		0.0			Brown fine SAND. Pulverized concrete, brick, and some asphalt fragments, moist. (FILL)
1		0.0			
2	36/60	0.0	2-4'	HA-17 (2-4')	
3		0.0			
4		0.0			
5		0.0			Brown medium SAND. Brick and asphalt fragments, moist. (FILL)
6		0.0	6-8'	HA-17 (6-8')	
7	40/60	0.0			6" brick layer Gray to brown silty fine SAND. Brick and concrete fragments, moist. (FILL)
8		0.0			
9		0.0			
10		0.0	10-12'	HA-17 (10-12')	Brown fine SAND with gravel. Brick fragments, moist. (FILL)
11		0.0			
12	52/60	0.0			
13		0.0			Dark brown silty fine SAND with gravel. Trace brick fragments, moist. (FILL)
14		0.0			Groundwater at approximately 15 ft
15		0.0	14-16'	HA17 (14-16')	Brown silty fine SAND, wet. [SM]
16		0.0			
17	55/60	0.0			
18		0.0			Brown silty fine SAND with trace clay, wet. [SM]
19		0.0			
20					**END OF BORING AT 20 FT**

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

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

Summary

Overburden (Linear ft.)	20
Rock Cored (Linear ft.)	-
Number of Samples	4

BORING NO. HA-17

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

Form #3000

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

GEOPROBE BORING REPORT

BORING NO. HA-18

PROJECT	556 Baltic Street Site		204090
LOCATION	556 Baltic Street, Brooklyn, New York	**PROJECT MGR.**	L. McCartney
CLIENT	159 Third Realty LLC	**FIELD REP.**	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	**DATE STARTED**	2/13/2023
DRILLER	P. Slavin	**DATE FINISHED**	2/13/2023

Elevation ft. **Datum** **Boring Location** See Plan

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

Rig Make & Model 420M

- ☐ Truck ☐ Tripod
- ☐ ATV ☐ Geoprobe
- ☑ Track ☐ Air Track
- ☐ Skid ☑ Other

Bit: ☐ Cat-Head ☐ Winch ☐ Roller Bit ☐ Cutting Head

Hammer Type: ☐ Safety ☐ Doughnut ☐ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☐ None

Casing Advance Type Method Depth: DP

Drilling Notes:

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample Depth (ft)	Sample ID	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
0		0.0			Brown fine SAND. Concrete, brick, and asphalt fragments, moist. (FILL)
1		0.0			
2	36/60	0.0	2-4'	HA-18 (2-4')	
3		0.0			
4		0.0			
5		0.0			Brown silty fine to medium SAND. Brick, asphalt and trace concrete fragments, moist. (FILL)
6		0.0			
			6-8'	HA-18 (6-8')	
7	36/60	0.0			
8		0.0			
9		0.0			
10		0.0	10-12'	HA-18 (10-12')	Dark gray coarse SAND, petroleum-like odor, moist. Metal and glass fragments. (FILL)
11			10-12'	DUP_1_02132023	
		0.0			
12	36/60	0.0			
13		0.0			
14		2.7			
					Groundwater at approximately 15 ft
15		156.9	14-16'	HA-18 (14-16')	Gray coarse SAND with silt, slight petroleum-like odor, wet (FILL)
16		88.1			
17	36/60				
18		35.2			
19		11.3			
20					**END OF BORING AT 20 FT**

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

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

Summary

Overburden (Linear ft.)	20
Rock Cored (Linear ft.)	-
Number of Samples	4
BORING NO.	HA-18

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

Form #3000 **NOTE: Soil descriptions based on a modified Burmister method of visual-manual identification as practiced by Haley & Aldrich, Inc.**

GEOPROBE BORING REPORT

HALEY ALDRICH

BORING NO. **HA-19**

PROJECT	556 Baltic Street Site		204090
LOCATION	556 Baltic Street, Brooklyn, New York	PROJECT MGR.	L. McCartney
CLIENT	159 Third Realty LLC	FIELD REP.	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	DATE STARTED	2/8/2023
DRILLER	P. Slavin	DATE FINISHED	2/8/2023

Elevation ft. Datum | Boring Location See Plan

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

Rig Make & Model: 6620 DT

Rig Type		Bit Type	Hammer Type	Drilling Mud
☐ Truck	☐ Tripod	☐ Cat-Head	☐ Safety	☐ Bentonite
☐ ATV	☑ Geoprobe	☐ Winch	☐ Doughnut	☐ Polymer
☑ Track	☐ Air Track	☐ Roller Bit	☐ Automatic	☐ None
☐ Skid	☐ Other	☐ Cutting Head		

Casing Advance: Type Method Depth — DP

Drilling Notes:

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample Depth (ft)	Sample ID	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
0		0.0			Brown fine SAND with angular gravel. Concrete and brick fragments, moist. (FILL)
1		0.0			
2	36/60	0.0	2-4'	HA-19 (2-4')	
3		0.0			
4		0.0			
5		0.0			Brown fine SAND with angular gravel. Concrete and brick fragments, moist.(FILL)
6		0.0			
			6-8'	HA-19 (6-8')	
7	12/60	0.1			
8		0.1			
9		1.1			
10		4.4	10-12'	HA-19 (10-12')	Brown fine SAND with angular gravel. Concrete and brick fragments, moist. (FILL)
11			10-12'	DUP_1_02082023	
		137.7			
12	48/60	298.3			Gray coarse SAND and rock fragments, petroleum-like odor, moist. (FILL)
13		646.1			
14		964.1			
					Groundwater at approximately 15 ft
15		95.0	14-16'	HA-19 (14-16')	Gray coarse SAND, petroleum-like odor, wet. (FILL)
16		472.1			
17	50/60	52.3			
18		43.9			Gray to brown fine SAND with gravel, petroleum-like odor, wet [SW]
19		21.2			
			20-22'	HA-19 (20-22')	
20		6.6			Gray to brown fine SAND with gravel, petroleum-like odor, wet [SW]
21		5.9			
22	54/60	4.4			
23		4.3			Brown silty fine SAND with trace clay, wet [SM]
24		3.1			
25					**END OF BORING AT 25 FT**

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

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

Summary

Overburden (Linear ft.)	25
Rock Cored (Linear ft.)	-
Number of Samples	5
BORING NO.	HA-19

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

Form #3000 NOTE: Soil descriptions based on a modified Burmister method of visual-manual identification as practiced by Haley & Aldrich, Inc.

GEOPROBE BORING REPORT

BORING NO. **HA-20**

PROJECT	556 Baltic Street Site		204090
LOCATION	556 Baltic Street, Brooklyn, New York	**PROJECT MGR.**	L. McCartney
CLIENT	159 Third Realty LLC	**FIELD REP.**	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	**DATE STARTED**	2/10/2023
DRILLER	P. Slavin	**DATE FINISHED**	2/10/2023

Elevation ft. **Datum** **Boring Location** See Plan

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

Rig Make & Model 6610 DT

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

Hammer Type: ☐ Safety ☐ Doughnut ☐ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☐ None

Casing Advance — Type Method Depth: DP

Drilling Notes:

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample Depth (ft)	Sample ID	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
0		0.0			Pulverized concrete
1		0.0			Brown fine SAND with gravel, moist. Brick and asphalt fragments. (FILL)
2	40/60	0.0	2-4'	HA-20 (2-4')	
3		0.0			
4		0.0			
5		0.0			Brown fine SAND with gravel, moist. Brick and asphalt fragments. (FILL)
6		0.0	6-8'	HA-20 (6-8')	
7	50/60	0.0			Gray silty fine to medium SAND, moist. Brick and asphalt fragments. (FILL)
8		0.0			
9		0.0			
10		0.0	10-12'	HA-20 (10-12')	Dark brown silty fine SAND, moist. Trace brick and asphalt fragments. (FILL)
11		0.0			
12	36/60	0.0			
13		0.0			
14		0.0			Groundwater at approximately 15 ft
15		0.0	14-16'	HA-20 (14-16')	Gray to dark gray fine silty SAND with gravel, wet. Brick fragments. (FILL)
16		0.0			
17	52/60	0.0			
18		0.0			
19		0.0			
20					**END OF BORING AT 20 FT**

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

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

Summary

Overburden (Linear ft.)	20
Rock Cored (Linear ft.)	-
Number of Samples	4
BORING NO.	**HA-20**

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

Form #3000 **NOTE: Soil descriptions based on a modified Burmister method of visual-manual identification as practiced by Haley & Aldrich, Inc.**

GEOPROBE BORING REPORT

BORING NO. HA-21

PROJECT	556 Baltic Street Site		204090
LOCATION	556 Baltic Street, Brooklyn, New York	PROJECT MGR.	L. McCartney
CLIENT	159 Third Realty LLC	FIELD REP.	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	DATE STARTED	2/8/2023
DRILLER	P. Slavin	DATE FINISHED	2/8/2023

Elevation ft. | Datum | Boring Location: See Plan

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

Rig Make & Model: 6620 DT

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

Hammer Type: ☐ Safety ☐ Doughnut ☐ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☐ None

Casing Advance Type Method Depth: DP

Drilling Notes:

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample Depth (ft)	Sample ID	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
0		0.0			Brown fine SAND with gravel. Concrete, brick, and asphalt fragments, moist. (FILL)
1		0.0			
2	46/60	0.0	2-4'	HA-21 (2-4')	
3		0.0			
4		0.0			Dark brown fine SAND with gravel. Concrete, asphalt, and brick fragments, moist. (FILL)
5		0.1			Dark brown to brown fine SAND with coarse gravel. Asphalt fragments, moist. (FILL)
6		0.6	6-8'	HA-21 (6-8')	
7	40/60	1.1			
8		3.7			Dark brown silty fine SAND. Trace brick fragments, moist. (FILL)
9		153.1			
10		77.0	10-12'	HA-21 (10-12')	Dark gray coarse SAND, petroleum-like odor, moist. Glass and trace brick fragments. (FILL)
11		104.1			
12	40/60	133.2			Dark gray coarse SAND, petroleum-like odor, moist. (FILL)
13		718.4			
14		117.2	14-16'	HA-21 (14-16')	
15		82.7			Groundwater at approximately 15 ft Dark gray coarse SAND, petroleum-like odor, wet. (FILL)
16		53.6			
17	42/60	39.0			
18		14.9			
19		5.6			
20		5.7	20-22'	HA-21 (20-22')	Brown silty fine to medium SAND with gravel, slight petroleum-like odor, wet. [SW]
21		5.3			
22	50/60	4.9			
23		4.3			Dark brown to gray organic CLAY, slight petroleum-like odor, wet [OH]
24		4.3			
25					**END OF BORING AT 25 FT**

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

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

Summary

Overburden (Linear ft.)	25
Rock Cored (Linear ft.)	-
Number of Samples	5
BORING NO.	HA-21

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

Form #3000 NOTE: Soil descriptions based on a modified Burmister method of visual-manual identification as practiced by Haley & Aldrich, Inc.

GEOPROBE BORING REPORT

HALEY ALDRICH

BORING NO. HA-22

PROJECT	556 Baltic Street Site		204090
LOCATION	556 Baltic Street, Brooklyn, New York	**PROJECT MGR.**	L. McCartney
CLIENT	159 Third Realty LLC	**FIELD REP.**	A. Stewart/H. Russell
CONTRACTOR	Coastal Environmental Solutions	**DATE STARTED**	2/27/2023
DRILLER	P. Slavin	**DATE FINISHED**	2/27/2023

Elevation ft.	**Datum**	**Boring Location** South side of lot

Item	**Casing**	**Sampler**	**Core Barrel**	**Rig Make & Model** Sonic CRS-XL-140 DUO			**Hammer Type**	**Drilling Mud**	**Casing Advance**
Type		3"		☐ Truck	☐ Tripod	☐ Cat-Head	☐ Safety	☐ Bentonite	**Type Method Depth**
Inside Diameter (in.)				☐ ATV	☐ Geoprobe	☐ Winch	☐ Doughnut	☐ Polymer	Sonic
Hammer Weight (lb.)				☑ Track	☐ Air Track	☐ Roller Bit	☐ Automatic	☐ None	
Hammer Fall (in.)				☐ Skid	☑ Other	☑ Cutting Head	**Drilling Notes:**		

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample ID	Sample Depth (ft)	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
0		0.0			Very loose brown to gray fine SAND, some clay, trace silt, trace fine gravel, brick, moist (FILL)
1		0.0			
2	30/60	0.0			
3		0.0			
4		0.0			
5		0.0			Very loose brown fine SAND, some medium sand, trace fine gravel, moist (FILL)
6		0.0			
7	22/60	0.0			
8		0.0			
9		0.0			
10		0.3			Very loose fine SAND, some clay, some silt, trace fine gravel, moist, petroleum-like odor (FILL)
11		0.2			
12	35/60	0.1			
13		0.0			
14		0.0			
15		0.0			Very loose clayey fine SAND, some silt, trace fine gravel, brick, shell fragment, wet (FILL)
16		0.0			
17	26/60	0.0			
18		0.0			
19		0.0			
20		0.0			Very loose clayey fine SAND, trace silt, trace fine gravel, trace coarse gravel, well-rounded, wet (SC)
21		0.0			
22	31/60	0.0			
23		0.0			
24		0.0			
25		0.0			Very loose clayey fine SAND, trace silt, trace fine gravel, trace coarse gravel, well-rounded, wet (SC)
26		0.0			
27	26/60	0.0			
28		0.0			
29		0.0			
30		0.0			

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

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

Summary

Overburden (Linear ft.)	100
Rock Cored (Linear ft.)	-
Number of Samples	20
BORING NO.	HA-22

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

Form #3000 NOTE: Soil descriptions based on a modified Burmister method of visual-manual identification as practiced by Haley & Aldrich, Inc.

HALEY ALDRICH

GEOPROBE BORING REPORT

BORING NO. **HA-22**

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample ID	Sample Depth (ft)	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
30					
		0.1		0-26"	Soft dark brown to gray organic CLAY, moist (OH)
31					
		0.2			
32					
	38/60	0.5		26-38"	Loose gray fine SAND, some silt, wet (SM)
33					
		0.0			
34					
		0.0			
35					
		0.0			Loose gray fine SAND, some silt, wet (SM)
36					
		0.0			
37					
		0.0			
38					
		0.0			Shake test at 38-40 ft: negative, drove and set casing at 40 ft, sample and case every 10 ft to 100 ft.
39					
		0.0			
40					
	33/60	0.0			Very loose gray fine SAND, trace medium sand, trace fine gravel, well-rounded, shell fragments, wet (SP)
41					
		0.0			
42					
		0.0			
43					
		0.0			
44					
		0.0			
45					
	33/60	0.0			Loose to dense reddish-brown fine SAND, trace clay, moist (SP-SC)
46					
		0.0			
47					
		0.0			
48					
		0.0			
49					
		0.0			
50					
		0.0			Very loose reddish-brown fine SAND, trace silt, wet (SW-SM), clay lense at ~28 in.
51	33/60				
		0.0			
52					
		0.0			
53					
		0.0			
54					
		0.0			
55					
		0.0			Very loose reddish-brown fine SAND, wet (SP)
56					Shake test at 58 to 60 ft: negative
		0.0			
57					
	36/60	0.0			
58					
		0.0			
59					
		0.0			
60					
		0.0		0-12"	Very loose reddish-brown fine SAND, wet (SP)
61				12-36"	
		0.0			
62					
	60/60	0.0			
63					
		0.0			
64					
		0.0			
65					
		0.0			Soft reddish-brown SILT, trace fine sand (wet) (ML)
66					
		0.0			
67					
	60/60	0.0			
68					
		0.0			
69					
		0.0		0-19"	Loose reddish-brown SILT, trace fine sand, wet (ML)
				19-31"	Shake test at 68 to 70 ft, negative
70					

NOTES:

FILE NO. 204090 BORING NO. HA-23

***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.

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GEOPROBE BORING REPORT

HALEY ALDRICH

BORING NO.
HA-22
Page 3 of 3

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample ID	Sample Depth (ft)	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
70					
		0.0			Very loose reddish-brown fine SAND, wet (SP)
71					
		0.0			
72					
	35/60	0.0			
73					
		0.0			
74					
		0.0			
75					
		0.0			Very loose reddish-brown fine SAND, wet (SP)
76					
		0.0			
77					
	30/60	0.0			
78					
		0.0			Shake test at 78-80 ft: negative
79					
		0.0			
80					
		0.0			Very loose grayish-brown fine SAND, trace fine to coarse gravel, wet (SW)
71					
		0.0			
82					
		0.0			
83	12/60				
		0.0			
84					
		0.0			
85					
		0.0			
86					
		0.0			
87					
	24/120	0.0			
88					
		0.0			Shake test at 88 to 90 ft, negative
89					
		0.0			
90					
		0.0			Very loose grayish-brown fine SAND, trace fine to coarse gravel, wet (SW)
91					
		0.0			
92					
	25/60	0.0			
93					
		0.0			
94					
		0.0			
95					
		0.0			Very loose reddish-brown fine SAND, some fine to coarse gravel, cobble, wet (SW)
96					
		0.0			
97					
	32/60	0.0			
98					
		0.0			Shake test at 98 to 100 ft, negative
99					
		0.0			
100					**END OF BORING AT 100.0 FT**

NOTES:	FILE NO. 204090	BORING NO. HA-23

***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.

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HALEY ALDRICH

GEOPROBE BORING REPORT

BORING NO. **HA-23**

PROJECT	556 Baltic Street Site		204090
LOCATION	556 Baltic Street, Brooklyn, New York	**PROJECT MGR.**	M. Conlon
CLIENT	159 Third Realty LLC	**FIELD REP.**	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	**DATE STARTED**	2/3/2023
DRILLER	P. Slavin	**DATE FINISHED**	2/3/2023

Elevation ft. **Datum** **Boring Location** See Plan

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

Rig Make & Model: Sonic CRS-XL-140 DUO

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

Hammer Type: ☐ Safety ☐ Doughnut ☐ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☐ None

Casing Advance Type Method Depth: **Sonic**

Drilling Notes:

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample ID	Sample Depth (ft)	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
0		0.0		0-3	Gray fine SAND, some gravel. Concrete and asphalt fragments present, moist (FILL)
1		0.0			
2	36/60	0.0			
3		0.0			
4		0.0			
5		0.0		5-8	Brown fine to medium SAND, some gravel. Brick and asphalt fragments, moist (FILL)
6		0.0			
7	36/60	0.0			
8		0.0		8-10	Dark brown fine SAND, some gravel. Brick fragments, moist (FILL)
9		0.0			
10		0.0		10-14	Medium-dense gray to brown silty fine SAND, trace fine gravel, moist (FILL)
11		0.0			
12	36/60	0.0			
13		0.0			
14		0.0			
					Groundwater at approximately 15 ft
15		0.0		15-20	Brown silty fine to medium SAND, some fine gravel. Brick fragments, moist (FILL)
16		0.0			
17	27/60	0.0			
18		0.0			
19		0.0			
20		0.0		20-25	Gray silty fine SAND, some coarse gravel. Brick fragments present, wet (FILL)
21		0.0			
22	32/60	0.0			
23		0.0			
24		0.0			
25		0.0		25-30	Gray silty fine SAND, some coarse angular gravel (wet) (SW)
26		0.0			
27	38/60	0.0			
28		0.0			
29		0.0			
30		0.0			

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

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

Summary

Overburden (Linear ft.)	100
Rock Cored (Linear ft.)	-
Number of Samples	20
BORING NO.	**HA-23**

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

Form #3000

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

HALEY ALDRICH

GEOPROBE BORING REPORT

BORING NO. **HA-23**

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample ID	Sample Depth (ft)	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
30					
		0.0		30-32	Gray fine to medium SAND, some gravel, wet (SW)
31					Shake test at 30 to 31 ft: negative
		0.0			
32					
	60/60	0.0		32-34	Gray organic CLAY, wet (CL)
33					
		0.0			
34					
		0.0		34-35	Gray fine SAND, trace coarse gravel, wet (SW)
35					
		0.0		35-37	Gray fine SAND, trace coarse gravel, wet (SW)
36					
		0.0			
37					Shake test at 37 to 38 ft: negative
	60/60	0.0		37-39	Gray organic CLAY, wet (CL)
38					
		0.0			
39					
		0.0		39-40	Gray fine SAND, some fine gravel, trace coarse sand, wet (SW)
40					
		0.0		40-42	Gray silty fine SAND, wet (SM)
41					
		0.0			
42					
	60/60	0.0		42-44	Gray fine SAND, trace silt, wet (SM)
43					
		0.0			
44				44-45	Gray silty fine SAND, trace clay, trace fine gravel, wet (SM)
		0.0			
45					
		0.0		45-50	Gray to brown silty fine SAND, trace clay, wet (SM)
46					
		0.0			
47					
	60/60	0.0			
48					
		0.0			
49					
		0.0			
					Shake test at 50 to 51 ft: negative
50					
		0.0		50-55	Brown-gray silty fine SAND, wet (SM)
51					
		0.0			
52					
		0.0			
53	60/60				
		0.0			
54					
		0.0			
55					
		0.0		55-58	Brown-red silty fine SAND, wet (SM)
56					
		0.0			
57					
	60/60	0.0			
58				58	
		0.0		58-60	Brown silty fine SAND, wet (SM)
59					
		0.0			Shake test at 59 to 60 ft: negative
60					
		0.0		60-63	Gray fine SAND, wet (SP)
61					
		0.0			
62					
	60/60	0.0			
63					
		0.0		63-65	Gray silty fine SAND, wet (SM)
64					
		0.0			
65					
		0.0		65-67	Gray silty fine SAND, wet (SM)
66					
		0.0			
67					
	60/60	0.0		67-70	Gray fine SAND, wet (SP)
68					
		0.0			
69					
		0.0			
70					

NOTES:

FILE NO. **204090** **BORING NO.** **HA-23**

***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.

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HALEY ALDRICH	# GEOPROBE BORING REPORT	BORING NO. **HA-23** Page 3 of 3

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample ID	Sample Depth (ft)	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
70					
		0.0		70-73	Gray to red-brown fine SAND, trace silt, trace fine gravel, trace cobbles, wet (SW)
71					
		0.0			
72					
	40/60	0.0			
73					
		0.0		73-75	Gray to red-brown silty fine SAND, trace clay, wet (SW)
74					
		0.0			
75					
		0.0		75-80	Gray to red-brown silty fine SAND, some fine gravel, cobbles, wet (SW)
76					
		0.0			
77					
	36/60	0.0			
78					
		0.0			
79					
		0.0			
80					
		0.0		80-82	Red-brown coarse SAND, some fine gravel, some coarse gravel, wet (SW)
71					
		0.0			
82				82-83	Red-brown fine SAND, wet (SP)
	36/60	0.0			
83					
		0.0			
84					
		0.0			
85					
		0.0		85-87	Red-brown fine SAND, wet (SP)
86					
		0.0			
87					
	50/60	0.0		87-90	Red-brown fine to medium SAND, some coarse gravel, wet (SW)
88					
		0.0			
89					
		0.0			
					Shake test at 90 to 91 ft: negative
90					
		0.0		90-95	Red-brown fine SAND, some silt, some fine gravel, cobbles, wet (SW)
91					
		0.0			
92					
	40/60	0.0			
93					
		0.0			
94					
		0.0			
95					
		0.0		95-98	Brown coarse SAND, some fine gravel, wet (SW)
96					
		0.0			
97					
	53/60	0.0			
98					
		0.0		98-100	Brown fine to medium SAND, some fine gravel, cobbles, wet (SW)
99					
		0.0			Shake test at 99 to 100 ft: negative
100					**END OF BORING AT 100.0 FT**

NOTES:	FILE NO.	204090	BORING NO.	HA-23

***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.

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GEOPROBE BORING REPORT

BORING NO. **HA-24**

Page 1 of 1

PROJECT	556 Baltic Street Site		204090
LOCATION	556 Baltic Street, Brooklyn, New York	PROJECT MGR.	M. Conlon
CLIENT	159 Third Realty LLC	FIELD REP.	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	DATE STARTED	2/2/2023
DRILLER	P. Slavin	DATE FINISHED	2/2/2023

Elevation ft. | Datum | Boring Location: See Plan

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

Rig Make & Model: 720

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

Hammer Type: ☐ Safety ☐ Doughnut ☐ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☐ None

Casing Advance — Type Method Depth: Sonic

Drilling Notes:

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample ID	Sample Depth (ft)	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
0		0.0	HA-24 (0-2')	0-2'	Gray to brown medium SAND with gravel. Trace brick and concrete fragments, moist (FILL)
1		0.0			
2	72/72	0.0	HA-24 (2-4')	2-4'	Dark brown fine SAND. Brick, concrete, and asphalt fragments, moist (FILL)
3		0.0			
4		0.0	HA-24 (4-6')	4-6'	Dark brown fine SAND. Brick, concrete, and asphalt fragments, moist (FILL)
5		0.0			
6					
					END OF BORING AT 6 FT

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

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

Summary

Overburden (Linear ft.)	6
Rock Cored (Linear ft.)	-
Number of Samples	2

BORING NO. HA-24

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

Form #3000 NOTE: Soil descriptions based on a modified Burmister method of visual-manual identification as practiced by Haley & Aldrich, Inc.

GEOPROBE BORING REPORT

HALEY ALDRICH

BORING NO. **HA-25**

Page 1 of 1

PROJECT	556 Baltic Street Site		204090
LOCATION	556 Baltic Street, Brooklyn, New York	PROJECT MGR.	M. Conlon
CLIENT	159 Third Realty LLC	FIELD REP.	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	DATE STARTED	2/2/2023
DRILLER	P. Slavin	DATE FINISHED	2/2/2023

Elevation ft. | Datum | Boring Location: See Plan

Item	Casing	Sampler	Core Barrel	Rig Make & Model: 720			Hammer Type	Drilling Mud	Casing Advance
Type				☐ Truck	☐ Tripod	☐ Cat-Head	☐ Safety	☐ Bentonite	Type Method Depth
Inside Diameter (in.)				☐ ATV	☑ Geoprobe	☐ Winch	☐ Doughnut	☐ Polymer	Sonic
Hammer Weight (lb.)				☑ Track	☐ Air Track	☐ Roller Bit	☐ Automatic	☐ None	
Hammer Fall (in.)				☐ Skid	☐ Other	☐ Cutting Head	Drilling Notes:		

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample ID	Sample Depth (ft)	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
0		0.0			Asphalt brick, wood, and gravel (FILL)
1					Brown fine SAND, moist (FILL)
		0.0			
2	36/60	0.0			
3		0.0			Brown fine SAND. Brick, asphalt fragments, moist (FILL)
4		0.0			
5		0.0			Brown fine SAND with gravel. Brick fragments, moist (FILL)
6		0.0			
7	36/60	0.0			
8		0.0			
					Dark brown fine SAND with gravel. Brick and asphalt fragments, moist (FILL)
9		0.0			
10		0.1	HA-25 (10-12')	10-12'	Metal and glass shards, moist (FILL)
11		0.1			
12	36/60	0.1	HA-25 (12-14')	12-14'	
13		0.1			
14		0.1			
15		0.1	HA-25 (14-16')	14-16'	
16					
					END OF BORING AT 16 FT

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

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

Summary

Overburden (Linear ft.)	16
Rock Cored (Linear ft.)	-
Number of Samples	3
BORING NO.	HA-25

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

Form #3000

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

GEOPROBE BORING REPORT

HALEY ALDRICH

BORING NO.	HA-26
Page	1 of 1

PROJECT	556 Baltic Street Site		204090
LOCATION	556 Baltic Street, Brooklyn, New York	PROJECT MGR.	M. Conlon
CLIENT	159 Third Realty LLC	FIELD REP.	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	DATE STARTED	2/10/2023
DRILLER	P. Slavin	DATE FINISHED	2/10/2023

Elevation	ft.	Datum	Boring Location	See Plan

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

Depth (ft.)	Recovery (ft)	PID (ppm)	Sample ID	Sample Depth (ft)	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)
0		0.0			Concrete
1		0.0			
2	44/60	0.0			Brown fine SAND with gravel. Brick and asphalt fragments, moist (FILL)
3		0.0			
4		0.0			
5		0.0			Brown fine to medium SAND. Concrete, brick, and asphalt fragments, moist (FILL)
6		0.0			
7	44/60	0.0			Brown to gray silty fine to medium SAND, moist (FILL)
8		0.0			
9		0.0			
10		0.0			Brown to gray fine SAND with gravel. Concrete fragments, moist (FILL)
11		0.0	HA-26 (11-13')	11-13'	
12			DUP-1_02102023	11-13'	
	44/60	0.0	HA-26_11-13'_MS	11-13'	
13			HA-26_11-13'_MSD	11-13'	
		0.0	HA-26 (13-15')	13-15'	Brown to dark gray silty fine SAND, moist (FILL)
14			DUP-2_02102023	13-15'	
		15.3	HA-26_13-15'_MS	13-15'	
			HA-26_13-15'_MSD	13-15'	Groundwater at approximately 15 ft
15		72.9			Metal and glass fragments, wet (FILL)
16		112.5			
17	50/60	112.5			
18		23.2			
19					
20					**END OF BORING AT 20 FT**

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

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

Summary

Overburden (Linear ft.)	20
Rock Cored (Linear ft.)	-
Number of Samples	4
BORING NO.	HA-26

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

Form #3000

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

APPENDIX D
Well Construction Diagram

PERMANENT WELL INSTALLATION REPORT

Well No.	MW-01
Boring No.	HA-01

PROJECT	556 Baltic Street Site	H&A FILE NO.	0204090
LOCATION	556 Baltic Street, Brooklyn NY	PROJECT MGR.	L. McCartney
CLIENT	159 Third Realty LLC	FIELD REP.	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	DATE INSTALLED	2/8/2023
DRILLER	P. Slavin	WATER LEVEL	14.69

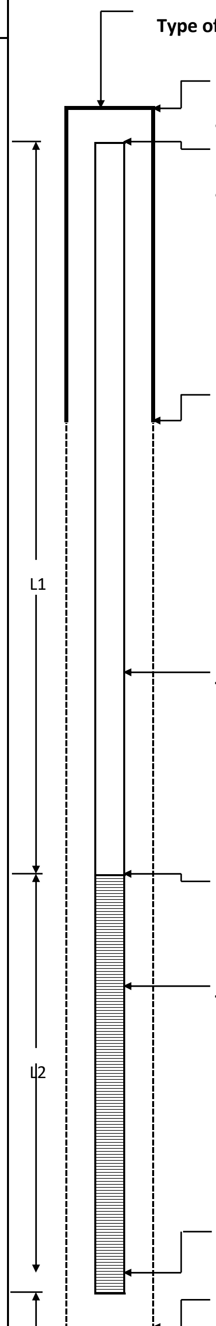
Ground El. 20.95 ft	Location	556 Baltic Street	Drilling Equipment	Guard Pipe ☐
El. Datum NAVD		Brooklyn, NY	Geoprobe 6610 DT	Roadway Box ☑

CONDITIONS

DTW: 14.69 ft

20 ft

(Bottom of Exploration)
(Numbers refer to depth from ground surface in feet)



Type of protective cover/lock (circle one): Pent.bolt 9/16" hex. 1/2" hex. 7/10" hex.

Padlock key no.__________

Height/Depth of top of guard pipe/roadway box above/below ground surface	0.0	ft
Height/Depth of top of riser pipe above/below ground surface	0.5	ft
Depth of bottom of guard pipe/roadway box	1.0	ft
Type of riser pipe:	Solid PVC	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	#0 Filter Sand	
Depth to top of well screen	10.0	ft
Type of screen	Machine Slotted PVC	
Screen gauge or size of openings	0.010	in
Diameter of screen	2.0	in
Depth of bottom of well screen	20	ft
Depth of bottom of borehole	20.3	ft

(Not to Scale)

10 ft + 10 ft = 20 ft
Riser Pay Length (L1) + Length of Screen (L2) = Pay length

COMMENTS:

Form 2007

PERMANENT WELL INSTALLATION REPORT

HALEY ALDRICH

Well No.	MW-02
Boring No.	HA-02

PROJECT	556 Baltic Street Site	H&A FILE NO.	204090
LOCATION	556 Baltic Street, Brooklyn NY	PROJECT MGR.	L. McCartney
CLIENT	159 Third Realty LLC	FIELD REP.	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	DATE INSTALLED	2/8/2023
DRILLER	P. Slavin	WATER LEVEL	15

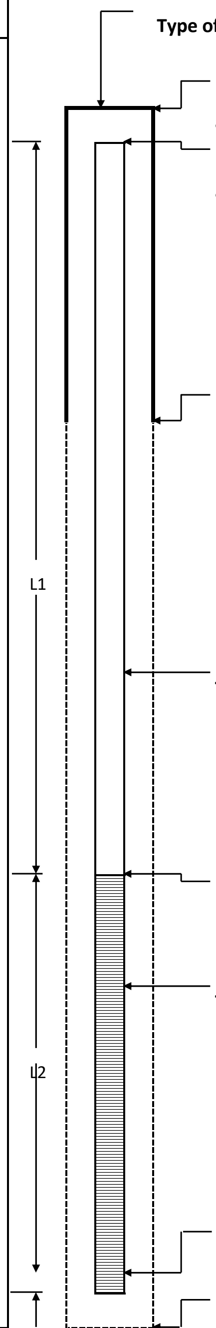
Ground El.	21.23 ft	Location	556 Baltic Street	Drilling Equipment	Guard Pipe ☐
El. Datum	NAVD		Brooklyn, NY	Geoprobe 6610 DT	Roadway Box ☐

CONDITIONS

DTW: 15 ft

20 ft

(Bottom of Exploration)
(Numbers refer to depth from ground surface in feet)



Type of protective cover/lock (circle one): Pent.bolt 9/16" hex. 1/2" hex. 7/10" hex.

Padlock key no.__________

Height/Depth of top of guard pipe/roadway box above/below ground surface	0.0	ft
Height/Depth of top of riser pipe above/below ground surface	0.5	ft
Depth of bottom of guard pipe/roadway box	1.0	ft
Type of riser pipe:	Solid PVC	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	#0 Filter Sand	
Depth to top of well screen	10.0	ft
Type of screen	Machine Slotted PVC	
Screen gauge or size of openings	0.010	in
Diameter of screen	2.0	in
Depth of bottom of well screen	20	ft
Depth of bottom of borehole	20.3	ft

(Not to Scale)

10 ft + 10 ft = 20 ft
Riser Pay Length (L1) + Length of Screen (L2) = Pay length

COMMENTS:

Form 2007

PERMANENT WELL INSTALLATION REPORT

Well No.	MW-03
Boring No.	HA-03

PROJECT	556 Baltic Street Site	H&A FILE NO.	204090
LOCATION	556 Baltic Street, Brooklyn NY	PROJECT MGR.	L. McCartney
CLIENT	159 Third Realty LLC	FIELD REP.	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	DATE INSTALLED	2/10/2023
DRILLER	P. Slavin	WATER LEVEL	14.63

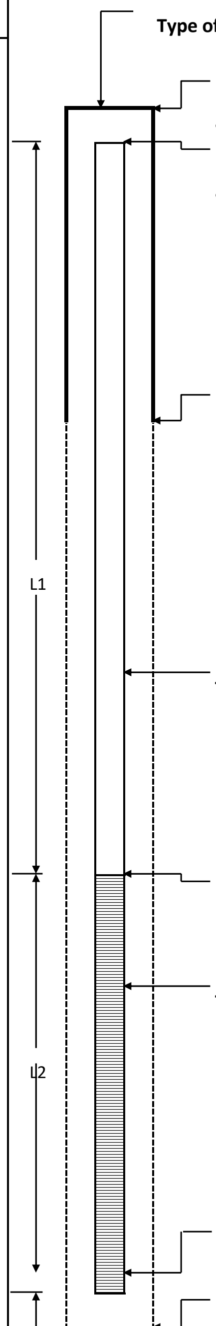
Ground El.	21.51 ft	Location	556 Baltic Street	Drilling Equipment	Guard Pipe ☐
El. Datum	NAVD		Brooklyn, NY	Geoprobe 6610 DT	Roadway Box ☐

CONDITIONS

DTW: 14.63 ft

20 ft

(Bottom of Exploration)
(Numbers refer to depth from ground surface in feet)



Type of protective cover/lock (circle one): Pent.bolt 9/16" hex. 1/2" hex. 7/10" hex.

Padlock key no.__________

Height/Depth of top of guard pipe/roadway box above/below ground surface	0.0	ft
Height/Depth of top of riser pipe above/below ground surface	0.5	ft
Depth of bottom of guard pipe/roadway box	1.0	ft
Type of riser pipe:	Solid PVC	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	#0 Filter Sand	
Depth to top of well screen	10.0	ft
Type of screen	Machine Slotted PVC	
Screen gauge or size of openings	0.010	in
Diameter of screen	2.0	in
Depth of bottom of well screen	20	ft
Depth of bottom of borehole	20.3	ft

(Not to Scale)

10 ft	+	10 ft	=	20 ft
Riser Pay Length (L1)		Length of Screen (L2)		Pay length

COMMENTS:

Form 2007

PERMANENT WELL INSTALLATION REPORT

HALEY ALDRICH

Well No.	MW-04
Boring No.	HA-04

PROJECT	556 Baltic Street Site	**H&A FILE NO.**	204090
LOCATION	556 Baltic Street, Brooklyn NY	**PROJECT MGR.**	L. McCartney
CLIENT	159 Third Realty LLC	**FIELD REP.**	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	**DATE INSTALLED**	2/2/2023
DRILLER	P. Slavin	**WATER LEVEL**	15.31

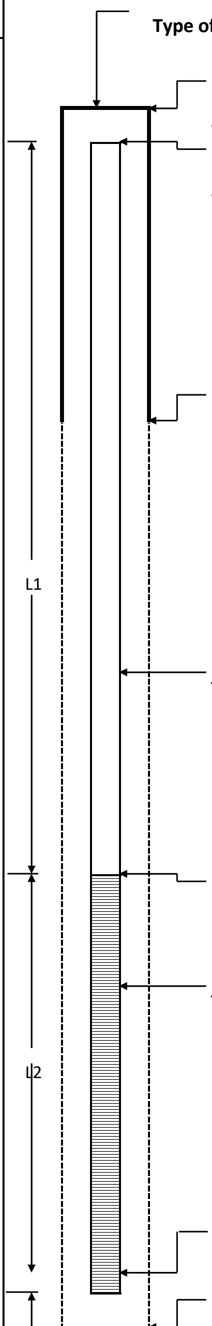
Ground El.	**21.77** ft	**Location**	556 Baltic Street	**Drilling Equipment**		**Guard Pipe** ☐
El. Datum	**NAVD**		Brooklyn, NY	Sonic - Eijkelkamp CRS-XL-140 Duo		**Roadway Box** ☐

CONDITIONS

DTW: 15.31 ft

20 ft

(Bottom of Exploration)
(Numbers refer to depth from ground surface in feet)



Type of protective cover/lock (circle one): Pent.bolt 9/16" hex. 1/2" hex. 7/10" hex.

Padlock key no.__________

Height/Depth of top of guard pipe/roadway box above/below ground surface	0.0	**ft**
Height/Depth of top of riser pipe above/below ground surface	0.5	**ft**
Depth of bottom of guard pipe/roadway box	1.0	**ft**
Type of riser pipe:	Solid PVC	
Inside diameter of riser pipe	2.0	**in**
Type of backfill around riser	#0 Filter Sand	
Depth to top of well screen	10.0	**ft**
Type of screen	Machine Slotted PVC	
Screen gauge or size of openings	0.010	**in**
Diameter of screen	2.0	**in**
Depth of bottom of well screen	20	**ft**
Depth of bottom of borehole	20.3	**ft**

(Not to Scale)

Riser Pay Length (L1)		Length of Screen (L2)		Pay length
10 ft	+	10 ft	=	20 ft

COMMENTS:

Form 2007

PERMANENT WELL INSTALLATION REPORT

Well No. **MW-05**
Boring No. **HA-05**

PROJECT	556 Baltic Street Site	**H&A FILE NO.**	204090
LOCATION	556 Baltic Street, Brooklyn NY	**PROJECT MGR.**	L. McCartney
CLIENT	159 Third Realty LLC	**FIELD REP.**	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	**DATE INSTALLED**	2/2/2023
DRILLER	P. Slavin	**WATER LEVEL**	14.92

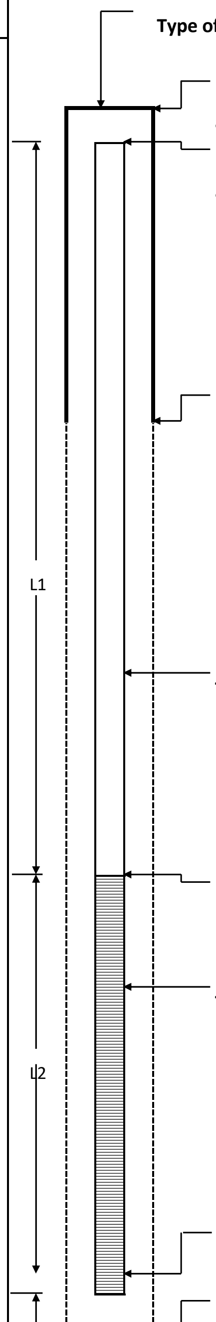
Ground El.	**22.04** ft	**Location**	556 Baltic Street	**Drilling Equipment**	**Guard Pipe** ☐
El. Datum	**NAVD**		Brooklyn, NY	Sonic - Eijkelkamp CRS-XL-140 Duo	**Roadway Box** ☐

CONDITIONS

DTW: 14.92 ft

20 ft

(Bottom of Exploration)
(Numbers refer to depth from ground surface in feet)



Type of protective cover/lock (circle one): Pent.bolt 9/16" hex. 1/2" hex. 7/10" hex.

Padlock key no.__________

Height/Depth of top of guard pipe/roadway box above/below ground surface	0.0	**ft**
Height/Depth of top of riser pipe above/below ground surface	0.5	**ft**
Depth of bottom of guard pipe/roadway box	1.0	**ft**
Type of riser pipe:	Solid PVC	
Inside diameter of riser pipe	2.0	**in**
Type of backfill around riser	#0 Filter Sand	
Depth to top of well screen	10.0	**ft**
Type of screen	Machine Slotted PVC	
Screen gauge or size of openings	0.010	**in**
Diameter of screen	2.0	**in**
Depth of bottom of well screen	20	**ft**
Depth of bottom of borehole	20.3	**ft**

(Not to Scale)

10 ft + 10 ft = 20 ft
Riser Pay Length (L1) + Length of Screen (L2) = Pay length

COMMENTS:

Form 2007

PERMANENT WELL INSTALLATION REPORT

Well No.	MW-06
Boring No.	HA-06

PROJECT	556 Baltic Street Site	**H&A FILE NO.**	204090
LOCATION	556 Baltic Street, Brooklyn NY	**PROJECT MGR.**	L. McCartney
CLIENT	159 Third Realty LLC	**FIELD REP.**	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	**DATE INSTALLED**	2/1/2023
DRILLER	P. Slavin	**WATER LEVEL**	15.53

Ground El.	**22.21** ft	**Location**	556 Baltic Street	**Drilling Equipment**		**Guard Pipe** ☐
El. Datum	**NAVD**		Brooklyn, NY	Sonic - Eijkelkamp CRS-XL-140 Duo		**Roadway Box** ☐

CONDITIONS

DTW: 15.53 ft

20 ft

(Bottom of Exploration)
(Numbers refer to depth from ground surface in feet)

Type of protective cover/lock (circle one): Pent.bolt 9/16" hex. 1/2" hex. 7/10" hex.

Padlock key no.__________

Height/Depth of top of guard pipe/roadway box above/below ground surface	0.0	**ft**
Height/Depth of top of riser pipe above/below ground surface	0.5	**ft**
Depth of bottom of guard pipe/roadway box	1.0	**ft**
Type of riser pipe:	Solid PVC	
Inside diameter of riser pipe	2.0	**in**
Type of backfill around riser	#0 Filter Sand	
Depth to top of well screen	10.0	**ft**
Type of screen	Machine Slotted PVC	
Screen gauge or size of openings	0.010	**in**
Diameter of screen	2.0	**in**
Depth of bottom of well screen	20	**ft**
Depth of bottom of borehole	20.3	**ft**

L1

L2

(Not to Scale)

10 ft + 10 ft = 20 ft

Riser Pay Length (L1) + Length of Screen (L2) = Pay length

COMMENTS:

Form 2007

HALEY ALDRICH	PERMANENT WELL INSTALLATION REPORT	Well No. MW-07 Boring No. HA-07

PROJECT	556 Baltic Street Site	**H&A FILE NO.**	204090
LOCATION	556 Baltic Street, Brooklyn NY	**PROJECT MGR.**	L. McCartney
CLIENT	159 Third Realty LLC	**FIELD REP.**	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	**DATE INSTALLED**	2/9/2023
DRILLER	P. Slavin	**WATER LEVEL**	14.97

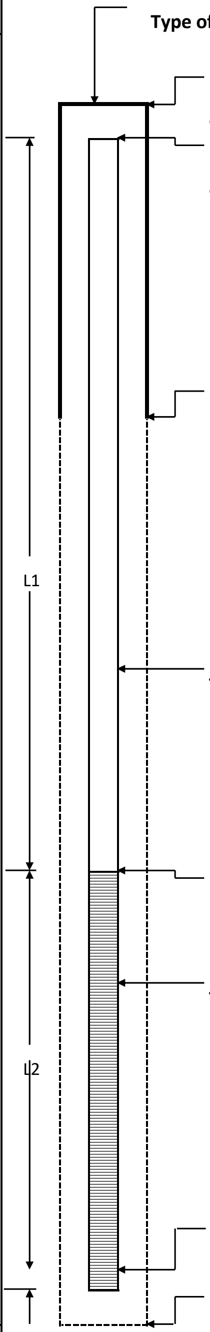
Ground El.	**21.93** ft	**Location**	556 Baltic Street	**Drilling Equipment**	**Guard Pipe** ☐
El. Datum	**NAVD**		Brooklyn, NY	Geoprobe 6610 DT	**Roadway Box** ☐

CONDITIONS

DTW: 14.97 ft

20 ft

(Bottom of Exploration)
(Numbers refer to depth from ground surface in feet)



Type of protective cover/lock (circle one): Pent.bolt 9/16" hex. 1/2" hex. 7/10" hex.
Padlock key no.__________

Height/Depth of top of guard pipe/roadway box above/below ground surface	0.0	**ft**
Height/Depth of top of riser pipe above/below ground surface	0.5	**ft**
Depth of bottom of guard pipe/roadway box	1.0	**ft**
Type of riser pipe:	Solid PVC	
Inside diameter of riser pipe	2.0	**in**
Type of backfill around riser	#0 Filter Sand	
Depth to top of well screen	10.0	**ft**
Type of screen	Machine Slotted PVC	
Screen gauge or size of openings	0.010	**in**
Diameter of screen	2.0	**in**
Depth of bottom of well screen	20	**ft**
Depth of bottom of borehole	20.3	**ft**

(Not to Scale)

10 ft + 10 ft = 20 ft
Riser Pay Length (L1) Length of Screen (L2) Pay length

COMMENTS:

Form 2007

PERMANENT WELL INSTALLATION REPORT

Well No.	MW-08
Boring No.	HA-08

PROJECT	556 Baltic Street Site	H&A FILE NO.	204090
LOCATION	556 Baltic Street, Brooklyn NY	PROJECT MGR.	L. McCartney
CLIENT	159 Third Realty LLC	FIELD REP.	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	DATE INSTALLED	2/1/2023
DRILLER	P. Slavin	WATER LEVEL	15.65

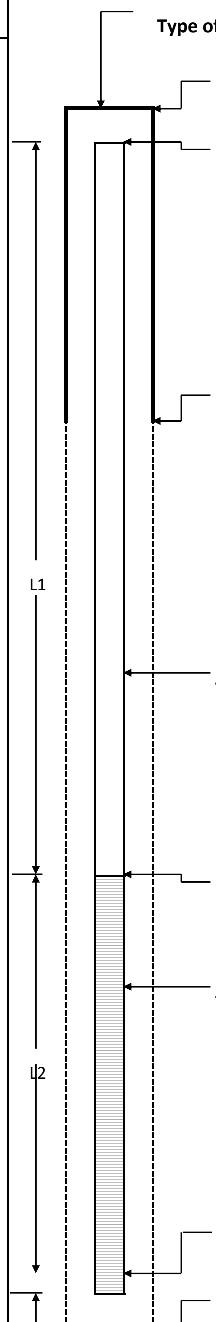
Ground El.	22.31 ft	Location	556 Baltic Street, Brooklyn, NY
El. Datum	NAVD	Drilling Equipment	Sonic - Eijkelkamp CRS-XL-140 Duo
Guard Pipe	☐	Roadway Box	☐

CONDITIONS

DTW: 15.65 ft

20 ft

(Bottom of Exploration)
(Numbers refer to depth from ground surface in feet)



Type of protective cover/lock (circle one): Pent.bolt 9/16" hex. 1/2" hex. 7/10" hex.

Padlock key no.__________

Height/Depth of top of guard pipe/roadway box above/below ground surface	0.0	ft
Height/Depth of top of riser pipe above/below ground surface	0.5	ft
Depth of bottom of guard pipe/roadway box	1.0	ft
Type of riser pipe:	Solid PVC	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	#0 Filter Sand	
Depth to top of well screen	10.0	ft
Type of screen	Machine Slotted PVC	
Screen gauge or size of openings	0.010	in
Diameter of screen	2.0	in
Depth of bottom of well screen	20	ft
Depth of bottom of borehole	20.3	ft

(Not to Scale)

10 ft + 10 ft = 20 ft
Riser Pay Length (L1) + Length of Screen (L2) = Pay length

COMMENTS:

Form 2007

PERMANENT WELL INSTALLATION REPORT

Well No.	MW-09
Boring No.	HA-09

PROJECT	556 Baltic Street Site	**H&A FILE NO.**	204090
LOCATION	556 Baltic Street, Brooklyn NY	**PROJECT MGR.**	L. McCartney
CLIENT	159 Third Realty LLC	**FIELD REP.**	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	**DATE INSTALLED**	2/8/2023
DRILLER	P. Slavin	**WATER LEVEL**	14.49

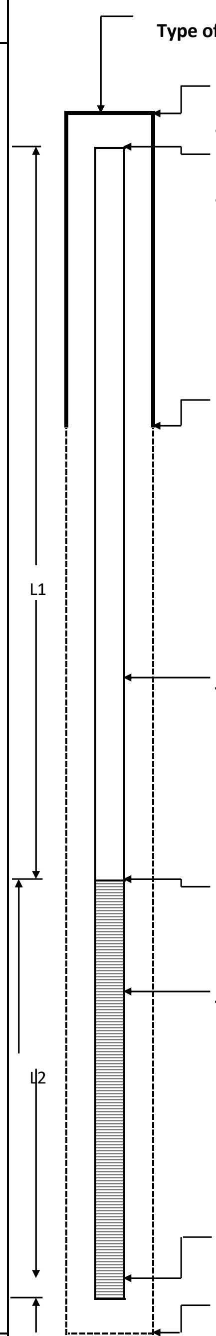
Ground El.	**21.89** ft	**Location**	556 Baltic Street	**Drilling Equipment**		**Guard Pipe**	☐
El. Datum	**NAVD**		Brooklyn, NY		Geoprobe 6610 DT	**Roadway Box**	☐

CONDITIONS

DTW: 14.49 ft

20 ft

(Bottom of Exploration)
(Numbers refer to depth from ground surface in feet)



Type of protective cover/lock (circle one): Pent.bolt 9/16" hex. 1/2" hex. 7/10" hex.

Padlock key no.__________

Height/Depth of top of guard pipe/roadway box above/below ground surface	0.0	ft
Height/Depth of top of riser pipe above/below ground surface	0.5	ft
Depth of bottom of guard pipe/roadway box	1.0	ft
Type of riser pipe:	Solid PVC	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	#0 Filter Sand	
Depth to top of well screen	10.0	ft
Type of screen	Machine Slotted PVC	
Screen gauge or size of openings	0.010	in
Diameter of screen	2.0	in
Depth of bottom of well screen	20	ft
Depth of bottom of borehole	20.3	ft

(Not to Scale)

10 ft	+	10 ft	=	20 ft
Riser Pay Length (L1)		Length of Screen (L2)		Pay length

COMMENTS:

Form 2007

APPENDIX E
Groundwater Sampling Logs

Groundwater Purge/Sample Log

LOW-FLOW GROUNDWATER SAMPLING RECORD

PROJECT	556 Baltic Street	H&A FILE NO.	0204090
LOCATION	556 Baltic Street, Brooklyn, NY	PROJECT MGR.	L. McCartney
CLIENT	159 Third Realty LLC	FIELD REP	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	DATE	2/16/2023

GROUNDWATER SAMPLING INFORMATION

Well ID:	MW-01	**Well Volume:**	0.91 gallons	**Start Time:**	7:55
Well Depth:	20.31	**Equipment:**	Peristaltic Pump / YSI	**Sample Time:**	8:55
Depth to Water:	14.71				

Time	Volume purged, gallons	Temp, C (+/-3%)	Conductivity, us/cm (+/- 3%)	Dissolved Oxygen, mg/L (+/-10%)	pH (+/-0.1)	ORP/eH, mv (+/-10mv)	Turbidity, NTU	Depth to Water (ft)
7:55	-	16.24	2756	1.62	7.12	-104.9	404.9	14.71
8:00	0.5	16.13	2727	1.3	7.13	-112.6	738.7	15.48
8:05	1	16.17	2757	0.5	7.04	-118.8	837.7	15.74
8:10	1.5	16.18	3026	0.46	6.96	-119.1	414	15.98
8:15	2	16.13	3048	0.54	6.94	-119.4	391.2	16.1
8:20	2.5	16.8	3047	0.64	6.94	-116.8	258.7	16.27
8:25	3	15.71	3006	0.94	6.93	-111.2	119.8	16.35
8:30	3.5	16.26	3027	0.91	6.93	-109.1	64.6	16.38
8:35	4	16.33	3003	0.89	6.93	-107.8	38.2	16.41
8:40	4.5	16.38	2992	0.88	6.93	-105.3	24.9	16.44
8:45	5	16.37	2982	0.88	6.93	-104.6	13.2	16.48
8:50	5.5	16.36	2984	0.87	6.93	-103.8	9.8	16.51
8:55	6	16.33	2985	0.87	6.93	-103.1	8.2	16.55

Groundwater Purge/Sample Log

LOW-FLOW GROUNDWATER SAMPLING RECORD

PROJECT	556 Baltic Street	**H&A FILE NO.**	0204090
LOCATION	556 Baltic Street, Brooklyn, NY	**PROJECT MGR.**	L. McCartney
CLIENT	159 Third Realty LLC	**FIELD REP**	S. Sotomayor, N. Mooney
CONTRACTOR	Coastal Environmental Solutions	**DATE**	2/10/2023

GROUNDWATER SAMPLING INFORMATION

Well ID:	MW-02	**Well Volume:**	0.87 gallons	**Start Time:**	13:35
Well Depth:	20.18	**Equipment:**	Peristaltic Pump / YSI	**Sample Time:**	15:10
Depth to Water:	14.86				

Time	Volume purged, gallons	Temp, C (+/-3%)	Conductivity, us/cm (+/- 3%)	Dissolved Oxygen, mg/L (+/-10%)	pH (+/-0.1)	ORP/eH, mv (+/-10mv)	Turbidity, NTU	Depth to Water (ft)
13:40	0.7	17.48	973	1.53	7.58	-147.6	676.6	16.54
13:45	1.3	17.62	917	1.77	7.47	-154	644.1	16.92
13:50	1.9	17.6	889	0.78	7.33	-146.5	137.5	16.91
13:55	2.6	17.56	836	0.67	7.31	-141.7	106.7	16.91
14:00	3.2	17.47	851	0.57	7.25	-138.2	43	17.28
14:05	3.9	17.71	889	0.4	7.22	-139.6	830	17.81
14:10	4.5	17.64	875	0.49	7.19	-131.9	102.4	17.72
14:15	5.2	17.66	867	0.5	7.18	-129	107.6	17.58
14:20	5.8	17.66	873	0.5	7.16	-127.5	59.2	17.64
14:25	6.5	17.69	879	0.45	7.15	-127.4	50.5	17.65
14:30	7.1	17.67	883	0.45	7.13	-129	78.8	17.65
14:35	7.8	17.68	889	0.45	7.12	-126.1	80.8	17.72
14:40	8.4	17.67	891	0.45	7.12	-125.5	70.4	17.77
14:45	9.1	17.67	902	0.55	7.1	-123.2	38.6	17.77
14:50	9.7	17.69	896	0.52	7.1	-121.8	19.8	17.76
14:55	10.4	17.65	903	0.53	7.09	-120	9.2	17.77
15:00	11.0	17.66	901	0.5	7.08	-118.7	9.6	17.78
15:05	11.7	17.67	900	0.51	7.08	-118.2	7.8	17.77

Groundwater Purge/Sample Log

LOW-FLOW GROUNDWATER SAMPLING RECORD

PROJECT	556 Baltic Street	H&A FILE NO.	0204090
LOCATION	556 Baltic Street, Brooklyn, NY	PROJECT MGR.	L. McCartney
CLIENT	159 Third Realty LLC	FIELD REP	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	DATE	2/16/2023

GROUNDWATER SAMPLING INFORMATION

Well ID:	MW-03	Well Volume:	0.89 gallons	Start Time:	9:25
Well Depth:	20.09	Equipment:	Peristaltic Pump / YSI	Sample Time:	10:20
Depth to Water:	14.61				

Time	Volume purged, gallons	Temp, C (+/-3%)	Conductivity, us/cm (+/- 3%)	Dissolved Oxygen, mg/L (+/- 10%)	pH (+/-0.1)	ORP/eH, mv (+/-10mv)	Turbidity, NTU	Depth to Water (ft)
9:25	-	15.5	3110	1.2	7.19	-112.6	982.2	14.61
9:30	0.4	15.24	1470	0.53	7.18	-118.2	470.7	15.2
9:35	0.9	15.34	1361	0.39	7.07	-113.3	231.1	15.26
9:40	1.5	15.37	1393	0.34	7.04	-114.8	143	15.33
9:45	2.1	15.42	1412	0.37	7.03	-116.9	78.2	15.39
9:50	2.6	15.46	1411	0.3	7.03	-119.5	38.1	15.44
9:55	3.2	15.46	1413	0.35	7.02	-121.3	27	15.58
10:00	3.7	15.47	1416	0.41	7.01	-123.7	19.4	15.67
10:05	4.2	15.48	1413	0.33	7	-125.5	11.2	15.67
10:10	4.6	15.49	1418	0.32	7.01	-127.1	8.9	15.67
10:15	5	15.49	1415	0.32	7.01	-127.3	8.2	15.67
10:20	5.4	15.5	1416	0.31	7.01	-127.9	8	15.67

Groundwater Purge/Sample Log

LOW-FLOW GROUNDWATER SAMPLING RECORD

PROJECT	556 Baltic Street	H&A FILE NO.	0204090
LOCATION	556 Baltic Street, Brooklyn, NY	PROJECT MGR.	L. McCartney
CLIENT	159 Third Realty LLC	FIELD REP	S. Sotomayor, N. Mooney
CONTRACTOR	Coastal Environmental Solutions	DATE	2/10/2023

GROUNDWATER SAMPLING INFORMATION

Well ID:	MW-04	**Well Volume:**	0.74 gallons	**Start Time:**	12:00
Well Depth:	19.73	**Equipment:**	Peristaltic Pump / YSI	**Sample Time:**	12:40
Depth to Water:	15.17				

Time	Volume purged, gallons	Temp, C (+/-3%)	Conductivity, us/cm (+/- 3%)	Dissolved Oxygen, mg/L (+/- 10%)	pH (+/-0.1)	ORP/eH, mv (+/-10mv)	Turbidity, NTU	Depth to Water (ft)
12:05	0.7	17.63	1105	0.48	7.11	-125.7	80.4	15.24
12:10	1.3	17.66	1022	0.38	7.12	-125.1	15.8	15.25
12:15	1.9	17.59	1011	0.33	7.1	-128.6	11.7	15.25
12:20	2.5	17.63	1015	0.31	7.12	-129.5	10.3	15.25
12:25	3.2	17.61	1017	0.29	7.11	-131.2	3.3	15.25
12:30	3.8	17.64	1017	0.31	7.12	-131.8	1.9	15.25
12:35	4.5	17.6	1016	0.3	7.11	-131.6	1.5	15.25

Groundwater Purge/Sample Log

LOW-FLOW GROUNDWATER SAMPLING RECORD

PROJECT	556 Baltic Street	H&A FILE NO.	0204090
LOCATION	556 Baltic Street, Brooklyn, NY	PROJECT MGR.	L. McCartney
CLIENT	159 Third Realty LLC	FIELD REP	S. Sotomayor, N. Mooney
CONTRACTOR	Coastal Environmental Solutions	DATE	2/10/2023

GROUNDWATER SAMPLING INFORMATION

Well ID:	MW-05	Well Volume:	0.93 gallons	Start Time:	10:20
Well Depth:	20.38	Equipment:	Peristaltic Pump / YSI	Sample Time:	11:05
Depth to Water:	14.7				

Time	Volume purged, gallons	Temp, C (+/-3%)	Conductivity, us/cm (+/- 3%)	Dissolved Oxygen, mg/L (+/-10%)	pH (+/-0.1)	ORP/eH, mv (+/-10mv)	Turbidity, NTU	Depth to Water (ft)
10:25	0.7	16.93	862	0.69	7.07	-89	151.3	15.1
10:30	1.3	16.82	834	0.48	7.21	-109.4	42.3	15.1
10:35	2.0	16.81	832	0.41	7.29	-125.9	24.8	15.11
10:40	2.6	16.84	826	0.36	7.33	-138.4	14.2	15.12
10:45	3.3	17	816	0.34	7.34	-143.7	14.7	15.2
10:50	3.9	17	833	0.36	7.34	-146	9.4	15.24
10:55	4.6	16.93	834	0.36	7.33	-146.7	8.9	15.21
11:00	5.2	16.95	830	0.37	7.33	-145.5	8.2	15.21

Groundwater Purge/Sample Log

LOW-FLOW GROUNDWATER SAMPLING RECORD

PROJECT	556 Baltic Street	H&A FILE NO.	0204090
LOCATION	556 Baltic Street, Brooklyn, NY	PROJECT MGR.	L. McCartney
CLIENT	159 Third Realty LLC	FIELD REP	S. Sotomayor, N. Mooney
CONTRACTOR	Coastal Environmental Solutions	DATE	2/10/2023

GROUNDWATER SAMPLING INFORMATION

Well ID:	MW-06	Well Volume:	0.65 gallons	Start Time:	12:10
Well Depth:	19.42	Equipment:	Peristalic Pump / YSI	Sample Time:	13:00
Depth to Water:	15.42				

*Turbidity meter malfunction: Readings registering at above or below 50 NTU; visual observations of consistently clear purge water and stabilization of all parameters noted for final three readings

Time	Volume purged, gallons	Temp, C (+/-3%)	Conductivity, us/cm (+/- 3%)	Dissolved Oxygen, mg/L (+/-10%)	pH (+/-0.1)	ORP/eH, mv (+/-10mv)	Turbidity, NTU	Depth to Water (ft)
12:15	0.5	17.1	262.4	0.5	7.47	-128.1	>50 NTU	15.49
12:20	0.9	17.1	264.5	0.27	7.47	-136.2	>50 NTU	15.48
12:25	1.3	17	263.5	0.23	7.48	-140.7	>50 NTU	15.48
12:30	1.6	17	264.4	0.19	7.48	-141.2	>50 NTU	15.48
12:35	2	16.9	262.6	0.19	7.48	-140.9	>50 NTU	15.48
12:40	2.4	17	254.5	0.12	7.48	-143.1	>50 NTU	15.48
12:45	2.8	17.3	267.8	0.14	7.47	-141.9	<50 NTU	15.48
12:50	3.2	17.3	265.4	0.13	7.47	-142.3	<50 NTU	15.48
12:55	3.6	17.3	266	0.13	7.48	-143.8	<50 NTU	15.48

Groundwater Purge/Sample Log

LOW-FLOW GROUNDWATER SAMPLING RECORD

PROJECT	556 Baltic Street	H&A FILE NO.	0204090
LOCATION	556 Baltic Street, Brooklyn, NY	PROJECT MGR.	L. McCartney
CLIENT	159 Third Realty LLC	FIELD REP	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	DATE	2/16/2023

GROUNDWATER SAMPLING INFORMATION

Well ID:	MW-07	Well Volume:	0.50 gallons	Start Time:	10:50
Well Depth:	18.07	Equipment:	Peristaltic Pump / YSI	Sample Time:	11:25
Depth to Water:	14.98				

Time	Volume purged, gallons	Temp, C (+/-3%)	Conductivity, us/cm (+/- 3%)	Dissolved Oxygen, mg/L (+/-10%)	pH (+/-0.1)	ORP/eH, mv (+/-10mv)	Turbidity, NTU	Depth to Water (ft)
10:50	-	17.28	429	1.71	7.27	1.4	593.6	14.98
10:55	0.5	17.23	406	0.63	6.79	-14.6	37.5	15.21
11:00	1	17.24	404	0.54	6.76	-13.7	8.9	15.38
11:05	1.5	17.25	403	0.59	6.74	-13.7	5.1	15.51
11:10	2	17.25	402	0.65	6.73	-13.8	4	15.6
11:15	2.5	17.26	401	0.52	6.72	-13.2	3.6	15.69
11:20	3	17.26	401	0.49	6.72	-13	3.7	15.78
11:25	3.5	17.26	400	0.48	6.72	-12.9	3.5	15.83

LOW-FLOW GROUNDWATER SAMPLING RECORD

PROJECT	556 Baltic Street	H&A FILE NO.	0204090
LOCATION	556 Baltic Street, Brooklyn, NY	PROJECT MGR.	L. McCartney
CLIENT	159 Third Realty LLC	FIELD REP	S. Sotomayor, N. Mooney
CONTRACTOR	Coastal Environmental Solutions	DATE	2/10/2023

GROUNDWATER SAMPLING INFORMATION

Well ID:	MW-08	Well Volume:	0.62 gallons	Start Time:	8:35
Well Depth:	19.25	Equipment:	Peristalic Pump / YSI	Sample Time:	9:15
Depth to Water:	15.48				

*Turbidity meter malfunction: Readings registering at above or below 50 NTU; visual observations of consistently clear purge water and stabilization of all parameters noted for final three readings

Time	Volume purged, gallons	Temp, C (+/-3%)	Conductivity, us/cm (+/- 3%)	Dissolved Oxygen, mg/L (+/- 10%)	pH (+/-0.1)	ORP/eH, mv (+/-10mv)	Turbidity, NTU	Depth to Water (ft)
8:40	0.6	18.1	323.6	0.11	7.41	-140.7	>50 NTU	15.6
8:45	1.2	17.9	326.2	0.11	7.37	-141.9	>50 NTU	15.57
8:50	1.8	17.8	325.8	0.11	7.37	-142.9	>50 NTU	15.56
8:55	2.4	17.9	326.4	0.1	7.37	-144.5	>50 NTU	15.57
9:00	3.0	17.8	317.9	0.1	7.37	-143.6	<50 NTU	15.57
9:05	3.6	17.8	320.5	0.1	7.37	-143.4	<50 NTU	15.57
9:10	4.2	17.8	324.4	0.1	7.37	-143.2	<50 NTU	15.57

Groundwater Purge/Sample Log

LOW-FLOW GROUNDWATER SAMPLING RECORD

PROJECT	556 Baltic Street	**H&A FILE NO.**	0204090
LOCATION	556 Baltic Street, Brooklyn, NY	**PROJECT MGR.**	L. McCartney
CLIENT	159 Third Realty LLC	**FIELD REP**	S. Sotomayor
CONTRACTOR	Coastal Environmental Solutions	**DATE**	2/16/2023

GROUNDWATER SAMPLING INFORMATION

Well ID:	MW-09	**Well Volume:**	0.91 gallons	**Start Time:**	12:00
Well Depth:	20.04	**Equipment:**	Peristaltic Pump / YSI	**Sample Time:**	13:10
Depth to Water:	14.49				

Time	Volume purged, gallons	Temp, C (+/-3%)	Conductivity, us/cm (+/- 3%)	Dissolved Oxygen, mg/L (+/- 10%)	pH (+/-0.1)	ORP/eH, mv (+/-10mv)	Turbidity, NTU	Depth to Water (ft)
12:00	-	16.45	838	3.23	7.57	47.6	480.7	14.49
12:05	0.5	16.44	781	2.27	7.44	7.2	369.1	14.56
12:10	1	16.43	749	1.16	7.39	-38.4	338.4	14.63
12:15	1.5	16.45	722	0.66	7.36	-58.9	205.5	14.88
12:20	2	16.47	714	0.67	7.35	-65.3	193.1	15.05
12:25	2.5	16.48	711	0.68	7.34	-71.4	155.7	15.16
12:30	3	16.49	706	0.68	7.34	-79.4	128	15.16
12:35	3.5	16.48	705	0.55	7.34	-85	67	15.16
12:40	4	16.48	706	0.51	7.34	-86.9	54.9	15.16
12:45	4.5	16.46	704	0.49	7.34	-88.1	43.8	15.16
12:50	5	16.44	703	0.47	7.34	-89.7	36.1	15.16
12:55	5.5	16.46	704	0.43	7.34	-92	29.9	15.16
13:00	6	16.45	704	0.4	7.34	-92.2	22	15.16
13:05	6.5	16.44	703	0.39	7.34	-92.4	13.1	15.16
13:10	7	16.44	703	0.39	7.34	-92.6	7.8	15.16

APPENDIX F
Monitoring Well Survey

DPK LAND SURVEYING

200 Metroplex Drive Suite-285 Edison, New Jersey 08817

Telephone: 732.764.0100 Fax: 732.764.0990 Email: Jheiser@dpkconsulting.net

For: Haley & Aldrich of New York

Site: 556 Baltic Street, Brooklyn, Kings County, New York

Date of Survey: February 16, 2023

Project #23-9840 February 21, 2023

Horizontal Datum: N.Y. LONG ISLAND STATE PLANE COORDINATE GRID (NAD 83)

Vertical Datum: NAVD 88

BENCHMARK: NYBR BROOKLYN PIER CORS AR ELEV=42.13' (NAVD 88)

Additional Information:

	ELEVATIONS			COORDINATES				
MONITORING WELLS	GROUND	RIM	PVC	NORTHING	EASTING	LATITUDE (N)	LONGITUDE (W)	DATE OF SURVEY
HA-01/MW-1	20.95 CONC	20.93	20.61	187351	988820	40°40'51.28"	73°59'00.69"	2/14/2023
HA-02/MW-2	21.23 CONC	21.22	20.95	187362	988847	40°40'51.38"	73°59'00.33"	2/14/2023
HA-03/MW-3	21.51 CONC	21.52	21.28	187396	988848	40°40'51.73"	73°59'00.32"	2/14/2023
HA-04/MW-4	21.77 CONC	21.77	21.46	187409	988875	40°40'51.85"	73°58'59.96"	2/14/2023
HA-05/MW-5	22.04 PAVE	22.03	21.82	187452	988875	40°40'52.28"	73°58'59.97"	2/14/2023
HA-06/MW-6	22.21 PAVE	22.19	21.71	187418	988917	40°40'51.94"	73°58'59.42"	2/6/2023
HA-07/MW-7	21.93 CONC	21.93	21.51	187482	988912	40°40'52.58"	73°58'59.49"	2/14/2023
HA-08/MW-8	22.31 PAVE	22.30	22.09	187467	988956	40°40'52.43"	73°58'58.92"	2/6/2023
MW-9	21.89 PAVE	21.90	21.62	187492	988898	40°40'52.68"	73°58'59.68"	2/14/2023

APPENDIX G
Synoptic Monitoring Well Gauging Log

Synoptic Monitoring Well Gauging Log

PROJECT	556 Baltic Street Site
LOCATION	556 Baltic Street, Brooklyn NY
CLIENT	159 Third Realty LLC
H&A FILE NO.	204090
PROJECT MANAGER	Luke McCartney
FIELD REP.	S. Sotomayor
GAUGING DATE	2/16/2023
WEATHER	Partly Cloudy, 50° F

MONITORING WELL ID	TIME	DEPTH TO WATER (FT BELOW TOC)	TOP OF CASING ELEVATION (FT)	GROUNDWATER ELEVATION (FT)
MW-01	7:23	14.71	20.61	5.90
MW-02	7:25	15.05	20.95	5.90
MW-03	7:27	14.61	21.28	6.67
MW-04	7:29	15.37	21.46	6.09
MW-05	7:32	14.95	21.82	6.87
MW-06	7:35	15.55	21.71	6.16
MW-07	7:38	14.98	21.51	6.53
MW-08	7:40	15.69	22.09	6.40
MW-09	7:43	14.49	21.62	7.13

Comments:

1. Monitoring wells MW-01 through MW-09 were surveyed by DPK Land Surveying LLC on 6 and 14 February 2023.
2. Wells were gauged on 16 February 2023
3. Elevation refers to the North American Vertical Datum of 1988 (NAVD88).
4. All dimensions are in US survey feet.

APPENDIX H
Soil Vapor Sampling Logs

SOIL VAPOR SAMPLING LOG

Remedial Investigation - 556 Baltic Street, Brooklyn, NY

Site: 556 Baltic Street Site
Date Collected: 2/10/23 & 2/13/23
Personnel: S. Sotomayor & N. Manzione
Weather: Sunny 50° F
Humidity: 50%

Sample ID	Canister ID	Caniser 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
VP-01	2519	2.72	01446	11:50	-29.93	13:22	-0.21	2/13/2023	Soil Vapor	TO-15
VP-02	522	2.72	02095	13:15	-30.09	14:55	-7.81	2/13/2023	Soil Vapor	TO-15
VP-03	2601	2.72	01937	10:02	-29.81	12:02	-4.88	2/10/2023	Soil Vapor	TO-15
VP-04	3430	2.72	01099	9:36	-30.43	11:36	-4.12	2/10/2023	Soil Vapor	TO-15
VP-05	2229	2.72	0680	9:27	-30.12	11:20	-0.70	2/10/2023	Soil Vapor	TO-15
VP-06	3732	2.72	01098	11:45	-29.88	13:45	-5.40	2/13/2023	Soil Vapor	TO-15
VP-07	334	2.72	01323	9:43	-30.35	11:58	-2.66	2/10/2023	Soil Vapor	TO-15
VP-08	2552	2.72	01822	10:28	-29.90	12:28	-3.57	2/10/2023	Soil Vapor	TO-15

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

APPENDIX I
Analytical Laboratory Reports (Sharefile Link)

APPENDIX J
Data Usability Summary Reports

Haley & Aldrich, Inc.
600 South Meyer Ave
Suite 100
Tucson, AZ 85701
520.289.8621

Data Usability Summary Report

Project Name: 556 Baltic Street Site RIR

Project Description: Soil Samples, non-PFAS

Sample Date(s): 1 through 13 February 2023

Analytical Laboratory: Alpha Analytical – Westborough, MA

Validation Performed by: Kathryn Lindenschmidt

Validation Reviewed by: Katherine Miller

Validation Date: 17 March 2023

Haley & Aldrich, Inc. prepared this Data Usability Summary Report (DUSR) to summarize the review and validation of the analytical results for Sample Delivery Group(s) (SDG) listed. This DUSR is organized into the following sections:

1. **Sample Delivery Group Numbers**
2. **Explanations**
3. **Glossary**
4. **Abbreviations**
5. **Qualifiers**

References

This data validation and usability assessment was performed per the guidance and requirements established by the United States Environmental Protection Agency (USEPA) using the following reference materials:

- National Functional Guidelines (NFG) for Inorganic Data Review.
- National Functional Guidelines (NFG) for Organic Data Review.

Data reported in this sampling event were reported to the laboratory method detection limit (MDL). Results found between the MDL and reporting limit (RL) are flagged J as estimated.

Sample data were qualified in accordance with the laboratory's standard operating procedures (SOP). The results presented in each laboratory report were found to be compliant with the data quality objectives (DQO) for the project and therefore usable; any exceptions are noted in the following pages.

1. Sample Delivery Group Numbers

1.1 SAMPLE MANAGEMENT

This DUSR summarizes the review of SDG number:

- L2305570, dated 7 March 2023,
- L2305934, dated 7 March 2023,
- L2305935, dated 8 February 2023,
- L2306883, dated 6 March 2023,
- L2307196, dated 13 March 2023,
- L2307511, dated 9 March 2023,
- L2307512, dated 16 February 2023,
- L2307677, dated 13 March 2023, and
- L2310952, dated 7 March 2023.

Samples were collected, preserved, and shipped following standard chain of custody (COC) protocol. Samples were also received appropriately, identified correctly, and analyzed according to the COC. Issues noted with sample management are listed below:

- In SDG L2305570 a sample container for total cyanide was received for sample L2305570-21 but was not listed on the COC. Sample was not analyzed per request.
- In SDG L2305934 a sample container for Toxicity Characteristic Leaching Procedure (TCLP) metals was received for sample L2305934-10 but was not listed on the COC. Sample was not analyzed per request.
- In SDG L2307196 a sample container for TCLP metals was received for sample L2307196-17 but was not listed on the COC. Sample was not analyzed per request.
- Custody seals were not used when samples were dropped off at the laboratory or service center by the field staff, submitted to a laboratory-provided courier, or when transported between subcontracted laboratories.
- Per- and Polyfluoroalkyl Substances (PFAS) analyses listed in COC are presented in a separate DUSR.

Analyses were performed on the following samples:

Sample ID	Sample Type	Lab ID	Sample Date	Matrix	Methods
HA-06 (2-4)	N	L2305570-01	02/01/2023	SO	A, B, C, D, E, F, G
HA-06 (6-8)	N	L2305570-02	02/01/2023	SO	A, B, C, D, E, F, G
HA-06 (10-12)	N	L2305570-03	02/01/2023	SO	A, B, C, D, E, F, G
HA-06 (14-16)	N	L2305570-04	02/01/2023	SO	A, B, C, D, E, F, G
HA-08 (2-4)	N	L2305570-05	02/01/2023	SO	A, B, C, D, E, F, G

Sample ID	Sample Type	Lab ID	Sample Date	Matrix	Methods
HA-08 (6-8)	N	L2305570-06	02/01/2023	SO	A, B, C, D, E, F, G
HA-08 (10-12)	N	L2305570-07	02/01/2023	SO	A, B, C, D, E, F, G
HA-08 (14-16)	N	L2305570-08	02/01/2023	SO	A, B, C, D, E, F, G
HA-14 (2-4)	N	L2305570-09	02/01/2023	SO	A, B, C, D, E, F, G
HA-14 (6-8)	N	L2305570-10	02/01/2023	SO	A, B, C, D, E, F, G
HA-14 (10-12)	N	L2305570-11	02/01/2023	SO	A, B, C, D, E, F, G
HA-14 (14-16)	N	L2305570-12	02/01/2023	SO	A, B, C, D, E, F, G
HA-15 (2-4)	N	L2305570-13	02/01/2023	SO	A, B, C, D, E, F, G
HA-15 (6-8)	N	L2305570-14	02/01/2023	SO	A, B, C, D, E, F, G
HA-15 (10-12)	N	L2305570-15	02/01/2023	SO	A, B, C, D, E, F, G
HA-15 (14-16)	N	L2305570-16	02/01/2023	SO	A, B, C, D, E, F, G
HA-16 (2-4)	N	L2305570-17	02/01/2023	SO	A, B, C, D, E, F, G
HA-16 (6-8)	N	L2305570-18	02/01/2023	SO	A, B, C, D, E, F, G
HA-16 (10-12)	N	L2305570-19	02/01/2023	SO	A, B, C, D, E, F, G
HA-16 (14-16)	N	L2305570-20	02/01/2023	SO	A, B, C, D, E, F, G
FIELD BLANK 02012023	FB	L2305570-21	02/01/2023	WQ	D, E, F, G, H, I, J
TRIP BLANK	TB	L2305570-22	02/01/2023	WQ	F
HA-04 (2-4)	N	L2305934-01	02/02/2023	SO	A, B, C, D, E, F, G
HA-04 (6-8)	N	L2305934-02	02/02/2023	SO	A, B, C, D, E, F, G
HA-04 (10-12)	N	L2305934-03	02/02/2023	SO	A, B, C, D, E, F, G
HA-04 (14-16)	N	L2305934-04	02/02/2023	SO	A, B, C, D, E, F, G
HA-05 (2-4)	N	L2305934-05	02/02/2023	SO	A, B, C, D, E, F, G
HA-05 (6-8)	N	L2305934-06	02/02/2023	SO	A, B, C, D, E, F, G
HA-05 (10-12)	N	L2305934-07	02/02/2023	SO	A, B, C, D, E, F, G
HA-05 (14-16)	N	L2305934-08	02/02/2023	SO	A, B, C, D, E, F, G
DUP_1_02022023	FD	L2305934-09	02/02/2023	SO	A, B, C, D, E, F, G
FIELD BLANK 02022023	FB	L2305934-10	02/02/2023	WQ	D, E, F, G, H, I, J
TRIP BLANK	TB	L2305934-11	02/02/2023	WQ	F
HA-24 (0-2)	N	L2305935-01	02/02/2023	SO	A, B, K
HA-24 (2-4)	N	L2305935-02	02/02/2023	SO	A, B, K
HA-24 (4-6)	N	L2305935-03	02/02/2023	SO	A, B, K
HA-25 (10-12)	N	L2305935-04	02/02/2023	SO	A, C, L
HA-25 (12-14)	N	L2305935-05	02/02/2023	SO	A, C, L
HA-25 (14-16)	N	L2305935-06	02/02/2023	SO	A, C, L
HA-01 (2-4)	N	L2306883-01	02/08/2023	SO	A, B, C, D, E, F, G
HA-01 (6-8)	N	L2306883-02	02/08/2023	SO	A, B, C, D, E, F, G
HA-01 (10-12)	N	L2306883-03	02/08/2023	SO	A, B, C, D, E, F, G
HA-01 (14-16)	N	L2306883-04	02/08/2023	SO	A, B, C, D, E, F, G
HA-02 (2-4)	N	L2306883-05	02/08/2023	SO	A, B, C, D, E, F, G
HA-02 (6-8)	N	L2306883-06	02/08/2023	SO	A, B, C, D, E, F, G

Sample ID	Sample Type	Lab ID	Sample Date	Matrix	Methods
HA-02 (10-12)	N	L2306883-07	02/08/2023	SO	A, B, C, D, E, F, G
HA-02 (14-16)	N	L2306883-08	02/08/2023	SO	A, B, C, D, E, F, G
HA-10 (2-4)	N	L2306883-09	02/08/2023	SO	A, B, C, D, E, F, G
HA-10 (6-8)	N	L2306883-10	02/08/2023	SO	A, B, C, D, E, F, G
HA-10 (10-12)	N	L2306883-11	02/08/2023	SO	A, B, C, D, E, F, G
HA-10 (14-16)	N	L2306883-12	02/08/2023	SO	A, B, C, D, E, F, G
HA-17 (2-4)	N	L2306883-13	02/08/2023	SO	A, B, C, D, E, F, G
HA-17 (6-8)	N	L2306883-14	02/08/2023	SO	A, B, C, D, E, F, G
HA-17 (10-12)	N	L2306883-15	02/08/2023	SO	A, B, C, D, E, F, G
HA-17 (14-16)	N	L2306883-16	02/08/2023	SO	A, B, C, D, E, F, G
HA-19 (2-4)	N	L2306883-17	02/08/2023	SO	A, B, C, D, E, F, G
HA-19 (6-8)	N	L2306883-18	02/08/2023	SO	A, B, C, D, E, F, G
HA-19 (10-12)	N	L2306883-19	02/08/2023	SO	A, B, C, D, E, F, G
HA-19 (14-16)	N	L2306883-20	02/08/2023	SO	A, B, C, D, E, F, G
HA-19 (20-22)	N	L2306883-21	02/08/2023	SO	A, B, C, D, E, F, G
HA-21 (2-4)	N	L2306883-22	02/08/2023	SO	A, B, C, D, E, F, G
HA-21 (6-8)	N	L2306883-23	02/08/2023	SO	A, B, C, D, E, F, G
HA-21 (10-12)	N	L2306883-24	02/08/2023	SO	A, B, C, D, E, F, G
HA-21 (14-16)	N	L2306883-25	02/08/2023	SO	A, B, C, D, E, F, G
HA-21 (20-22)	N	L2306883-26	02/08/2023	SO	A, B, C, D, E, F, G
DUP_1_02082023	FD	L2306883-27	02/08/2023	SO	A, B, C, D, E, F, G
FIELD BLANK 02082023	FB	L2306883-28	02/08/2023	WQ	D, E, F, G, H, I, J
TRIP BLANK	TB	L2306883-29	02/08/2023	WQ	F
HA-07 (2-4)	N	L2307196-01	02/09/2023	SO	A, B, C, D, E, F, G
HA-07 (6-8)	N	L2307196-02	02/09/2023	SO	A, B, C, D, E, F, G
HA-07 (10-12)	N	L2307196-03	02/09/2023	SO	A, B, C, D, E, F, G
HA-07 (14-16)	N	L2307196-04	02/09/2023	SO	A, B, C, D, E, F, G
HA-09 (2-4)	N	L2307196-05	02/09/2023	SO	A, B, C, D, E, F, G
HA-09 (6-8)	N	L2307196-06	02/09/2023	SO	A, B, C, D, E, F, G
HA-09 (10-12)	N	L2307196-07	02/09/2023	SO	A, B, C, D, E, F, G
HA-09 (14-16)	N	L2307196-08	02/09/2023	SO	A, B, C, D, E, F, G
HA-11 (2-4)	N	L2307196-09	02/09/2023	SO	A, B, C, D, E, F, G
HA-11 (6-8)	N	L2307196-10	02/09/2023	SO	A, B, C, D, E, F, G
HA-11 (10-12)	N	L2307196-11	02/09/2023	SO	A, B, C, D, E, F, G
HA-11 (14-16)	N	L2307196-12	02/09/2023	SO	A, B, C, D, E, F, G
HA-12 (2-4)	N	L2307196-13	02/09/2023	SO	A, B, C, D, E, F, G
HA-12 (6-8)	N	L2307196-14	02/09/2023	SO	A, B, C, D, E, F, G
HA-12 (10-12)	N	L2307196-15	02/09/2023	SO	A, B, C, D, E, F, G
HA-12 (14-16)	N	L2307196-16	02/09/2023	SO	A, B, C, D, E, F, G
FIELD BLANK 02092023	FB	L2307196-17	02/09/2023	WQ	D, E, F, G, H, I, J

Sample ID	Sample Type	Lab ID	Sample Date	Matrix	Methods
TRIP BLANK	TB	L2307196-18	02/09/2023	WQ	F
HA-03 (2-4)	N	L2307511-01	02/10/2023	SO	A, B, C, D, E, F, G
HA-03 (6-8)	N	L2307511-02	02/10/2023	SO	A, B, C, D, E, F, G
HA-03 (10-12)	N	L2307511-03	02/10/2023	SO	A, B, C, D, E, F, G
HA-03 (14-16)	N	L2307511-04	02/10/2023	SO	A, B, C, D, E, F, G
HA-20 (2-4)	N	L2307511-05	02/10/2023	SO	A, B, C, D, E, F, G
HA-20 (6-8)	N	L2307511-06	02/10/2023	SO	A, B, C, D, E, F, G
HA-20 (10-12)	N	L2307511-07	02/10/2023	SO	A, B, C, D, E, F, G
HA-20 (14-16)	N	L2307511-08	02/10/2023	SO	A, B, C, D, E, F, G
TRIP BLANK	TB	L2307511-09	02/10/2023	WQ	F
HA-26 (11-13)	N	L2307512-01	02/10/2023	SO	A, C, L
HA-26 (13-15)	N	L2307512-02	02/10/2023	SO	A, C, L
HA-26 (15-17)	N	L2307512-03	02/10/2023	SO	A, C, L
DUP-1_02102023	FD	L2307512-04	02/10/2023	SO	A, C, L
DUP-2_02102023	FD	L2307512-05	02/10/2023	SO	A, C, L
FIELD BLANK_1_02102023	FB	L2307512-06	02/10/2023	WQ	I
FIELD BLANK_2_02102023	FB	L2307512-07	02/10/2023	WQ	I
HA-13 (2-4)	N	L2307677-01	02/13/2023	SO	A, B, C, D, E, F, G
HA-13 (6-8)	N	L2307677-02	02/13/2023	SO	A, B, C, D, E, F, G
HA-13 (10-12)	N	L2307677-03	02/13/2023	SO	A, B, C, D, E, F, G
HA-13 (14-16)	N	L2307677-04	02/13/2023	SO	A, B, C, D, E, F, G
HA-18 (2-4)	N	L2307677-05	02/13/2023	SO	A, B, C, D, E, F, G
HA-18 (6-8)	N	L2307677-06	02/13/2023	SO	A, B, C, D, E, F, G
HA-18 (10-12)	N	L2307677-07	02/13/2023	SO	A, B, C, D, E, F, G
HA-18 (14-16)	N	L2307677-08	02/13/2023	SO	A, B, C, D, E, F, G
DUP_1_02132023	FD	L2307677-09	02/13/2023	SO	A, B, C, D, E, F, G
HA-13 (2-4)	N	L2310952-01	02/13/2023	SO	K
HA-13 (6-8)	N	L2310952-02	02/13/2023	SO	K
HA-13 (10-12)	N	L2310952-03	02/13/2023	SO	K
HA-13 (14-16)	N	L2310952-04	02/13/2023	SO	K
HA-18 (2-4)	N	L2310952-05	02/13/2023	SO	K
HA-18 (6-8)	N	L2310952-06	02/13/2023	SO	K
HA-18 (10-12)	N	L2310952-07	02/13/2023	SO	K, L
HA-18 (14-16)	N	L2310952-08	02/13/2023	SO	K
DUP_1_02132023	FD	L2310952-09	02/13/2023	SO	K, L
HA-07 (2-4)	N	L2310952-10	02/09/2023	SO	K
HA-07 (6-8)	N	L2310952-11	02/09/2023	SO	K
HA-07 (10-12)	N	L2310952-12	02/09/2023	SO	K
HA-07 (14-16)	N	L2310952-13	02/09/2023	SO	K
HA-09 (6-8)	N	L2310952-14	02/09/2023	SO	K

Sample ID	Sample Type	Lab ID	Sample Date	Matrix	Methods
HA-09 (14-16)	N	L2310952-15	02/09/2023	SO	K
HA-11 (2-4)	N	L2310952-16	02/09/2023	SO	K
HA-11 (10-12)	N	L2310952-17	02/09/2023	SO	K
HA-11 (14-16)	N	L2310952-18	02/09/2023	SO	K
HA-12 (2-4)	N	L2310952-19	02/09/2023	SO	K
HA-12 (6-8)	N	L2310952-20	02/09/2023	SO	K
HA-12 (10-12)	N	L2310952-21	02/09/2023	SO	K
HA-03 (6-8)	N	L2310952-22	02/10/2023	SO	K
HA-03 (10-12)	N	L2310952-23	02/10/2023	SO	K
HA-20 (2-4)	N	L2310952-24	02/10/2023	SO	K
HA-20 (6-8)	N	L2310952-25	02/10/2023	SO	K
HA-20 (10-12)	N	L2310952-26	02/10/2023	SO	K
HA-01 (2-4)	N	L2310952-27	02/08/2023	SO	K
HA-01 (6-8)	N	L2310952-28	02/08/2023	SO	K
HA-01 (10-12)	N	L2310952-29	02/08/2023	SO	K
HA-02 (2-4)	N	L2310952-30	02/08/2023	SO	K
HA-02 (6-8)	N	L2310952-31	02/08/2023	SO	K
HA-02 (14-16)	N	L2310952-32	02/08/2023	SO	K
HA-10 (2-4)	N	L2310952-33	02/08/2023	SO	K
HA-10 (10-12)	N	L2310952-34	02/08/2023	SO	K
HA-10 (14-16)	N	L2310952-35	02/08/2023	SO	K
HA-17 (2-4)	N	L2310952-36	02/08/2023	SO	K
HA-17 (14-16)	N	L2310952-37	02/08/2023	SO	K
HA-19 (2-4)	N	L2310952-38	02/08/2023	SO	K
HA-19 (6-8)	N	L2310952-39	02/08/2023	SO	K
HA-19 (10-12)	N	L2310952-40	02/08/2023	SO	K, L
HA-19 (14-16)	N	L2310952-41	02/08/2023	SO	K
HA-21 (6-8)	N	L2310952-42	02/08/2023	SO	K
HA-21 (10-12)	N	L2310952-43	02/08/2023	SO	K
HA-21 (14-16)	N	L2310952-44	02/08/2023	SO	K
HA-21 (20-22)	N	L2310952-45	02/08/2023	SO	K, L
DUP_1_02082023	FD	L2310952-46	02/08/2023	SO	K
HA-21 (2-4)	N	L2310952-47	02/08/2023	SO	K

Method Holding Times			
A.	SM2540G	Total Solids	7 days for solid unpreserved
B.	SW6010D	Metals (by Optical Emission Spectrometry)	180 days for solid unpreserved
C.	SW7471B	Mercury (in Solids)	28 days extraction / 48 hours analysis for solid, unpreserved
D.	SW8081B	ORGANOCHLORINE PESTICIDES	14 days extraction/40 days analysis for solid, unpreserved
E.	SW8082A	Polychlorinated Biphenyls (PCBs)	14 days extraction/40 days analysis for solid, unpreserved
F.	SW8260D	Volatile Organic Compounds (VOCs)	14 days for solid, preserved 14 days for solid unpreserved
G.	SW8270E	Semivolatile Organic Compounds (SVOCs)	40 days analysis for solid, unpreserved
H.	SW6020B	Metals	180 days for liquid, preserved
I.	SW7470A	Mercury (in Liquids)	28 days extraction / 48 hours analysis for liquid, preserved
J.	SW8270ESIM	Semivolatile Organic Compounds (SVOCs)	7 days extraction / 40 days analysis for liquid, unpreserved
K.	SW6010DR	METALS, TCLP	180 days for solid, unpreserved
L.	SW7470AR	MERCURY, TCLP	28 days for solid, unpreserved

1.2 CASE NARRATIVE

The laboratory report case narrative lists various additional quality control issues such as internal standard exceedances. Since these additional quality control issues were not required for the project's data quality objectives, these quality control issues were not reviewed.

1.3 MULTIPLE SAMPLE RESULTS

The laboratory reported multiple results for the samples listed below. The validator chose the results that best met the DQO of the project.

Lab ID	Method	Analyte	Qualification
L2306883-08 L2306883-20	SW8260D	n-Propylbenzene	The laboratory reanalyzed the sample. The original results are marked nonreportable and the reanalysis results are accepted.
L2307511-03	SW8270E	Anthracene	
		Pyrene	
		Indeno(1,2,3-cd)pyrene	
		Benzo(b)fluoranthene	
		Fluoranthene	
		Chrysene	
		Benzo(a)pyrene	
		Benzo(a)anthracene	
		Phenanthrene	

Lab ID	Method	Analyte	Qualification
L2307511-04	SW8260D	1,2,4-Trimethylbenzene	The laboratory reanalyzed the sample. The original results are marked nonreportable and the reanalysis results are accepted.
		4-Ethyltoluene (1-Ethyl-4-Methylbenzene)	
L2305570-03	SW8260D	All Analytes	The sample was analyzed as a High Level Methanol in order to quantitate results within the calibration range. The results with the lowest reporting limit are reportable.
L2307196-03	SW8270E	All Analytes	The sample was reanalyzed due to low surrogate recovery. The original results are marked nonreportable and the reanalysis results are accepted.
L2307196-01	SW8270E	Pyrene	The laboratory reanalyzed the sample. The original results are marked nonreportable and the reanalysis results are accepted.
		Fluoranthene	
L2305570-05	SW8270E	Pyrene	
		Benzo(b)fluoranthene	
		Fluoranthene	
		Benzo(a)pyrene	
		Phenanthrene	
L2307196-15	SW8270E	Pyrene	
		Benzo(b)fluoranthene	
		Fluoranthene	
		Chrysene	
		Benzo(a)pyrene	
		Benzo(a)anthracene	
		Phenanthrene	
L2307196-14	SW8270E	Pyrene	The laboratory reanalyzed the sample. The original results are marked nonreportable and the reanalysis results are accepted.
		Benzo(b)fluoranthene	
		Fluoranthene	
		Chrysene	
		Benzo(a)pyrene	
		Benzo(a)anthracene	
		Acenaphthene	
		Phenanthrene	
L2306883-20	SW8260D	n-Propylbenzene	
L2306883-23	SW8270E	Pyrene	
		Fluoranthene	
		Phenanthrene	

1.4 HOLDING TIMES/PRESERVATION

The samples arrived at the laboratory at the proper temperature and were prepared and analyzed within the holding time and preservation criteria specified per method protocol with the following exceptions:

Method	Matrix	Holding Time	Preservation	Sample ID, Violation, Qualification
SW8260D	Soil	14 days for solid, preserved 14 days for solid unpreserved	Cool to ≤ 6 °C	The following samples were received in appropriate containers (vials) for the Volatile Organics by USEPA Method 5035/8260 analysis; however, they could not be used for analysis. A sample aliquot was taken from an unpreserved container (inappropriate plastic) and preserved appropriately. Samples were qualified J/UJ: L2307677-06 and -09

1.5 REPORTING LIMITS AND SAMPLE DILUTIONS

All sample dilutions were reviewed and found to be justified. Dilution of the project samples were required to bring calibration of target analytes within calibration range, matrix interference, foaming at the time of purging, or abundance of non-target analytes.

In cases when multiple sample dilution analyses were reported per sample, the reviewer chose the lowest dilution with results still within the calibration range and rejected the alternative result.

1.6 REPORTING BASIS (WET/DRY)

Refer to section E 1.1. Soil data in this SDG were reported on a dry weight basis.

Where reported, percent solid results were reviewed and found to be within limits.

1.7 SURROGATE RECOVERY COMPLIANCE

Refer to section E 1.2. The percent recovery (%R) for each surrogate compound added to each project sample were determined to be within the laboratory specified quality control (QC) limits, with the following exceptions:

- Pesticides results were qualified based on columns.

Method	Sample ID	Lab ID	Surrogate	Dilution	%R	Qualification
SW8081B	HA-06 (2-4')	L2305570-01	Decachlorobiphenyl	1x	254%	J+/None
	HA-06 (14-16')	L2305570-04	2,4,5,6-Tetrachloro-m-xylene	1x	682%	
	HA-08 (2-4')	L2305570-05	Decachlorobiphenyl	1x	326%	
	HA-08 (10-12')	L2305570-07	2,4,5,6-Tetrachloro-m-xylene	1x	1510%	
	HA-14 (14-16')	L2305570-12	2,4,5,6-Tetrachloro-m-xylene	1x	196%	

Method	Sample ID	Lab ID	Surrogate	Dilution	%R	Qualification
SW8270ESIM	FIELD BLANK 02022023	L2305934-10	Nitrobenzene-d5	1x	123%	J+/None
SW8081B	HA-04 (2-4')	L2305934-01	Decachlorobiphenyl	1x	178%	
	HA-04 (10-12')	L2305934-03	2,4,5,6-Tetrachloro-m-xylene	10x	8180%	None, dilution >5x
	HA-04 (14-16')	L2305934-04	Decachlorobiphenyl	1x	7%	J-/R
	HA-01 (6-8')	L2306883-02	Decachlorobiphenyl	1x	156%	J+/None
	HA-02 (2'-4')	L2306883-05	Decachlorobiphenyl	1x	200%	
	HA-02 (6-8')	L2306883-06	Decachlorobiphenyl	1x	180%	
	HA-02 (14-16')	L2306883-08	Decachlorobiphenyl	1x	1%	J-/R
	HA-10 (2'-4')	L2306883-09	Decachlorobiphenyl	1x	196%	J+/None
	HA-10 (6-8')	L2306883-10	Decachlorobiphenyl	1x	186%	
	HA-10 (14-16')	L2306883-12	2,4,5,6-Tetrachloro-m-xylene	1x	426%	
	HA-17 (2'-4')	L2306883-13	Decachlorobiphenyl	1x	151%	
	HA-17 (6-8')	L2306883-14	Decachlorobiphenyl	1x	153%	
	HA-19 (2'-4')	L2306883-17	Decachlorobiphenyl	1x	157%	J+/None
	HA-19 (6-8')	L2306883-18	2,4,5,6-Tetrachloro-m-xylene	1x	279%	
	HA-19 (10-12')	L2306883-19	2,4,5,6-Tetrachloro-m-xylene	5x	427%	None, dilution >5x
	HA-19 (10-12')	L2306883-19	Decachlorobiphenyl	5x	0%	
	HA-19 (14-16')	L2306883-20	2,4,5,6-Tetrachloro-m-xylene	5x	409%	
			Decachlorobiphenyl	5x	0%	
	HA-19 (20-22')	L2306883-21	Decachlorobiphenyl	1x	24%	J-/R
	HA-21 (2'-4')	L2306883-22	Decachlorobiphenyl	1x	233%	J+/None
	HA-21 (10-12')	L2306883-24	Decachlorobiphenyl	5x	8%	None, dilution >5x
	HA-21 (14-16')	L2306883-25	2,4,5,6-Tetrachloro-m-xylene	5x	967%	
			Decachlorobiphenyl	5x	8%	
	HA-21 (20-22')	L2306883-26	Decachlorobiphenyl	1x	9%	J-/R
	DUP_1_02082023	L2306883-27	Decachlorobiphenyl	1x	5%	
	DUP_1_02082023	L2306883-27	Decachlorobiphenyl	1x	165%	J+/None

Method	Sample ID	Lab ID	Surrogate	Dilution	%R	Qualification
SW8270E	HA-07 (10-12')	L2307196-03	2-Fluorophenol	1x	3%	NA, Samples reanalyzed
			2,4,6-Tribromophenol	1x	2%	
			2-Fluorophenol	1x	7%	J-/UJ (as sample was reanalyzed due to other QC issues, lab achieved best possible result, BPJ UJ instead of R)
			2,4,6-Tribromophenol	1x	3%	
SW8081B	HA-07 (2-4')	L2307196-01	Decachlorobiphenyl	1x	206%	J+/None
	HA-07 (14-16')	L2307196-04	Decachlorobiphenyl	1x	168%	
	HA-09 (2-4')	L2307196-05	Decachlorobiphenyl	1x	230%	
	HA-09 (6-8')	L2307196-06	Decachlorobiphenyl	1x	216%	
	HA-11 (2-4')	L2307196-09	Decachlorobiphenyl	1x	301%	
	HA-12 (2-4')	L2307196-13	Decachlorobiphenyl	1x	305%	
SW8260D	HA-03 (10-12')	L2307511-03	4-Bromofluorobenzene	1x	185%	
SW8081B	HA-03 (6-8')	L2307511-02	Decachlorobiphenyl	1x	162%	
	HA-03 (10-12')	L2307511-03	2,4,5,6-Tetrachloro-m-xylene	1x	16%	J-/R
			Decachlorobiphenyl	1x	4%	
			Decachlorobiphenyl	1x	261%	J+/None
	HA-03 (14-16')	L2307511-04	Decachlorobiphenyl	1x	193%	
	HA-20 (10-12')	L2307511-07	2,4,5,6-Tetrachloro-m-xylene	1x	2%	J-/R
			Decachlorobiphenyl	1x	0%	
	HA-20 (14-16')	L2307511-08	2,4,5,6-Tetrachloro-m-xylene	1x	5%	
			Decachlorobiphenyl	1x	3%	
	HA-13 (2-4')	L2307677-01	Decachlorobiphenyl	1x	174%	J+/None
	HA-13 (6-8')	L2307677-02	2,4,5,6-Tetrachloro-m-xylene	1x	18%	J-/R
			Decachlorobiphenyl	1x	11%	
			Decachlorobiphenyl	1x	348%	J+/None
	HA-13 (10-12')	L2307677-03	Decachlorobiphenyl	1x	8%	J-/R
	HA-13 (14-16')	L2307677-04	2,4,5,6-Tetrachloro-m-xylene	1x	439%	J+/None
			Decachlorobiphenyl	1x	3%	J-/R
	HA-18 (2-4')	L2307677-05	Decachlorobiphenyl	1x	257%	J+/None
	HA-18 (6-8')	L2307677-06	2,4,5,6-Tetrachloro-m-xylene	1x	170%	
			Decachlorobiphenyl	1x	192%	
	HA-18 (10-12')	L2307677-07	2,4,5,6-Tetrachloro-m-xylene	5x	6720%	None, dilution >5x
			Decachlorobiphenyl	5x	28%	

Method	Sample ID	Lab ID	Surrogate	Dilution	%R	Qualification
SW8081B	HA-18 (14-16')	L2307677-08	2,4,5,6-Tetrachloro-m-xylene	5x	30400%	None, dilution >5x
	DUP_1_02132023	L2307677-09	2,4,5,6-Tetrachloro-m-xylene	20x	0%	
			Decachlorobiphenyl	20x	0%	
			2,4,5,6-Tetrachloro-m-xylene	20x	0%	
			Decachlorobiphenyl	20x	0%	

1.8 LABORATORY CONTROL SAMPLES

Refer to section E 1.3. Compounds associated with the laboratory control samples/laboratory control sample duplicates (LCS/LCSD) analyses associated with client samples exhibited recoveries and relative percent differences (RPDs) within the specified limits with the following exceptions:

SDG #	Sample Type	Method	Batch ID	Analyte	%R/RPD	Qualifier	Affected Samples
L2305570	LCS/LCSD	SW8260D	WG1740260 -3, -4	Carbon disulfide	160%/150%	J/None	None, samples are ND
			WG1740610 -3, -4	Carbon disulfide	157%/136%		
			WG1740677 -3, -4	Carbon disulfide	169%/162%		
			WG1740679 -3, -4	Carbon disulfide	169%/162%		
			WG1741304 -3, -4	Carbon disulfide	158%/ 149%		
			WG1741610 -3, -4	Chloromethane	131%/131%		
				Acetone	160%/155%		
				Carbon disulfide	177%/176%		
	LCS	SW8270E	WG1740305 -2, -3	4-Chloroaniline	39%	J-/R	L2305570-21
	LCS/LCSD		WG1740328 -2, -3	4-Chloroaniline	35%/34%	J-/R	L2305570-01 through 20
				2,4-Dinitrophenol	140%/142%	J+/None	None, samples are ND
				4,6-Dinitro-o-cresol	158%/ 167%		

SDG #	Sample Type	Method	Batch ID	Analyte	%R/RPD	Qualifier	Affected Samples
L2305934	LCS/LCSD	SW8260D	WG1741518 -3,-4	Carbon disulfide	178%/162%	J/None	None, samples are ND
			WG1741941 -3, -4	Carbon disulfide	165%/ 160%		
	LCS	SW8270E	WG1740305 -2, -3	4-Chloroaniline	39%	J-/R	L2305934-10
	LCS/LCSD		WG1740806 -2, -3	2,4-Dinitrotoluene	28%/29%	J-/R	L2305934- 01 through -09
				2,6-Dinitrotoluene	33%/35%		
				Hexachlorocyclopentadiene	21%/21%		
				Hexachloroethane	36%		
				2-Nitrophenol	21%/21%		
				2,4-Dinitrophenol	0%/0%	J-/R	
				4,6-Dinitro-o-cresol	5%/6%		
				Benzoic Acid	0%/0%		
L2306883	LCS/LCSD	SW8260D	WG1742628 -3, -4	Carbon disulfide	160%/160%	J/None	None, samples are ND
				2-Butanone	RPD=37		
			WG1743268 -3, -4	Carbon disulfide	137%/134%		
			WG1743269 -3, -4	Carbon disulfide	137%/ 134%		
			WG1743767 -3, -4	Carbon disulfide	146%/ 140%		
			WG1743768 -3, -4	Carbon disulfide	146%/ 140%		
			WG1743813 -3, -4	Carbon disulfide	178%/ 179%		
			WG1743893 -3, -4	Carbon disulfide	178%/ 179%		
			WG1744288 -10 WG1744288 -11	Carbon disulfide	144%/ 146%		
	LCS	SW8270E	WG1743688 -2, -3	Hexachlorocyclopentadiene	35%	J-/R	L2306883-18 through 21, L2306883-23 through 26
	LCS/LCSD		WG1742999 -2, -3	Various	RPD High	J+/None	L2306883-28

SDG #	Sample Type	Method	Batch ID	Analyte	%R/RPD	Qualifier	Affected Samples
L2307196	LCS/LCSD	SW8260D	WG1743917 -3, -4	Acetone	141%/ 147%	J/None	L2307196-01, -03, -05, -06, -08 through 14, -16
				Carbon disulfide	156%/ 157%	J/None	None, samples are ND
			WG1744176 -3, -4	Chloromethane	50%/ 50%	J/UJ	L2307196-17, -18
			WG1744346 -3, -4	Carbon disulfide	180% RPD=33	J/None	None, samples are ND
				Vinyl acetate	138% RPD=32		
				cis-1,2-Dichloroethene	RPD=34	J/UJ	L2307196-04
				1,2-Dichloroethene (total)	RPD=32		
				Acetone	RPD=33		
				2-Butanone (Methyl Ethyl Ketone)	RPD=37		
				Various	RPD High	J/None	None, samples are ND
	LCS/LCSD		WG1744618 -3, -4	Carbon disulfide	187%/179%		
		SW8270E	WG1743327 -2, -3	2,4-Dinitrophenol	146%/ 146%	J+/None	
	LCS			Pentachlorophenol	112%		
	LCSD		WG1744100 -2, -3	Hexachlorocyclopentadiene	37%	J-/R	L2307196-03
				4-Chloroaniline	39%		
	LCS/LCSD	SW8081B	WG1743531 -2, -3	Various	RPD High	J+/None	L2307196-01 through 16
L2307511	LCSD	SW8260D	WG1744284 -3 -4	Carbon disulfide	132%	J/None	None, samples are ND
			WG1744431 -3, -4	Carbon disulfide	132%		
	LCS/LCSD		WG1744850 -3, -4	Carbon disulfide	172%/ 174%		
				Vinyl acetate	133%		
			WG1745142 -3, -4	Carbon disulfide	160%/159%		

SDG #	Sample Type	Method	Batch ID	Analyte	%R/RPD	Qualifier	Affected Samples
L2307511	LCSD	SW8260D	WG1745181 -3, -4	Carbon disulfide	143%	J/None	None, samples are ND
L2307677			WG1744802 -12, -13	Chloromethane	134%	J/None	
	LCS/LCSD			Acetone	142%/150%	J/None	L2307677-06
				Carbon disulfide	174%/185%	J/None	None, samples are ND
	LCSD			Vinyl acetate	133%		
				o-Chlorotoluene	131%		
	LCS/LCSD		WG1744802 -3, -4	Carbon disulfide	172%/177%		
	LCS/LCSD		WG1745352 -3, -4	Carbon disulfide	172%/177%		
	LCS/LCSD		WG1745655 -3, -4	Carbon disulfide	171%/164%		
	LCSD	SW8270E	WG1744747 -2, -3	Bis(2-chloroisopropyl)ether	38%	J-/R	L2307677-01 through -09
	LCS/LCSD		WG1744747 -2, -3	Benzoic Acid	RPD=61	J+/None	None, samples are ND
	LCSD		WG1744747 -2, -3	1,4-Dioxane	38%	J-/R	L2307677-01 through -09

1.9 MATRIX SPIKE SAMPLES

Refer to section E 1.4. The sample(s) below were used for matrix spike/matrix spike duplicate (MS/MSD):

Lab Sample Number	Matrix Spike/Matrix Spike Duplicate Sample Client ID	Method(s)
L2305570-01	HA-06 (2-4')	SW8260D
L2305570-18	HA-16 (6-8')	SW6020B
L2305934-06	HA-05 (6-8')	SW7471B, SW8081B, SW8082A, SW8260D, SW8270E, SW6010D
L2305934-10	FIELD BLANK 02022023	SW7471B
L2305935-01	HA-24 (0-2')	SW6010DR
L2307196-05	HA-09 (2-4')	SW7471B, SW8081B, SW8082A, SW8260D, SW8270E, SW6010D
L2307512-02	HA-26 (13-15')	SW7470AR, SW7471B
L2307512-03	HA-26 (15-17')	SW7470AR, SW7471B
L2307677-01	HA-13 (2-4')	SW7471B, SW8081B, SW8082A, SW8260D, SW8270E, SW6010D

Lab Sample Number	Matrix Spike/Matrix Spike Duplicate Sample Client ID	Method(s)
L2310952-08	HA-18 (14-16')	SW6010DR
L2310952-09	DUP_1_02132023	SW7470AR
L2310952-07	HA-18 (10-12')	SW7470AR
L2310952-21	HA-12(10-12')	SW6010DR
L2310952-40	HA-19 (10-12')	SW7470AR
L2310952-39	HA-19 (6-8')	SW6010DR
L2310952-42	HA-21 (6-8')	SW6010DR

The MS/MSD recoveries and the RPD between the MS and MSD results were within the specified limits with the following exceptions:

<table>
<tr><th>Sample Type</th><th>Method</th><th>Parent Sample</th><th>Analyte</th><th>%R/RPD</th><th>Qualifier</th><th>Affected Samples</th></tr>
<tr><td rowspan="3">MS/MSD</td><td rowspan="3">SW8260D</td><td rowspan="14">HA-05 (6-8')</td><td>Various</td><td>Low recovery</td><td>J/UJ</td><td>L2305934-06</td></tr>
<tr><td>Carbon disulfide</td><td>146%</td><td rowspan="2">J/None</td><td rowspan="2">None, samples are ND</td></tr>
<tr><td>Trichloroethene</td><td>RPD=34</td></tr>
<tr><td>MS</td><td rowspan="2">SW8270E</td><td>2,4-Dinitrophenol</td><td>0%</td><td>J/UJ</td><td rowspan="2">L2305934-06</td></tr>
<tr><td>MS/MSD</td><td>Benzoic Acid</td><td>0%/0%</td><td>J/UJ</td></tr>
<tr><td>MS/MSD</td><td rowspan="9">SW6010D</td><td>Aluminum</td><td>453%/1030%</td><td>NA</td><td>None, native sample > 4x the spike added</td></tr>
<tr><td>MS</td><td>Arsenic</td><td>148%</td><td rowspan="8">J+/None</td><td rowspan="2">L2305934-01 through -09</td></tr>
<tr><td rowspan="2">MS/MSD</td><td>Barium</td><td>196%
RPD=28</td></tr>
<tr><td>Copper</td><td>243%/131%</td><td rowspan="3">None, native sample > 4x the spike added</td></tr>
<tr><td>MS</td><td>Iron</td><td>655%</td></tr>
<tr><td>MS/MSD</td><td>Lead</td><td>573%/1320%
RPD=45</td></tr>
<tr><td>MSD</td><td>Magnesium</td><td>158%</td><td rowspan="3">L2305934-01 through -09</td></tr>
<tr><td>MS</td><td>Manganese</td><td>148%</td></tr>
<tr><td>MSD</td><td>Potassium</td><td>144%</td></tr>
<tr><td>MS/MSD</td><td rowspan="2">SW8260D</td><td rowspan="3">HA-09 (2-4')</td><td>Carbon disulfide</td><td>162%/162%</td><td>J/None</td><td>None, samples are ND</td></tr>
<tr><td>MS</td><td>Vinyl acetate</td><td>69%</td><td rowspan="2">J/UJ</td><td rowspan="2">L2307196-05</td></tr>
<tr><td>MSD</td><td>SW8270E</td><td>4-Chloroaniline</td><td>38%</td></tr>
</table>

Sample Type	Method	Parent Sample	Analyte	%R/RPD	Qualifier	Affected Samples
MS/MSD	SW8270E	HA-09 (2-4')	Benzoic Acid	0%/0%	J/UJ	L2307196-05
	SW6010D		Aluminum	941%/674%	NA	None, native sample > 4x the spike added
			Antimony	71% RPD=21	J-/UJ	L2307196-01 through -17
			Calcium	45%/56%		
			Iron	0%/0%	NA	None, native sample > 4x the spike added
MS			Manganese	58%	J-/UJ	L2307196-01 through -17
MS/MSD	SW7471B	HA-26 (13-15')	Mercury Total	183%/0% RPD=99	NA	None, native sample > 4x the spike added
		HA-26 (15-17')	Mercury Total	136% RPD=45	J+/None	L2307512-01 through 05
	SW8260D	HA-13 (2-4')	Various	Low recovery	J/UJ	L2307677-01
			Carbon disulfide	RPD=38	J/None	None, samples are ND
MSD	SW8270E		Phenanthrene	34%	J/UJ	L2307677-01
MS/MSD			2,4-Dinitrophenol	0%/0%	J/UJ	
			Benzoic Acid	0%/0%		
	SW8082A		Aroclor 1016	175%/168%	J/None	None, samples are ND
MS	SW8081B		4,4'-DDT	153%		
MS/MSD	SW6010D		Aluminum	0%/0%	NA	None, native sample > 4x the spike added
			Barium	43%/71%	J-/UJ	L2307677-01 through -09
			Calcium	271%/70%	NA	None, native sample > 4x the spike added
			Chromium	27%/26%	J-/UJ	L2307677-01 through -09
			Copper	46%/23%		
			Iron	1300%/0%	NA	

Sample Type	Method	Parent Sample	Analyte	%R/RPD	Qualifier	Affected Samples
MS/MSD	SW6010D	HA-13 (2-4')	Lead	0%/509% RPD=50		None, native sample > 4x the spike added
			Magnesium	0%/0%	J-/R	L2307677-01 through -09
			Manganese	0%/0%	NA	None, native sample > 4x the spike added
			Zinc	182%/0% RPD=32		
	SW7471B		Mercury	51%/24%	J-/UJ	L2307677-01 through -09

1.10 BLANK SAMPLE ANALYSIS

Refer to section E 1.5. Method blank samples had no detections, indicating that no contamination from laboratory activities occurred with the following exceptions:

SDG	Batch ID	Analyte Detected in Blank	Concentration	Qualifier	Affected Samples
L2305570	WG1741610-5	Styrene	0.20 J µg/kg	NA	None, samples are ND
	WG1740068-1	Sodium, Total	1.61 J mg/kg	NA	None, samples are >10x blank
L2305934	WG1741518-5	Bromomethane	0.58 J µg/kg	NA	None, samples are ND
	WG1740633-1	Antimony	0.353 J mg/kg	RL U	L2305934-01 through 09
		Chromium	0.052 J mg/kg	NA	None, samples are >10x blank
		Iron	0.700 J mg/kg		
	WG1740634-1	Thallium	0.00019 J mg/kg	NA	None, samples are ND
	WG1743767-5	1,2,3-Trichlorobenzene	17 J µg/kg	NA	None, samples are ND
		1,2,4-Trichlorobenzene	15 J µg/kg	NA	None, samples are ND
	WG1743768-5	1,2,3-Trichlorobenzene	0.34 J µg/kg	NA	None, samples are ND
		1,2,4-Trichlorobenzene	0.30 J µg/kg	NA	None, samples are ND
	WG1744288-12	Naphthalene	1.4 J	RL U	L2306883-25, -26
		1,2,3-Trichlorobenzene	0.42 J	NA	None, samples are ND
		1,2,4-Trichlorobenzene	0.29 J	NA	None, samples are ND
	WG1742999-1	Fluoranthene	0.02 J		
		Phenanthrene	0.03 J	RL U	L2306883-28
		Pyrene	0.02 J		
		2-Methylnaphthalene	0.03 J		
	WG1742620-1	Antimony	0.466 J	RL U	L2306883-01, -03, -06, -08, -09, -12, -13, -17 -18

SDG	Batch ID	Analyte Detected in Blank	Concentration	Qualifier	Affected Samples
L2305934	WG1742677-1	Thallium	0.00014 J	RL U	L2306883-28
	WG1744346-5	Acetone	5.6 J	J+	L2307196-04
L2307196	WG1743328-1	Various	Various	NA	None, samples are ND
	WG1743261-1	Thallium	0.00037 J	RL U	L2307196-17
L2307511	WG1744284-5	Acetone	240 J	NA	None, samples are ND
		Naphthalene	78 J	NA	None, samples are >10x blank
	WG1744431-5	Acetone	4.8 J	Result U	L2307511 -05, -06
				RL U	L2307511-01
				J+	L2307511-02
		Naphthalene	1.6 J	RL U	L2307511-01, -02, -05, -06
	WG1744850-5	Naphthalene	1.6 J	RL U	L2307511-08
	WG1745142-5	Naphthalene	38 J	NA	None, samples are >10x blank
		1,2,3-Trichlorobenzene	21 J	NA	None, samples are ND
		1,2,4-Trichlorobenzene	19 J		
	WG1745181-5	Naphthalene	1.5 J	RL U	L2307511-07
	WG1743554-1	Iron	2.88	NA	None, samples are >10x blank
L2307512	WG1743566-1	Mercury	0.00017 J	RL U	L2307512-06, -07
	WG1743930-1	Mercury	0.0008 J	RL U	L2307512-03
L2307677	WG1744802-14	Acetone	6.1 J	J+	L2307677-06
	WG1744300-1	Calcium	1.73 J	NA	None, samples are >10x blank
		Chromium	0.394 J		
		Iron	2.09		
		Magnesium	1.02 J		
		Manganese	0.066 J		
		Nickel	1.30 J	Result U	L2307677-07, -09
		Sodium	4.30 J	NA	None, samples are >10x blank

The analysis of the blank samples for field quality control was free of target compounds, with the following exceptions:

Blank Type	Date of Blank	Analyte Detected in Blank	Concentration (mg/L)	Qualifier	Affected Samples
Field Blank	2/2/2023	Chromium	0.00024 J	NA	None, samples are >10x blank
	2/1/2023	Mercury	0.0001 J		
	2/8/2023	Mercury	0.00009 J		

1.11 DUPLICATE SAMPLE ANALYSIS

Refer to section E 1.6. The following sample(s) were used for laboratory duplicate analysis and the RPDs were all below 20 percent (or the absolute difference rule was satisfied if detects were less than 5 times the RL):

Lab Sample Number	Laboratory Duplicate Sample Client ID	Method(s)
L2305570-18	HA-16 (6-8')	SW7471B
L2305570-01	HA-06 (2-4')	SM2540G
L2305935-01	HA-24 (0-2')	SW6010DR
L2306883-11	HA-10 (10-12')	SM2540G
L2307196-05	HA-09 (2-4')	
L2307512-02	HA-26 (13-15')	
L2307677-01	HA-13 (2-4')	
L2310952-08	HA-18 (14-16')	SW6010DR
L2310952-09	DUP_1_02132023	SW7470AR
L2310952-07	HA-18 (10-12')	
L2310952-21	HA-12(10-12')	SW6010DR
L2310952-40	HA-19 (10-12')	SW7470AR
L2310952-39	HA-19 (6-8')	SW6010DR
L2310952-42	HA-21 (6-8')	
L2305934-10	FIELD BLANK 02022023	SW7471B
L2305934-06	HA-05 (6-8')	SM2540G

The following sample(s) were used for field duplicate analysis. RPDs were all below 50 percent for soil (or the absolute difference rule was satisfied if detects were less than 5 times the RL). Any exceptions are noted below and qualified.

Primary Sample ID	Duplicate Sample ID	Method(s)
HA-04 (6-8)	DUP_1_02022023	SM2540G, SW6010D, SW7471B, SW8081B, SW8082A, SW8260D, SW8270E

Primary Sample ID	Duplicate Sample ID	Method(s)
HA-19 (10-12)	DUP_1_02082023	SM2540G, SW6010D, SW7471B, SW8081B, SW8082A, SW8260D, SW8270E, SW6010DR, SW7470AR
HA-26 (11-13)	DUP-1_02102023	SM2540G, SW7471B, SW7470AR
HA-26 (13-15)	DUP-2_02102023	SM2540G, SW7471B, SW7470AR
HA-18 (10-12)	DUP_1_02132023	SM2540G, SW6010D, SW7471B, SW8081B, SW8082A, SW8260D, SW8270E, SW6010DR, SW7470AR

Field Duplicate RPD Calculations:

Method	Analyte	Units	Primary Sample ID	Duplicate Sample ID	% RPD	Qualification
			HA-04 (6-8)	DUP_1_02022023		
SW8260D	Acetone	µg/kg	14	52	115	J/UJ, Abs. Diff. > RL
SW6010D	Arsenic	mg/kg	26.6	4.98	137	J/UJ, RPD>50
	Barium		510	90.2	140	J/UJ, RPD>50
SW8260D	Benzene	µg/kg	0.84	2	82	J/UJ, Abs. Diff. > RL
SW6010D	Cadmium	mg/kg	1.64	0.159	165	J/UJ, Abs. Diff. > RL
	Calcium		26600	4780	139	J/UJ, RPD>50
	Copper		89.1	30.1	99	J/UJ, RPD>50
SW8270E	Fluoranthene	µg/kg	58	260	127	J/UJ, Abs. Diff. > RL
SW6010D	Iron	mg/kg	24100	13000	60	J/UJ, RPD>50
	Lead		746	394	62	J/UJ, RPD>50
SW8270E	Phenanthrene	µg/kg	40	210	136	J/UJ, Abs. Diff. > RL
SW6010D	Potassium	mg/kg	615	1040	51	J/UJ, Abs. Diff. > RL
SW8270E	Pyrene	µg/kg	47	180	117	J/UJ, Abs. Diff. > RL
SW6010D	Zinc	mg/kg	531	190	95	J/UJ, RPD>50

Method	Analyte	Units	Primary Sample ID HA-19 (10-12)	Duplicate Sample ID DUP_1_02082023	% RPD	Qualification
SW8260D	1,2,4,5-Tetramethylbenzene	µg/kg	6400	580	NA	J/UJ, Abs. Diff. > RL
	1,2,4-Trimethylbenzene		2100	ND	159	J/UJ, RPD>50
	1,4-Diethylbenzene		1900	260	NA	J/UJ, Abs. Diff. > RL
SW8270E	2-Methylnaphthalene		3100	ND	NA	J/UJ, Abs. Diff. > RL
SW8260D	2-Phenylbutane (sec-Butylbenzene)		600	180	NA	J/UJ, Abs. Diff. > RL
	4-Ethyltoluene (1-Ethyl-4-Methylbenzene)		2400	ND	164	J/UJ, RPD>50
	Benzene		790	14	NA	J/UJ, Abs. Diff. > RL
SW8270E	Benzo(b)fluoranthene		730	ND	NA	J/UJ, Abs. Diff. > RL
SW6010D	Calcium	mg/kg	12800	6080	71	J/UJ, RPD>50
	Chromium		19.9	6.89	97	J/UJ, RPD>50
SW8260D	Ethylbenzene	µg/kg	1600	89	NA	J/UJ, Abs. Diff. > RL
SW8270E	Fluoranthene		770	ND	NA	J/UJ, Abs. Diff. > RL
SW6010D	Iron	mg/kg	15700	8890	55	J/UJ, RPD>50
SW8260D	Isopropylbenzene	ug/kg	530	390	NA	J/UJ, Abs. Diff. > RL
SW6010D	Lead	mg/kg	602	1010	51	J/UJ, RPD>50
SW6010DR	Lead	mg/L	5.49	12.4	77	J/UJ, RPD>50

Method	Analyte	Units	Primary Sample ID HA-26 (11-13)	Duplicate Sample ID DUP-1_02102023	% RPD	Qualification
SW7471B	Mercury	mg/kg	0.502	0.162	NA	J/UJ, Abs. Diff. > RL

Method	Analyte	Units	Primary Sample ID HA-26 (13-15)	Duplicate Sample ID DUP-2_02102023	% RPD	Qualification
SW7471B	Mercury	mg/kg	7.1	1.84	118	J/UJ, RPD>50

Method	Analyte	Units	Primary Sample ID	Duplicate Sample ID	% RPD	Qualification
			HA-18 (10-12)	DUP_1_02132023		
SW6010D	Cobalt	mg/kg	3.05	8.36	93	J/UJ, Abs. Diff. > RL
SW8270E	Fluoranthene	µg/kg	280	27	165	J/UJ, Abs. Diff. > RL
SW6010D	Lead	mg/kg	518	1220	81	J/UJ, RPD>50
SW7471B	Mercury		11.7	5.28	76	J/UJ, RPD>50
SW8270E	Pyrene	µg/kg	250	23	166	J/UJ, Abs. Diff. > RL
SW6010D	Silver	mg/kg	5.3	1.43	115	J/UJ, Abs. Diff. > RL
SW6010D	Zinc		64.1	160	86	J/UJ, RPD>50

1.12 PRECISION AND ACCURACY

Refer to section E 1.7. Where required by the method, some measurement of analytical accuracy and precision was reported for each method with the site samples.

1.13 CONFIRMATION COLUMN REVIEW

Refer to section E 1.8. All relative percent differences (RPD) were within control limits, with the following exceptions:

Method	Analyte	Sample	RPD	Action
SW8081B	4,4'-DDE	L2305570-01	> 40%	Qualify data estimated J/UJ.
SW8081B	Heptachlor epoxide	L2305570-05	> 40%	Qualify data estimated J/UJ.
SW8081B	Heptachlor epoxide	L2305570-09	> 40%	Qualify data estimated J/UJ.
SW8081B	4,4'-DDT	L2305570-13	> 40%	Qualify data estimated J/UJ.
SW8081B	4,4'-DDD	L2305570-15	> 40%	Qualify data estimated J/UJ.
SW8081B	4,4'-DDT	L2305934-01	> 40%	Qualify data estimated J/UJ.
SW8081B	gamma-Chlordane (trans)	L2305934-01	> 40%	Qualify data estimated J/UJ.
SW8081B	alpha-BHC	L2305934-04	> 40%	Qualify data estimated J/UJ.
SW8081B	4,4'-DDT	L2305934-05	> 40%	Qualify data estimated J/UJ.
SW8081B	4,4'-DDE	L2306883-01	> 40%	Qualify data estimated J/UJ.
SW8081B	4,4'-DDD	L2306883-04	> 40%	Qualify data estimated J/UJ.
SW8081B	4,4'-DDT	L2306883-04	> 40%	Qualify data estimated J/UJ.
SW8081B	4,4'-DDT	L2306883-09	> 40%	Qualify data estimated J/UJ.
SW8081B	4,4'-DDE	L2306883-09	> 40%	Qualify data estimated J/UJ.
SW8081B	Aroclor-1260 (PCB-1260)	L2306883-09	> 40%	Qualify data estimated J/UJ.
SW8081B	4,4'-DDT	L2306883-10	> 40%	Qualify data estimated J/UJ.

Method	Analyte	Sample	RPD	Action
SW8081B	alpha-Chlordane (cis)	L2306883-10	> 40%	Qualify data estimated J/UJ.
SW8081B	gamma-Chlordane (trans)	L2306883-11	> 40%	Qualify data estimated J/UJ.
SW8081B	alpha-Chlordane (cis)	L2306883-13	> 40%	Qualify data estimated J/UJ.
SW8081B	gamma-Chlordane (trans)	L2306883-14	> 40%	Qualify data estimated J/UJ.
SW8081B	gamma-Chlordane (trans)	L2306883-15	> 40%	Qualify data estimated J/UJ.
SW8081B	gamma-Chlordane (trans)	L2306883-16	> 40%	Qualify data estimated J/UJ.
SW8081B	alpha-Chlordane (cis)	L2306883-17	> 40%	Qualify data estimated J/UJ.
SW8081B	Heptachlor epoxide	L2306883-18	> 40%	Qualify data estimated J/UJ.
SW8081B	4,4'-DDE	L2306883-18	> 40%	Qualify data estimated J/UJ.
SW8081B	Heptachlor epoxide	L2306883-23	> 40%	Qualify data estimated J/UJ.
SW8081B	alpha-Chlordane (cis)	L2306883-23	> 40%	Qualify data estimated J/UJ.
SW8081B	alpha-BHC	L2306883-26	> 40%	Qualify data estimated J/UJ.
SW8081B	gamma-Chlordane (trans)	L2306883-26	> 40%	Qualify data estimated J/UJ.
SW8081B	alpha-BHC	L2306883-27	> 40%	Qualify data estimated J/UJ.
SW8081B	gamma-Chlordane (trans)	L2306883-27	> 40%	Qualify data estimated J/UJ.
SW8081B	4,4'-DDD	L2307196-01	> 40%	Qualify data estimated J/UJ.
SW8081B	Methoxychlor	L2307196-01	> 40%	Qualify data estimated J/UJ.
SW8081B	gamma-Chlordane (trans)	L2307196-03	> 40%	Qualify data estimated J/UJ.
SW8081B	Methoxychlor	L2307196-05	> 40%	Qualify data estimated J/UJ.
SW8081B	Heptachlor epoxide	L2307196-06	> 40%	Qualify data estimated J/UJ.
SW8081B	Methoxychlor	L2307196-06	> 40%	Qualify data estimated J/UJ.
SW8081B	gamma-Chlordane (trans)	L2307196-09	> 40%	Qualify data estimated J/UJ.
SW8081B	Methoxychlor	L2307196-09	> 40%	Qualify data estimated J/UJ.
SW8081B	4,4'-DDT	L2307196-12	> 40%	Qualify data estimated J/UJ.
SW8081B	4,4'-DDT	L2307511-01	> 40%	Qualify data estimated J/UJ.
SW8081B	Dieldrin	L2307511-01	> 40%	Qualify data estimated J/UJ.
SW8081B	4,4'-DDD	L2307511-01	> 40%	Qualify data estimated J/UJ.
SW8081B	4,4'-DDE	L2307511-01	> 40%	Qualify data estimated J/UJ.
SW8081B	alpha-Chlordane (cis)	L2307511-01	> 40%	Qualify data estimated J/UJ.

Method	Analyte	Sample	RPD	Action
SW8081B	gamma-Chlordane (trans)	L2307511-01	> 40%	Qualify data estimated J/UJ.
SW8081B	alpha-Chlordane (cis)	L2307511-03	> 40%	Qualify data estimated J/UJ.
SW8081B	gamma-Chlordane (trans)	L2307511-03	> 40%	Qualify data estimated J/UJ.
SW8081B	Chlordane	L2307677-01	> 40%	Qualify data estimated J/UJ.
SW8081B	4,4'-DDT	L2307677-03	> 40%	Qualify data estimated J/UJ.
SW8081B	Dieldrin	L2307677-03	> 40%	Qualify data estimated J/UJ.
SW8081B	alpha-Chlordane (cis)	L2307677-05	> 40%	Qualify data estimated J/UJ.
SW8081B	Chlordane	L2307677-06	> 40%	Qualify data estimated J/UJ.

1.14 SYSTEM PERFORMANCE AND OVERALL ASSESSMENT

The results presented in this report were found to comply with the data quality objectives for the project and the guidelines specified by the analytical method. Based on the review of this report, the data are useable and acceptable as no data was rejected. except for rejected data noted below. A summary of qualifiers applied to this data set is shown in Table 1.

2. Explanations

The following explanations include more detailed information regarding each of the sections in the DUSR above. Not all sections in the Explanations are represented:

- E 1.1 Reporting Basis (Wet/Dry)
  - Soil samples can be reported on either a wet (as received) or dry weight basis. Dry weight data indicate calculations were made to compensate for the moisture content of the soil sample.
  - Percent (%) solids should be appropriately considered when evaluating analytical results for non-aqueous samples. Sediments with high moisture content may or may not be successfully analyzed by routine analytical methods. Samples should have greater than or equal to 30 percent solids to be appropriately quantified.
- E 1.2 Surrogate Recovery Compliance
  - Surrogates, also known as system monitoring compounds, are compounds added to each sample prior to sample preparation to determining the efficiency of the extraction procedure by evaluating the percent recovery (%R) of the compounds.
- E 1.3 Laboratory Control Samples
  - The laboratory control sample/laboratory control sample duplicate (LCS/LCSD) analyses are used to assess the precision and accuracy of the analytical method independent of matrix interferences.
- E 1.4 Matrix Spike Samples
  - Matrix spike/matrix spike duplicate (MS/MSD) data are used to assess the precision and accuracy of the analytical method and evaluate the effects of the sample matrix on the sample preparation procedures and measurement methodologies.
  - For inorganic methods, when a matrix spike recovery falls outside of the control limits and the sample result is less than four times the spike added, a post digestion spike (PDS) is performed.
- E 1.5 Blank Sample Analysis
  - Method blanks are prepared by the analytical laboratory and analyzed concurrently with the project samples to assess possible laboratory contamination.
  - Field blanks are prepared to identify contamination that may have been introduced during field activity. Equipment blanks are prepared to identify contamination that may have been introduced while decontaminating sampling equipment. Trip blanks are prepared when volatile analysis is requested to identify contamination that may have been introduced during transport.
- E 1.6 Laboratory and Field Duplicate Sample Analysis
  - The laboratory duplicate sample analysis is used by the laboratory at the time of the analysis to demonstrate acceptable method precision. The RPD or absolute difference was evaluated for each duplicate sample pair to monitor the reproducibility of the data.

- The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. The relative percent difference (RPD) or absolute difference was evaluated for each duplicate sample pair to monitor the reproducibility of the data.

- E 1.7 Precision and Accuracy
  - Precision measures the reproducibility of repetitive measurements. In a laboratory environment, this will be measured by determining the relative percent difference (RPD) found between a primary and a duplicate sample. This can be an LCS/LCSD pair, a MS/MSD pair, a laboratory duplicate performed on a site sample, or a field duplicate collected and analyzed concurrently with a site sample.
  - Accuracy is a statistical measurement of the correctness of a measured value and includes components of random error (variability caused by imprecision) and systematic error. In a laboratory environment, this will be measured by determining the percent recovery (%R) of certain spiked compounds. This can be assessed using LCS, blank spike (BS), MS, and/or surrogate recoveries.

- E 1.8 Confirmation Column Review
  - When analyzing for pesticides and polychlorinated biphenyls (PCB), compound identification based on single-column analysis should be confirmed on a second column or supported by at least one other qualitative technique. When confirmed on a second column, the relative percent difference (RPD) should not exceed 40 percent.

3. Glossary

Not all of the following symbols, acronyms, or qualifiers occur in this document.

- Sample Types:
  - EB Equipment Blank Sample
  - FB Field Blank Sample
  - FD Field Duplicate Sample
  - N Primary Sample
  - TB Trip Blank Sample
- Units:
  - µg/kg microgram per kilogram
  - µg/L microgram per liter
  - µg/m^3 microgram per cubic meter
  - mg/kg milligram per kilogram
  - mg/L milligram per liter
  - ppb v/v parts per billion volume/volume
  - pCi/L picocuries per liter
  - pg/g picograms per gram
- Matrices:
  - AA Ambient Air
  - GS Soil Gas
  - GW/WG Groundwater
  - QW Water Quality
  - IA Indoor Air
  - SE Sediment
  - SO Soil
  - SSV Sub-slab Vapor
  - WQ Water Quality control matrix
  - WS Surface Water
- Table Footnotes:
  - NA Not applicable
  - ND Non-detect
  - NR Not reported
- Common Symbols:
  - % percent
  - < less than
  - ≤ less than or equal to
  - > greater than
  - ≥ greater than or equal to
  - = equal
  - °C degrees Celsius
  - ± plus or minus
  - ~ approximately
  - x times (multiplier)

4. Abbreviations

%D	Percent Difference
%R	Percent Recovery
%RSD	Percent Relative Standard Deviation
%v/v	Percent volume by volume
µg/L	micrograms per liter
2s	2 sigma
4,4-DDT	4 4-dichlorodiphenyltrichloroethane
Abs Diff	Absolute Difference
amu	atomic mass unit
BPJ	Best Professional Judgement
BS	Blank Spike
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
CCVL	Continuing Calibration Verification Low
COC	Chain of Custody
COM	Combined Isotope Calculation
Cr (VI)	Hexavalent Chromium
CRI	Collision Reaction Interface
DoD	Department of Defense
DQO	data quality objective
DUSR	Data Usability Summary Report
EMPC	Estimated Maximum Possible Concentration
FBK	Field Blank Contamination
FDP	Field Duplicate
GC	Gas Chromatograph
GC/MS	Gas Chromatography/Mass Spectrometry
GPC	Gel Permeation Chromatography
H2	Hydrogen gas
HCl	Hydrochloric Acid
ICAL	Initial Calibration
ICB	Initial Calibration Blank
ICP/MS	Inductively Coupled Plasma/ Mass Spectrometry
ICV	Initial Calibration Verification
ICVL	Initial Calibration Verification Low
IPA	Isopropyl Alcohol
LC	Laboratory Control
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MBK	Method Blank Contamination
MDC	Minimum Detectable Concentration
MDL	Laboratory Method Detection Limit
mg/kg	milligrams per kilogram
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NA	not applicable
ND	Non-Detect
NFG	National Functional Guidelines
NH_3	Ammonia
NYSDEC	New York State Department of Environmental Conservation
PAH	polycyclic aromatic hydrocarbon
PCB	Polychlorinated Biphenyl
PDS	Post Digestion Spike
PEM	Performance Evaluation Mixture
PFAS	Per- and Polyfluoroalkyl Substances
PFBA	Perfluorbutanoic Acid
PFD	Perfluorodecalin
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctane sulfonate
PFPeA	Perfluoropentanoic Acid
QAPP	Quality Assurance Project Plan
QC	Quality Control
QSM	Quality Systems Manual
R^2	R-squared value
Ra-226	Radium-226
Ra-228	Radium-228
RESC	Resolution Check Measure
RL	Laboratory Reporting Limit
RPD	Relative Percent Difference
RRF	Relative Response Factors
RT	Retention Time
SAP	sampling analysis plan
SDG	Sample Delivery Group
SIM	Selected ion monitoring
SOP	Laboratory Standard Operating Procedures
SPE	Solid Phase Extraction
SVOC	Semi-Volatile Organic Compounds
TCLP	Toxicity Characteristic Leaching Procedure
TIC	Tentatively Identified Compound
TKN	Total Kjeldahl Nitrogen
TPH	Total Petroleum Hydrocarbon
TPU	Total Propagated Uncertainty
amu	atomic mass unit
USEPA	U.S. Environmental Protection Agency
VOC	Volatile Organic Compounds
WP	Work Plan

5. Qualifiers

The qualifiers below are from the USEPA National Functional Guidelines and the data in the DUSR may contain these qualifiers:

- Concentration (C) Qualifiers:

  U The compound was analyzed for but not detected. The associated value is either the compound quantitation limit if not detected by the analytical instrument or could be the reported or blank concentration if qualified by blank contamination. This can also be displayed as less than the associated compound quantitation limit (<RL or <MDL), or "ND".

  B The compound was found in the sample and its associated blank. Its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers:

  E The compound was quantitated above the calibration range.

  D The concentration is based on a diluted sample analysis.

- Validation Qualifiers:

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  J+ The result is an estimated quantity, but the result may be biased high.

  J- The result is an estimated quantity, but the result may be biased low.

  J/UJ as listed in exception tables J applies to detected data and UJ applies to non-detected data as reported by the laboratory.

  UJ The compound was not detected above the reported sample quantitation limit; however, the reported limit is estimated and may or may not represent the actual limit of quantitation.

  NJ The analysis indicated the presence of a compound for which there is presumptive evidence to make a tentative identification; the associated numerical value is an estimated concentration only.

  R The sample results were rejected as unusable; the compound may or may not be present in the sample.

  S Result is suspect. See DUSR for details.

References

1. United States Environmental Protection Agency, 2020a. National Functional Guidelines for Inorganic Superfund Methods Data Review. EPA-542-R-20-006. November 2020.
2. United States Environmental Protection Agency, 2020b. National Functional Guidelines for Organic Superfund Methods Data Review. EPA-540-R-20-005. November 2020.

TABLE 1
SYSTEM PERFORMANCE SUMMARY
556 BALTIC STREET SITE RIR
BROOKLYN, NEW YORK

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2306883	SW8260D	NA	HA-02 (14-16)	L2306883-08	n-Propylbenzene	N	No	30000	30000 R	EXE
L2307511	SW8270E	NA	HA-03 (10-12)	L2307511-03	Anthracene	N	No	9500	9500 R	EXE
L2307511	SW8270E	NA	HA-03 (10-12)	L2307511-03	Benzo(a)anthracene	N	No	19000	19000 R	EXE
L2307511	SW8270E	NA	HA-03 (10-12)	L2307511-03	Benzo(a)pyrene	N	No	17000	17000 R	EXE
L2307511	SW8270E	NA	HA-03 (10-12)	L2307511-03	Benzo(b)fluoranthene	N	No	22000	22000 R	EXE
L2307511	SW8270E	NA	HA-03 (10-12)	L2307511-03	Chrysene	N	No	14000	14000 R	EXE
L2307511	SW8270E	NA	HA-03 (10-12)	L2307511-03	Fluoranthene	N	No	20000	20000 R	EXE
L2307511	SW8270E	NA	HA-03 (10-12)	L2307511-03	Indeno(1,2,3-cd)pyrene	N	No	8400	8400 R	EXE
L2307511	SW8270E	NA	HA-03 (10-12)	L2307511-03	Phenanthrene	N	No	21000	21000 R	EXE
L2307511	SW8270E	NA	HA-03 (10-12)	L2307511-03	Pyrene	N	No	20000	20000 R	EXE
L2307511	SW8260D	NA	HA-03 (14-16)	L2307511-04	1,2,4-Trimethylbenzene	N	No	30000	30000 R	EXE
L2307511	SW8260D	NA	HA-03 (14-16)	L2307511-04	4-Ethyltoluene (1-Ethyl-4-Methylbenzene)	N	No	19000	19000 R	EXE
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Naphthalene	N	No	320	320 R	EXE
L2307196	SW8270E	NA	HA-07 (2-4)	L2307196-01	Fluoranthene	N	No	12000	12000 R	EXE
L2307196	SW8270E	NA	HA-07 (2-4)	L2307196-01	Pyrene	N	No	9500	9500 R	EXE
L2305570	SW8270E	NA	HA-08 (2-4)	L2305570-05	Benzo(a)pyrene	N	No	7400	7400 R	EXE
L2305570	SW8270E	NA	HA-08 (2-4)	L2305570-05	Benzo(b)fluoranthene	N	No	8300	8300 R	EXE
L2305570	SW8270E	NA	HA-08 (2-4)	L2305570-05	Fluoranthene	N	No	17000	17000 R	EXE
L2305570	SW8270E	NA	HA-08 (2-4)	L2305570-05	Phenanthrene	N	No	11000	11000 R	EXE
L2305570	SW8270E	NA	HA-08 (2-4)	L2305570-05	Pyrene	N	No	14000	14000 R	EXE
L2307196	SW8270E	NA	HA-12 (10-12)	L2307196-15	Benzo(a)anthracene	N	No	8200	8200 R	EXE
L2307196	SW8270E	NA	HA-12 (10-12)	L2307196-15	Benzo(a)pyrene	N	No	8500	8500 R	EXE
L2307196	SW8270E	NA	HA-12 (10-12)	L2307196-15	Benzo(b)fluoranthene	N	No	9300	9300 R	EXE
L2307196	SW8270E	NA	HA-12 (10-12)	L2307196-15	Chrysene	N	No	8800	8800 R	EXE
L2307196	SW8270E	NA	HA-12 (10-12)	L2307196-15	Fluoranthene	N	No	22000	22000 R	EXE
L2307196	SW8270E	NA	HA-12 (10-12)	L2307196-15	Phenanthrene	N	No	23000	23000 R	EXE
L2307196	SW8270E	NA	HA-12 (10-12)	L2307196-15	Pyrene	N	No	20000	20000 R	EXE
L2307196	SW8270E	NA	HA-12 (6-8)	L2307196-14	Acenaphthene	N	No	7900	7900 R	EXE
L2307196	SW8270E	NA	HA-12 (6-8)	L2307196-14	Benzo(a)anthracene	N	No	7700	7700 R	EXE
L2307196	SW8270E	NA	HA-12 (6-8)	L2307196-14	Benzo(a)pyrene	N	No	8000	8000 R	EXE
L2307196	SW8270E	NA	HA-12 (6-8)	L2307196-14	Benzo(b)fluoranthene	N	No	8400	8400 R	EXE
L2307196	SW8270E	NA	HA-12 (6-8)	L2307196-14	Chrysene	N	No	8000	8000 R	EXE
L2307196	SW8270E	NA	HA-12 (6-8)	L2307196-14	Fluoranthene	N	No	20000	20000 R	EXE
L2307196	SW8270E	NA	HA-12 (6-8)	L2307196-14	Phenanthrene	N	No	24000	24000 R	EXE
L2307196	SW8270E	NA	HA-12 (6-8)	L2307196-14	Pyrene	N	No	18000	18000 R	EXE
L2306883	SW8260D	NA	HA-19 (14-16)	L2306883-20	n-Propylbenzene	N	No	150000	150000 R	EXE
L2306883	SW8270E	NA	HA-21 (6-8)	L2306883-23	Fluoranthene	N	No	13000	13000 R	EXE
L2306883	SW8270E	NA	HA-21 (6-8)	L2306883-23	Phenanthrene	N	No	14000	14000 R	EXE
L2306883	SW8270E	NA	HA-21 (6-8)	L2306883-23	Pyrene	N	No	11000	11000 R	EXE
L2305934	SW6010D	NA	DUP_1_02022023	L2305934-09	Cadmium	N	Yes	0.159 J	0.159 J	FDP
L2305934	SW6010D	NA	DUP_1_02022023	L2305934-09	Calcium	N	Yes	4780	4780 J	FDP
L2305934	SW6010D	NA	DUP_1_02022023	L2305934-09	Copper	N	Yes	30.1	30.1 J	FDP
L2305934	SW6010D	NA	DUP_1_02022023	L2305934-09	Iron	N	Yes	13000	13000 J	FDP
L2305934	SW6010D	NA	DUP_1_02022023	L2305934-09	Lead	N	Yes	394	394 J	FDP
L2305934	SW6010D	NA	DUP_1_02022023	L2305934-09	Zinc	N	Yes	190	190 J	FDP
L2305934	SW8260D	NA	DUP_1_02022023	L2305934-09	Acetone	N	Yes	52	52 J	FDP
L2305934	SW8260D	NA	DUP_1_02022023	L2305934-09	Benzene	N	Yes	2	2 J	FDP
L2305934	SW8270E	NA	DUP_1_02022023	L2305934-09	Fluoranthene	N	Yes	260	260 J	FDP
L2305934	SW8270E	NA	DUP_1_02022023	L2305934-09	Phenanthrene	N	Yes	210	210 J	FDP

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2305934	SW8270E	NA	DUP_1_02022023	L2305934-09	Pyrene	N	Yes	180	180 J	FDP
L2306883	SW6010D	NA	DUP_1_02082023	L2306883-27	Calcium	N	Yes	6080	6080 J	FDP
L2306883	SW6010D	NA	DUP_1_02082023	L2306883-27	Chromium	N	Yes	6.89	6.89 J	FDP
L2306883	SW6010D	NA	DUP_1_02082023	L2306883-27	Iron	N	Yes	8890	8890 J	FDP
L2306883	SW6010D	NA	DUP_1_02082023	L2306883-27	Lead	N	Yes	1010	1010 J	FDP
L2310952	SW6010DR	NA	DUP_1_02082023	L2310952-46	Lead	N	Yes	12.4	12.4 J	FDP
L2306883	SW8260D	NA	DUP_1_02082023	L2306883-27	1,2,4,5-Tetramethylbenzene	N	Yes	580	580 J	FDP
L2306883	SW8260D	NA	DUP_1_02082023	L2306883-27	1,2,4-Trimethylbenzene	N	Yes	U	UJ	FDP
L2306883	SW8260D	NA	DUP_1_02082023	L2306883-27	1,4-Diethylbenzene	N	Yes	260	260 J	FDP
L2306883	SW8260D	NA	DUP_1_02082023	L2306883-27	2-Phenylbutane (sec-Butylbenzene)	N	Yes	180	180 J	FDP
L2306883	SW8260D	NA	DUP_1_02082023	L2306883-27	4-Ethyltoluene (1-Ethyl-4-Methylbenzene)	N	Yes	U	UJ	FDP
L2306883	SW8260D	NA	DUP_1_02082023	L2306883-27	Benzene	N	Yes	14 J	14 J	FDP
L2306883	SW8260D	NA	DUP_1_02082023	L2306883-27	Ethylbenzene	N	Yes	89	89 J	FDP
L2306883	SW8260D	NA	DUP_1_02082023	L2306883-27	Isopropylbenzene (Cumene)	N	Yes	390	390 J	FDP
L2306883	SW8270E	NA	DUP_1_02082023	L2306883-27	2-Methylnaphthalene	N	Yes	U	UJ	FDP
L2306883	SW8270E	NA	DUP_1_02082023	L2306883-27	Benzo(b)fluoranthene	N	Yes	U	UJ	FDP
L2306883	SW8270E	NA	DUP_1_02082023	L2306883-27	Fluoranthene	N	Yes	U	UJ	FDP
L2307677	SW6010D	NA	DUP_1_02132023	L2307677-09	Cobalt	N	Yes	8.36	8.36 J	FDP
L2307677	SW6010D	NA	DUP_1_02132023	L2307677-09	Silver	N	Yes	1.43	1.43 J	FDP
L2307677	SW6010D	NA	DUP_1_02132023	L2307677-09	Zinc	N	Yes	160	160 J	FDP
L2307677	SW8270E	NA	DUP_1_02132023	L2307677-09	Fluoranthene	N	Yes	27 J	27 J	FDP
L2307677	SW8270E	NA	DUP_1_02132023	L2307677-09	Pyrene	N	Yes	23 J	23 J	FDP
L2305934	SW6010D	NA	HA-04 (6-8)	L2305934-02	Cadmium	N	Yes	1.64	1.64 J	FDP
L2305934	SW6010D	NA	HA-04 (6-8)	L2305934-02	Calcium	N	Yes	26600	26600 J	FDP
L2305934	SW6010D	NA	HA-04 (6-8)	L2305934-02	Copper	N	Yes	89.1	89.1 J	FDP
L2305934	SW6010D	NA	HA-04 (6-8)	L2305934-02	Iron	N	Yes	24100	24100 J	FDP
L2305934	SW6010D	NA	HA-04 (6-8)	L2305934-02	Lead	N	Yes	746	746 J	FDP
L2305934	SW6010D	NA	HA-04 (6-8)	L2305934-02	Zinc	N	Yes	531	531 J	FDP
L2305934	SW8260D	NA	HA-04 (6-8)	L2305934-02	Acetone	N	Yes	14	14 J	FDP
L2305934	SW8260D	NA	HA-04 (6-8)	L2305934-02	Benzene	N	Yes	0.84	0.84 J	FDP
L2305934	SW8270E	NA	HA-04 (6-8)	L2305934-02	Fluoranthene	N	Yes	58 J	58 J	FDP
L2305934	SW8270E	NA	HA-04 (6-8)	L2305934-02	Phenanthrene	N	Yes	40 J	40 J	FDP
L2305934	SW8270E	NA	HA-04 (6-8)	L2305934-02	Pyrene	N	Yes	47 J	47 J	FDP
L2307677	SW6010D	NA	HA-18 (10-12)	L2307677-07	Cobalt	N	Yes	3.05	3.05 J	FDP
L2307677	SW6010D	NA	HA-18 (10-12)	L2307677-07	Silver	N	Yes	5.3	5.3 J	FDP
L2307677	SW6010D	NA	HA-18 (10-12)	L2307677-07	Zinc	N	Yes	64.1	64.1 J	FDP
L2307677	SW8270E	NA	HA-18 (10-12)	L2307677-07	Fluoranthene	N	Yes	280	280 J	FDP
L2307677	SW8270E	NA	HA-18 (10-12)	L2307677-07	Pyrene	N	Yes	250	250 J	FDP
L2306883	SW6010D	NA	HA-19 (10-12)	L2306883-19	Calcium	N	Yes	12800	12800 J	FDP
L2306883	SW6010D	NA	HA-19 (10-12)	L2306883-19	Chromium	N	Yes	19.9	19.9 J	FDP
L2306883	SW6010D	NA	HA-19 (10-12)	L2306883-19	Iron	N	Yes	15700	15700 J	FDP
L2306883	SW6010D	NA	HA-19 (10-12)	L2306883-19	Lead	N	Yes	602	602 J	FDP
L2310952	SW6010DR	NA	HA-19 (10-12)	L2310952-40	Lead	N	Yes	5.49	5.49 J	FDP
L2306883	SW8260D	NA	HA-19 (10-12)	L2306883-19	1,2,4,5-Tetramethylbenzene	N	Yes	6400	6400 J	FDP
L2306883	SW8260D	NA	HA-19 (10-12)	L2306883-19	1,2,4-Trimethylbenzene	N	Yes	2100	2100 J	FDP
L2306883	SW8260D	NA	HA-19 (10-12)	L2306883-19	1,4-Diethylbenzene	N	Yes	1900	1900 J	FDP
L2306883	SW8260D	NA	HA-19 (10-12)	L2306883-19	2-Phenylbutane (sec-Butylbenzene)	N	Yes	600	600 J	FDP
L2306883	SW8260D	NA	HA-19 (10-12)	L2306883-19	4-Ethyltoluene (1-Ethyl-4-Methylbenzene)	N	Yes	2400	2400 J	FDP
L2306883	SW8260D	NA	HA-19 (10-12)	L2306883-19	Benzene	N	Yes	790	790 J	FDP

TABLE 1
SYSTEM PERFORMANCE SUMMARY
556 BALTIC STREET SITE RIR
BROOKLYN, NEW YORK

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2306883	SW8260D	NA	HA-19 (10-12)	L2306883-19	Ethylbenzene	N	Yes	1600	1600 J	FDP
L2306883	SW8260D	NA	HA-19 (10-12)	L2306883-19	Isopropylbenzene (Cumene)	N	Yes	530	530 J	FDP
L2306883	SW8270E	NA	HA-19 (10-12)	L2306883-19	2-Methylnaphthalene	N	Yes	3100	3100 J	FDP
L2306883	SW8270E	NA	HA-19 (10-12)	L2306883-19	Benzo(b)fluoranthene	N	Yes	730	730 J	FDP
L2306883	SW8270E	NA	HA-19 (10-12)	L2306883-19	Fluoranthene	N	Yes	770	770 J	FDP
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	1,1,1,2-Tetrachloroethane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	1,1,1-Trichloroethane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	1,1,2,2-Tetrachloroethane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	1,1,2-Trichloroethane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	1,1-Dichloroethane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	1,1-Dichloroethene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	1,1-Dichloropropene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	1,2,3-Trichlorobenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	1,2,3-Trichloropropane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	1,2,4,5-Tetramethylbenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	1,2,4-Trichlorobenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	1,2,4-Trimethylbenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	1,2-Dibromo-3-chloropropane (DBCP)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	1,2-Dibromoethane (Ethylene Dibromide)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	1,2-Dichlorobenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	1,2-Dichloroethane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	1,2-Dichloroethane-d4	N	Yes	24.7	24.7 J	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	1,2-Dichloroethene (total)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	1,2-Dichloropropane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	1,3,5-Trimethylbenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	1,3-Dichlorobenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	1,3-Dichloropropane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	1,3-Dichloropropene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	1,4-Dichlorobenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	1,4-Diethylbenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	1,4-Dioxane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	2,2-Dichloropropane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	2-Butanone (Methyl Ethyl Ketone)	N	Yes	8.6 J	8.6 J	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	2-Chlorotoluene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	2-Hexanone (Methyl Butyl Ketone)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	2-Phenylbutane (sec-Butylbenzene)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	4-Bromofluorobenzene	N	Yes	22.4	22.4 J	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	4-Chlorotoluene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	4-Ethyltoluene (1-Ethyl-4-Methylbenzene)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Acetone	N	Yes	55	55 J	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Acrylonitrile	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Benzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Bromobenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Bromodichloromethane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Bromoform	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Bromomethane (Methyl Bromide)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Carbon disulfide	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Carbon tetrachloride	N	Yes	U	UJ	HTQ

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556 BALTIC STREET SITE RIR
BROOKLYN, NEW YORK

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Chlorobenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Chlorobromomethane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Chloroethane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Chloroform (Trichloromethane)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Chloromethane (Methyl Chloride)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Cymene (p-Isopropyltoluene)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Dibromochloromethane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Dibromofluoromethane	N	Yes	22	22 J	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Dibromomethane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Dichlorodifluoromethane (CFC-12)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Ethyl Ether	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Ethylbenzene	N	Yes	0.31 J	0.31 J	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Hexachlorobutadiene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Isopropylbenzene (Cumene)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Methyl Tert Butyl Ether (MTBE)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Methylene chloride (Dichloromethane)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Naphthalene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Styrene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Tetrachloroethene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Toluene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Toluene-D8	N	Yes	22.1	22.1 J	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Trichloroethene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Trichlorofluoromethane (CFC-11)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Vinyl acetate	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Vinyl chloride	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	Xylene (Total)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	cis-1,2-Dichloroethene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	cis-1,3-Dichloropropene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	m,p-Xylenes	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	n-Butylbenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	n-Propylbenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	o-Xylene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	tert-Butylbenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	trans-1,2-Dichloroethene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	trans-1,3-Dichloropropene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	DUP_1_02132023	L2307677-09	trans-1,4-Dichloro-2-butene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	1,1,1,2-Tetrachloroethane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	1,1,1-Trichloroethane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	1,1,2,2-Tetrachloroethane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	1,1,2-Trichloroethane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	1,1-Dichloroethane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	1,1-Dichloroethene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	1,1-Dichloropropene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	1,2,3-Trichlorobenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	1,2,3-Trichloropropane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	1,2,4,5-Tetramethylbenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	1,2,4-Trichlorobenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	1,2,4-Trimethylbenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	1,2-Dibromo-3-chloropropane (DBCP)	N	Yes	U	UJ	HTQ

TABLE 1
SYSTEM PERFORMANCE SUMMARY
556 BALTIC STREET SITE RIR
BROOKLYN, NEW YORK

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	1,2-Dibromoethane (Ethylene Dibromide)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	1,2-Dichlorobenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	1,2-Dichloroethane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	1,2-Dichloroethane-d4	N	Yes	22.3	22.3 J	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	1,2-Dichloroethene (total)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	1,2-Dichloropropane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	1,3,5-Trimethylbenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	1,3-Dichlorobenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	1,3-Dichloropropane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	1,3-Dichloropropene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	1,4-Dichlorobenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	1,4-Diethylbenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	1,4-Dioxane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	2,2-Dichloropropane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	2-Butanone (Methyl Ethyl Ketone)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	2-Chlorotoluene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	2-Hexanone (Methyl Butyl Ketone)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	2-Phenylbutane (sec-Butylbenzene)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	4-Bromofluorobenzene	N	Yes	20	20 J	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	4-Chlorotoluene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	4-Ethyltoluene (1-Ethyl-4-Methylbenzene)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Acrylonitrile	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Benzene	N	Yes	0.2 J	0.2 J	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Bromobenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Bromodichloromethane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Bromoform	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Bromomethane (Methyl Bromide)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Carbon disulfide	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Carbon tetrachloride	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Chlorobenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Chlorobromomethane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Chloroethane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Chloroform (Trichloromethane)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Chloromethane (Methyl Chloride)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Cymene (p-Isopropyltoluene)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Dibromochloromethane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Dibromofluoromethane	N	Yes	20.2	20.2 J	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Dibromomethane	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Dichlorodifluoromethane (CFC-12)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Ethyl Ether	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Ethylbenzene	N	Yes	0.2 J	0.2 J	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Hexachlorobutadiene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Isopropylbenzene (Cumene)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Methyl Tert Butyl Ether (MTBE)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Methylene chloride (Dichloromethane)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Naphthalene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Styrene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Tetrachloroethene	N	Yes	U	UJ	HTQ

TABLE 1
SYSTEM PERFORMANCE SUMMARY
556 BALTIC STREET SITE RIR
BROOKLYN, NEW YORK

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Toluene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Toluene-D8	N	Yes	19.8	19.8 J	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Trichloroethene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Trichlorofluoromethane (CFC-11)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Vinyl acetate	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Vinyl chloride	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Xylene (Total)	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	cis-1,2-Dichloroethene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	cis-1,3-Dichloropropene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	m,p-Xylenes	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	n-Butylbenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	n-Propylbenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	o-Xylene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	tert-Butylbenzene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	trans-1,2-Dichloroethene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	trans-1,3-Dichloropropene	N	Yes	U	UJ	HTQ
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	trans-1,4-Dichloro-2-butene	N	Yes	U	UJ	HTQ
L2305934	SW8270E	NA	DUP_1_02022023	L2305934-09	2,4-Dinitrophenol	N	Yes	U	R	LCS
L2305934	SW8270E	NA	DUP_1_02022023	L2305934-09	2,4-Dinitrotoluene	N	Yes	U	R	LCS
L2305934	SW8270E	NA	DUP_1_02022023	L2305934-09	2,6-Dinitrotoluene	N	Yes	U	R	LCS
L2305934	SW8270E	NA	DUP_1_02022023	L2305934-09	2-Nitrophenol	N	Yes	U	R	LCS
L2305934	SW8270E	NA	DUP_1_02022023	L2305934-09	4,6-Dinitro-2-methylphenol	N	Yes	U	R	LCS
L2305934	SW8270E	NA	DUP_1_02022023	L2305934-09	Benzoic acid	N	Yes	U	R	LCS
L2305934	SW8270E	NA	DUP_1_02022023	L2305934-09	Hexachlorocyclopentadiene	N	Yes	U	R	LCS
L2305934	SW8270E	NA	DUP_1_02022023	L2305934-09	Hexachloroethane	N	Yes	U	R	LCS
L2307677	SW8270E	NA	DUP_1_02132023	L2307677-09	1,4-Dioxane	N	Yes	U	R	LCS
L2307677	SW8270E	NA	DUP_1_02132023	L2307677-09	2,2'-oxybis(1-Chloropropane)	N	Yes	U	R	LCS
L2305570	SW8270E	NA	FIELD BLANK 02012023	L2305570-21	4-Chloroaniline	N	Yes	U	R	LCS
L2305934	SW8270E	NA	FIELD BLANK 02022023	L2305934-10	4-Chloroaniline	N	Yes	U	R	LCS
L2307196	SW8260D	NA	FIELD BLANK 02092023	L2307196-17	Chloromethane (Methyl Chloride)	N	Yes	U	UJ	LCS
L2305934	SW8270E	NA	HA-04 (10-12)	L2305934-03	2,4-Dinitrophenol	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (10-12)	L2305934-03	2,4-Dinitrotoluene	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (10-12)	L2305934-03	2,6-Dinitrotoluene	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (10-12)	L2305934-03	2-Nitrophenol	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (10-12)	L2305934-03	4,6-Dinitro-2-methylphenol	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (10-12)	L2305934-03	Benzoic acid	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (10-12)	L2305934-03	Hexachlorocyclopentadiene	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (10-12)	L2305934-03	Hexachloroethane	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (14-16)	L2305934-04	2,4-Dinitrophenol	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (14-16)	L2305934-04	2,4-Dinitrotoluene	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (14-16)	L2305934-04	2,6-Dinitrotoluene	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (14-16)	L2305934-04	2-Nitrophenol	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (14-16)	L2305934-04	4,6-Dinitro-2-methylphenol	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (14-16)	L2305934-04	Benzoic acid	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (14-16)	L2305934-04	Hexachlorocyclopentadiene	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (14-16)	L2305934-04	Hexachloroethane	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (2-4)	L2305934-01	2,4-Dinitrophenol	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (2-4)	L2305934-01	2,4-Dinitrotoluene	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (2-4)	L2305934-01	2,6-Dinitrotoluene	N	Yes	U	R	LCS

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2305934	SW8270E	NA	HA-04 (2-4)	L2305934-01	2-Nitrophenol	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (2-4)	L2305934-01	4,6-Dinitro-2-methylphenol	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (2-4)	L2305934-01	Benzoic acid	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (2-4)	L2305934-01	Hexachlorocyclopentadiene	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (2-4)	L2305934-01	Hexachloroethane	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (6-8)	L2305934-02	2,4-Dinitrophenol	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (6-8)	L2305934-02	2,4-Dinitrotoluene	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (6-8)	L2305934-02	2,6-Dinitrotoluene	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (6-8)	L2305934-02	2-Nitrophenol	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (6-8)	L2305934-02	4,6-Dinitro-2-methylphenol	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (6-8)	L2305934-02	Benzoic acid	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (6-8)	L2305934-02	Hexachlorocyclopentadiene	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-04 (6-8)	L2305934-02	Hexachloroethane	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (10-12)	L2305934-07	2,4-Dinitrophenol	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (10-12)	L2305934-07	2,4-Dinitrotoluene	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (10-12)	L2305934-07	2,6-Dinitrotoluene	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (10-12)	L2305934-07	2-Nitrophenol	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (10-12)	L2305934-07	4,6-Dinitro-2-methylphenol	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (10-12)	L2305934-07	Benzoic acid	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (10-12)	L2305934-07	Hexachlorocyclopentadiene	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (10-12)	L2305934-07	Hexachloroethane	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (14-16)	L2305934-08	2,4-Dinitrophenol	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (14-16)	L2305934-08	2,4-Dinitrotoluene	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (14-16)	L2305934-08	2,6-Dinitrotoluene	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (14-16)	L2305934-08	2-Nitrophenol	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (14-16)	L2305934-08	4,6-Dinitro-2-methylphenol	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (14-16)	L2305934-08	Benzoic acid	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (14-16)	L2305934-08	Hexachlorocyclopentadiene	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (14-16)	L2305934-08	Hexachloroethane	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (2-4)	L2305934-05	2,4-Dinitrophenol	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (2-4)	L2305934-05	2,4-Dinitrotoluene	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (2-4)	L2305934-05	2,6-Dinitrotoluene	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (2-4)	L2305934-05	2-Nitrophenol	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (2-4)	L2305934-05	4,6-Dinitro-2-methylphenol	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (2-4)	L2305934-05	Benzoic acid	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (2-4)	L2305934-05	Hexachlorocyclopentadiene	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (2-4)	L2305934-05	Hexachloroethane	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (6-8)	L2305934-06	2,4-Dinitrotoluene	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (6-8)	L2305934-06	2,6-Dinitrotoluene	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (6-8)	L2305934-06	2-Nitrophenol	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (6-8)	L2305934-06	4,6-Dinitro-2-methylphenol	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (6-8)	L2305934-06	Hexachlorocyclopentadiene	N	Yes	U	R	LCS
L2305934	SW8270E	NA	HA-05 (6-8)	L2305934-06	Hexachloroethane	N	Yes	U	R	LCS
L2305570	SW8270E	NA	HA-06 (10-12)	L2305570-03	4-Chloroaniline	N	Yes	U	R	LCS
L2305570	SW8270E	NA	HA-06 (14-16)	L2305570-04	4-Chloroaniline	N	Yes	U	R	LCS
L2305570	SW8270E	NA	HA-06 (2-4)	L2305570-01	4-Chloroaniline	N	Yes	U	R	LCS
L2305570	SW8270E	NA	HA-06 (6-8)	L2305570-02	4-Chloroaniline	N	Yes	U	R	LCS
L2307196	SW8260D	NA	HA-07 (10-12)	L2307196-03	Acetone	N	Yes	20	20 J	LCS
L2307196	SW8081B	NA	HA-07 (14-16)	L2307196-04	Methoxychlor	N	Yes	11.8	11.8 J+	LCS

TABLE 1
SYSTEM PERFORMANCE SUMMARY
556 BALTIC STREET SITE RIR
BROOKLYN, NEW YORK

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2307196	SW8260D	NA	HA-07 (14-16)	L2307196-04	1,2-Dichloroethene (total)	N	Yes	0.46 J	0.46 J	LCS
L2307196	SW8260D	NA	HA-07 (14-16)	L2307196-04	2-Butanone (Methyl Ethyl Ketone)	N	Yes	3 J	3 J	LCS
L2307196	SW8260D	NA	HA-07 (14-16)	L2307196-04	cis-1,2-Dichloroethene	N	Yes	0.46 J	0.46 J	LCS
L2307196	SW8081B	NA	HA-07 (2-4)	L2307196-01	4,4'-DDE	N	Yes	8.74	8.74 J+	LCS
L2307196	SW8081B	NA	HA-07 (2-4)	L2307196-01	alpha-Chlordane (cis)	N	Yes	10.4	10.4 J+	LCS
L2307196	SW8081B	NA	HA-07 (2-4)	L2307196-01	gamma-Chlordane (trans)	N	Yes	10.3	10.3 J+	LCS
L2307196	SW8260D	NA	HA-07 (2-4)	L2307196-01	Acetone	N	Yes	7.3 J	7.3 J	LCS
L2307196	SW8081B	NA	HA-07 (6-8)	L2307196-02	Dieldrin	N	Yes	0.762 J	0.762 J+	LCS
L2305570	SW8270E	NA	HA-08 (10-12)	L2305570-07	4-Chloroaniline	N	Yes	U	R	LCS
L2305570	SW8270E	NA	HA-08 (14-16)	L2305570-08	4-Chloroaniline	N	Yes	U	R	LCS
L2305570	SW8270E	NA	HA-08 (2-4)	L2305570-05	4-Chloroaniline	N	Yes	U	R	LCS
L2305570	SW8270E	NA	HA-08 (6-8)	L2305570-06	4-Chloroaniline	N	Yes	U	R	LCS
L2307196	SW8260D	NA	HA-09 (14-16)	L2307196-08	Acetone	N	Yes	9.3	9.3 J	LCS
L2307196	SW8260D	NA	HA-09 (2-4)	L2307196-05	Acetone	N	Yes	6 J	6 J	LCS
L2307196	SW8260D	NA	HA-09 (6-8)	L2307196-06	Acetone	N	Yes	15	15 J	LCS
L2307196	SW8260D	NA	HA-11 (10-12)	L2307196-11	Acetone	N	Yes	49	49 J	LCS
L2307196	SW8081B	NA	HA-11 (14-16)	L2307196-12	4,4'-DDE	N	Yes	1.16 J	1.16 J+	LCS
L2307196	SW8260D	NA	HA-11 (14-16)	L2307196-12	Acetone	N	Yes	24	24 J	LCS
L2307196	SW8081B	NA	HA-11 (2-4)	L2307196-09	4,4'-DDD	N	Yes	3.59	3.59 J+	LCS
L2307196	SW8081B	NA	HA-11 (2-4)	L2307196-09	4,4'-DDE	N	Yes	2.61	2.61 J+	LCS
L2307196	SW8081B	NA	HA-11 (2-4)	L2307196-09	4,4'-DDT	N	Yes	9.36	9.36 J+	LCS
L2307196	SW8260D	NA	HA-11 (2-4)	L2307196-09	Acetone	N	Yes	9.5 J	9.5 J	LCS
L2307196	SW8260D	NA	HA-11 (6-8)	L2307196-10	Acetone	N	Yes	34	34 J	LCS
L2307196	SW8260D	NA	HA-12 (14-16)	L2307196-16	Acetone	N	Yes	36	36 J	LCS
L2307196	SW8260D	NA	HA-12 (2-4)	L2307196-13	Acetone	N	Yes	7.3 J	7.3 J	LCS
L2307196	SW8260D	NA	HA-12 (6-8)	L2307196-14	Acetone	N	Yes	71	71 J	LCS
L2307677	SW8270E	NA	HA-13 (10-12)	L2307677-03	1,4-Dioxane	N	Yes	U	R	LCS
L2307677	SW8270E	NA	HA-13 (10-12)	L2307677-03	2,2'-oxybis(1-Chloropropane)	N	Yes	U	R	LCS
L2307677	SW8270E	NA	HA-13 (14-16)	L2307677-04	1,4-Dioxane	N	Yes	U	R	LCS
L2307677	SW8270E	NA	HA-13 (14-16)	L2307677-04	2,2'-oxybis(1-Chloropropane)	N	Yes	U	R	LCS
L2307677	SW8270E	NA	HA-13 (2-4)	L2307677-01	1,4-Dioxane	N	Yes	U	R	LCS
L2307677	SW8270E	NA	HA-13 (2-4)	L2307677-01	2,2'-oxybis(1-Chloropropane)	N	Yes	U	R	LCS
L2307677	SW8270E	NA	HA-13 (6-8)	L2307677-02	1,4-Dioxane	N	Yes	U	R	LCS
L2307677	SW8270E	NA	HA-13 (6-8)	L2307677-02	2,2'-oxybis(1-Chloropropane)	N	Yes	U	R	LCS
L2305570	SW8270E	NA	HA-14 (10-12)	L2305570-11	4-Chloroaniline	N	Yes	U	R	LCS
L2305570	SW8270E	NA	HA-14 (14-16)	L2305570-12	4-Chloroaniline	N	Yes	U	R	LCS
L2305570	SW8270E	NA	HA-14 (2-4)	L2305570-09	4-Chloroaniline	N	Yes	U	R	LCS
L2305570	SW8270E	NA	HA-14 (6-8)	L2305570-10	4-Chloroaniline	N	Yes	U	R	LCS
L2305570	SW8270E	NA	HA-15 (10-12)	L2305570-15	4-Chloroaniline	N	Yes	U	R	LCS
L2305570	SW8270E	NA	HA-15 (14-16)	L2305570-16	4-Chloroaniline	N	Yes	U	R	LCS
L2305570	SW8270E	NA	HA-15 (2-4)	L2305570-13	4-Chloroaniline	N	Yes	U	R	LCS
L2305570	SW8270E	NA	HA-15 (6-8)	L2305570-14	4-Chloroaniline	N	Yes	U	R	LCS
L2305570	SW8270E	NA	HA-16 (10-12)	L2305570-19	4-Chloroaniline	N	Yes	U	R	LCS
L2305570	SW8270E	NA	HA-16 (14-16)	L2305570-20	4-Chloroaniline	N	Yes	U	R	LCS
L2305570	SW8270E	NA	HA-16 (2-4)	L2305570-17	4-Chloroaniline	N	Yes	U	R	LCS
L2305570	SW8270E	NA	HA-16 (6-8)	L2305570-18	4-Chloroaniline	N	Yes	U	R	LCS
L2307677	SW8270E	NA	HA-18 (10-12)	L2307677-07	1,4-Dioxane	N	Yes	U	R	LCS
L2307677	SW8270E	NA	HA-18 (10-12)	L2307677-07	2,2'-oxybis(1-Chloropropane)	N	Yes	U	R	LCS
L2307677	SW8270E	NA	HA-18 (14-16)	L2307677-08	1,4-Dioxane	N	Yes	U	R	LCS

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2307677	SW8270E	NA	HA-18 (14-16)	L2307677-08	2,2'-oxybis(1-Chloropropane)	N	Yes	U	R	LCS
L2307677	SW8270E	NA	HA-18 (2-4)	L2307677-05	1,4-Dioxane	N	Yes	U	R	LCS
L2307677	SW8270E	NA	HA-18 (2-4)	L2307677-05	2,2'-oxybis(1-Chloropropane)	N	Yes	U	R	LCS
L2307677	SW8270E	NA	HA-18 (6-8)	L2307677-06	1,4-Dioxane	N	Yes	U	R	LCS
L2307677	SW8270E	NA	HA-18 (6-8)	L2307677-06	2,2'-oxybis(1-Chloropropane)	N	Yes	U	R	LCS
L2306883	SW8270E	NA	HA-19 (10-12)	L2306883-19	Hexachlorocyclopentadiene	N	Yes	U	R	LCS
L2306883	SW8270E	NA	HA-19 (14-16)	L2306883-20	Hexachlorocyclopentadiene	N	Yes	U	R	LCS
L2306883	SW8270E	NA	HA-19 (20-22)	L2306883-21	Hexachlorocyclopentadiene	N	Yes	U	R	LCS
L2306883	SW8270E	NA	HA-19 (6-8)	L2306883-18	Hexachlorocyclopentadiene	N	Yes	U	R	LCS
L2306883	SW8270E	NA	HA-21 (10-12)	L2306883-24	Hexachlorocyclopentadiene	N	Yes	U	R	LCS
L2306883	SW8270E	NA	HA-21 (14-16)	L2306883-25	Hexachlorocyclopentadiene	N	Yes	U	R	LCS
L2306883	SW8270E	NA	HA-21 (20-22)	L2306883-26	Hexachlorocyclopentadiene	N	Yes	U	R	LCS
L2306883	SW8270E	NA	HA-21 (6-8)	L2306883-23	Hexachlorocyclopentadiene	N	Yes	U	R	LCS
L2307196	SW8260D	NA	TRIP BLANK-20230209	L2307196-18	Chloromethane (Methyl Chloride)	N	Yes	U	UJ	LCS
L2305934	SW8270E	NA	HA-05 (6-8)	L2305934-06	2,4-Dinitrophenol	N	Yes	U	R	LCS, MSD
L2305934	SW8270E	NA	HA-05 (6-8)	L2305934-06	Benzoic acid	N	Yes	U	R	LCS, MSD
L2305934	SW6010D	NA	DUP_1_02022023	L2305934-09	Antimony	N	Yes	1.2 J	4.87 U	MBK
L2307677	SW6010D	NA	DUP_1_02132023	L2307677-09	Nickel	N	Yes	12	12.0 U	MBK
L2306883	SW6020B	NA	FIELD BLANK 02082023	L2306883-28	Thallium	T	Yes	0.00029 J	0.002 U	MBK
L2306883	SW8270ESIM	NA	FIELD BLANK 02082023	L2306883-28	2-Methylnaphthalene	N	Yes	0.03 J	0.1 U	MBK
L2306883	SW8270ESIM	NA	FIELD BLANK 02082023	L2306883-28	Phenanthrene	N	Yes	0.03 J	0.1 U	MBK
L2306883	SW8270ESIM	NA	FIELD BLANK 02082023	L2306883-28	Pyrene	N	Yes	0.02 J	0.1 U	MBK
L2307196	SW6020B	NA	FIELD BLANK 02092023	L2307196-17	Thallium	T	Yes	0.00023 J	0.002 U	MBK
L2307512	SW7470A	NA	FIELD BLANK_1_02102023	L2307512-06	Mercury	T	Yes	0.00019 J	0.0002 U	MBK
L2307512	SW7470A	NA	FIELD BLANK_2_02102023	L2307512-07	Mercury	T	Yes	0.00017 J	0.0002 U	MBK
L2306883	SW6010D	NA	HA-01 (10-12)	L2306883-03	Antimony	N	Yes	0.999 J	4.87 U	MBK
L2306883	SW6010D	NA	HA-01 (2-4)	L2306883-01	Antimony	N	Yes	1.09 J	4.84 U	MBK
L2306883	SW6010D	NA	HA-02 (14-16)	L2306883-08	Antimony	N	Yes	0.68 J	4.34 U	MBK
L2306883	SW6010D	NA	HA-02 (6-8)	L2306883-06	Antimony	N	Yes	1.82 J	4.51 U	MBK
L2307511	SW8260D	NA	HA-03 (2-4)	L2307511-01	Acetone	N	Yes	7 J	11.0 U	MBK
L2307511	SW8260D	NA	HA-03 (2-4)	L2307511-01	Naphthalene	N	Yes	1.7 J	4.5 U	MBK
L2307511	SW8260D	NA	HA-03 (6-8)	L2307511-02	Acetone	N	Yes	20	20 J+	MBK
L2307511	SW8260D	NA	HA-03 (6-8)	L2307511-02	Naphthalene	N	Yes	1.7 J	4.2 U	MBK
L2305934	SW6010D	NA	HA-04 (10-12)	L2305934-03	Antimony	N	Yes	2.2 J	5.28 U	MBK
L2305934	SW6010D	NA	HA-04 (14-16)	L2305934-04	Antimony	N	Yes	3.46 J	8.12 U	MBK
L2305934	SW6010D	NA	HA-04 (2-4)	L2305934-01	Antimony	N	Yes	1.3 J	4.28 U	MBK
L2305934	SW6010D	NA	HA-04 (6-8)	L2305934-02	Antimony	N	Yes	2.8 J	4.9 U	MBK
L2305934	SW6010D	NA	HA-05 (10-12)	L2305934-07	Antimony	N	Yes	1.23 J	4.56 U	MBK
L2305934	SW6010D	NA	HA-05 (14-16)	L2305934-08	Antimony	N	Yes	0.844 J	4.53 U	MBK
L2305934	SW6010D	NA	HA-05 (2-4)	L2305934-05	Antimony	N	Yes	2.16 J	4.24 U	MBK
L2305934	SW6010D	NA	HA-05 (6-8)	L2305934-06	Antimony	N	Yes	1.9 J	4.44 U	MBK
L2307196	SW8260D	NA	HA-07 (14-16)	L2307196-04	Acetone	N	Yes	17	17 J+	MBK
L2306883	SW6010D	NA	HA-10 (14-16)	L2306883-12	Antimony	N	Yes	0.97 J	4.58 U	MBK
L2306883	SW6010D	NA	HA-10 (2-4)	L2306883-09	Antimony	N	Yes	0.369 J	4.38 U	MBK
L2306883	SW6010D	NA	HA-17 (2-4)	L2306883-13	Antimony	N	Yes	0.769 J	4.44 U	MBK
L2307677	SW6010D	NA	HA-18 (10-12)	L2307677-07	Nickel	N	Yes	7.39	7.39 U	MBK
L2306883	SW6010D	NA	HA-19 (2-4)	L2306883-17	Antimony	N	Yes	1.38 J	4.91 U	MBK
L2306883	SW6010D	NA	HA-19 (6-8)	L2306883-18	Antimony	N	Yes	0.53 J	4.48 U	MBK
L2307511	SW8260D	NA	HA-20 (10-12)	L2307511-07	Naphthalene	N	Yes	1.8 J	4.8 U	MBK

TABLE 1
SYSTEM PERFORMANCE SUMMARY
556 BALTIC STREET SITE RIR
BROOKLYN, NEW YORK

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2307511	SW8260D	NA	HA-20 (14-16)	L2307511-08	Naphthalene	N	Yes	2.1 J	5.6 U	MBK
L2307511	SW8260D	NA	HA-20 (2-4)	L2307511-05	Acetone	N	Yes	12	12.0 U	MBK
L2307511	SW8260D	NA	HA-20 (2-4)	L2307511-05	Naphthalene	N	Yes	1.7 J	4.4 U	MBK
L2307511	SW8260D	NA	HA-20 (6-8)	L2307511-06	Acetone	N	Yes	16	16.0 U	MBK
L2307511	SW8260D	NA	HA-20 (6-8)	L2307511-06	Naphthalene	N	Yes	2.3 J	6.1 U	MBK
L2306883	SW8260D	NA	HA-21 (14-16)	L2306883-25	Naphthalene	N	Yes	1.6 J	5.8 U	MBK
L2306883	SW8260D	NA	HA-21 (20-22)	L2306883-26	Naphthalene	N	Yes	1.2 J	7.0 U	MBK
L2307512	SW7470AR	NA	HA-26 (15-17)	L2307512-03	Mercury	N	Yes	0.0006 J	0.001 U	MBK
L2307677	SW8260D	NA	HA-18 (6-8)	L2307677-06	Acetone	N	Yes	21	21 J+	MBK, LCS, HTQ
L2305934	SW6010D	NA	DUP_1_02022023	L2305934-09	Magnesium	N	Yes	3510	3510 J+	MSD
L2305934	SW6010D	NA	DUP_1_02022023	L2305934-09	Manganese	N	Yes	117	117 J+	MSD
L2307677	SW6010D	NA	DUP_1_02132023	L2307677-09	Barium	N	Yes	300	300 J-	MSD
L2307677	SW6010D	NA	DUP_1_02132023	L2307677-09	Chromium	N	Yes	13.9	13.9 J-	MSD
L2307677	SW6010D	NA	DUP_1_02132023	L2307677-09	Copper	N	Yes	475	475 J-	MSD
L2307677	SW6010D	NA	DUP_1_02132023	L2307677-09	Magnesium	N	Yes	549	549 J-	MSD
L2307196	SW6020B	NA	FIELD BLANK 02092023	L2307196-17	Antimony	T	Yes	U	UJ	MSD
L2307196	SW6020B	NA	FIELD BLANK 02092023	L2307196-17	Calcium	T	Yes	U	UJ	MSD
L2307196	SW6020B	NA	FIELD BLANK 02092023	L2307196-17	Manganese	T	Yes	U	UJ	MSD
L2305934	SW6010D	NA	HA-04 (10-12)	L2305934-03	Arsenic	N	Yes	20.8	20.8 J+	MSD
L2305934	SW6010D	NA	HA-04 (10-12)	L2305934-03	Barium	N	Yes	239	239 J+	MSD
L2305934	SW6010D	NA	HA-04 (10-12)	L2305934-03	Magnesium	N	Yes	597	597 J+	MSD
L2305934	SW6010D	NA	HA-04 (10-12)	L2305934-03	Manganese	N	Yes	89.8	89.8 J+	MSD
L2305934	SW6010D	NA	HA-04 (10-12)	L2305934-03	Potassium	N	Yes	1040	1040 J+	MSD
L2305934	SW6010D	NA	HA-04 (14-16)	L2305934-04	Arsenic	N	Yes	29	29 J+	MSD
L2305934	SW6010D	NA	HA-04 (14-16)	L2305934-04	Barium	N	Yes	235	235 J+	MSD
L2305934	SW6010D	NA	HA-04 (14-16)	L2305934-04	Magnesium	N	Yes	777	777 J+	MSD
L2305934	SW6010D	NA	HA-04 (14-16)	L2305934-04	Manganese	N	Yes	165	165 J+	MSD
L2305934	SW6010D	NA	HA-04 (14-16)	L2305934-04	Potassium	N	Yes	1090	1090 J+	MSD
L2305934	SW6010D	NA	HA-04 (2-4)	L2305934-01	Arsenic	N	Yes	5.34	5.34 J+	MSD
L2305934	SW6010D	NA	HA-04 (2-4)	L2305934-01	Barium	N	Yes	146	146 J+	MSD
L2305934	SW6010D	NA	HA-04 (2-4)	L2305934-01	Magnesium	N	Yes	2740	2740 J+	MSD
L2305934	SW6010D	NA	HA-04 (2-4)	L2305934-01	Manganese	N	Yes	204	204 J+	MSD
L2305934	SW6010D	NA	HA-04 (2-4)	L2305934-01	Potassium	N	Yes	685	685 J+	MSD
L2305934	SW6010D	NA	HA-04 (6-8)	L2305934-02	Magnesium	N	Yes	3140	3140 J+	MSD
L2305934	SW6010D	NA	HA-04 (6-8)	L2305934-02	Manganese	N	Yes	185	185 J+	MSD
L2305934	SW6010D	NA	HA-05 (10-12)	L2305934-07	Arsenic	N	Yes	7.3	7.3 J+	MSD
L2305934	SW6010D	NA	HA-05 (10-12)	L2305934-07	Barium	N	Yes	104	104 J+	MSD
L2305934	SW6010D	NA	HA-05 (10-12)	L2305934-07	Magnesium	N	Yes	2000	2000 J+	MSD
L2305934	SW6010D	NA	HA-05 (10-12)	L2305934-07	Manganese	N	Yes	572	572 J+	MSD
L2305934	SW6010D	NA	HA-05 (10-12)	L2305934-07	Potassium	N	Yes	706	706 J+	MSD
L2305934	SW6010D	NA	HA-05 (14-16)	L2305934-08	Arsenic	N	Yes	3.63	3.63 J+	MSD
L2305934	SW6010D	NA	HA-05 (14-16)	L2305934-08	Barium	N	Yes	22.8	22.8 J+	MSD
L2305934	SW6010D	NA	HA-05 (14-16)	L2305934-08	Magnesium	N	Yes	1790	1790 J+	MSD
L2305934	SW6010D	NA	HA-05 (14-16)	L2305934-08	Manganese	N	Yes	229	229 J+	MSD
L2305934	SW6010D	NA	HA-05 (14-16)	L2305934-08	Potassium	N	Yes	534	534 J+	MSD
L2305934	SW6010D	NA	HA-05 (2-4)	L2305934-05	Arsenic	N	Yes	6.37	6.37 J+	MSD
L2305934	SW6010D	NA	HA-05 (2-4)	L2305934-05	Barium	N	Yes	78.5	78.5 J+	MSD
L2305934	SW6010D	NA	HA-05 (2-4)	L2305934-05	Magnesium	N	Yes	14400	14400 J+	MSD
L2305934	SW6010D	NA	HA-05 (2-4)	L2305934-05	Manganese	N	Yes	183	183 J+	MSD

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556 BALTIC STREET SITE RIR
BROOKLYN, NEW YORK

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2305934	SW6010D	NA	HA-05 (2-4)	L2305934-05	Potassium	N	Yes	668	668 J+	MSD
L2305934	SW6010D	NA	HA-05 (6-8)	L2305934-06	Arsenic	N	Yes	12.6	12.6 J+	MSD
L2305934	SW6010D	NA	HA-05 (6-8)	L2305934-06	Barium	N	Yes	205	205 J+	MSD
L2305934	SW6010D	NA	HA-05 (6-8)	L2305934-06	Magnesium	N	Yes	1880	1880 J+	MSD
L2305934	SW6010D	NA	HA-05 (6-8)	L2305934-06	Manganese	N	Yes	107	107 J+	MSD
L2305934	SW6010D	NA	HA-05 (6-8)	L2305934-06	Potassium	N	Yes	743	743 J+	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	1,1,1,2-Tetrachloroethane	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	1,2,3-Trichlorobenzene	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	1,2,3-Trichloropropane	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	1,2,4,5-Tetramethylbenzene	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	1,2,4-Trichlorobenzene	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	1,2,4-Trimethylbenzene	N	Yes	0.42 J	0.42 J	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	1,2-Dibromo-3-chloropropane (DBCP)	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	1,2-Dichlorobenzene	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	1,3,5-Trimethylbenzene	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	1,3-Dichlorobenzene	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	1,4-Dichlorobenzene	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	1,4-Diethylbenzene	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	2-Chlorotoluene	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	2-Phenylbutane (sec-Butylbenzene)	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	4-Chlorotoluene	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	4-Ethyltoluene (1-Ethyl-4-Methylbenzene)	N	Yes	0.39 J	0.39 J	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	Bromobenzene	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	Carbon disulfide	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	Chlorobenzene	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	Cymene (p-Isopropyltoluene)	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	Ethylbenzene	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	Hexachlorobutadiene	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	Isopropylbenzene (Cumene)	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	Naphthalene	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	Styrene	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	Tetrachloroethene	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	Toluene	N	Yes	0.67 J	0.67 J	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	Trichloroethene	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	Vinyl acetate	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	Xylene (Total)	N	Yes	0.96 J	0.96 J	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	cis-1,3-Dichloropropene	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	m,p-Xylenes	N	Yes	0.96 J	0.96 J	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	n-Butylbenzene	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	n-Propylbenzene	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	o-Xylene	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	tert-Butylbenzene	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	trans-1,3-Dichloropropene	N	Yes	U	UJ	MSD
L2305934	SW8260D	NA	HA-05 (6-8)	L2305934-06	trans-1,4-Dichloro-2-butene	N	Yes	U	UJ	MSD
L2307196	SW6010D	NA	HA-07 (10-12)	L2307196-03	Antimony	N	Yes	2 J	2 J-	MSD
L2307196	SW6010D	NA	HA-07 (10-12)	L2307196-03	Calcium	N	Yes	24300	24300 J-	MSD
L2307196	SW6010D	NA	HA-07 (10-12)	L2307196-03	Iron	N	Yes	11000	11000 J-	MSD
L2307196	SW6010D	NA	HA-07 (10-12)	L2307196-03	Manganese	N	Yes	196	196 J-	MSD
L2307196	SW6010D	NA	HA-07 (14-16)	L2307196-04	Antimony	N	Yes	1.49 J	1.49 J-	MSD

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2307196	SW6010D	NA	HA-07 (14-16)	L2307196-04	Calcium	N	Yes	6060	6060 J-	MSD
L2307196	SW6010D	NA	HA-07 (14-16)	L2307196-04	Iron	N	Yes	7490	7490 J-	MSD
L2307196	SW6010D	NA	HA-07 (14-16)	L2307196-04	Manganese	N	Yes	36	36 J-	MSD
L2307196	SW6010D	NA	HA-07 (2-4)	L2307196-01	Antimony	N	Yes	1.11 J	1.11 J-	MSD
L2307196	SW6010D	NA	HA-07 (2-4)	L2307196-01	Calcium	N	Yes	46300	46300 J-	MSD
L2307196	SW6010D	NA	HA-07 (2-4)	L2307196-01	Iron	N	Yes	13000	13000 J-	MSD
L2307196	SW6010D	NA	HA-07 (2-4)	L2307196-01	Manganese	N	Yes	354	354 J-	MSD
L2307196	SW6010D	NA	HA-07 (6-8)	L2307196-02	Antimony	N	Yes	0.763 J	0.763 J-	MSD
L2307196	SW6010D	NA	HA-07 (6-8)	L2307196-02	Calcium	N	Yes	3340	3340 J-	MSD
L2307196	SW6010D	NA	HA-07 (6-8)	L2307196-02	Iron	N	Yes	5030	5030 J-	MSD
L2307196	SW6010D	NA	HA-07 (6-8)	L2307196-02	Manganese	N	Yes	55.7	55.7 J-	MSD
L2307196	SW6010D	NA	HA-09 (10-12)	L2307196-07	Antimony	N	Yes	0.426 J	0.426 J-	MSD
L2307196	SW6010D	NA	HA-09 (10-12)	L2307196-07	Calcium	N	Yes	1800	1800 J-	MSD
L2307196	SW6010D	NA	HA-09 (10-12)	L2307196-07	Iron	N	Yes	13600	13600 J-	MSD
L2307196	SW6010D	NA	HA-09 (10-12)	L2307196-07	Manganese	N	Yes	328	328 J-	MSD
L2307196	SW6010D	NA	HA-09 (14-16)	L2307196-08	Antimony	N	Yes	0.82 J	0.82 J-	MSD
L2307196	SW6010D	NA	HA-09 (14-16)	L2307196-08	Calcium	N	Yes	8310	8310 J-	MSD
L2307196	SW6010D	NA	HA-09 (14-16)	L2307196-08	Iron	N	Yes	15400	15400 J-	MSD
L2307196	SW6010D	NA	HA-09 (14-16)	L2307196-08	Manganese	N	Yes	326	326 J-	MSD
L2307196	SW6010D	NA	HA-09 (2-4)	L2307196-05	Antimony	N	Yes	0.604 J	0.604 J-	MSD
L2307196	SW6010D	NA	HA-09 (2-4)	L2307196-05	Calcium	N	Yes	1510	1510 J-	MSD
L2307196	SW6010D	NA	HA-09 (2-4)	L2307196-05	Iron	N	Yes	12300	12300 J-	MSD
L2307196	SW6010D	NA	HA-09 (2-4)	L2307196-05	Manganese	N	Yes	138	138 J-	MSD
L2307196	SW8260D	NA	HA-09 (2-4)	L2307196-05	Vinyl acetate	N	Yes	U	UJ	MSD
L2307196	SW8270E	NA	HA-09 (2-4)	L2307196-05	4-Chloroaniline	N	Yes	U	UJ	MSD
L2307196	SW8270E	NA	HA-09 (2-4)	L2307196-05	Benzoic acid	N	Yes	U	UJ	MSD
L2307196	SW6010D	NA	HA-09 (6-8)	L2307196-06	Antimony	N	Yes	1.14 J	1.14 J-	MSD
L2307196	SW6010D	NA	HA-09 (6-8)	L2307196-06	Calcium	N	Yes	32000	32000 J-	MSD
L2307196	SW6010D	NA	HA-09 (6-8)	L2307196-06	Iron	N	Yes	11800	11800 J-	MSD
L2307196	SW6010D	NA	HA-09 (6-8)	L2307196-06	Manganese	N	Yes	354	354 J-	MSD
L2307196	SW6010D	NA	HA-11 (10-12)	L2307196-11	Antimony	N	Yes	1.92 J	1.92 J-	MSD
L2307196	SW6010D	NA	HA-11 (10-12)	L2307196-11	Calcium	N	Yes	7580	7580 J-	MSD
L2307196	SW6010D	NA	HA-11 (10-12)	L2307196-11	Iron	N	Yes	16200	16200 J-	MSD
L2307196	SW6010D	NA	HA-11 (10-12)	L2307196-11	Manganese	N	Yes	157	157 J-	MSD
L2307196	SW6010D	NA	HA-11 (14-16)	L2307196-12	Antimony	N	Yes	U	UJ	MSD
L2307196	SW6010D	NA	HA-11 (14-16)	L2307196-12	Calcium	N	Yes	5450	5450 J-	MSD
L2307196	SW6010D	NA	HA-11 (14-16)	L2307196-12	Iron	N	Yes	13400	13400 J-	MSD
L2307196	SW6010D	NA	HA-11 (14-16)	L2307196-12	Manganese	N	Yes	149	149 J-	MSD
L2307196	SW6010D	NA	HA-11 (2-4)	L2307196-09	Antimony	N	Yes	3.8 J	3.8 J-	MSD
L2307196	SW6010D	NA	HA-11 (2-4)	L2307196-09	Calcium	N	Yes	38100	38100 J-	MSD
L2307196	SW6010D	NA	HA-11 (2-4)	L2307196-09	Iron	N	Yes	11700	11700 J-	MSD
L2307196	SW6010D	NA	HA-11 (2-4)	L2307196-09	Manganese	N	Yes	194	194 J-	MSD
L2307196	SW6010D	NA	HA-11 (6-8)	L2307196-10	Antimony	N	Yes	0.558 J	0.558 J-	MSD
L2307196	SW6010D	NA	HA-11 (6-8)	L2307196-10	Calcium	N	Yes	11500	11500 J-	MSD
L2307196	SW6010D	NA	HA-11 (6-8)	L2307196-10	Iron	N	Yes	14300	14300 J-	MSD
L2307196	SW6010D	NA	HA-11 (6-8)	L2307196-10	Manganese	N	Yes	319	319 J-	MSD
L2307196	SW6010D	NA	HA-12 (10-12)	L2307196-15	Antimony	N	Yes	1.77 J	1.77 J-	MSD
L2307196	SW6010D	NA	HA-12 (10-12)	L2307196-15	Calcium	N	Yes	11100	11100 J-	MSD
L2307196	SW6010D	NA	HA-12 (10-12)	L2307196-15	Iron	N	Yes	11700	11700 J-	MSD

TABLE 1
SYSTEM PERFORMANCE SUMMARY
556 BALTIC STREET SITE RIR
BROOKLYN, NEW YORK

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2307196	SW6010D	NA	HA-12 (10-12)	L2307196-15	Manganese	N	Yes	194	194 J-	MSD
L2307196	SW6010D	NA	HA-12 (14-16)	L2307196-16	Antimony	N	Yes	0.726 J	0.726 J-	MSD
L2307196	SW6010D	NA	HA-12 (14-16)	L2307196-16	Calcium	N	Yes	8350	8350 J-	MSD
L2307196	SW6010D	NA	HA-12 (14-16)	L2307196-16	Iron	N	Yes	14300	14300 J-	MSD
L2307196	SW6010D	NA	HA-12 (14-16)	L2307196-16	Manganese	N	Yes	342	342 J-	MSD
L2307196	SW6010D	NA	HA-12 (2-4)	L2307196-13	Antimony	N	Yes	7.62	7.62 J-	MSD
L2307196	SW6010D	NA	HA-12 (2-4)	L2307196-13	Calcium	N	Yes	52500	52500 J-	MSD
L2307196	SW6010D	NA	HA-12 (2-4)	L2307196-13	Iron	N	Yes	30100	30100 J-	MSD
L2307196	SW6010D	NA	HA-12 (2-4)	L2307196-13	Manganese	N	Yes	237	237 J-	MSD
L2307196	SW6010D	NA	HA-12 (6-8)	L2307196-14	Antimony	N	Yes	4.56 J	4.56 J-	MSD
L2307196	SW6010D	NA	HA-12 (6-8)	L2307196-14	Calcium	N	Yes	3210	3210 J-	MSD
L2307196	SW6010D	NA	HA-12 (6-8)	L2307196-14	Iron	N	Yes	43600	43600 J-	MSD
L2307196	SW6010D	NA	HA-12 (6-8)	L2307196-14	Manganese	N	Yes	274	274 J-	MSD
L2307677	SW6010D	NA	HA-13 (10-12)	L2307677-03	Barium	N	Yes	100	100 J-	MSD
L2307677	SW6010D	NA	HA-13 (10-12)	L2307677-03	Chromium	N	Yes	14.8	14.8 J-	MSD
L2307677	SW6010D	NA	HA-13 (10-12)	L2307677-03	Copper	N	Yes	54.7	54.7 J-	MSD
L2307677	SW6010D	NA	HA-13 (10-12)	L2307677-03	Magnesium	N	Yes	1580	1580 J-	MSD
L2307677	SW7471B	NA	HA-13 (10-12)	L2307677-03	Mercury	N	Yes	1.3	1.3 J-	MSD
L2307677	SW6010D	NA	HA-13 (14-16)	L2307677-04	Barium	N	Yes	166	166 J-	MSD
L2307677	SW6010D	NA	HA-13 (14-16)	L2307677-04	Chromium	N	Yes	10.4	10.4 J-	MSD
L2307677	SW6010D	NA	HA-13 (14-16)	L2307677-04	Copper	N	Yes	28.3	28.3 J-	MSD
L2307677	SW6010D	NA	HA-13 (14-16)	L2307677-04	Magnesium	N	Yes	602	602 J-	MSD
L2307677	SW7471B	NA	HA-13 (14-16)	L2307677-04	Mercury	N	Yes	0.876	0.876 J-	MSD
L2307677	SW6010D	NA	HA-13 (2-4)	L2307677-01	Barium	N	Yes	221	221 J-	MSD
L2307677	SW6010D	NA	HA-13 (2-4)	L2307677-01	Chromium	N	Yes	26.1	26.1 J-	MSD
L2307677	SW6010D	NA	HA-13 (2-4)	L2307677-01	Copper	N	Yes	57.7	57.7 J-	MSD
L2307677	SW6010D	NA	HA-13 (2-4)	L2307677-01	Magnesium	N	Yes	3310	3310 J-	MSD
L2307677	SW7471B	NA	HA-13 (2-4)	L2307677-01	Mercury	N	Yes	2.36	2.36 J-	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	1,1,1,2-Tetrachloroethane	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	1,1,1-Trichloroethane	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	1,1,2,2-Tetrachloroethane	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	1,1,2-Trichloroethane	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	1,1-Dichloroethane	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	1,1-Dichloropropene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	1,2,3-Trichlorobenzene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	1,2,3-Trichloropropane	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	1,2,4,5-Tetramethylbenzene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	1,2,4-Trichlorobenzene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	1,2,4-Trimethylbenzene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	1,2-Dibromo-3-chloropropane (DBCP)	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	1,2-Dibromoethane (Ethylene Dibromide)	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	1,2-Dichlorobenzene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	1,2-Dichloroethane	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	1,2-Dichloroethene (total)	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	1,2-Dichloropropane	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	1,3,5-Trimethylbenzene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	1,3-Dichlorobenzene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	1,3-Dichloropropane	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	1,3-Dichloropropene	N	Yes	U	UJ	MSD

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SYSTEM PERFORMANCE SUMMARY
556 BALTIC STREET SITE RIR
BROOKLYN, NEW YORK

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	1,4-Dichlorobenzene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	1,4-Diethylbenzene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	2-Chlorotoluene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	2-Hexanone (Methyl Butyl Ketone)	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	2-Phenylbutane (sec-Butylbenzene)	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	4-Chlorotoluene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	4-Ethyltoluene (1-Ethyl-4-Methylbenzene)	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	Acrylonitrile	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	Benzene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	Bromobenzene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	Bromodichloromethane	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	Bromoform	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	Bromomethane (Methyl Bromide)	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	Carbon tetrachloride	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	Chlorobenzene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	Chlorobromomethane	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	Chloroform (Trichloromethane)	N	Yes	0.34 J	0.34 J	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	Chloromethane (Methyl Chloride)	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	Cymene (p-Isopropyltoluene)	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	Dibromochloromethane	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	Dibromomethane	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	Ethylbenzene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	Hexachlorobutadiene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	Isopropylbenzene (Cumene)	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	Methylene chloride (Dichloromethane)	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	Naphthalene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	Styrene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	Tetrachloroethene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	Toluene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	Trichloroethene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	Trichlorofluoromethane (CFC-11)	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	Vinyl acetate	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	Xylene (Total)	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	cis-1,2-Dichloroethene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	cis-1,3-Dichloropropene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	m,p-Xylenes	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	n-Butylbenzene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	n-Propylbenzene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	o-Xylene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	tert-Butylbenzene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	trans-1,2-Dichloroethene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	trans-1,3-Dichloropropene	N	Yes	U	UJ	MSD
L2307677	SW8260D	NA	HA-13 (2-4)	L2307677-01	trans-1,4-Dichloro-2-butene	N	Yes	U	UJ	MSD
L2307677	SW8270E	NA	HA-13 (2-4)	L2307677-01	2,4-Dinitrophenol	N	Yes	U	UJ	MSD
L2307677	SW8270E	NA	HA-13 (2-4)	L2307677-01	Benzoic acid	N	Yes	U	UJ	MSD
L2307677	SW8270E	NA	HA-13 (2-4)	L2307677-01	Phenanthrene	N	Yes	1900	1900 J	MSD
L2307677	SW6010D	NA	HA-13 (6-8)	L2307677-02	Barium	N	Yes	104	104 J-	MSD
L2307677	SW6010D	NA	HA-13 (6-8)	L2307677-02	Chromium	N	Yes	12.1	12.1 J-	MSD

TABLE 1
SYSTEM PERFORMANCE SUMMARY
556 BALTIC STREET SITE RIR
BROOKLYN, NEW YORK

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2307677	SW6010D	NA	HA-13 (6-8)	L2307677-02	Copper	N	Yes	32.1	32.1 J-	MSD
L2307677	SW6010D	NA	HA-13 (6-8)	L2307677-02	Magnesium	N	Yes	2410	2410 J-	MSD
L2307677	SW7471B	NA	HA-13 (6-8)	L2307677-02	Mercury	N	Yes	1.43	1.43 J-	MSD
L2307677	SW6010D	NA	HA-18 (10-12)	L2307677-07	Barium	N	Yes	222	222 J-	MSD
L2307677	SW6010D	NA	HA-18 (10-12)	L2307677-07	Chromium	N	Yes	18.6	18.6 J-	MSD
L2307677	SW6010D	NA	HA-18 (10-12)	L2307677-07	Copper	N	Yes	324	324 J-	MSD
L2307677	SW6010D	NA	HA-18 (10-12)	L2307677-07	Magnesium	N	Yes	355	355 J-	MSD
L2307677	SW6010D	NA	HA-18 (14-16)	L2307677-08	Barium	N	Yes	83	83 J-	MSD
L2307677	SW6010D	NA	HA-18 (14-16)	L2307677-08	Chromium	N	Yes	10.4	10.4 J-	MSD
L2307677	SW6010D	NA	HA-18 (14-16)	L2307677-08	Copper	N	Yes	24.8	24.8 J-	MSD
L2307677	SW6010D	NA	HA-18 (14-16)	L2307677-08	Magnesium	N	Yes	1490	1490 J-	MSD
L2307677	SW7471B	NA	HA-18 (14-16)	L2307677-08	Mercury	N	Yes	0.638	0.638 J-	MSD
L2307677	SW6010D	NA	HA-18 (2-4)	L2307677-05	Barium	N	Yes	222	222 J-	MSD
L2307677	SW6010D	NA	HA-18 (2-4)	L2307677-05	Chromium	N	Yes	16.4	16.4 J-	MSD
L2307677	SW6010D	NA	HA-18 (2-4)	L2307677-05	Copper	N	Yes	76.7	76.7 J-	MSD
L2307677	SW6010D	NA	HA-18 (2-4)	L2307677-05	Magnesium	N	Yes	2540	2540 J-	MSD
L2307677	SW7471B	NA	HA-18 (2-4)	L2307677-05	Mercury	N	Yes	0.769	0.769 J-	MSD
L2307677	SW6010D	NA	HA-18 (6-8)	L2307677-06	Barium	N	Yes	188	188 J-	MSD
L2307677	SW6010D	NA	HA-18 (6-8)	L2307677-06	Chromium	N	Yes	16	16 J-	MSD
L2307677	SW6010D	NA	HA-18 (6-8)	L2307677-06	Copper	N	Yes	58.6	58.6 J-	MSD
L2307677	SW6010D	NA	HA-18 (6-8)	L2307677-06	Magnesium	N	Yes	3340	3340 J-	MSD
L2307677	SW7471B	NA	HA-18 (6-8)	L2307677-06	Mercury	N	Yes	0.376	0.376 J-	MSD
L2307512	SW7471B	NA	HA-26 (15-17)	L2307512-03	Mercury	N	Yes	0.352	0.352 J+	MSD
L2307512	SW7471B	NA	DUP-1_02102023	L2307512-04	Mercury	N	Yes	0.162	0.162 J+	MSD, FDP
L2307512	SW7471B	NA	DUP-2_02102023	L2307512-05	Mercury	N	Yes	1.84	1.84 J+	MSD, FDP
L2305934	SW6010D	NA	DUP_1_02022023	L2305934-09	Arsenic	N	Yes	4.98	4.98 J+	MSD, FDP
L2305934	SW6010D	NA	DUP_1_02022023	L2305934-09	Barium	N	Yes	90.2	90.2 J+	MSD, FDP
L2305934	SW6010D	NA	DUP_1_02022023	L2305934-09	Potassium	N	Yes	1040	1040 J+	MSD, FDP
L2307677	SW7471B	NA	DUP_1_02132023	L2307677-09	Mercury	N	Yes	5.28	5.28 J-	MSD, FDP
L2305934	SW6010D	NA	HA-04 (6-8)	L2305934-02	Arsenic	N	Yes	26.6	26.6 J+	MSD, FDP
L2305934	SW6010D	NA	HA-04 (6-8)	L2305934-02	Barium	N	Yes	510	510 J+	MSD, FDP
L2305934	SW6010D	NA	HA-04 (6-8)	L2305934-02	Potassium	N	Yes	615	615 J+	MSD, FDP
L2307677	SW7471B	NA	HA-18 (10-12)	L2307677-07	Mercury	N	Yes	11.7	11.7 J-	MSD, FDP
L2307512	SW7471B	NA	HA-26 (11-13)	L2307512-01	Mercury	N	Yes	0.502	0.502 J+	MSD, FDP
L2307512	SW7471B	NA	HA-26 (13-15)	L2307512-02	Mercury	N	Yes	7.1	7.1 J+	MSD, FDP
L2306883	SW8081B	NA	HA-01 (14-16)	L2306883-04	4,4'-DDD	N	Yes	0.916 J	0.916 J	RPD
L2306883	SW8081B	NA	HA-01 (14-16)	L2306883-04	4,4'-DDT	N	Yes	2.94	2.94 J	RPD
L2306883	SW8081B	NA	HA-01 (2-4)	L2306883-01	4,4'-DDE	N	Yes	0.472 J	0.472 J	RPD
L2307511	SW8081B	NA	HA-03 (2-4)	L2307511-01	4,4'-DDD	N	Yes	2.51	2.51 J	RPD
L2307511	SW8081B	NA	HA-03 (2-4)	L2307511-01	4,4'-DDE	N	Yes	1.51 J	1.51 J	RPD
L2307511	SW8081B	NA	HA-03 (2-4)	L2307511-01	4,4'-DDT	N	Yes	2.4	2.4 J	RPD
L2307511	SW8081B	NA	HA-03 (2-4)	L2307511-01	Dieldrin	N	Yes	U	UJ	RPD
L2307511	SW8081B	NA	HA-03 (2-4)	L2307511-01	alpha-Chlordane (cis)	N	Yes	0.627 J	0.627 J	RPD
L2307511	SW8081B	NA	HA-03 (2-4)	L2307511-01	gamma-Chlordane (trans)	N	Yes	0.619 J	0.619 J	RPD
L2305934	SW8081B	NA	HA-04 (14-16)	L2305934-04	alpha-BHC	N	Yes	7.64	7.64 J	RPD
L2305934	SW8081B	NA	HA-04 (2-4)	L2305934-01	4,4'-DDT	N	Yes	3.59	3.59 J	RPD
L2305934	SW8081B	NA	HA-05 (2-4)	L2305934-05	4,4'-DDT	N	Yes	2.35	2.35 J	RPD
L2307196	SW8081B	NA	HA-07 (10-12)	L2307196-03	gamma-Chlordane (trans)	N	Yes	1.09 J	1.09 J	RPD
L2307196	SW8081B	NA	HA-09 (6-8)	L2307196-06	Heptachlor epoxide	N	Yes	U	UJ	RPD

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2306883	SW8081B	NA	HA-10 (10-12)	L2306883-11	gamma-Chlordane (trans)	N	Yes	1.19 J	1.19 J	RPD
L2306883	SW8081B	NA	HA-10 (2-4)	L2306883-09	4,4'-DDE	N	Yes	3.72	3.72 J	RPD
L2306883	SW8081B	NA	HA-10 (2-4)	L2306883-09	4,4'-DDT	N	Yes	4.48	4.48 J	RPD
L2306883	SW8082A	NA	HA-10 (2-4)	L2306883-09	Aroclor-1260 (PCB-1260)	N	Yes	U	UJ	RPD
L2307196	SW8081B	NA	HA-11 (14-16)	L2307196-12	4,4'-DDT	N	Yes	U	UJ	RPD
L2307677	SW8081B	NA	HA-13 (10-12)	L2307677-03	4,4'-DDT	N	Yes	4.98	4.98 J	RPD
L2307677	SW8081B	NA	HA-13 (10-12)	L2307677-03	Dieldrin	N	Yes	1.25 J	1.25 J	RPD
L2307677	SW8081B	NA	HA-13 (2-4)	L2307677-01	Chlordane	N	Yes	130	130 J+	RPD
L2305570	SW8081B	NA	HA-14 (2-4)	L2305570-09	Heptachlor epoxide	N	Yes	U	UJ	RPD
L2305570	SW8081B	NA	HA-15 (10-12)	L2305570-15	4,4'-DDD	N	Yes	U	UJ	RPD
L2305570	SW8081B	NA	HA-15 (2-4)	L2305570-13	4,4'-DDT	N	Yes	2.35	2.35 J	RPD
L2306883	SW8081B	NA	HA-17 (10-12)	L2306883-15	gamma-Chlordane (trans)	N	Yes	1.54 J	1.54 J	RPD
L2306883	SW8081B	NA	HA-17 (14-16)	L2306883-16	gamma-Chlordane (trans)	N	Yes	0.818 J	0.818 J	RPD
L2306883	SW8081B	NA	HA-17 (6-8)	L2306883-14	gamma-Chlordane (trans)	N	Yes	0.806 J	0.806 J	RPD
L2307677	SW8081B	NA	HA-18 (2-4)	L2307677-05	alpha-Chlordane (cis)	N	Yes	4.01	4.01 J	RPD
L2307677	SW8081B	NA	HA-18 (6-8)	L2307677-06	Chlordane	N	Yes	66	66 J	RPD
L2306883	SW8081B	NA	HA-19 (2-4)	L2306883-17	alpha-Chlordane (cis)	N	Yes	6.38	6.38 J	RPD
L2306883	SW8081B	NA	HA-19 (6-8)	L2306883-18	4,4'-DDE	N	Yes	5.16	5.16 J	RPD
L2306883	SW8081B	NA	HA-19 (6-8)	L2306883-18	Heptachlor epoxide	N	Yes	U	UJ	RPD
L2306883	SW8081B	NA	HA-21 (20-22)	L2306883-26	alpha-BHC	N	Yes	2.09	2.09 J	RPD
L2306883	SW8081B	NA	HA-21 (20-22)	L2306883-26	gamma-Chlordane (trans)	N	Yes	0.753 J	0.753 J	RPD
L2306883	SW8081B	NA	HA-21 (6-8)	L2306883-23	Heptachlor epoxide	N	Yes	1.09 J	1.09 J	RPD
L2306883	SW8081B	NA	HA-21 (6-8)	L2306883-23	alpha-Chlordane (cis)	N	Yes	1.39 J	1.39 J	RPD
L2306883	SW8081B	NA	DUP_1_02082023	L2306883-27	alpha-BHC	N	Yes	2.9	2.9 J+	RPD, SUR
L2306883	SW8081B	NA	DUP_1_02082023	L2306883-27	gamma-Chlordane (trans)	N	Yes	2.96	2.96 J+	RPD, SUR
L2307511	SW8081B	NA	HA-03 (10-12)	L2307511-03	alpha-Chlordane (cis)	N	Yes	3.19	3.19 J+	RPD, SUR
L2307511	SW8081B	NA	HA-03 (10-12)	L2307511-03	gamma-Chlordane (trans)	N	Yes	1.28 J	1.28 J+	RPD, SUR
L2305934	SW8081B	NA	HA-04 (2-4)	L2305934-01	gamma-Chlordane (trans)	N	Yes	2.16	2.16 J+	RPD, SUR
L2305570	SW8081B	NA	HA-06 (2-4)	L2305570-01	4,4'-DDE	N	Yes	2.38	2.38 J+	RPD, SUR
L2307196	SW8081B	NA	HA-07 (2-4)	L2307196-01	4,4'-DDD	N	Yes	1.66 J	1.66 J+	RPD, SUR
L2307196	SW8081B	NA	HA-07 (2-4)	L2307196-01	Methoxychlor	N	Yes	2.95 J	2.95 J	RPD, SUR
L2305570	SW8081B	NA	HA-08 (2-4)	L2305570-05	Heptachlor epoxide	N	Yes	1.22 J	1.22 J+	RPD, SUR
L2307196	SW8081B	NA	HA-09 (2-4)	L2307196-05	Methoxychlor	N	Yes	9.64	9.64 J+	RPD, SUR
L2307196	SW8081B	NA	HA-09 (6-8)	L2307196-06	Methoxychlor	N	Yes	10.7	10.7 J+	RPD, SUR
L2306883	SW8081B	NA	HA-10 (6-8)	L2306883-10	4,4'-DDT	N	Yes	8.23	8.23 J+	RPD, SUR
L2306883	SW8081B	NA	HA-10 (6-8)	L2306883-10	alpha-Chlordane (cis)	N	Yes	2.57 J	2.57 J+	RPD, SUR
L2307196	SW8081B	NA	HA-11 (2-4)	L2307196-09	Methoxychlor	N	Yes	11.8	11.8 J+	RPD, SUR
L2307196	SW8081B	NA	HA-11 (2-4)	L2307196-09	gamma-Chlordane (trans)	N	Yes	0.579 J	0.579 J+	RPD, SUR
L2306883	SW8081B	NA	HA-17 (2-4)	L2306883-13	alpha-Chlordane (cis)	N	Yes	1.58 J	1.58 J	RPD, SUR
L2306883	SW8081B	NA	HA-02 (2-4)	L2306883-05	4,4'-DDT	N	Yes	18.1	18.1 J+	SUR
L2306883	SW8081B	NA	HA-02 (2-4)	L2306883-05	Dieldrin	N	Yes	5.48	5.48 J+	SUR
L2307511	SW8260D	NA	HA-03 (10-12)	L2307511-03	1,2,4,5-Tetramethylbenzene	N	Yes	5000	5000 J+	SUR
L2307511	SW8260D	NA	HA-03 (10-12)	L2307511-03	1,2,4-Trimethylbenzene	N	Yes	420	420 J+	SUR
L2307511	SW8260D	NA	HA-03 (10-12)	L2307511-03	1,3,5-Trimethylbenzene	N	Yes	120	120 J+	SUR
L2307511	SW8260D	NA	HA-03 (10-12)	L2307511-03	4-Ethyltoluene (1-Ethyl-4-Methylbenzene)	N	Yes	390	390 J+	SUR
L2307511	SW8260D	NA	HA-03 (10-12)	L2307511-03	Cymene (p-Isopropyltoluene)	N	Yes	56	56 J+	SUR
L2307511	SW8260D	NA	HA-03 (10-12)	L2307511-03	Isopropylbenzene (Cumene)	N	Yes	300	300 J+	SUR
L2307511	SW8260D	NA	HA-03 (10-12)	L2307511-03	Naphthalene	N	Yes	1100	1100 J+	SUR
L2307511	SW8260D	NA	HA-03 (10-12)	L2307511-03	tert-Butylbenzene	N	Yes	28 J	28 J+	SUR

TABLE 1
SYSTEM PERFORMANCE SUMMARY
556 BALTIC STREET SITE RIR
BROOKLYN, NEW YORK

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2307511	SW8081B	NA	HA-03 (6-8)	L2307511-02	4,4'-DDE	N	Yes	68.6	68.6 J+	SUR
L2307511	SW8081B	NA	HA-03 (6-8)	L2307511-02	4,4'-DDT	N	Yes	19.7	19.7 J+	SUR
L2307511	SW8081B	NA	HA-03 (6-8)	L2307511-02	Dieldrin	N	Yes	23.8	23.8 J+	SUR
L2307511	SW8081B	NA	HA-03 (6-8)	L2307511-02	gamma-Chlordane (trans)	N	Yes	5.52	5.52 J+	SUR
L2307196	SW8081B	NA	HA-07 (10-12)	L2307196-03	4,4'-DDD	N	Yes	U	R	SUR
L2307196	SW8081B	NA	HA-07 (10-12)	L2307196-03	Aldrin	N	Yes	U	R	SUR
L2307196	SW8081B	NA	HA-07 (10-12)	L2307196-03	Chlordane	N	Yes	U	R	SUR
L2307196	SW8081B	NA	HA-07 (10-12)	L2307196-03	Endosulfan I	N	Yes	U	R	SUR
L2307196	SW8081B	NA	HA-07 (10-12)	L2307196-03	Endosulfan II	N	Yes	U	R	SUR
L2307196	SW8081B	NA	HA-07 (10-12)	L2307196-03	Endosulfan sulfate	N	Yes	U	R	SUR
L2307196	SW8081B	NA	HA-07 (10-12)	L2307196-03	Endrin	N	Yes	U	R	SUR
L2307196	SW8081B	NA	HA-07 (10-12)	L2307196-03	Endrin aldehyde	N	Yes	U	R	SUR
L2307196	SW8081B	NA	HA-07 (10-12)	L2307196-03	Endrin ketone	N	Yes	U	R	SUR
L2307196	SW8081B	NA	HA-07 (10-12)	L2307196-03	Heptachlor	N	Yes	U	R	SUR
L2307196	SW8081B	NA	HA-07 (10-12)	L2307196-03	Heptachlor epoxide	N	Yes	U	R	SUR
L2307196	SW8081B	NA	HA-07 (10-12)	L2307196-03	Toxaphene	N	Yes	U	R	SUR
L2307196	SW8081B	NA	HA-07 (10-12)	L2307196-03	alpha-BHC	N	Yes	U	R	SUR
L2307196	SW8081B	NA	HA-07 (10-12)	L2307196-03	beta-BHC	N	Yes	U	R	SUR
L2307196	SW8081B	NA	HA-07 (10-12)	L2307196-03	delta-BHC	N	Yes	U	R	SUR
L2307196	SW8081B	NA	HA-07 (10-12)	L2307196-03	gamma-BHC (Lindane)	N	Yes	U	R	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	1,2,4,5-Tetrachlorobenzene	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	1,2,4-Trichlorobenzene	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	1,2-Dichlorobenzene	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	1,3-Dichlorobenzene	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	1,4-Dichlorobenzene	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2,4,5-Trichlorophenol	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2,4,6-Trichlorophenol	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2,4-Dichlorophenol	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2,4-Dimethylphenol	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2,4-Dinitrophenol	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2,4-Dinitrotoluene	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2,6-Dinitrotoluene	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2-Chloronaphthalene	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2-Chlorophenol	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2-Methylnaphthalene	N	Yes	200 J	200 J-	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2-Methylphenol (o-Cresol)	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2-Nitroaniline	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2-Nitrophenol	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	3&4-Methylphenol	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	3-Nitroaniline	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	4,6-Dinitro-2-methylphenol	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	4-Bromophenyl phenyl ether (BDE-3)	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	4-Chloro-3-methylphenol	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	4-Chlorophenyl phenyl ether	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	4-Nitroaniline	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	4-Nitrophenol	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Acenaphthene	N	Yes	360	360 J-	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Acenaphthylene	N	Yes	290	290 J-	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Acetophenone	N	Yes	U	UJ	SUR

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Benzoic acid	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Benzyl Alcohol	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Biphenyl	N	Yes	38 J	38 J-	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Dibenzofuran	N	Yes	260	260 J-	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Diethyl phthalate	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Dimethyl phthalate	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Fluorene	N	Yes	360	360 J-	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Hexachlorobenzene	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Hexachlorobutadiene	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Hexachloroethane	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Isophorone	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	N-Nitrosodi-n-propylamine	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	N-Nitrosodiphenylamine	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Naphthalene	N	Yes	240	240 J-	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Nitrobenzene	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Pentachlorophenol	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Phenol	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	bis(2-Chloroethoxy)methane	N	Yes	U	UJ	SUR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	bis(2-Chloroethyl)ether	N	Yes	U	UJ	SUR
L2305570	SW8081B	NA	HA-08 (2-4)	L2305570-05	4,4'-DDT	N	Yes	63.9	63.9 J+	SUR
L2305570	SW8081B	NA	HA-08 (2-4)	L2305570-05	Chlordane	N	Yes	82.7	82.7 J+	SUR
L2305570	SW8081B	NA	HA-08 (2-4)	L2305570-05	Dieldrin	N	Yes	8.83	8.83 J+	SUR
L2305570	SW8081B	NA	HA-08 (2-4)	L2305570-05	alpha-Chlordane (cis)	N	Yes	10.8	10.8 J+	SUR
L2306883	SW8081B	NA	HA-10 (2-4)	L2306883-09	alpha-Chlordane (cis)	N	Yes	1.24 J	1.24 J+	SUR
L2306883	SW8081B	NA	HA-10 (6-8)	L2306883-10	4,4'-DDD	N	Yes	3.5	3.5 J+	SUR
L2306883	SW8081B	NA	HA-10 (6-8)	L2306883-10	Dieldrin	N	Yes	2.4	2.4 J+	SUR
L2307677	SW8081B	NA	HA-13 (2-4)	L2307677-01	gamma-Chlordane (trans)	N	Yes	3.89	3.89 J+	SUR
L2306883	SW8081B	NA	HA-17 (2-4)	L2306883-13	4,4'-DDT	N	Yes	6.09	6.09 J+	SUR
L2307677	SW8081B	NA	HA-18 (2-4)	L2307677-05	4,4'-DDT	N	Yes	24.3	24.3 J+	SUR
L2307677	SW8081B	NA	HA-18 (2-4)	L2307677-05	Dieldrin	N	Yes	4.56	4.56 J+	SUR
L2307677	SW8081B	NA	HA-18 (2-4)	L2307677-05	gamma-Chlordane (trans)	N	Yes	2.48	2.48 J+	SUR
L2307677	SW8081B	NA	HA-18 (6-8)	L2307677-06	4,4'-DDD	N	Yes	148	148 J+	SUR
L2307677	SW8081B	NA	HA-18 (6-8)	L2307677-06	4,4'-DDE	N	Yes	90.6	90.6 J+	SUR
L2307677	SW8081B	NA	HA-18 (6-8)	L2307677-06	4,4'-DDT	N	Yes	29.4	29.4 J+	SUR
L2307677	SW8081B	NA	HA-18 (6-8)	L2307677-06	alpha-Chlordane (cis)	N	Yes	7.04	7.04 J+	SUR
L2307677	SW8081B	NA	HA-18 (6-8)	L2307677-06	gamma-Chlordane (trans)	N	Yes	8.57	8.57 J+	SUR
L2306883	SW8081B	NA	HA-19 (2-4)	L2306883-17	4,4'-DDE	N	Yes	12.5	12.5 J+	SUR
L2306883	SW8081B	NA	HA-19 (2-4)	L2306883-17	Dieldrin	N	Yes	11	11 J+	SUR
L2306883	SW8081B	NA	HA-19 (6-8)	L2306883-18	4,4'-DDD	N	Yes	38	38 J+	SUR
L2306883	SW8081B	NA	HA-19 (6-8)	L2306883-18	alpha-Chlordane (cis)	N	Yes	2.43	2.43 J+	SUR
L2306883	SW8081B	NA	HA-21 (2-4)	L2306883-22	4,4'-DDE	N	Yes	6.72	6.72 J+	SUR
L2306883	SW8081B	NA	HA-21 (2-4)	L2306883-22	4,4'-DDT	N	Yes	4.74	4.74 J+	SUR
L2306883	SW8081B	NA	HA-21 (2-4)	L2306883-22	Chlordane	N	Yes	7.44 J	7.44 J+	SUR
L2307196	SW8081B	NA	HA-07 (10-12)	L2307196-03	4,4'-DDE	N	Yes	2.46	2.46 J-	SUR, LCS
L2307196	SW8081B	NA	HA-07 (10-12)	L2307196-03	4,4'-DDT	N	Yes	15.4	15.4 J-	SUR, LCS
L2307196	SW8081B	NA	HA-07 (10-12)	L2307196-03	Dieldrin	N	Yes	6.3	6.3 J-	SUR, LCS
L2307196	SW8081B	NA	HA-07 (10-12)	L2307196-03	Methoxychlor	N	Yes	5.21	5.21 J-	SUR, LCS
L2307196	SW8081B	NA	HA-07 (10-12)	L2307196-03	alpha-Chlordane (cis)	N	Yes	5.14	5.14 J-	SUR, LCS
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	4-Chloroaniline	N	Yes	U	UJ	SUR, LCS

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SYSTEM PERFORMANCE SUMMARY
556 BALTIC STREET SITE RIR
BROOKLYN, NEW YORK

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Hexachlorocyclopentadiene	N	Yes	U	UJ	SUR, LCS
L2307196	SW8081B	NA	HA-07 (2-4)	L2307196-01	4,4'-DDT	N	Yes	45.6	45.6 J+	SUR, LCS
L2307196	SW8081B	NA	HA-07 (2-4)	L2307196-01	Chlordane	N	Yes	56.3	56.3 J+	SUR, LCS
L2307196	SW8081B	NA	HA-07 (2-4)	L2307196-01	Dieldrin	N	Yes	8.54	8.54 J+	SUR, LCS
L2307196	SW8081B	NA	HA-09 (6-8)	L2307196-06	4,4'-DDD	N	Yes	13.2	13.2 J+	SUR, LCS
L2307196	SW8081B	NA	HA-09 (6-8)	L2307196-06	4,4'-DDE	N	Yes	20.3	20.3 J+	SUR, LCS
L2307196	SW8081B	NA	HA-09 (6-8)	L2307196-06	4,4'-DDT	N	Yes	31.1	31.1 J+	SUR, LCS
L2307196	SW8081B	NA	HA-09 (6-8)	L2307196-06	Chlordane	N	Yes	69.9	69.9 J+	SUR, LCS
L2307196	SW8081B	NA	HA-09 (6-8)	L2307196-06	Dieldrin	N	Yes	8.98	8.98 J+	SUR, LCS
L2307196	SW8081B	NA	HA-09 (6-8)	L2307196-06	alpha-Chlordane (cis)	N	Yes	13.6	13.6 J+	SUR, LCS
L2307196	SW8081B	NA	HA-09 (6-8)	L2307196-06	gamma-Chlordane (trans)	N	Yes	13.8	13.8 J+	SUR, LCS
L2307196	SW8081B	NA	HA-11 (2-4)	L2307196-09	alpha-Chlordane (cis)	N	Yes	2.98	2.98 J+	SUR, LCS
L2307196	SW8081B	NA	HA-12 (2-4)	L2307196-13	Methoxychlor	N	Yes	19.4	19.4 J+	SUR, LCS
L2307511	SW8260D	NA	HA-03 (10-12)	L2307511-03	2-Phenylbutane (sec-Butylbenzene)	N	Yes	1100	1100 J+	Sur
L2307511	SW8260D	NA	HA-03 (10-12)	L2307511-03	n-Butylbenzene	N	Yes	1200	1200 J+	Sur
L2307511	SW8260D	NA	HA-03 (10-12)	L2307511-03	n-Propylbenzene	N	Yes	1800	1800 J+	Sur
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	1,1,1,2-Tetrachloroethane	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	1,1,1-Trichloroethane	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	1,1,2,2-Tetrachloroethane	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	1,1,2-Trichloroethane	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	1,1-Dichloroethane	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	1,1-Dichloroethene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	1,1-Dichloropropene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	1,2,3-Trichlorobenzene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	1,2,3-Trichloropropane	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	1,2,4,5-Tetramethylbenzene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	1,2,4-Trichlorobenzene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	1,2,4-Trimethylbenzene	N	Yes	22 J	22 R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	1,2-Dibromo-3-chloropropane (DBCP)	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	1,2-Dibromoethane (Ethylene Dibromide)	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	1,2-Dichlorobenzene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	1,2-Dichloroethane	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	1,2-Dichloroethane-d4	N	Yes	19.8	19.8 R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	1,2-Dichloroethene (total)	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	1,2-Dichloropropane	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	1,3,5-Trimethylbenzene	N	Yes	11 J	11 R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	1,3-Dichlorobenzene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	1,3-Dichloropropane	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	1,3-Dichloropropene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	1,4-Dichlorobenzene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	1,4-Diethylbenzene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	1,4-Dioxane	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	2,2-Dichloropropane	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	2-Butanone (Methyl Ethyl Ketone)	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	2-Chlorotoluene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	2-Hexanone (Methyl Butyl Ketone)	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	2-Phenylbutane (sec-Butylbenzene)	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	4-Bromofluorobenzene	N	Yes	19.2	19.2 R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	4-Chlorotoluene	N	Yes	U	R	VCR

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SYSTEM PERFORMANCE SUMMARY
556 BALTIC STREET SITE RIR
BROOKLYN, NEW YORK

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	4-Ethyltoluene (1-Ethyl-4-Methylbenzene)	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Acetone	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Acrylonitrile	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Benzene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Bromobenzene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Bromodichloromethane	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Bromoform	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Bromomethane (Methyl Bromide)	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Carbon disulfide	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Carbon tetrachloride	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Chlorobenzene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Chlorobromomethane	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Chloroethane	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Chloroform (Trichloromethane)	N	Yes	27 J	27 R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Chloromethane (Methyl Chloride)	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Cymene (p-Isopropyltoluene)	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Dibromochloromethane	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Dibromofluoromethane	N	Yes	20.2	20.2 R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Dibromomethane	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Dichlorodifluoromethane (CFC-12)	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Ethyl Ether	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Ethylbenzene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Hexachlorobutadiene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Isopropylbenzene (Cumene)	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Methyl Tert Butyl Ether (MTBE)	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Methylene chloride (Dichloromethane)	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Styrene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Tetrachloroethene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Toluene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Toluene-D8	N	Yes	19.3	19.3 R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Trichloroethene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Trichlorofluoromethane (CFC-11)	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Vinyl acetate	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Vinyl chloride	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	Xylene (Total)	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	cis-1,2-Dichloroethene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	cis-1,3-Dichloropropene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	m,p-Xylenes	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	n-Butylbenzene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	n-Propylbenzene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	o-Xylene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	tert-Butylbenzene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	trans-1,2-Dichloroethene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	trans-1,3-Dichloropropene	N	Yes	U	R	VCR
L2305570	SW8260D	NA	HA-06 (10-12)	L2305570-03	trans-1,4-Dichloro-2-butene	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	1,2,4,5-Tetrachlorobenzene	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	1,2,4-Trichlorobenzene	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	1,2-Dichlorobenzene	N	Yes	U	R	VCR

TABLE 1
SYSTEM PERFORMANCE SUMMARY
556 BALTIC STREET SITE RIR
BROOKLYN, NEW YORK

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	1,3-Dichlorobenzene	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	1,4-Dichlorobenzene	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	1,4-Dioxane	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2,2'-oxybis(1-Chloropropane)	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2,4,5-Trichlorophenol	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2,4,6-Tribromophenol	N	Yes	47.3	47.3 R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2,4,6-Trichlorophenol	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2,4-Dichlorophenol	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2,4-Dimethylphenol	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2,4-Dinitrophenol	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2,4-Dinitrotoluene	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2,6-Dinitrotoluene	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2-Chloronaphthalene	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2-Chlorophenol	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2-Fluorobiphenyl	N	Yes	872	872 R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2-Fluorophenol	N	Yes	59.2	59.2 R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2-Methylnaphthalene	N	Yes	130 J	130 R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2-Methylphenol (o-Cresol)	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2-Nitroaniline	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	2-Nitrophenol	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	3&4-Methylphenol	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	3,3'-Dichlorobenzidine	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	3-Nitroaniline	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	4,6-Dinitro-2-methylphenol	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	4-Bromophenyl phenyl ether (BDE-3)	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	4-Chloro-3-methylphenol	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	4-Chloroaniline	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	4-Chlorophenyl phenyl ether	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	4-Nitroaniline	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	4-Nitrophenol	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Acenaphthene	N	Yes	380	380 R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Acenaphthylene	N	Yes	250	250 R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Acetophenone	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Anthracene	N	Yes	1000	1000 R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Benzo(a)anthracene	N	Yes	3400	3400 R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Benzo(a)pyrene	N	Yes	3700	3700 R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Benzo(b)fluoranthene	N	Yes	4200	4200 R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Benzo(g,h,i)perylene	N	Yes	2000	2000 R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Benzo(k)fluoranthene	N	Yes	1500	1500 R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Benzoic acid	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Benzyl Alcohol	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Biphenyl	N	Yes	40 J	40 R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Butyl benzylphthalate (BBP)	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Carbazole	N	Yes	440	440 R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Chrysene	N	Yes	3100	3100 R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Di-n-butylphthalate (DBP)	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Di-n-octyl phthalate (DnOP)	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Dibenz(a,h)anthracene	N	Yes	490	490 R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Dibenzofuran	N	Yes	260	260 R	VCR

TABLE 1
SYSTEM PERFORMANCE SUMMARY
556 BALTIC STREET SITE RIR
BROOKLYN, NEW YORK

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Diethyl phthalate	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Dimethyl phthalate	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Fluoranthene	N	Yes	8000	8000 R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Fluorene	N	Yes	360	360 R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Hexachlorobenzene	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Hexachlorobutadiene	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Hexachlorocyclopentadiene	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Hexachloroethane	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Indeno(1,2,3-cd)pyrene	N	Yes	2300	2300 R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Isophorone	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	N-Nitrosodi-n-propylamine	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	N-Nitrosodiphenylamine	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Naphthalene	N	Yes	220 J	220 R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Nitrobenzene	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Nitrobenzene-D5	N	Yes	741	741 R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Pentachlorophenol	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Phenanthrene	N	Yes	4500	4500 R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Phenol	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Phenol-d6	N	Yes	455	455 R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	Pyrene	N	Yes	6700	6700 R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	bis(2-Chloroethoxy)methane	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	bis(2-Chloroethyl)ether	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	bis(2-Ethylhexyl)phthalate	N	Yes	U	R	VCR
L2307196	SW8270E	NA	HA-07 (10-12)	L2307196-03	p-Terphenyl-d14	N	Yes	780	780 R	VCR

Notes:
EXE = Result exceeds the calibration range.
FDP = Field duplicate qualifier due to an exceedance of the specified limits.
HTQ = Holding time exceedance.
LCS = Laboratory control/laboratory control spike duplicate percent recoveries or relative percent difference were outside the specified limits.
MBK = Method blank contamination.
MSD = Matrix spike/matrix spike duplicate percent recoveries or relative percent difference were outside the specified limits.
RPD = Pesticides and PCB confirmation column RPD Exceeded; or MSD/LCS RPD exceedance.
SUR = Surrogate percent recovery outside the specified limits.
VCR = Validator's choice of reanalysis.
J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.
J- = The result is an estimated quantity, but the result may be biased low.
J+ = The result is an estimated quantity, but the result may be biased high.
R = The sample results were rejected as unusable; the compound may or may not be present in the sample.
U = The compound was analyzed for but not detected.
UJ = The compound was not detected above the reported sample quantitation limit; however, the reported limit is estimated and may or may not represent the actual limit of quantitation.

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Data Usability Summary Report

Project Name: 556 Baltic Street Site RIR

Project Description: Soil Samples, PFAS

Sample Date(s): 1 through 13 February 2023

Analytical Laboratory: Alpha Analytical – Westborough, MA

Validation Performed by: Raul Tenorio

Validation Reviewed by: Katherine Miller

Validation Date: 23 March 2023

Haley & Aldrich, Inc. prepared this Data Usability Summary Report (DUSR) to summarize the review and validation of the analytical results for Sample Delivery Group(s) (SDG) listed. This DUSR is organized into the following sections:

This data validation and usability assessment was performed per the guidance and requirements established by the United States Environmental Protection Agency (USEPA) using the following reference materials:

- Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under New York State Department of Environmental Conservation's (NYSDEC's) Part 375 Remedial Programs.

Data reported in this sampling event were reported to the laboratory method detection limit (MDL). Results found between the MDL and reporting limit (RL) are flagged J as estimated.

Sample data were qualified in accordance with the laboratory's standard operating procedures (SOP). The results presented in each laboratory report were found to be compliant with the data quality objectives (DQO) for the project and therefore usable; any exceptions are noted in the following pages.

1. Sample Delivery Group Numbers

1.1 SAMPLE MANAGEMENT

This DUSR summarizes the review of SDG numbers:

- L2305570, dated 7 March 2023,
- L2305934, dated 7 March 2023,
- L2306883, dated 6 March 2023,
- L2307196, dated 13 March 2023,
- L2307511, dated 9 March 2023, and
- L2307677, dated 13 March 2023.

Samples were collected, preserved, and shipped following standard chain of custody (COC) protocol.

Samples were also received appropriately, identified correctly, and analyzed according to the COC. Issues noted with sample management are listed below:

- Custody seals were not used when samples were dropped off at the laboratory or service center by the field staff, submitted to a laboratory-provided courier, or when transported between subcontracted laboratories.
- This report contains of validation for groundwater samples by PFAS analysis only.

Analyses were performed on the following samples:

Sample ID	Sample Type	Lab ID	Sample Date	Matrix	Methods
HA-06 (2-4)	N	L2305570-01	02/01/2023	SO	A
HA-06 (6-8)	N	L2305570-02	02/01/2023	SO	A
HA-06 (10-12)	N	L2305570-03	02/01/2023	SO	A
HA-06 (14-16)	N	L2305570-04	02/01/2023	SO	A
HA-08 (2-4)	N	L2305570-05	02/01/2023	SO	A
HA-08 (6-8)	N	L2305570-06	02/01/2023	SO	A
HA-08 (10-12)	N	L2305570-07	02/01/2023	SO	A
HA-08 (14-16)	N	L2305570-08	02/01/2023	SO	A
HA-14 (2-4)	N	L2305570-09	02/01/2023	SO	A
HA-14 (6-8)	N	L2305570-10	02/01/2023	SO	A
HA-14 (10-12)	N	L2305570-11	02/01/2023	SO	A
HA-14 (14-16)	N	L2305570-12	02/01/2023	SO	A
HA-15 (2-4)	N	L2305570-13	02/01/2023	SO	A
HA-15 (6-8)	N	L2305570-14	02/01/2023	SO	A
HA-15 (10-12)	N	L2305570-15	02/01/2023	SO	A
HA-15 (14-16)	N	L2305570-16	02/01/2023	SO	A
HA-16 (2-4)	N	L2305570-17	02/01/2023	SO	A

Sample ID	Sample Type	Lab ID	Sample Date	Matrix	Methods
HA-16 (6-8)	N	L2305570-18	02/01/2023	SO	A
HA-16 (10-12)	N	L2305570-19	02/01/2023	SO	A
HA-16 (14-16)	N	L2305570-20	02/01/2023	SO	A
FIELD BLANK 02012023	FB	L2305570-21	02/01/2023	WQ	A
HA-04 (2-4)	N	L2305934-01	02/02/2023	SO	A
HA-04 (6-8)	N	L2305934-02	02/02/2023	SO	A
HA-04 (10-12)	N	L2305934-03	02/02/2023	SO	A
HA-04 (14-16)	N	L2305934-04	02/02/2023	SO	A
HA-05 (2-4)	N	L2305934-05	02/02/2023	SO	A
HA-05 (6-8)	N	L2305934-06	02/02/2023	SO	A
HA-05 (10-12)	N	L2305934-07	02/02/2023	SO	A
HA-05 (14-16)	N	L2305934-08	02/02/2023	SO	A
DUP_1_02022023	FD	L2305934-09	02/02/2023	SO	A
FIELD BLANK 02022023	FB	L2305934-10	02/02/2023	WQ	A
HA-01 (2-4)	N	L2306883-01	02/08/2023	SO	A
HA-01 (6-8)	N	L2306883-02	02/08/2023	SO	A
HA-01 (10-12)	N	L2306883-03	02/08/2023	SO	A
HA-01 (14-16)	N	L2306883-04	02/08/2023	SO	A
HA-02 (2-4)	N	L2306883-05	02/08/2023	SO	A
HA-02 (6-8)	N	L2306883-06	02/08/2023	SO	A
HA-02 (10-12)	N	L2306883-07	02/08/2023	SO	A
HA-02 (14-16)	N	L2306883-08	02/08/2023	SO	A
HA-10 (2-4)	N	L2306883-09	02/08/2023	SO	A
HA-10 (6-8)	N	L2306883-10	02/08/2023	SO	A
HA-10 (10-12)	N	L2306883-11	02/08/2023	SO	A
HA-10 (14-16)	N	L2306883-12	02/08/2023	SO	A
HA-17 (2-4)	N	L2306883-13	02/08/2023	SO	A
HA-17 (6-8)	N	L2306883-14	02/08/2023	SO	A
HA-17 (10-12)	N	L2306883-15	02/08/2023	SO	A
HA-17 (14-16)	N	L2306883-16	02/08/2023	SO	A
HA-19 (2-4)	N	L2306883-17	02/08/2023	SO	A
HA-19 (6-8)	N	L2306883-18	02/08/2023	SO	A
HA-19 (10-12)	N	L2306883-19	02/08/2023	SO	A
HA-19 (14-16)	N	L2306883-20	02/08/2023	SO	A
HA-19 (20-22)	N	L2306883-21	02/08/2023	SO	A
HA-21 (2-4)	N	L2306883-22	02/08/2023	SO	A
HA-21 (6-8)	N	L2306883-23	02/08/2023	SO	A
HA-21 (10-12)	N	L2306883-24	02/08/2023	SO	A
HA-21 (14-16)	N	L2306883-25	02/08/2023	SO	A
HA-21 (20-22)	N	L2306883-26	02/08/2023	SO	A
DUP_1_02082023	FD	L2306883-27	02/08/2023	SO	A
FIELD BLANK 02082023	FB	L2306883-28	02/08/2023	WQ	A

Sample ID	Sample Type	Lab ID	Sample Date	Matrix	Methods
HA-07 (2-4)	N	L2307196-01	02/09/2023	SO	A
HA-07 (6-8)	N	L2307196-02	02/09/2023	SO	A
HA-07 (10-12)	N	L2307196-03	02/09/2023	SO	A
HA-07 (14-16)	N	L2307196-04	02/09/2023	SO	A
HA-09 (2-4)	N	L2307196-05	02/09/2023	SO	A
HA-09 (6-8)	N	L2307196-06	02/09/2023	SO	A
HA-09 (10-12)	N	L2307196-07	02/09/2023	SO	A
HA-09 (14-16)	N	L2307196-08	02/09/2023	SO	A
HA-11 (2-4)	N	L2307196-09	02/09/2023	SO	A
HA-11 (6-8)	N	L2307196-10	02/09/2023	SO	A
HA-11 (10-12)	N	L2307196-11	02/09/2023	SO	A
HA-11 (14-16)	N	L2307196-12	02/09/2023	SO	A
HA-12 (2-4)	N	L2307196-13	02/09/2023	SO	A
HA-12 (6-8)	N	L2307196-14	02/09/2023	SO	A
HA-12 (10-12)	N	L2307196-15	02/09/2023	SO	A
HA-12 (14-16)	N	L2307196-16	02/09/2023	SO	A
FIELD BLANK 02092023	FB	L2307196-17	02/09/2023	WQ	A
HA-03 (2-4)	N	L2307511-01	02/10/2023	SO	A
HA-03 (6-8)	N	L2307511-02	02/10/2023	SO	A
HA-03 (10-12)	N	L2307511-03	02/10/2023	SO	A
HA-03 (14-16)	N	L2307511-04	02/10/2023	SO	A
HA-20 (2-4)	N	L2307511-05	02/10/2023	SO	A
HA-20 (6-8)	N	L2307511-06	02/10/2023	SO	A
HA-20 (10-12)	N	L2307511-07	02/10/2023	SO	A
HA-20 (14-16)	N	L2307511-08	02/10/2023	SO	A
HA-13 (2-4)	N	L2307677-01	02/13/2023	SO	A
HA-13 (6-8)	N	L2307677-02	02/13/2023	SO	A
HA-13 (10-12)	N	L2307677-03	02/13/2023	SO	A
HA-13 (14-16)	N	L2307677-04	02/13/2023	SO	A
HA-18 (2-4)	N	L2307677-05	02/13/2023	SO	A
HA-18 (6-8)	N	L2307677-06	02/13/2023	SO	A
HA-18 (10-12)	N	L2307677-07	02/13/2023	SO	A
HA-18 (14-16)	N	L2307677-08	02/13/2023	SO	A
DUP_1_02132023	FD	L2307677-09	02/13/2023	SO	A

Method Holding Times			
A.	E1633	EPA draft method 1633 – PFAS	28 days extraction/40 days analysis for solid, preserved

Holding time specified by NYSDEC Guidance.

1.2 CASE NARRATIVE

The laboratory report case narratives included the following issues:

- SDG L2305570, MB (WG1750496-1): The sample was re-analyzed due to quality control (QC) failures in the original analysis. The results of the re-analysis are reported.

1.3 HOLDING TIMES/PRESERVATION

The samples arrived at the laboratory at the proper temperature and were prepared and analyzed within the holding time and preservation criteria specified per method protocol with the following exceptions:

Method	Matrix	Holding Time	Preservation	Sample ID, Violation, Qualification
E1633	Solid	28 days extraction/40 days analysis for solid, preserved	Preserved with ice, cool to ≤ 6 °C	The following samples were extracted 1 day outside the NYSDEC holding time but were not qualified as the method SOP is 90 days: SDG L2305570: L2305570-01 to -20 SDG L2305934: L2305934-01 to -09

1.4 REPORTING LIMITS AND SAMPLE DILUTIONS

The RLs for the samples within this SDG met or were below the minimum RL requirements with the following exceptions:

- SDGs L2305570, L2305934, L2306883, L2307196, L2307511, and L2307677: 6:2 fluorotelomer sulfonate (FTS), 8:2 FTS, and perflurobutanoic acid (PFBA) RLs were slightly above 0.5 nanograms per gram ([ng/g], 0.710 to 0.800 ng/g). No qualification necessary.
- SDGs L2305570, L2305934, L2306883, and L2307196: 6:2 FTS, 8:2 FTS, and PFBA reporting limits were slightly above 2 ng/L, (2.84 to 6.76 ng/L). No qualification necessary.

No sample dilutions were performed for the analysis of the samples in this report.

1.5 REPORTING BASIS (WET/DRY)

Refer to section E 1.1. Soil data in this SDG were reported on a dry weight basis.

Where reported, percent solid results were reviewed and found to be within limits.

1.6 LABORATORY CONTROL SAMPLES

Refer to section E 1.3. Compounds associated with the laboratory control samples (LCS) analyses associated with client samples exhibited recoveries within the specified limits with the following exceptions:

SDG #	Sample Type	Method	Batch ID	Analyte	%R	Qualifier	Affected Samples
L2305570	LCS	E1633	WG1745584-03	PFNA	145%	J/UJ	L2305570-21
L2305570	LCS	E1633	WG1750496-2	PFNA	145%	J/UJ	L2305570-01 to -20
L2305570	LCS	E1633	WG1750496-2	PFOS	132%	J/UJ	L2305570-01 to -20
L2305934	LCS	E1633	WG1745584-03	PFNA	145%	J/UJ	L2305934-10
L2305934	LCS	E1633	WG1750815-2	PFNA	152%	J/UJ	L2305934-01 to -09
L2305934	LCS	E1633	WG1750815-3	PFNA	132%	J/UJ	L2305934-01 to -09
L2306883	LCS	E1633	WG1744424-3	PFTrDA	68%	J/UJ	L2306883-01 to -09
L2306883	LCS	E1633	WG1745584-03	PFNA	145%	J/UJ	L2306883-28
L2306883	LCS	E1633	WG1749903-2	PFBA	134%	J/UJ	L2306883-10 to -27
L2306883	LCS	E1633	WG1749903-2	PFHpS	131%	J/UJ	L2306883-10 to -27
L2306883	LCS	E1633	WG1749903-2	PFNA	132%	J/UJ	L2306883-10 to -27
L2306883	LCS	E1633	WG1749903-2	8:2 FTS	135%	J/UJ	L2306883-10 to -27
L2306883	LCS	E1633	WG1749903-2	NMeFOSAA	140%	J/UJ	L2306883-10 to -27
L2306883	LCS	E1633	WG1749903-2	PFDoA	170%	J/UJ	L2306883-10 to -27
L2306883	LCS	E1633	WG1749903-2	PFTeDA	148%	J/UJ	L2306883-10 to -27
L2306883	LCS	E1633	WG1749903-3	PFNA	134%	J/UJ	L2306883-10 to -27
L2307196	LCS	E1633	WG1745584-03	PFNA	145%	J/UJ	L2307196-17
L2307196	LCS	E1633	WG1751132-2	PFHxA	138%	J/UJ	L2307196-01 to -16
L2307196	LCS	E1633	WG1751132-2	NMeFOSAA	140%	J/UJ	L2307196-01 to -16
L2307511	LCS	E1633	WG1751220-2	PFOA	132%	J/UJ	L2307511-01 to -08
L2307511	LCS	E1633	WG1751220-2	6:2 FTS	136%	J/UJ	L2307511-01 to -08
L2307511	LCS	E1633	WG1751220-2	PFNA	132%	J/UJ	L2307511-01 to -08
L2307511	LCS	E1633	WG1751220-2	PFOS	137%	J/UJ	L2307511-01 to -08

HALEY ALDRICH

SDG #	Sample Type	Method	Batch ID	Analyte	%R	Qualifier	Affected Samples
L2307511	LCS	E1633	WG1751220-2	8:2 FTS	135%	J/UJ	L2307511-01 to -08
L2307511	LCS	E1633	WG1751220-2	NMeFOSAA	142%	J/UJ	L2307511-01 to -08
L2307511	LCS	E1633	WG1751220-2	PFDoA	138%	J/UJ	L2307511-01 to -08
L2307511	LCS	E1633	WG1751220-2	PFOA	132%	J/UJ	L2307677-01 to -09
L2307511	LCS	E1633	WG1751220-2	6:2 FTS	136%	J/UJ	L2307677-01 to -09
L2307511	LCS	E1633	WG1751220-2	PFNA	132%	J/UJ	L2307677-01 to -09
L2307511	LCS	E1633	WG1751220-2	PFOS	137%	J/UJ	L2307677-01 to -09
L2307511	LCS	E1633	WG1751220-2	8:2 FTS	135%	J/UJ	L2307677-01 to -09
L2307511	LCS	E1633	WG1751220-2	NMeFOSAA	142%	J/UJ	L2307677-01 to -09
L2307511	LCS	E1633	WG1751220-2	PFDoA	138%	J/UJ	L2307677-01 to -09

1.7 MATRIX SPIKE SAMPLES

Refer to section E 1.4. The sample(s) below were used for matrix spike/matrix spike duplicate (MS/MSD):

Lab Sample Number	Matrix Spike/Matrix Spike Duplicate Sample Client ID	Method(s)
L2305570-01	HA-06 (2-4’)	E1633
L2307196-05	HA-09 (2-4’)	E1633

The MS/MSD recoveries and the relative percent difference (RPD) between the MS and MSD results were within the specified limits with the following exceptions:

Sample Type	Method	Parent Sample	Analyte	%R/RPD	Qualifier	Affected Samples
MS/MSD	E1633	HA-06 (2-4’)	PFOS	65%/72%	J/UJ	L2305570-01
MS/MSD	E1633	HA-09 (2-4’)	PFOA	91%/65%	J/UJ	L2307196-05

1.8 BLANK SAMPLE ANALYSIS

Refer to section E 1.5. Method blank samples had no detections, indicating that no contamination from laboratory activities occurred with the following exceptions:

Blank Type	Batch ID	Analyte Detected in Blank	Concentration (ng/g)	Qualifier	Affected Samples
Method Blank	WG1751132-1	PFBA	0.088 J	RL U	L2307196-01 to -16

The analysis of the blank samples for field quality control was free of target compounds.

1.9 DUPLICATE SAMPLE ANALYSIS

Refer to section E 1.6. The laboratory did not analyze any laboratory duplicates as per the method or laboratory SOP.

The following sample(s) were used for field duplicate analysis. RPDs were all below 30 percent for soil (or the absolute difference rule was satisfied if detects were less than 2 times the RL). Any exceptions are noted below and qualified.

Primary Sample ID	Duplicate Sample ID	Method(s)
HA-04 (6-8)	DUP_1_02022023	E1633
HA-18 (10-12)	DUP_1_02132023	E1633
HA-19 (10-12)	DUP_1_02082023	E1633

Field Duplicate RPD Calculations:

Method(s): E1633				
Analyte (ng/g)	**Primary Sample ID**	**Duplicate Sample ID**	**% RPD**	**Qualification**
	HA-04 (6-8)	**DUP_1_02022023**		
PFOS	0.569	0.866	41	J/UJ
US EPA PFAS (PFOS + PFOA)	0.569	1.03	58	J/UJ
Analyte (ng/g)	**Primary Sample ID**	**Duplicate Sample ID**	**% RPD**	**Qualification**
	HA-18 (10-12)	**DUP_1_02132023**		
US EPA PFAS (PFOS + PFOA)	0.595	0.355	NA	J/UJ, Abs. Diff. > RL
Analyte (ng/g)	**Primary Sample ID**	**Duplicate Sample ID**	**% RPD**	**Qualification**
	HA-19 (10-12)	**DUP_1_02082023**		
PFOS	0.273	0.709	NA	J/UJ, Abs. Diff. > RL
US EPA PFAS (PFOS + PFOA)	0.398	0.961	83	J/UJ

1.10 PFAS SAMPLE PREPARATION

Refer to section E 1.14. The laboratory's SOP was reviewed and the reviewer confirmed it is the laboratory's procedure to use solid phase extraction (SPE) for sample preparation.

1.11 PFAS IDENTIFICATION

Refer to section E 1.15. Ion ratios were reviewed and were within the laboratory specified limits with the following exceptions:

Sample ID	Analyte	Qualifier	Affected Samples
L2305570-10	PFOS	J	L2305570-10
L2305570-10	PFHxA	J	L2305570-10
L2306883-07	PFOS	J	L2306883-07
L2306883-23	PFOA	J	L2306883-23
L2306883-26	PFOS	J	L2306883-26
L2306883-27	PFDoDA	J	L2306883-27
L2306883-27	PFNA	J	L2306883-27
L2307196-13	PFOS	J	L2307196-13
L2307511-02	PFDA	J	L2307511-02
L2307511-08	PFPeA	J	L2307511-08
L2307677-03	NEtFOSAA	J	L2307677-03

The laboratory's SOP was reviewed and the reviewer confirmed that, when applicable, the laboratory's procedure is to sum the branched and linear peaks.

1.12 EXTRACTION INTERNAL STANDARDS

Refer to section E 1.16. Recoveries were reviewed and found to be within the limits of 50 to 150 percent, with the following exceptions:

Sample ID	Lab ID or Batch ID	Standard Name	%Recovery	Qualifier	Affected Samples
HA-06 (6-8')	L2305570-02	13C2-PFTeDA	46%	"J/UJ" PFTeDA & PFTriA	L2305570-02
HA-16 (6-8')	L2305570-18	13C2-PFTeDA	42%	"J/UJ" PFTeDA & PFTriA	L2305570-18
HA-01 (2-4')	L2306883-01	13C2-PFDoA	42%	"J/UJ" PFDoA & PFTriA	L2306883-01
HA-01 (2-4')	L2306883-01	13C2-PFTeDA	25%	"J/UJ" PFTeDA & PFTriA	L2306883-01
HA-01 (6-8')	L2306883-02	13C2-PFTeDA	25%	"J/UJ" PFTeDA & PFTriA	L2306883-02
HA-01 (10-12')	L2306883-03	13C2-PFTeDA	36%	"J/UJ" PFTeDA & PFTriA	L2306883-03
HA-01 (14-16')	L2306883-04	13C2-PFTeDA	28%	"J/UJ" PFTeDA & PFTriA	L2306883-04
HA-02 (2'-4')	L2306883-05	13C2-PFDoA	46%	"J/UJ" PFDoA & PFTriA	L2306883-05

Sample ID	Lab ID or Batch ID	Standard Name	%Recovery	Qualifier	Affected Samples
HA-02 (2'-4')	L2306883-05	13C2-PFTeDA	24%	“J/UJ” PFTeDA & PFTriA	L2306883-05
HA-02 (6-8')	L2306883-06	13C2-PFDoA	41%	“J/UJ” PFDoA & PFTriA	L2306883-06
HA-02 (6-8')	L2306883-06	13C2-PFTeDA	28%	“J/UJ” PFTeDA & PFTriA	L2306883-06
HA-02 (10-12')	L2306883-07	13C2-PFDoA	49%	“J/UJ” PFDoA & PFTriA	L2306883-07
HA-02 (10-12')	L2306883-07	13C2-PFTeDA	33%	“J/UJ” PFTeDA & PFTriA	L2306883-07
HA-02 (14-16')	L2306883-08	13C2-PFDoA	44%	“J/UJ” PFDoA & PFTriA	L2306883-08
HA-02 (14-16')	L2306883-08	13C2-PFTeDA	33%	“J/UJ” PFTeDA & PFTriA	L2306883-08
HA-10 (2'-4')	L2306883-09	13C2-PFDoA	49%	“J/UJ” PFDoA & PFTriA	L2306883-09
HA-10 (2'-4')	L2306883-09	13C2-PFTeDA	38%	“J/UJ” PFTeDA & PFTriA	L2306883-09
HA-17 (10-12')	L2306883-15	13C8-PFOSA	45%	“J/UJ” PFOSA	L2306883-15
HA-17 (10-12')	L2306883-15	D5-NEtFOSAA	49%	“J/UJ” NEtFOSAA	L2306883-15
HA-17 (10-12')	L2306883-15	13C2-PFTeDA	38%	“J/UJ” PFTeDA & PFTriA	L2306883-15
HA-17 (14-16')	L2306883-16	13C2-PFTeDA	31%	“J/UJ” PFTeDA & PFTriA	L2306883-16
HA-19 (2'-4')	L2306883-17	13C2-8:2FTS	245%	“J/UJ” 8:2 FTS	L2306883-17
FIELD BLANK 02082023	L2306883-28	D3-NMeFOSAA	156%	“J/UJ” NMeFOSAA	L2306883-28
HA-07 (2-4')	L2307196-01	13C2-PFTeDA	35%	“J/UJ” PFTeDA & PFTriA	L2307196-01
HA-07 (6-8')	L2307196-02	13C2-PFTeDA	49%	“J/UJ” PFTeDA & PFTriA	L2307196-02
HA-07 (10-12')	L2307196-03	13C2-PFTeDA	45%	“J/UJ” PFTeDA & PFTriA	L2307196-03
HA-07 (14-16')	L2307196-04	13C2-PFDoA	49%	“J/UJ” PFDoA & PFTriA	L2307196-04
HA-07 (14-16')	L2307196-04	13C2-PFTeDA	37%	“J/UJ” PFTeDA & PFTriA	L2307196-04
HA-09 (2-4')	L2307196-05	13C2-PFTeDA	42%	“J/UJ” PFTeDA & PFTriA	L2307196-05
HA-09 (6-8')	L2307196-06	13C2-PFTeDA	42%	“J/UJ” PFTeDA & PFTriA	L2307196-06
HA-09 (10-12')	L2307196-07	13C2-PFTeDA	42%	“J/UJ” PFTeDA & PFTriA	L2307196-07
HA-09 (14-16')	L2307196-08	13C2-PFTeDA	40%	“J/UJ” PFTeDA & PFTriA	L2307196-08

Sample ID	Lab ID or Batch ID	Standard Name	%Recovery	Qualifier	Affected Samples
HA-11 (2-4')	L2307196-09	13C2-PFTeDA	46%	"J/UJ" PFTeDA & PFTriA	L2307196-09
HA-11 (6-8')	L2307196-10	13C2-PFTeDA	33%	"J/UJ" PFTeDA & PFTriA	L2307196-10
HA-11 (10-12')	L2307196-11	13C2-PFTeDA	41%	"J/UJ" PFTeDA & PFTriA	L2307196-11
HA-12 (10-12')	L2307196-15	13C2-PFDoA	44%	"J/UJ" PFDoA & PFTriA	L2307196-15
HA-12 (10-12')	L2307196-15	13C2-PFTeDA	28%	"J/UJ" PFTeDA & PFTriA	L2307196-15
HA-12 (14-16')	L2307196-16	13C2-PFTeDA	45%	"J/UJ" PFTeDA & PFTriA	L2307196-16
HA-03 (14-16')	L2307511-04	13C2-PFTeDA	42%	"J/UJ" PFTeDA & PFTriA	L2307511-04
HA-13 (6-8')	L2307677-02	D3-NMeFOSAA	48%	"J/UJ" NMeFOSAA	L2307677-02
HA-13 (10-12')	L2307677-03	D3-NMeFOSAA	37%	"J/UJ" NMeFOSAA	L2307677-03
HA-13 (10-12')	L2307677-03	13C8-PFOSA	48%	"J/UJ" PFOSA	L2307677-03
HA-13 (10-12')	L2307677-03	D5-NEtFOSAA	39%	"J/UJ" NEtFOSAA	L2307677-03
HA-13 (14-16')	L2307677-04	D3-NMeFOSAA	41%	"J/UJ" NMeFOSAA	L2307677-04
HA-18 (2-4')	L2307677-05	D3-NMeFOSAA	43%	"J/UJ" NMeFOSAA	L2307677-05
HA-18 (6-8')	L2307677-06	D3-NMeFOSAA	45%	"J/UJ" NMeFOSAA	L2307677-06
HA-18 (14-16')	L2307677-08	D3-NMeFOSAA	48%	"J/UJ" NMeFOSAA	L2307677-08
LCS	WG1750815-2	D3-NMeFOSAA	161%	No qualifier	None
LCS	WG1744424-2	13C2-PFDoA	43%	No qualifier	None
LCS	WG1744424-2	13C2-PFTeDA	23%	No qualifier	None
LCS	WG1744424-3	13C2-PFTeDA	44%	No qualifier	None
LCS	WG1751132-2	13C2-PFTeDA	48%	No qualifier	None
LCS	WG1751132-3	13C2-PFTeDA	43%	No qualifier	None
LCS	WG1751220-2	D3-NMeFOSAA	48%	No qualifier	None
LCS	WG1751220-2	13C2-PFTeDA	47%	No qualifier	None
LCS	WG1751220-3	13C2-PFTeDA	48%	No qualifier	None
LCS	WG1751220-2	D3-NMeFOSAA	48%	No qualifier	None
LCS	WG1751220-2	13C2-PFTeDA	47%	No qualifier	None

Sample ID	Lab ID or Batch ID	Standard Name	%Recovery	Qualifier	Affected Samples
LCS	WG1751220-3	13C2-PFTeDA	48%	No qualifier	None
MS/MSD	WG1751132-4, WG1751132-5	13C2-PFTeDA	47%/39%	No qualifier	None
MB	WG1750815-1	D3-NMeFOSAA	198%	No qualifier	None
MB	WG1744424-1	13C2-PFDoA	40%	No qualifier	None
MB	WG1744424-1	13C2-PFTeDA	28%	No qualifier	None
MB	WG1751132-1	13C2-PFTeDA	42%	No qualifier	None

1.13 SYSTEM PERFORMANCE AND OVERALL ASSESSMENT

The results presented in this report were found to comply with the data quality objectives for the project and the guidelines specified by the analytical method. Based on the review of this report, the data are useable and acceptable as no data was rejected. A summary of qualifiers applied to this data set is shown in Table 1.

2. Precision and Accuracy [for SDG(s) above]

Refer to section E 1.7. Where required by the method, some measurement of analytical accuracy and precision was reported for each method with the site samples.

3. Explanations

The following explanations include more detailed information regarding each of the sections in the DUSR above. Not all sections in the Explanations are represented:

- E 1.1 Reporting Basis (Wet/Dry)
  - Soil samples can be reported on either a wet (as received) or dry weight basis. Dry weight data indicate calculations were made to compensate for the moisture content of the soil sample.
  - Percent (%) solids should be appropriately considered when evaluating analytical results for non-aqueous samples. Sediments with high moisture content may or may not be successfully analyzed by routine analytical methods. Samples should have greater than or equal to 30 percent solids to be appropriately quantified.
- E 1.3 Laboratory Control Samples
  - The laboratory control sample/laboratory control sample duplicate (LCS/LCSD) analyses are used to assess the precision and accuracy of the analytical method independent of matrix interferences.
- E 1.4 Matrix Spike Samples
  - Matrix spike/matrix spike duplicate (MS/MSD) data are used to assess the precision and accuracy of the analytical method and evaluate the effects of the sample matrix on the sample preparation procedures and measurement methodologies.
  - For inorganic methods, when a matrix spike recovery falls outside of the control limits and the sample result is less than four times the spike added, a post digestion spike (PDS) is performed.
- E 1.5 Blank Sample Analysis
  - Method blanks are prepared by the analytical laboratory and analyzed concurrently with the project samples to assess possible laboratory contamination.
  - Field blanks are prepared to identify contamination that may have been introduced during field activity. Equipment blanks are prepared to identify contamination that may have been introduced while decontaminating sampling equipment. Trip blanks are prepared when volatile analysis is requested to identify contamination that may have been introduced during transport.
- E 1.6 Laboratory and Field Duplicate Sample Analysis
  - The laboratory duplicate sample analysis is used by the laboratory at the time of the analysis to demonstrate acceptable method precision. The RPD or absolute difference was evaluated for each duplicate sample pair to monitor the reproducibility of the data.
  - The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. The relative percent difference (RPD) or absolute difference evaluated for each duplicate sample pair to monitor the reproducibility of the data.

- E 1.7 Precision and Accuracy
  - Precision measures the reproducibility of repetitive measurements. In a laboratory environment, this will be measured by determining the relative percent difference (RPD) found between a primary and a duplicate sample. This can be an LCS/LCSD pair, a MS/MSD pair, a laboratory duplicate performed on a site sample, or a field duplicate collected and analyzed concurrently with a site sample.
  - Accuracy is a statistical measurement of the correctness of a measured value and includes components of random error (variability caused by imprecision) and systematic error. In a laboratory environment, this will be measured by determining the percent recovery (%R) of certain spiked compounds. This can be assessed using LCS, blank spike (BS), MS, and/or surrogate recoveries.
- E 1.14 PFAS Sample Preparation
  - Analysis of PFAS requires specific sample preparation. Aqueous samples must be prepared using Solid Phase Extraction (SPE), unless samples are known to contain high PFAS concentrations or the samples are injected directly into the LC/MS/MS instrument. Samples with greater than 1 percent solids may require centrifugation prior to SPE. The entire sample plus bottle rinsate must be extracted using SPE. If high PFAS concentrations are known, the samples may alternately be prepared using serial dilution performed in duplicate. If prepared by serial dilution, there must be documented project approval for this deviation.
- E 1.15 PFAS Identification
  - Identification of PFAS requires dual confirmation. The chemical derivation of the ion transitions must be documented. A minimum of two ion transitions per analyte are required (except for PFBA and PFPeA). Ratios of the quantitation ion to the confirmation ion should be calculated for samples and be within 50 to 150 percent of the ratios of the quantitation ion to the confirmation ion for standards.
  - Identification of PFAS also requires the proper assessment of branched and linear peaks. Standards for both isomers are not currently available for every PFAS compound, resulting in the common error of quantifying the area of only the branched or the linear isomers, which results in erroneous concentrations.
- E 1.16 Extraction Internal Standards
  - Analysis of PFAS by isotope dilution includes the use of extracted internal standards, which are stable isotope analogs of the PFAS compounds of interest added to each sample prior to extraction of the sample matrix. Matrix interferences that affect the quantification of the internal standard will affect the calculated target compound concentrations.

4. Glossary

Not all of the following symbols, acronyms, or qualifiers occur in this document.

- Sample Types:
  - EB Equipment Blank Sample
  - FB Field Blank Sample
  - FD Field Duplicate Sample
  - N Primary Sample
  - TB Trip Blank Sample
- Units:
  - µg/kg microgram per kilogram
  - µg/L microgram per liter
  - µg/m^3 microgram per cubic meter
  - mg/kg milligram per kilogram
  - mg/L milligram per liter
  - ppb v/v parts per billion volume/volume
  - pCi/L picocuries per liter
  - pg/g picograms per gram
- Matrices:
  - AA Ambient Air
  - GS Soil Gas
  - GW/WG Groundwater
  - QW Water Quality
  - IA Indoor Air
  - SE Sediment
  - SO Soil
  - SSV Sub-slab Vapor
  - WQ Water Quality control matrix
  - WS Surface Water
- Table Footnotes:
  - NA Not applicable
  - ND Non-detect
  - NR Not reported
- Common Symbols:
  - % percent
  - < less than
  - ≤ less than or equal to
  - > greater than
  - ≥ greater than or equal to
  - = equal
  - °C degrees Celsius
  - ± plus or minus
  - ~ approximately
  - x times (multiplier)

5. Abbreviations

%D	Percent Difference	mg/kg	milligrams per kilogram
%R	Percent Recovery	MS/MSD	Matrix Spike/Matrix Spike Duplicate
%RSD	Percent Relative Standard Deviation	NA	not applicable
%v/v	Percent volume by volume	ND	Non-Detect
µg/L	micrograms per liter	NFG	National Functional Guidelines
2s	2 sigma	NH_3	Ammonia
4,4-DDT	4 4-dichlorodiphenyltrichloroethane	NYSDEC	New York State Department of Environmental Conservation
Abs Diff	Absolute Difference		
amu	atomic mass unit	PAH	polycyclic aromatic hydrocarbon
BPJ	Best Professional Judgement	PCB	Polychlorinated Biphenyl
BS	Blank Spike	PDS	Post Digestion Spike
CCB	Continuing Calibration Blank	PEM	Performance Evaluation Mixture
CCV	Continuing Calibration Verification	PFAS	Per- and Polyfluoroalkyl Substances
CCVL	Continuing Calibration Verification Low	PFBA	Perfluorbutanoic Acid
		PFD	Perfluorodecalin
COC	Chain of Custody	PFOA	Perfluorooctanoic Acid
COM	Combined Isotope Calculation	PFOS	Perfluorooctane sulfonate
Cr (VI)	Hexavalent Chromium	PFPeA	Perfluoropentanoic Acid
CRI	Collision Reaction Interface	QAPP	Quality Assurance Project Plan
DoD	Department of Defense	QC	Quality Control
DQO	data quality objective	QSM	Quality Systems Manual
DUSR	Data Usability Summary Report	R^2	R-squared value
EMPC	Estimated Maximum Possible Concentration	Ra-226	Radium-226
		Ra-228	Radium-228
FBK	Field Blank Contamination	RESC	Resolution Check Measure
FDP	Field Duplicate	RL	Laboratory Reporting Limit
GC	Gas Chromatograph	RPD	Relative Percent Difference
GC/MS	Gas Chromatography/Mass Spectrometry	RRF	Relative Response Factors
		RT	Retention Time
GPC	Gel Permeation Chromatography	SAP	sampling analysis plan
H2	Hydrogen gas	SDG	Sample Delivery Group
HCl	Hydrochloric Acid	SIM	Selected ion monitoring
ICAL	Initial Calibration	SOP	Laboratory Standard Operating Procedures
ICB	Initial Calibration Blank		
ICP/MS	Inductively Coupled Plasma/ Mass Spectrometry	SPE	Solid Phase Extraction
		SVOC	Semi-Volatile Organic Compounds
ICV	Initial Calibration Verification	TIC	Tentatively Identified Compound
ICVL	Initial Calibration Verification Low	TKN	Total Kjeldahl Nitrogen
IPA	Isopropyl Alcohol	TPH	Total Petroleum Hydrocarbon
LC	Laboratory Control	TPU	Total Propagated Uncertainty
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate	amu	atomic mass unit
		USEPA	U.S. Environmental Protection Agency
MBK	Method Blank Contamination	VOC	Volatile Organic Compounds
MDC	Minimum Detectable Concentration	WP	Work Plan
MDL	Laboratory Method Detection Limit		

6. Qualifiers

The qualifiers below are from the USEPA National Functional Guidelines and the data in the DUSR may contain these qualifiers:

- Concentration (C) Qualifiers:

  U The compound was analyzed for but not detected. The associated value is either the compound quantitation limit if not detected by the analytical instrument or could be the reported or blank concentration if qualified by blank contamination. This can also be displayed as less than the associated compound quantitation limit (<RL or <MDL), or "ND".

  B The compound was found in the sample and its associated blank. Its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers:

  E The compound was quantitated above the calibration range.

  D The concentration is based on a diluted sample analysis.

- Validation Qualifiers:

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  J+ The result is an estimated quantity, but the result may be biased high.

  J- The result is an estimated quantity, but the result may be biased low.

  J/UJ as listed in exception tables J applies to detected data and UJ applies to non-detected data as reported by the laboratory.

  UJ The compound was not detected above the reported sample quantitation limit; however, the reported limit is estimated and may or may not represent the actual limit of quantitation.

  NJ The analysis indicated the presence of a compound for which there is presumptive evidence to make a tentative identification; the associated numerical value is an estimated concentration only.

  R The sample results were rejected as unusable; the compound may or may not be present in the sample.

  S Result is suspect. See DUSR for details.

References

1. New York State Department of Environmental Conservation (NYSDEC), 2022. Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances Under NYSDEC's Part 375 Remedial Programs. November 2022.

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2305934	E1633	NA	DUP_1_02022023	L2305934-09	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.866	0.866 J	FDP
L2305934	E1633	NA	DUP_1_02022023	L2305934-09	US EPA PFAS (PFOS + PFOA)	N	Yes	1.03 J	1.03 J	FDP
L2306883	E1633	NA	DUP_1_02082023	L2306883-27	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.709	0.709 J	FDP
L2306883	E1633	NA	DUP_1_02082023	L2306883-27	US EPA PFAS (PFOS + PFOA)	N	Yes	0.961	0.961 J	FDP
L2305934	E1633	NA	HA-04 (6-8)	L2305934-02	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.569	0.569 J	FDP
L2305934	E1633	NA	HA-04 (6-8)	L2305934-02	US EPA PFAS (PFOS + PFOA)	N	Yes	0.569	0.569 J	FDP
L2306883	E1633	NA	HA-19 (10-12)	L2306883-19	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.273	0.273 J	FDP
L2306883	E1633	NA	HA-19 (10-12)	L2306883-19	US EPA PFAS (PFOS + PFOA)	N	Yes	0.398 J	0.398 J	FDP
L2306883	E1633	NA	HA-01 (10-12)	L2306883-03	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2306883	E1633	NA	HA-01 (14-16)	L2306883-04	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2306883	E1633	NA	HA-01 (2-4)	L2306883-01	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	IDL
L2306883	E1633	NA	HA-01 (2-4)	L2306883-01	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2306883	E1633	NA	HA-01 (6-8)	L2306883-02	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2306883	E1633	NA	HA-02 (10-12)	L2306883-07	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	IDL
L2306883	E1633	NA	HA-02 (10-12)	L2306883-07	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2306883	E1633	NA	HA-02 (14-16)	L2306883-08	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	IDL
L2306883	E1633	NA	HA-02 (14-16)	L2306883-08	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2306883	E1633	NA	HA-02 (2-4)	L2306883-05	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	IDL
L2306883	E1633	NA	HA-02 (2-4)	L2306883-05	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2306883	E1633	NA	HA-02 (6-8)	L2306883-06	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	IDL
L2306883	E1633	NA	HA-02 (6-8)	L2306883-06	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2307511	E1633	NA	HA-03 (14-16)	L2307511-04	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2307511	E1633	NA	HA-03 (14-16)	L2307511-04	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	IDL
L2305570	E1633	NA	HA-06 (6-8)	L2305570-02	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2305570	E1633	NA	HA-06 (6-8)	L2305570-02	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-07 (10-12)	L2307196-03	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-07 (10-12)	L2307196-03	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-07 (14-16)	L2307196-04	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-07 (14-16)	L2307196-04	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-07 (14-16)	L2307196-04	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-07 (2-4)	L2307196-01	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-07 (6-8)	L2307196-02	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-07 (6-8)	L2307196-02	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-09 (10-12)	L2307196-07	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-09 (10-12)	L2307196-07	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-09 (14-16)	L2307196-08	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-09 (14-16)	L2307196-08	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-09 (2-4)	L2307196-05	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-09 (2-4)	L2307196-05	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-09 (6-8)	L2307196-06	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-09 (6-8)	L2307196-06	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	IDL
L2306883	E1633	NA	HA-10 (2-4)	L2306883-09	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	IDL
L2306883	E1633	NA	HA-10 (2-4)	L2306883-09	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-11 (10-12)	L2307196-11	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-11 (10-12)	L2307196-11	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-11 (2-4)	L2307196-09	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-11 (2-4)	L2307196-09	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-11 (6-8)	L2307196-10	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-11 (6-8)	L2307196-10	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-12 (10-12)	L2307196-15	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-12 (10-12)	L2307196-15	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-12 (10-12)	L2307196-15	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-12 (14-16)	L2307196-16	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2307196	E1633	NA	HA-12 (14-16)	L2307196-16	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	IDL
L2307677	E1633	NA	HA-13 (10-12)	L2307677-03	Perfluorooctane sulfonamide (PFOSA)	N	Yes	0.088 J	0.088 J	IDL
L2305570	E1633	NA	HA-16 (6-8)	L2305570-18	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2305570	E1633	NA	HA-16 (6-8)	L2305570-18	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	IDL
L2306883	E1633	NA	HA-17 (10-12)	L2306883-15	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	N	Yes	U	UJ	IDL
L2306883	E1633	NA	HA-17 (10-12)	L2306883-15	Perfluorooctane sulfonamide (PFOSA)	N	Yes	U	UJ	IDL
L2306883	E1633	NA	HA-17 (10-12)	L2306883-15	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	IDL
L2306883	E1633	NA	HA-17 (14-16)	L2306883-16	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	IDL
L2306883	E1633	NA	HA-02 (10-12)	L2306883-07	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.094 J	0.094 J	ION
L2306883	E1633	NA	HA-02 (10-12)	L2306883-07	US EPA PFAS (PFOS + PFOA)	N	Yes	0.094 J	0.094 J	ION
L2307511	E1633	NA	HA-03 (6-8)	L2307511-02	Perfluorodecanoic acid (PFDA)	N	Yes	0.079 J	0.079 J	ION
L2307196	E1633	NA	HA-12 (2-4)	L2307196-13	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.287	0.287 J	ION
L2307196	E1633	NA	HA-12 (2-4)	L2307196-13	US EPA PFAS (PFOS + PFOA)	N	Yes	0.699	0.699 J	ION
L2305570	E1633	NA	HA-14 (6-8)	L2305570-10	Perfluorohexanoic acid (PFHxA)	N	Yes	0.094 J	0.094 J	ION
L2307511	E1633	NA	HA-20 (14-16)	L2307511-08	Perfluoropentanoic acid (PFPeA)	N	Yes	0.088 J	0.088 J	ION
L2306883	E1633	NA	HA-21 (20-22)	L2306883-26	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.127 J	0.127 J	ION
L2306883	E1633	NA	HA-21 (20-22)	L2306883-26	US EPA PFAS (PFOS + PFOA)	N	Yes	0.23 J	0.23 J	ION
L2306883	E1633	NA	HA-21 (6-8)	L2306883-23	Perfluorooctanoic acid (PFOA)	N	Yes	0.099 J	0.099 J	ION
L2306883	E1633	NA	HA-21 (6-8)	L2306883-23	US EPA PFAS (PFOS + PFOA)	N	Yes	0.281 J	0.281 J	ION
L2307677	E1633	NA	HA-13 (10-12)	L2307677-03	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	N	Yes	0.176 J	0.176 J	ION, IDL
L2305934	E1633	NA	DUP_1_02022023	L2305934-09	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	DUP_1_02082023	L2306883-27	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	DUP_1_02082023	L2306883-27	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	DUP_1_02082023	L2306883-27	Perfluorobutanoic acid (PFBA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	DUP_1_02082023	L2306883-27	Perfluoroheptanesulfonic acid (PFHpS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	DUP_1_02082023	L2306883-27	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	DUP_1_02132023	L2307677-09	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	DUP_1_02132023	L2307677-09	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	DUP_1_02132023	L2307677-09	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	DUP_1_02132023	L2307677-09	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	DUP_1_02132023	L2307677-09	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	DUP_1_02132023	L2307677-09	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.355	0.355 J	LCS
L2307677	E1633	NA	DUP_1_02132023	L2307677-09	Perfluorooctanoic acid (PFOA)	N	Yes	U	UJ	LCS
L2305570	E1633	NA	FIELD BLANK 02012023	L2305570-21	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305934	E1633	NA	FIELD BLANK 02022023	L2305934-10	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	FIELD BLANK 02082023	L2306883-28	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	FIELD BLANK 02092023	L2307196-17	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-03 (10-12)	L2307511-03	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-03 (10-12)	L2307511-03	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-03 (10-12)	L2307511-03	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-03 (10-12)	L2307511-03	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-03 (10-12)	L2307511-03	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-03 (10-12)	L2307511-03	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.096 J	0.096 J	LCS

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2307511	E1633	NA	HA-03 (10-12)	L2307511-03	Perfluorooctanoic acid (PFOA)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-03 (10-12)	L2307511-03	US EPA PFAS (PFOS + PFOA)	N	Yes	0.096 J	0.096 J	LCS
L2307511	E1633	NA	HA-03 (14-16)	L2307511-04	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-03 (14-16)	L2307511-04	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-03 (14-16)	L2307511-04	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-03 (14-16)	L2307511-04	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-03 (14-16)	L2307511-04	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-03 (14-16)	L2307511-04	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.205	0.205 J	LCS
L2307511	E1633	NA	HA-03 (14-16)	L2307511-04	Perfluorooctanoic acid (PFOA)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-03 (14-16)	L2307511-04	US EPA PFAS (PFOS + PFOA)	N	Yes	0.205	0.205 J	LCS
L2307511	E1633	NA	HA-03 (2-4)	L2307511-01	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-03 (2-4)	L2307511-01	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-03 (2-4)	L2307511-01	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-03 (2-4)	L2307511-01	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-03 (2-4)	L2307511-01	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-03 (2-4)	L2307511-01	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.851	0.851 J	LCS
L2307511	E1633	NA	HA-03 (2-4)	L2307511-01	Perfluorooctanoic acid (PFOA)	N	Yes	0.239	0.239 J	LCS
L2307511	E1633	NA	HA-03 (2-4)	L2307511-01	US EPA PFAS (PFOS + PFOA)	N	Yes	1.09	1.09 J	LCS
L2307511	E1633	NA	HA-03 (6-8)	L2307511-02	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-03 (6-8)	L2307511-02	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-03 (6-8)	L2307511-02	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-03 (6-8)	L2307511-02	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-03 (6-8)	L2307511-02	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-03 (6-8)	L2307511-02	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.96	0.96 J	LCS
L2307511	E1633	NA	HA-03 (6-8)	L2307511-02	Perfluorooctanoic acid (PFOA)	N	Yes	0.341	0.341 J	LCS
L2307511	E1633	NA	HA-03 (6-8)	L2307511-02	US EPA PFAS (PFOS + PFOA)	N	Yes	1.3	1.3 J	LCS
L2305934	E1633	NA	HA-04 (10-12)	L2305934-03	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305934	E1633	NA	HA-04 (14-16)	L2305934-04	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305934	E1633	NA	HA-04 (2-4)	L2305934-01	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305934	E1633	NA	HA-04 (6-8)	L2305934-02	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305934	E1633	NA	HA-05 (10-12)	L2305934-07	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305934	E1633	NA	HA-05 (14-16)	L2305934-08	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305934	E1633	NA	HA-05 (2-4)	L2305934-05	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305934	E1633	NA	HA-05 (6-8)	L2305934-06	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305570	E1633	NA	HA-06 (10-12)	L2305570-03	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305570	E1633	NA	HA-06 (10-12)	L2305570-03	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.255	0.255 J	LCS
L2305570	E1633	NA	HA-06 (10-12)	L2305570-03	US EPA PFAS (PFOS + PFOA)	N	Yes	0.255	0.255 J	LCS
L2305570	E1633	NA	HA-06 (14-16)	L2305570-04	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305570	E1633	NA	HA-06 (14-16)	L2305570-04	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.336	0.336 J	LCS
L2305570	E1633	NA	HA-06 (14-16)	L2305570-04	US EPA PFAS (PFOS + PFOA)	N	Yes	0.336	0.336 J	LCS
L2305570	E1633	NA	HA-06 (2-4)	L2305570-01	Perfluorononanoic acid (PFNA)	N	Yes	0.263	0.263 J	LCS
L2305570	E1633	NA	HA-06 (6-8)	L2305570-02	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305570	E1633	NA	HA-06 (6-8)	L2305570-02	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.226	0.226 J	LCS
L2305570	E1633	NA	HA-06 (6-8)	L2305570-02	US EPA PFAS (PFOS + PFOA)	N	Yes	0.226	0.226 J	LCS
L2307196	E1633	NA	HA-07 (10-12)	L2307196-03	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	HA-07 (10-12)	L2307196-03	Perfluorohexanoic acid (PFHxA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	HA-07 (14-16)	L2307196-04	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	HA-07 (14-16)	L2307196-04	Perfluorohexanoic acid (PFHxA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	HA-07 (2-4)	L2307196-01	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	HA-07 (2-4)	L2307196-01	Perfluorohexanoic acid (PFHxA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	HA-07 (6-8)	L2307196-02	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	HA-07 (6-8)	L2307196-02	Perfluorohexanoic acid (PFHxA)	N	Yes	U	UJ	LCS
L2305570	E1633	NA	HA-08 (10-12)	L2305570-07	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305570	E1633	NA	HA-08 (10-12)	L2305570-07	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.25	0.25 J	LCS
L2305570	E1633	NA	HA-08 (10-12)	L2305570-07	US EPA PFAS (PFOS + PFOA)	N	Yes	0.25	0.25 J	LCS
L2305570	E1633	NA	HA-08 (14-16)	L2305570-08	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305570	E1633	NA	HA-08 (14-16)	L2305570-08	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.095 J	0.095 J	LCS
L2305570	E1633	NA	HA-08 (14-16)	L2305570-08	US EPA PFAS (PFOS + PFOA)	N	Yes	0.095 J	0.095 J	LCS
L2305570	E1633	NA	HA-08 (2-4)	L2305570-05	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305570	E1633	NA	HA-08 (2-4)	L2305570-05	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.417	0.417 J	LCS
L2305570	E1633	NA	HA-08 (2-4)	L2305570-05	US EPA PFAS (PFOS + PFOA)	N	Yes	0.417	0.417 J	LCS
L2305570	E1633	NA	HA-08 (6-8)	L2305570-06	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305570	E1633	NA	HA-08 (6-8)	L2305570-06	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.156 J	0.156 J	LCS
L2305570	E1633	NA	HA-08 (6-8)	L2305570-06	US EPA PFAS (PFOS + PFOA)	N	Yes	0.49 J	0.49 J	LCS
L2307196	E1633	NA	HA-09 (10-12)	L2307196-07	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	HA-09 (10-12)	L2307196-07	Perfluorohexanoic acid (PFHxA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	HA-09 (14-16)	L2307196-08	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	HA-09 (14-16)	L2307196-08	Perfluorohexanoic acid (PFHxA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	HA-09 (2-4)	L2307196-05	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	HA-09 (2-4)	L2307196-05	Perfluorohexanoic acid (PFHxA)	N	Yes	0.06 J	0.06 J	LCS
L2307196	E1633	NA	HA-09 (6-8)	L2307196-06	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	HA-09 (6-8)	L2307196-06	Perfluorohexanoic acid (PFHxA)	N	Yes	0.053 J	0.053 J	LCS
L2306883	E1633	NA	HA-10 (10-12)	L2306883-11	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-10 (10-12)	L2306883-11	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-10 (10-12)	L2306883-11	Perfluorobutanoic acid (PFBA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-10 (10-12)	L2306883-11	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-10 (10-12)	L2306883-11	Perfluoroheptanesulfonic acid (PFHpS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-10 (10-12)	L2306883-11	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-10 (10-12)	L2306883-11	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-10 (14-16)	L2306883-12	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-10 (14-16)	L2306883-12	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-10 (14-16)	L2306883-12	Perfluorobutanoic acid (PFBA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-10 (14-16)	L2306883-12	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-10 (14-16)	L2306883-12	Perfluoroheptanesulfonic acid (PFHpS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-10 (14-16)	L2306883-12	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-10 (14-16)	L2306883-12	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-10 (6-8)	L2306883-10	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-10 (6-8)	L2306883-10	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-10 (6-8)	L2306883-10	Perfluorobutanoic acid (PFBA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-10 (6-8)	L2306883-10	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-10 (6-8)	L2306883-10	Perfluoroheptanesulfonic acid (PFHpS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-10 (6-8)	L2306883-10	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-10 (6-8)	L2306883-10	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	HA-11 (10-12)	L2307196-11	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	HA-11 (10-12)	L2307196-11	Perfluorohexanoic acid (PFHxA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	HA-11 (14-16)	L2307196-12	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS

TABLE 1
SYSTEM PERFORMANCE SUMMARY
556 BALTIC STREET SITE RIR
BROOKLYN, NEW YORK

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2307196	E1633	NA	HA-11 (14-16)	L2307196-12	Perfluorohexanoic acid (PFHxA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	HA-11 (2-4)	L2307196-09	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	HA-11 (2-4)	L2307196-09	Perfluorohexanoic acid (PFHxA)	N	Yes	0.054 J	0.054 J	LCS
L2307196	E1633	NA	HA-11 (6-8)	L2307196-10	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	HA-11 (6-8)	L2307196-10	Perfluorohexanoic acid (PFHxA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	HA-12 (10-12)	L2307196-15	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	HA-12 (10-12)	L2307196-15	Perfluorohexanoic acid (PFHxA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	HA-12 (14-16)	L2307196-16	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	HA-12 (14-16)	L2307196-16	Perfluorohexanoic acid (PFHxA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	HA-12 (2-4)	L2307196-13	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	HA-12 (2-4)	L2307196-13	Perfluorohexanoic acid (PFHxA)	N	Yes	0.085 J	0.085 J	LCS
L2307196	E1633	NA	HA-12 (6-8)	L2307196-14	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2307196	E1633	NA	HA-12 (6-8)	L2307196-14	Perfluorohexanoic acid (PFHxA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-13 (10-12)	L2307677-03	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-13 (10-12)	L2307677-03	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-13 (10-12)	L2307677-03	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-13 (10-12)	L2307677-03	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-13 (10-12)	L2307677-03	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.255	0.255 J	LCS
L2307677	E1633	NA	HA-13 (10-12)	L2307677-03	Perfluorooctanoic acid (PFOA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-13 (10-12)	L2307677-03	US EPA PFAS (PFOS + PFOA)	N	Yes	0.255	0.255 J	LCS
L2307677	E1633	NA	HA-13 (14-16)	L2307677-04	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-13 (14-16)	L2307677-04	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-13 (14-16)	L2307677-04	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-13 (14-16)	L2307677-04	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-13 (14-16)	L2307677-04	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.254	0.254 J	LCS
L2307677	E1633	NA	HA-13 (14-16)	L2307677-04	Perfluorooctanoic acid (PFOA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-13 (14-16)	L2307677-04	US EPA PFAS (PFOS + PFOA)	N	Yes	0.254	0.254 J	LCS
L2307677	E1633	NA	HA-13 (2-4)	L2307677-01	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-13 (2-4)	L2307677-01	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-13 (2-4)	L2307677-01	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-13 (2-4)	L2307677-01	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-13 (2-4)	L2307677-01	Perfluorononanoic acid (PFNA)	N	Yes	0.088 J	0.088 J	LCS
L2307677	E1633	NA	HA-13 (2-4)	L2307677-01	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.335	0.335 J	LCS
L2307677	E1633	NA	HA-13 (2-4)	L2307677-01	Perfluorooctanoic acid (PFOA)	N	Yes	0.096 J	0.096 J	LCS
L2307677	E1633	NA	HA-13 (2-4)	L2307677-01	US EPA PFAS (PFOS + PFOA)	N	Yes	0.431 J	0.431 J	LCS
L2307677	E1633	NA	HA-13 (6-8)	L2307677-02	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-13 (6-8)	L2307677-02	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-13 (6-8)	L2307677-02	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-13 (6-8)	L2307677-02	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-13 (6-8)	L2307677-02	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.125 J	0.125 J	LCS
L2307677	E1633	NA	HA-13 (6-8)	L2307677-02	Perfluorooctanoic acid (PFOA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-13 (6-8)	L2307677-02	US EPA PFAS (PFOS + PFOA)	N	Yes	0.125 J	0.125 J	LCS
L2305570	E1633	NA	HA-14 (10-12)	L2305570-11	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305570	E1633	NA	HA-14 (10-12)	L2305570-11	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.118 J	0.118 J	LCS
L2305570	E1633	NA	HA-14 (10-12)	L2305570-11	US EPA PFAS (PFOS + PFOA)	N	Yes	0.118 J	0.118 J	LCS
L2305570	E1633	NA	HA-14 (14-16)	L2305570-12	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305570	E1633	NA	HA-14 (14-16)	L2305570-12	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.236	0.236 J	LCS
L2305570	E1633	NA	HA-14 (14-16)	L2305570-12	US EPA PFAS (PFOS + PFOA)	N	Yes	0.236	0.236 J	LCS
L2305570	E1633	NA	HA-14 (2-4)	L2305570-09	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305570	E1633	NA	HA-14 (2-4)	L2305570-09	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.398	0.398 J	LCS
L2305570	E1633	NA	HA-14 (2-4)	L2305570-09	US EPA PFAS (PFOS + PFOA)	N	Yes	0.944	0.944 J	LCS
L2305570	E1633	NA	HA-14 (6-8)	L2305570-10	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305570	E1633	NA	HA-15 (10-12)	L2305570-15	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305570	E1633	NA	HA-15 (10-12)	L2305570-15	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.446	0.446 J	LCS
L2305570	E1633	NA	HA-15 (10-12)	L2305570-15	US EPA PFAS (PFOS + PFOA)	N	Yes	0.446	0.446 J	LCS
L2305570	E1633	NA	HA-15 (14-16)	L2305570-16	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305570	E1633	NA	HA-15 (14-16)	L2305570-16	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.143 J	0.143 J	LCS
L2305570	E1633	NA	HA-15 (14-16)	L2305570-16	US EPA PFAS (PFOS + PFOA)	N	Yes	0.143 J	0.143 J	LCS
L2305570	E1633	NA	HA-15 (2-4)	L2305570-13	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305570	E1633	NA	HA-15 (2-4)	L2305570-13	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.075 J	0.075 J	LCS
L2305570	E1633	NA	HA-15 (2-4)	L2305570-13	US EPA PFAS (PFOS + PFOA)	N	Yes	0.247 J	0.247 J	LCS
L2305570	E1633	NA	HA-15 (6-8)	L2305570-14	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305570	E1633	NA	HA-15 (6-8)	L2305570-14	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.315	0.315 J	LCS
L2305570	E1633	NA	HA-15 (6-8)	L2305570-14	US EPA PFAS (PFOS + PFOA)	N	Yes	0.315	0.315 J	LCS
L2305570	E1633	NA	HA-16 (10-12)	L2305570-19	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305570	E1633	NA	HA-16 (10-12)	L2305570-19	Perfluorooctanesulfonic acid (PFOS)	N	Yes	U	UJ	LCS
L2305570	E1633	NA	HA-16 (10-12)	L2305570-19	US EPA PFAS (PFOS + PFOA)	N	Yes	U	UJ	LCS
L2305570	E1633	NA	HA-16 (14-16)	L2305570-20	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305570	E1633	NA	HA-16 (14-16)	L2305570-20	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.22	0.22 J	LCS
L2305570	E1633	NA	HA-16 (14-16)	L2305570-20	US EPA PFAS (PFOS + PFOA)	N	Yes	0.22	0.22 J	LCS
L2305570	E1633	NA	HA-16 (2-4)	L2305570-17	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2305570	E1633	NA	HA-16 (2-4)	L2305570-17	Perfluorooctanesulfonic acid (PFOS)	N	Yes	2.35	2.35 J	LCS
L2305570	E1633	NA	HA-16 (2-4)	L2305570-17	US EPA PFAS (PFOS + PFOA)	N	Yes	2.35	2.35 J	LCS
L2305570	E1633	NA	HA-16 (6-8)	L2305570-18	Perfluorononanoic acid (PFNA)	N	Yes	0.141 J	0.141 J	LCS
L2305570	E1633	NA	HA-16 (6-8)	L2305570-18	Perfluorooctanesulfonic acid (PFOS)	N	Yes	2.71	2.71 J	LCS
L2305570	E1633	NA	HA-16 (6-8)	L2305570-18	US EPA PFAS (PFOS + PFOA)	N	Yes	2.8 J	2.8 J	LCS
L2306883	E1633	NA	HA-17 (10-12)	L2306883-15	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-17 (10-12)	L2306883-15	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-17 (10-12)	L2306883-15	Perfluorobutanoic acid (PFBA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-17 (10-12)	L2306883-15	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-17 (10-12)	L2306883-15	Perfluoroheptanesulfonic acid (PFHpS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-17 (10-12)	L2306883-15	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-17 (14-16)	L2306883-16	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-17 (14-16)	L2306883-16	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-17 (14-16)	L2306883-16	Perfluorobutanoic acid (PFBA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-17 (14-16)	L2306883-16	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-17 (14-16)	L2306883-16	Perfluoroheptanesulfonic acid (PFHpS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-17 (14-16)	L2306883-16	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-17 (2-4)	L2306883-13	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-17 (2-4)	L2306883-13	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-17 (2-4)	L2306883-13	Perfluorobutanoic acid (PFBA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-17 (2-4)	L2306883-13	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-17 (2-4)	L2306883-13	Perfluoroheptanesulfonic acid (PFHpS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-17 (2-4)	L2306883-13	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-17 (2-4)	L2306883-13	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-17 (6-8)	L2306883-14	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2306883	E1633	NA	HA-17 (6-8)	L2306883-14	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-17 (6-8)	L2306883-14	Perfluorobutanoic acid (PFBA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-17 (6-8)	L2306883-14	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-17 (6-8)	L2306883-14	Perfluoroheptanesulfonic acid (PFHpS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-17 (6-8)	L2306883-14	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-17 (6-8)	L2306883-14	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-18 (10-12)	L2307677-07	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-18 (10-12)	L2307677-07	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-18 (10-12)	L2307677-07	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-18 (10-12)	L2307677-07	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-18 (10-12)	L2307677-07	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-18 (10-12)	L2307677-07	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.468	0.468 J	LCS
L2307677	E1633	NA	HA-18 (10-12)	L2307677-07	Perfluorooctanoic acid (PFOA)	N	Yes	0.127 J	0.127 J	LCS
L2307677	E1633	NA	HA-18 (14-16)	L2307677-08	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-18 (14-16)	L2307677-08	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-18 (14-16)	L2307677-08	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-18 (14-16)	L2307677-08	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-18 (14-16)	L2307677-08	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.348	0.348 J	LCS
L2307677	E1633	NA	HA-18 (14-16)	L2307677-08	Perfluorooctanoic acid (PFOA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-18 (14-16)	L2307677-08	US EPA PFAS (PFOS + PFOA)	N	Yes	0.348	0.348 J	LCS
L2307677	E1633	NA	HA-18 (2-4)	L2307677-05	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-18 (2-4)	L2307677-05	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-18 (2-4)	L2307677-05	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-18 (2-4)	L2307677-05	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-18 (2-4)	L2307677-05	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.565	0.565 J	LCS
L2307677	E1633	NA	HA-18 (2-4)	L2307677-05	Perfluorooctanoic acid (PFOA)	N	Yes	0.159 J	0.159 J	LCS
L2307677	E1633	NA	HA-18 (2-4)	L2307677-05	US EPA PFAS (PFOS + PFOA)	N	Yes	0.724 J	0.724 J	LCS
L2307677	E1633	NA	HA-18 (6-8)	L2307677-06	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-18 (6-8)	L2307677-06	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-18 (6-8)	L2307677-06	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-18 (6-8)	L2307677-06	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	HA-18 (6-8)	L2307677-06	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.392	0.392 J	LCS
L2307677	E1633	NA	HA-18 (6-8)	L2307677-06	Perfluorooctanoic acid (PFOA)	N	Yes	0.22	0.22 J	LCS
L2307677	E1633	NA	HA-18 (6-8)	L2307677-06	US EPA PFAS (PFOS + PFOA)	N	Yes	0.612	0.612 J	LCS
L2306883	E1633	NA	HA-19 (10-12)	L2306883-19	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (10-12)	L2306883-19	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (10-12)	L2306883-19	Perfluorobutanoic acid (PFBA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (10-12)	L2306883-19	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (10-12)	L2306883-19	Perfluoroheptanesulfonic acid (PFHpS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (10-12)	L2306883-19	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (10-12)	L2306883-19	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (14-16)	L2306883-20	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (14-16)	L2306883-20	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (14-16)	L2306883-20	Perfluorobutanoic acid (PFBA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (14-16)	L2306883-20	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (14-16)	L2306883-20	Perfluoroheptanesulfonic acid (PFHpS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (14-16)	L2306883-20	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (14-16)	L2306883-20	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (2-4)	L2306883-17	Perfluorobutanoic acid (PFBA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (2-4)	L2306883-17	Perfluorododecanoic acid (PFDoDA)	N	Yes	0.095 J	0.095 J	LCS
L2306883	E1633	NA	HA-19 (2-4)	L2306883-17	Perfluoroheptanesulfonic acid (PFHpS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (2-4)	L2306883-17	Perfluorononanoic acid (PFNA)	N	Yes	0.189 J	0.189 J	LCS
L2306883	E1633	NA	HA-19 (20-22)	L2306883-21	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (20-22)	L2306883-21	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (20-22)	L2306883-21	Perfluorobutanoic acid (PFBA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (20-22)	L2306883-21	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (20-22)	L2306883-21	Perfluoroheptanesulfonic acid (PFHpS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (20-22)	L2306883-21	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (20-22)	L2306883-21	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (6-8)	L2306883-18	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (6-8)	L2306883-18	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (6-8)	L2306883-18	Perfluorobutanoic acid (PFBA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (6-8)	L2306883-18	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (6-8)	L2306883-18	Perfluoroheptanesulfonic acid (PFHpS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (6-8)	L2306883-18	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-19 (6-8)	L2306883-18	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-20 (10-12)	L2307511-07	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	N	Yes	0.278 J	0.278 J	LCS
L2307511	E1633	NA	HA-20 (10-12)	L2307511-07	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-20 (10-12)	L2307511-07	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-20 (10-12)	L2307511-07	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-20 (10-12)	L2307511-07	Perfluorononanoic acid (PFNA)	N	Yes	0.111 J	0.111 J	LCS
L2307511	E1633	NA	HA-20 (10-12)	L2307511-07	Perfluorooctanesulfonic acid (PFOS)	N	Yes	3.31	3.31 J	LCS
L2307511	E1633	NA	HA-20 (10-12)	L2307511-07	Perfluorooctanoic acid (PFOA)	N	Yes	0.414	0.414 J	LCS
L2307511	E1633	NA	HA-20 (10-12)	L2307511-07	US EPA PFAS (PFOS + PFOA)	N	Yes	3.72	3.72 J	LCS
L2307511	E1633	NA	HA-20 (14-16)	L2307511-08	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-20 (14-16)	L2307511-08	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-20 (14-16)	L2307511-08	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-20 (14-16)	L2307511-08	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-20 (14-16)	L2307511-08	Perfluorononanoic acid (PFNA)	N	Yes	0.199	0.199 J	LCS
L2307511	E1633	NA	HA-20 (14-16)	L2307511-08	Perfluorooctanesulfonic acid (PFOS)	N	Yes	3.91	3.91 J	LCS
L2307511	E1633	NA	HA-20 (14-16)	L2307511-08	Perfluorooctanoic acid (PFOA)	N	Yes	0.255	0.255 J	LCS
L2307511	E1633	NA	HA-20 (14-16)	L2307511-08	US EPA PFAS (PFOS + PFOA)	N	Yes	4.17	4.17 J	LCS
L2307511	E1633	NA	HA-20 (2-4)	L2307511-05	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-20 (2-4)	L2307511-05	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-20 (2-4)	L2307511-05	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-20 (2-4)	L2307511-05	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-20 (2-4)	L2307511-05	Perfluorononanoic acid (PFNA)	N	Yes	0.128 J	0.128 J	LCS
L2307511	E1633	NA	HA-20 (2-4)	L2307511-05	Perfluorooctanesulfonic acid (PFOS)	N	Yes	1.88	1.88 J	LCS
L2307511	E1633	NA	HA-20 (2-4)	L2307511-05	Perfluorooctanoic acid (PFOA)	N	Yes	0.144 J	0.144 J	LCS
L2307511	E1633	NA	HA-20 (2-4)	L2307511-05	US EPA PFAS (PFOS + PFOA)	N	Yes	2.02 J	2.02 J	LCS
L2307511	E1633	NA	HA-20 (6-8)	L2307511-06	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-20 (6-8)	L2307511-06	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-20 (6-8)	L2307511-06	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-20 (6-8)	L2307511-06	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-20 (6-8)	L2307511-06	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-20 (6-8)	L2307511-06	Perfluorooctanesulfonic acid (PFOS)	N	Yes	1.67	1.67 J	LCS

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2307511	E1633	NA	HA-20 (6-8)	L2307511-06	Perfluorooctanoic acid (PFOA)	N	Yes	U	UJ	LCS
L2307511	E1633	NA	HA-20 (6-8)	L2307511-06	US EPA PFAS (PFOS + PFOA)	N	Yes	1.67	1.67 J	LCS
L2306883	E1633	NA	HA-21 (10-12)	L2306883-24	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (10-12)	L2306883-24	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (10-12)	L2306883-24	Perfluorobutanoic acid (PFBA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (10-12)	L2306883-24	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (10-12)	L2306883-24	Perfluoroheptanesulfonic acid (PFHpS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (10-12)	L2306883-24	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (10-12)	L2306883-24	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (14-16)	L2306883-25	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (14-16)	L2306883-25	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (14-16)	L2306883-25	Perfluorobutanoic acid (PFBA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (14-16)	L2306883-25	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (14-16)	L2306883-25	Perfluoroheptanesulfonic acid (PFHpS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (14-16)	L2306883-25	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (14-16)	L2306883-25	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (2-4)	L2306883-22	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (2-4)	L2306883-22	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (2-4)	L2306883-22	Perfluorobutanoic acid (PFBA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (2-4)	L2306883-22	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (2-4)	L2306883-22	Perfluoroheptanesulfonic acid (PFHpS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (2-4)	L2306883-22	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (2-4)	L2306883-22	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (20-22)	L2306883-26	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (20-22)	L2306883-26	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (20-22)	L2306883-26	Perfluorobutanoic acid (PFBA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (20-22)	L2306883-26	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (20-22)	L2306883-26	Perfluoroheptanesulfonic acid (PFHpS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (20-22)	L2306883-26	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (20-22)	L2306883-26	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (6-8)	L2306883-23	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (6-8)	L2306883-23	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (6-8)	L2306883-23	Perfluorobutanoic acid (PFBA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (6-8)	L2306883-23	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (6-8)	L2306883-23	Perfluoroheptanesulfonic acid (PFHpS)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (6-8)	L2306883-23	Perfluorononanoic acid (PFNA)	N	Yes	U	UJ	LCS
L2306883	E1633	NA	HA-21 (6-8)	L2306883-23	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	LCS
L2307677	E1633	NA	DUP_1_02132023	L2307677-09	US EPA PFAS (PFOS + PFOA)	N	Yes	0.355	0.355 J	LCS, FDP
L2307677	E1633	NA	HA-18 (10-12)	L2307677-07	US EPA PFAS (PFOS + PFOA)	N	Yes	0.595 J	0.595 J	LCS, FDP
L2306883	E1633	NA	HA-01 (10-12)	L2306883-03	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	LCS, IDL
L2306883	E1633	NA	HA-01 (14-16)	L2306883-04	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	LCS, IDL
L2306883	E1633	NA	HA-01 (2-4)	L2306883-01	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	LCS, IDL
L2306883	E1633	NA	HA-01 (6-8)	L2306883-02	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	LCS, IDL
L2306883	E1633	NA	HA-02 (10-12)	L2306883-07	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	LCS, IDL
L2306883	E1633	NA	HA-02 (14-16)	L2306883-08	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	LCS, IDL
L2306883	E1633	NA	HA-02 (2-4)	L2306883-05	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	LCS, IDL
L2306883	E1633	NA	HA-02 (6-8)	L2306883-06	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	LCS, IDL
L2306883	E1633	NA	HA-10 (2-4)	L2306883-09	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	LCS, IDL
L2307677	E1633	NA	HA-13 (10-12)	L2307677-03	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS, IDL
L2307677	E1633	NA	HA-13 (14-16)	L2307677-04	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS, IDL
L2307677	E1633	NA	HA-13 (6-8)	L2307677-02	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS, IDL
L2306883	E1633	NA	HA-17 (10-12)	L2306883-15	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	LCS, IDL
L2306883	E1633	NA	HA-17 (14-16)	L2306883-16	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	LCS, IDL
L2307677	E1633	NA	HA-18 (14-16)	L2307677-08	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS, IDL
L2307677	E1633	NA	HA-18 (2-4)	L2307677-05	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS, IDL
L2307677	E1633	NA	HA-18 (6-8)	L2307677-06	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS, IDL
L2306883	E1633	NA	HA-19 (2-4)	L2306883-17	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	LCS, IDL
L2306883	E1633	NA	HA-19 (2-4)	L2306883-17	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS, IDL
L2306883	E1633	NA	HA-19 (2-4)	L2306883-17	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	LCS, IDL
L2306883	E1633	NA	DUP_1_02082023	L2306883-27	Perfluorododecanoic acid (PFDoDA)	N	Yes	0.095 J	0.095 J	LCS, ION
L2306883	E1633	NA	DUP_1_02082023	L2306883-27	Perfluorononanoic acid (PFNA)	N	Yes	0.095 J	0.095 J	LCS, ION
L2305570	E1633	NA	HA-14 (6-8)	L2305570-10	Perfluorooctanesulfonic acid (PFOS)	N	Yes	0.11 J	0.11 J	LCS, ION
L2305570	E1633	NA	HA-14 (6-8)	L2305570-10	US EPA PFAS (PFOS + PFOA)	N	Yes	0.11 J	0.11 J	LCS, ION
L2305570	E1633	NA	HA-06 (2-4)	L2305570-01	Perfluorooctanesulfonic acid (PFOS)	N	Yes	1.82	1.82 J	LCS, MSD
L2305570	E1633	NA	HA-06 (2-4)	L2305570-01	US EPA PFAS (PFOS + PFOA)	N	Yes	2.89	2.89 J	LCS, MSD
L2307196	E1633	NA	HA-07 (10-12)	L2307196-03	Perfluorobutanoic acid (PFBA)	N	Yes	0.076 J	0.76 U	MBK
L2307196	E1633	NA	HA-07 (14-16)	L2307196-04	Perfluorobutanoic acid (PFBA)	N	Yes	0.085 J	0.71 U	MBK
L2307196	E1633	NA	HA-07 (2-4)	L2307196-01	Perfluorobutanoic acid (PFBA)	N	Yes	0.107 J	0.763 U	MBK
L2307196	E1633	NA	HA-07 (6-8)	L2307196-02	Perfluorobutanoic acid (PFBA)	N	Yes	0.094 J	0.719 U	MBK
L2307196	E1633	NA	HA-09 (10-12)	L2307196-07	Perfluorobutanoic acid (PFBA)	N	Yes	0.087 J	0.728 U	MBK
L2307196	E1633	NA	HA-09 (14-16)	L2307196-08	Perfluorobutanoic acid (PFBA)	N	Yes	0.086 J	0.777 U	MBK
L2307196	E1633	NA	HA-09 (2-4)	L2307196-05	Perfluorobutanoic acid (PFBA)	N	Yes	0.105 J	0.75 U	MBK
L2307196	E1633	NA	HA-09 (6-8)	L2307196-06	Perfluorobutanoic acid (PFBA)	N	Yes	0.105 J	0.751 U	MBK
L2307196	E1633	NA	HA-11 (10-12)	L2307196-11	Perfluorobutanoic acid (PFBA)	N	Yes	0.077 J	0.768 U	MBK
L2307196	E1633	NA	HA-11 (14-16)	L2307196-12	Perfluorobutanoic acid (PFBA)	N	Yes	0.07 J	0.772 U	MBK
L2307196	E1633	NA	HA-11 (2-4)	L2307196-09	Perfluorobutanoic acid (PFBA)	N	Yes	0.069 J	0.771 U	MBK
L2307196	E1633	NA	HA-11 (6-8)	L2307196-10	Perfluorobutanoic acid (PFBA)	N	Yes	0.06 J	0.746 U	MBK
L2307196	E1633	NA	HA-12 (10-12)	L2307196-15	Perfluorobutanoic acid (PFBA)	N	Yes	0.072 J	0.72 U	MBK
L2307196	E1633	NA	HA-12 (14-16)	L2307196-16	Perfluorobutanoic acid (PFBA)	N	Yes	0.066 J	0.731 U	MBK
L2307196	E1633	NA	HA-12 (2-4)	L2307196-13	Perfluorobutanoic acid (PFBA)	N	Yes	0.101 J	0.777 U	MBK
L2307196	E1633	NA	HA-12 (6-8)	L2307196-14	Perfluorobutanoic acid (PFBA)	N	Yes	0.069 J	0.761 U	MBK
L2307196	E1633	NA	HA-09 (2-4)	L2307196-05	Perfluorooctanoic acid (PFOA)	N	Yes	0.742	0.742 J	MSD
L2307196	E1633	NA	HA-09 (2-4)	L2307196-05	US EPA PFAS (PFOS + PFOA)	N	Yes	0.922 J	0.922 J	MSD

Notes:

FDP = Field duplicate qualifier due to an exceedance of the specified limits.
IDL = Isotope dilution outside the specified limits.
ION = Ion ratios were reviewed and were outside the limits of 50-150%; or the signal to noise ratios (S/N) were not ≥ 10 for all ions used for quantitation; or ≥ 3 for all ions used for confirmation.
LCS = Laboratory control/laboratory control spike duplicate percent recoveries or relative percent difference were outside the specified limits.
MBK = Method blank contamination.
MSD = Matrix spike/matrix spike duplicate percent recoveries or relative percent difference were outside the specified limits.
J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.
U = The compound was analyzed for but not detected.
UJ = The compound was not detected above the reported sample quantitation limit; however, the reported limit is estimated and may or may not represent the actual limit of quantitation.

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Data Usability Summary Report

Project Name: 556 Baltic Street Site RIR

Project Description: Groundwater Samples, non-PFAS

Sample Date(s): 9 through 16 February 2023

Analytical Laboratory: Alpha Analytical – Westborough, MA

Validation Performed by: Raul Tenorio

Validation Reviewed by: Katherine Miller

Validation Date: 13 March 2023

Haley & Aldrich, Inc. prepared this Data Usability Summary Report (DUSR) to summarize the review and validation of the analytical results for Sample Delivery Group(s) (SDG) listed. This DUSR is organized into the following sections:

This data validation and usability assessment was performed per the guidance and requirements established by the United States Environmental Protection Agency (USEPA) using the following reference materials:

- National Functional Guidelines (NFG) for Inorganic Data Review.
- National Functional Guidelines (NFG) for Organic Data Review.

Data reported in this sampling event were reported to the laboratory reporting limit (RL). Results found between the method detection limit (MDL) and RL are flagged J as estimated.

Sample data were qualified in accordance with the laboratory's standard operating procedures (SOP). The results presented in each laboratory report were found to be compliant with the data quality objectives (DQOs) for the project and therefore usable; any exceptions are noted in the following pages.

1. Sample Delivery Group Numbers

1.1 SAMPLE MANAGEMENT

This DUSR summarizes the review of SDG numbers:

- L2307194, dated 1 March 2023,
- L2307510, dated 23 February 2023, and
- L2308425, dated 8 March 2023.

Samples were also received appropriately, identified correctly, and analyzed according to the chain of custody (COC). Issues noted with sample management are listed below:

- Custody seals were not used when samples were dropped off at the laboratory or service center by the field staff, submitted to a laboratory-provided courier, or when transported between subcontracted laboratories.
- PFAS analyses listed in COC are presented in a separate DUSR.

Analyses were performed on the following samples:

Sample ID	Sample Type	Lab ID	Sample Date	Matrix	Methods
MW-06-20230209	N	L2307194-01	02/09/2023	WG	A, B, C, D, E, F, G
DUP-1_02092023	FD	L2307194-02	02/09/2023	WG	A, B, C, D, E, F, G
TRIP BLANK-20230209	TB	L2307194-03	02/09/2023	WQ	E
MW-08-20230210	N	L2307510-01	02/10/2023	WG	A, B, C, D, E, F, G
MW-05-20230210	N	L2307510-02	02/10/2023	WG	A, B, C, D, E, F, G
MW-04-20230210	N	L2307510-03	02/10/2023	WG	A, B, C, D, E, F, G
MW-02-20230210	N	L2307510-04	02/10/2023	WG	A, B, C, D, E, F, G
FIELD BLANK 02102023	FB	L2307510-05	02/10/2023	WQ	A, B, C, D, E, F, G
TRIP BLANK-20230210	TB	L2307510-06	02/10/2023	WQ	E
MW-1-20230216	N	L2308425-01	02/16/2023	WG	A, B, C, D, E, F, G
MW-3-20230216	N	L2308425-02	02/16/2023	WG	A, B, C, D, E, F, G
MW-7-20230216	N	L2308425-03	02/16/2023	WG	A, B, C, D, E, F, G
MW-9-20230216	N	L2308425-04	02/16/2023	WG	A, B, C, D, E, F, G
TRIP BLANK-20230216	TB	L2308425-05	02/16/2023	WQ	E

Method Holding Times			
A.	SW6020B	Metals	180 days for liquid, preserved
B.	SW7470A	Mercury (in Liquids)	28 days extraction / 48 hours analysis for liquid, preserved
C.	SW8081B	ORGANOCHLORINE PESTICIDES	7 days extraction / 40 days analysis for liquid, unpreserved
D.	SW8082A	Polychlorinated Biphenyls (PCBs)	7 days extraction / 40 days analysis for liquid, unpreserved
E.	SW8260D	Volatile Organic Compounds (VOCs)	14 days for liquid, preserved; 7 days for liquid, unpreserved
F.	SW8270E	Semivolatile Organic Compounds (SVOCs)	7 days extraction / 40 days analysis for liquid, unpreserved
G.	SW8270ESIM	Semivolatile Organic Compounds (SVOCs)	7 days extraction / 40 days analysis for liquid, unpreserved

1.2 CASE NARRATIVE

The laboratory report case narratives included the following issues:

- SDG L2307194, sample L2307194-03: The analyses of Semivolatile Organics, PCBs, Pesticides, PFAS, 1,4-Dioxane, Total Metals and Dissolved Metals were requested on the COC. However, sample containers were not received. This was verified by the client.
- SDG L2308425: March 08, 2023 - This final report includes the results of all requested analyses. The Client IDs were amended on L2308425-01 through -04.

1.3 HOLDING TIMES/PRESERVATION

The samples arrived at the laboratory at the proper temperature and were prepared and analyzed within the holding time and preservation criteria specified per method protocol with the following exceptions:

Method	Matrix	Holding Time	Preservation	Sample ID, Violation, Qualification
SW7470A	Water	28 days extraction; 48 hours analysis for liquid, preserved	pH < 2 with Nitric Acid (HNO_3)	The following samples were analyzed outside the holding time and qualified J-/UJ. SDG L2307194: DUP-1_02092023 (Total), MW-06-20230209 (Total) SDG L2307510: MW-05-20230210 (Total, Dissolved), MW-08-20230210 (Total, Dissolved), FIELD BLANK 02102023 (Dissolved), MW-02-20230210 (Total, Dissolved), MW-04-20230210 (Total, Dissolved)

1.4 REPORTING LIMITS AND SAMPLE DILUTIONS

All sample dilutions were reviewed and found to be justified. Only detected analytes were reported from a sample dilution analysis.

1.5 SURROGATE RECOVERY COMPLIANCE

Refer to section E 1.2. The percent recovery (%R) for each surrogate compound added to each project sample were determined to be within the laboratory specified quality control (QC) limits, with the following exceptions:

Method	Sample ID	Lab ID	Surrogate	Dilution	%R	Qualification
SW8270ESIM	MW-06	L2307194-01	Nitrobenzene-d5	1x	132%	J+/None target compounds*
SW8270ESIM	MW-06	L2307194-01	2,4,6-Tribromophenol	1x	155%	None, samples are ND
SW8270ESIM	DUP-1_02092023	L2307194-02	Nitrobenzene-d5	1x	138%	J+/None target compounds*
SW8270ESIM	DUP-1_02092023	L2307194-02	2,4,6-Tribromophenol	1x	136%	None, samples are ND
SW8270ESIM	MW-08	L2307510-01	2,4,6-Tribromophenol	1x	140%	None, samples are ND
SW8270ESIM	MW-05	L2307510-02	Nitrobenzene-d5	1x	122%	None, samples are ND
SW8270ESIM	MW-04	L2307510-03	2,4,6-Tribromophenol	1x	146%	None, samples are ND
SW8270ESIM	MW-02	L2307510-04	Nitrobenzene-d5	1x	123%	J+/None target compounds*
SW8270ESIM	MW-02	L2307510-04	2,4,6-Tribromophenol	1x	141%	None, samples are ND
SW8270ESIM	FIELD BLANK 02102023	L2307510-05	Nitrobenzene-d5	1x	125%	None, samples are ND
SW8270ESIM	MW-03	L2308425-02	2,4,6-Tribromophenol	1x	140%	None, samples are ND
SW8270ESIM	MW-07	L2308425-03	Nitrobenzene-d5	1x	121%	None, samples are ND
SW8270ESIM	MW-09	L2308425-04	2,4,6-Tribromophenol	1x	165%	None, samples are ND

** Compounds targeted by Nitrobenzene-d5: Hexachlorobutadiene, Hexachloroethane, Naphthalene.*
*** Compounds targeted by 2,4,6-Tribromophenol: Pentachlorophenol.*

1.6 LABORATORY CONTROL SAMPLES

Refer to section E 1.3. Compounds associated with the laboratory control samples/laboratory control sample duplicates (LCS/LCSD) analyses associated with client samples exhibited recoveries and relative percent differences (RPDs) within the specified limits with the following exceptions:

SDG #	Sample Type	Method	Batch ID	Analyte	%R/RPD	Qualifier	Affected Samples
L2307194	LCS/LCSD	SW8260D	WG1744176	Chloromethane	50%/50%	J/UJ	L2307194-01, L2307194-02, L2307194-03
L2307194	LCS/LCSD	SW8270E	WG1743671	2,4-Dinitrophenol	146%/146%	J+/None	None, samples are ND
L2307194	LCS/LCSD	SW8270E	WG1743671	Pentachlorophenol	112%/92%	J+/None	None, not in batch
L2307510	LCS/LCSD	SW8270E	WG1743846	4-Nitrophenol	86%/87%	J+/None	None, samples are ND
L2307510	LCS/LCSD	SW8270E	WG1743846	2,4-Dinitrophenol	144%/146%	J+/None	None, samples are ND
L2307510	LCS/LCSD	SW8270E	WG1743846	4,6-Dinitro-o-cresol	159%/167%	J+/None	None, samples are ND
L2307510	LCS/LCSD	SW8270E	WG1743846	Pentachlorophenol	110%/107%	J+/None	None, not in batch
L2308425	LCS/LCSD	SW8260D	WG1746317	Acetone	RPD=37	J/None	L2308425-01
L2308425	LCS/LCSD	SW8260D	WG1746317	Carbon disulfide	150%/140%	J/None	None, samples are ND
L2308425	LCS/LCSD	SW8270E	WG1746787	Carbazole	48%/56%	J-/R	None, not in batch

1.7 MATRIX SPIKE SAMPLES

Refer to section E 1.4. The sample(s) below were used for matrix spike/matrix spike duplicate (MS/MSD):

Lab Sample Number	Matrix Spike/Matrix Spike Duplicate Sample Client ID	Method(s)
L2307194-01	MW-06	SW8260D, SW8270E, SW6020B
L2308425-01	MW-01	SW6020B

The MS/MSD recoveries and the RPD between the MS and MSD results were within the specified limits with the following exceptions:

SDG	Sample Type	Method	Parent Sample	Analyte	%R/RPD	Qualifier	Affected Samples
L2307194	MS/MSD	SW8260D	MW-06	Bromomethane	RPD = 22	J/None	None, sample is ND
L2307194	MS/MSD	SW8260D	MW-06	Chloroethane	150%/150%	J/None	None, sample is ND
L2307194	MS/MSD	SW8260D	MW-06	trans-1,4-Dichloro-2-butene	68%/69%	J/UJ	L2307194-01
L2307194	MS/MSD	SW8270E	MW-06	3,3'-Dichlorobenzidine	24%/49%, RPD = 36	J/UJ	L2307194-01
L2307194	MS/MSD	SW8270E	MW-06	4-Nitrophenol	88%/83%	J/None	None, sample is ND
L2307194	MS/MSD	SW8270E	MW-06	2,4-Dinitrophenol	150%/140%	J/None	None, sample is ND
L2307194	MS/MSD	SW8270E	MW-06	4,6-Dinitro-o-cresol	170%/160%	J/None	None, sample is ND
L2307194	MS/MSD	SW6020B	MW-06	Calcium, Total	128%/34%	J-/UJ	None, native sample > 4x the spike added
L2307194	MS/MSD	SW6020B	MW-06	Calcium, Dissolved	79%/73%	J-/UJ	None, native sample > 4x the spike added
L2308425	MS	SW6020B	MW-01	Calcium, Total	290%	J+/None	None, native sample > 4x the spike added
L2308425	MS	SW6020B	MW-01	Potassium, Total	65%	J-/UJ	L2308425-01, -02, -03, -04
L2308425	MS	SW6020B	MW-01	Sodium, Total	50%	J-/UJ	None, native sample > 4x the spike added

1.8 BLANK SAMPLE ANALYSIS

Refer to section E 1.5. Method blank samples had no detections, indicating that no contamination from laboratory activities occurred with the following exceptions:

Blank Type	Method	Batch ID	Analyte Detected in Blank	Concentration (µg/L)	Qualifier	Affected Samples
Method Blank	SW8270ESIM	WG1743578	Acenaphthene	0.02 J	RL U	L2307194-01
	SW8270ESIM	WG1743578	Fluoranthene	0.02 J	NA	None, samples are ND
	SW8270ESIM	WG1743578	Benzo(a)anthracene	0.02 J	NA	None, samples are ND
	SW8270ESIM	WG1743578	Benzo(b)fluoranthene	0.02 J	NA	None, samples are ND
	SW8270ESIM	WG1743578	Benzo(k)fluoranthene	0.01 J	NA	None, samples are ND
	SW8270ESIM	WG1743578	Chrysene	0.02 J	NA	None, samples are ND
	SW8270ESIM	WG1743578	Acenaphthylene	0.02 J	NA	None, samples are ND
	SW8270ESIM	WG1743578	Anthracene	0.02 J	NA	None, samples are ND
	SW8270ESIM	WG1743578	Fluorene	0.03 J	NA	None, samples are ND
	SW8270ESIM	WG1743578	Phenanthrene	0.03 J	RL U	L2307194-01
	SW8270ESIM	WG1743578	Indeno(1,2,3-cd)pyrene	0.02 J	NA	None, samples are ND
	SW8270ESIM	WG1743578	Pyrene	0.02 J	NA	None, samples are ND
	SW8270ESIM	WG1743578	2-Methylnaphthalene	0.05 J	RL U	L2307194-01, -02
	SW8270ESIM	WG1743578	Hexachlorobenzene	0.02 J	NA	None, samples are ND
	SW6020B	WG1743672	Thallium, Total	0.00037 J	RL U	L2307194-01, -02
	SW6020B	WG1743674	Chromium, Dissolved	0.00083 J	NA	None, samples are ND
	SW6020B	WG1743674	Sodium, Dissolved	0.0306 J	RL U	L2307510-05
	SW6020B	WG1743674	Sodium, Dissolved	0.0306 J	J+	L2307194-01, -02, L2307510-01, -02, -03, -04, -05
	SW6020B	WG1743674	Thallium, Dissolved	0.00025 J	RL U	L2307194-01, -02, L307510-05
	SW7470A	WG1744155	Mercury, Dissolved	0.00016 J	RL U	L2307194-01, -02
	SW8270ESIM	WG1743778	Benzo(a)anthracene	0.02 J	RL U	L2307510-01

Blank Type	Method	Batch ID	Analyte Detected in Blank	Concentration (µg/L)	Qualifier	Affected Samples
Method Blank	SW8270ESIM	WG1743778	Benzo(a)anthracene	0.02 J	J+	L2307510-02
	SW6020B	WG1743674	Thallium, Total	0.0002 J	RL U	L2307510-05
	SW7470A	WG1744158	Mercury, Total	0.0001 J	RL U	L2307510-01, -02, -03, -04
	SW8270ESIM	WG1746170	Acenaphthylene	0.04 J	NA	None, samples are ND
	SW6020B	WG1746348	Calcium, Total	0.0486 J	J+	L2308425-01, -02, -03, -04
	SW7470A	WG1746756	Mercury, Dissolved	0.00011	RL U	L2308425-01

The analysis of the blank samples for field quality control was free of target compounds, with the following exceptions:

Blank Type	Method	Date of Blank	Analyte Detected in Blank	Concentration (µg/L)	Qualifier	Affected Samples
Field Blank	SW8270ESIM	2/10/23	Benzo(a)anthracene	0.02 J	RL U	L2307510-01, -04
	SW8270ESIM	2/10/23	Benzo(a)anthracene	0.02 J	J+	L2307510-02
	SW8270ESIM	2/10/23	Benzo(b)fluoranthene	0.03 J	RL U	L2307510-04
	SW8270ESIM	2/10/23	Benzo(b)fluoranthene	0.03 J	J+	L2307510-01, -02
	SW8270ESIM	2/10/23	Benzo(ghi)perylene	0.02 J	RL U	L2307510-01, -02
	SW6020B	2/10/23	Barium, Total	0.00021 J	J+	L2307510-01, -02, -03, -04
	SW6020B	2/10/23	Calcium, Total	0.0536 J	J+	L2307510-01, -02, -03, -04
	SW6020B	2/10/23	Calcium, Dissolved	0.0551 J	J+	L2307510-01, -02, -03, -04
	SW6020B	2/10/23	Sodium, Dissolved	0.0496 J	J+	L2307510-01, -02, -03, -04
	SW6020B	2/10/23	Zinc, Dissolved	0.00374 J	RL U	L2307510-02

1.9 DUPLICATE SAMPLE ANALYSIS

Refer to section E 1.6. The following sample(s) were used for laboratory duplicate analysis and the RPDs were all below 20 percent (or the absolute difference rule was satisfied if detects were less than 5 times the RL):

Lab Sample Number	Laboratory Duplicate Sample Client ID	Method(s)
L2308425-01	MW-01	SW6020B

The following sample(s) were used for field duplicate analysis. RPDs were all below 35 percent for water (or the absolute difference rule was satisfied if detects were less than 5 times the RL). Any exceptions are noted below and qualified.

Primary Sample ID	Duplicate Sample ID	Method(s)
MW-06-20230209	DUP-1_02092023	SW6020B, SW7470A, SW8081B, SW8082A, SW8260D, SW8270E, SW8270ESIM

Field Duplicate RPD Calculations:

Method(s): SW8270ESIM				
Analyte (µg/L)	Primary Sample ID	Duplicate Sample ID	% RPD	Qualification
	MW-06-20230209	DUP-1_02092023		
Naphthalene	0.09	0.21	NA	J/UJ, Abs. Diff. > RL

1.10 CALCULATION ACCURACY

Total (non-filtered) metals were greater than dissolved (filtered) metals and total (non-filtered mercury was greater than dissolved (filtered) mercury with the following exceptions:

Sample ID	SW6020B Analyte	Dissolved (mg/L)	Total (mg/L)	%RPD
L2307194-01	Copper	0.0007 J	0.00043 J	47.8
L2307510-03	Copper	0.00145	ND	200
L2307510-05	Manganese	0.00365	ND	200
L2307194-01	Nickel	0.0007 J	ND	200
L2307510-05	Sodium	0.0496 J*	ND	200
L2307194-01	Thallium	0.00049 J*	0.00034 J*	36.1
L2307510-05	Thallium	0.00027 J*	0.00016 J*	51.2
L2307510-02	Zinc	0.00826 J*	0.00503 J	48.6
L2307510-05	Zinc	0.00374 J*	ND	200

**** Qualified non-detect (ND) based on method blank contamination.***

Sample ID	SW7470A Analyte	Dissolved (mg/L)	Total (mg/L)	%RPD
L2307194-01	Mercury	0.00014 J*	ND	200
L2307510-04	Mercury	0.00022 J	0.00011	66.7
L2307510-03	Mercury	0.0002	0.0001 J	66.7
L2308425-01	Mercury	0.00019 J*	ND	200

**** Qualified non-detect (ND) based on method blank contamination.***

1.11 SYSTEM PERFORMANCE AND OVERALL ASSESSMENT

The results presented in this report were found to comply with the DQOs for the project and the guidelines specified by the analytical method. Based on the review of this report, the data are useable and acceptable as no data was rejected. A summary of qualifiers applied to this data set is shown in Table 1.

2. Precision and Accuracy [for SDG(s) above]

Refer to section E 1.7. Where required by the method, some measurement of analytical accuracy and precision was reported for each method with the site samples.

3. Explanations

The following explanations include more detailed information regarding each of the sections in the DUSR above. Not all sections in the Explanations are represented:

- E 1.2 Surrogate Recovery Compliance
  - Surrogates, also known as system monitoring compounds, are compounds added to each sample prior to sample preparation to determining the efficiency of the extraction procedure by evaluating the percent recovery (%R) of the compounds.
- E 1.3 Laboratory Control Samples
  - The laboratory control sample/laboratory control sample duplicate (LCS/LCSD) analyses are used to assess the precision and accuracy of the analytical method independent of matrix interferences.
- E 1.4 Matrix Spike Samples
  - Matrix spike/matrix spike duplicate (MS/MSD) data are used to assess the precision and accuracy of the analytical method and evaluate the effects of the sample matrix on the sample preparation procedures and measurement methodologies.
  - For inorganic methods, when a matrix spike recovery falls outside of the control limits and the sample result is less than four times the spike added, a post digestion spike (PDS) is performed.
- E 1.5 Blank Sample Analysis
  - Method blanks are prepared by the analytical laboratory and analyzed concurrently with the project samples to assess possible laboratory contamination.
  - Field blanks are prepared to identify contamination that may have been introduced during field activity. Equipment blanks are prepared to identify contamination that may have been introduced while decontaminating sampling equipment. Trip blanks are prepared when volatile analysis is requested to identify contamination that may have been introduced during transport.
- E 1.6 Laboratory and Field Duplicate Sample Analysis
  - The laboratory duplicate sample analysis is used by the laboratory at the time of the analysis to demonstrate acceptable method precision. The RPD or absolute difference was evaluated for each duplicate sample pair to monitor the reproducibility of the data.
  - The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. The relative percent difference (RPD) or absolute difference was evaluated for each duplicate sample pair to monitor the reproducibility of the data.
- E 1.7 Precision and Accuracy
  - Precision measures the reproducibility of repetitive measurements. In a laboratory environment, this will be measured by determining the relative percent difference (RPD) found between a primary and a duplicate sample. This can be an LCS/LCSD pair, a MS/MSD pair, a laboratory duplicate performed on a site sample, or a field duplicate collected and analyzed concurrently with a site sample.

- Accuracy is a statistical measurement of the correctness of a measured value and includes components of random error (variability caused by imprecision) and systematic error. In a laboratory environment, this will be measured by determining the percent recovery (%R) of certain spiked compounds. This can be assessed using LCS, blank spike (BS), MS, and/or surrogate recoveries.

4. Glossary

Not all of the following symbols, acronyms, or qualifiers occur in this document.

- Sample Types:
  - EB Equipment Blank Sample
  - FB Field Blank Sample
  - FD Field Duplicate Sample
  - N Primary Sample
  - TB Trip Blank Sample
- Units:
  - µg/kg microgram per kilogram
  - µg/L microgram per liter
  - µg/m^3 microgram per cubic meter
  - mg/kg milligram per kilogram
  - mg/L milligram per liter
  - ppb v/v parts per billion volume/volume
  - pCi/L picocuries per liter
  - pg/g picograms per gram
- Matrices:
  - AA Ambient Air
  - GS Soil Gas
  - GW/WG Groundwater
  - QW Water Quality
  - IA Indoor Air
  - SE Sediment
  - SO Soil
  - WQ Water Quality control matrix
  - WS Surface Water
- Table Footnotes:
  - NA Not applicable
  - ND Non-detect
  - NR Not reported
- Common Symbols:
  - % percent
  - < less than
  - ≤ less than or equal to
  - > greater than
  - ≥ greater than or equal to
  - = equal
  - °C degrees Celsius
  - ± plus or minus
  - ~ approximately
  - x times (multiplier)

5. Abbreviations

%D	Percent Difference
%R	Percent Recovery
%RSD	Percent Relative Standard Deviation
%v/v	Percent volume by volume
µg/L	micrograms per liter
2s	2 sigma
4,4-DDT	4 4-dichlorodiphenyltrichloroethane
Abs Diff	Absolute Difference
amu	atomic mass unit
BPJ	Best Professional Judgement
BS	Blank Spike
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
CCVL	Continuing Calibration Verification Low
COC	Chain of Custody
COM	Combined Isotope Calculation
Cr (VI)	Hexavalent Chromium
CRI	Collision Reaction Interface
DoD	Department of Defense
DQO	data quality objective
DUSR	Data Usability Summary Report
EMPC	Estimated Maximum Possible Concentration
FBK	Field Blank Contamination
FDP	Field Duplicate
GC	Gas Chromatograph
GC/MS	Gas Chromatography/Mass Spectrometry
GPC	Gel Permeation Chromatography
H2	Hydrogen gas
HCl	Hydrochloric Acid
ICAL	Initial Calibration
ICB	Initial Calibration Blank
ICP/MS	Inductively Coupled Plasma/ Mass Spectrometry
ICV	Initial Calibration Verification
ICVL	Initial Calibration Verification Low
IPA	Isopropyl Alcohol
LC	Laboratory Control
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MBK	Method Blank Contamination
MDC	Minimum Detectable Concentration
MDL	Laboratory Method Detection Limit
mg/kg	milligrams per kilogram
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NA	not applicable
ND	Non-Detect
NFG	National Functional Guidelines
NH_3	Ammonia
NYSDEC	New York State Department of Environmental Conservation
PAH	polycyclic aromatic hydrocarbon
PCB	Polychlorinated Biphenyl
PDS	Post Digestion Spike
PEM	Performance Evaluation Mixture
PFAS	Per- and Polyfluoroalkyl Substances
PFBA	Perfluorbutanoic Acid
PFD	Perfluorodecalin
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctane sulfonate
PFPeA	Perfluoropentanoic Acid
QAPP	Quality Assurance Project Plan
QC	Quality Control
QSM	Quality Systems Manual
R^2	R-squared value
Ra-226	Radium-226
Ra-228	Radium-228
RESC	Resolution Check Measure
RL	Laboratory Reporting Limit
RPD	Relative Percent Difference
RRF	Relative Response Factors
RT	Retention Time
SAP	sampling analysis plan
SDG	Sample Delivery Group
SIM	Selected ion monitoring
SOP	Laboratory Standard Operating Procedures
SPE	Solid Phase Extraction
SVOC	Semi-Volatile Organic Compounds
TIC	Tentatively Identified Compound
TKN	Total Kjeldahl Nitrogen
TPH	Total Petroleum Hydrocarbon
TPU	Total Propagated Uncertainty
amu	atomic mass unit
USEPA	U.S. Environmental Protection Agency
VOC	Volatile Organic Compounds
WP	Work Plan

6. Qualifiers

The qualifiers below are from the USEPA National Functional Guidelines and the data in the DUSR may contain these qualifiers:

- Concentration (C) Qualifiers:

U	The compound was analyzed for but not detected. The associated value is either the compound quantitation limit if not detected by the analytical instrument or could be the reported or blank concentration if qualified by blank contamination. This can also be displayed as less than the associated compound quantitation limit (<RL or <MDL), or "ND".
B	The compound was found in the sample and its associated blank. Its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers:

E	The compound was quantitated above the calibration range.
D	The concentration is based on a diluted sample analysis.

- Validation Qualifiers:

J	The compound was positively identified; however, the associated numerical value is an estimated concentration only.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
J/UJ	as listed in exception tables J applies to detected data and UJ applies to non-detected data as reported by the laboratory.
UJ	The compound was not detected above the reported sample quantitation limit; however, the reported limit is estimated and may or may not represent the actual limit of quantitation.
NJ	The analysis indicated the presence of a compound for which there is presumptive evidence to make a tentative identification; the associated numerical value is an estimated concentration only.
R	The sample results were rejected as unusable; the compound may or may not be present in the sample.
S	Result is suspect. See DUSR for details.

References

1. United States Environmental Protection Agency (USEPA), 2020a. National Functional Guidelines for Inorganic Superfund Methods Data Review. EPA-542-R-20-006. November 2020.
2. USEPA, 2020b. National Functional Guidelines for Organic Superfund Methods Data Review. EPA-540-R-20-005. November 2020.

TABLE 1
SYSTEM PERFORMANCE SUMMARY
556 BALTIC STREET SITE RIR
BROOKLYN, NEW YORK

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2307510	SW6020B	NA	MW-05-20230210	L2307510-02	Barium	T	Yes	0.09646	0.09646 J+	FBK
L2307510	SW6020B	NA	MW-08-20230210	L2307510-01	Barium	T	Yes	0.0927	0.0927 J+	FBK
L2307510	SW6020B	NA	MW-02-20230210	L2307510-04	Barium	T	Yes	0.1352	0.1352 J+	FBK
L2307510	SW6020B	NA	MW-04-20230210	L2307510-03	Barium	T	Yes	0.2741	0.2741 J+	FBK
L2307510	SW6020B	NA	MW-05-20230210	L2307510-02	Calcium	D	Yes	90.7	90.7 J+	FBK
L2307510	SW6020B	NA	MW-08-20230210	L2307510-01	Calcium	D	Yes	43.8	43.8 J+	FBK
L2307510	SW6020B	NA	MW-02-20230210	L2307510-04	Calcium	D	Yes	100	100 J+	FBK
L2307510	SW6020B	NA	MW-04-20230210	L2307510-03	Calcium	D	Yes	120	120 J+	FBK
L2307510	SW6020B	NA	MW-05-20230210	L2307510-02	Calcium	T	Yes	86.6	86.6 J+	FBK
L2307510	SW6020B	NA	MW-08-20230210	L2307510-01	Calcium	T	Yes	48	48 J+	FBK
L2307510	SW6020B	NA	MW-02-20230210	L2307510-04	Calcium	T	Yes	103	103 J+	FBK
L2307510	SW6020B	NA	MW-04-20230210	L2307510-03	Calcium	T	Yes	122	122 J+	FBK
L2307510	SW8270ESIM	NA	MW-08-20230210	L2307510-01	Benzo(g,h,i)perylene	N	Yes	0.05 J	0.1 U	FBK
L2307510	SW8270ESIM	NA	MW-08-20230210	L2307510-01	Benzo(b)fluoranthene	N	Yes	0.1	0.1 J+	FBK
L2307510	SW8270ESIM	NA	MW-08-20230210	L2307510-01	Benzo(a)anthracene	N	Yes	0.08 J	0.1 U	FBK
L2307510	SW8270ESIM	NA	MW-02-20230210	L2307510-04	Benzo(a)anthracene	N	Yes	0.02 J	0.1 U	FBK
L2307510	SW8270ESIM	NA	MW-02-20230210	L2307510-04	Benzo(b)fluoranthene	N	Yes	0.02 J	0.1 U	FBK
L2307510	SW6020B	NA	MW-05-20230210	L2307510-02	Zinc	D	Yes	0.00826 J	0.01 U	FBK
L2307510	SW8270ESIM	NA	MW-05-20230210	L2307510-02	Benzo(a)anthracene	N	Yes	0.14	0.14 J+	FBK
L2307510	SW8270ESIM	NA	MW-05-20230210	L2307510-02	Benzo(b)fluoranthene	N	Yes	0.16	0.16 J+	FBK
L2307510	SW8270ESIM	NA	MW-05-20230210	L2307510-02	Benzo(g,h,i)perylene	N	Yes	0.07 J	0.1 U	FBK
L2307194	SW7470A	NA	DUP-1_02092023	L2307194-02	Mercury	T	Yes	0.00019 J	0.00019 J-	HTQ
L2307194	SW7470A	NA	MW-06-20230209	L2307194-01	Mercury	T	Yes	U	UJ	HTQ
L2307510	SW7470A	NA	MW-05-20230210	L2307510-02	Mercury	D	Yes	0.00017 J	0.00017 J-	HTQ
L2307510	SW7470A	NA	MW-08-20230210	L2307510-01	Mercury	D	Yes	U	UJ	HTQ
L2307510	SW7470A	NA	FIELD BLANK 02102023	L2307510-05	Mercury	D	Yes	U	UJ	HTQ
L2307510	SW7470A	NA	MW-02-20230210	L2307510-04	Mercury	D	Yes	0.00022	0.00022 J-	HTQ
L2307510	SW7470A	NA	MW-04-20230210	L2307510-03	Mercury	D	Yes	0.0002	0.0002 J-	HTQ
L2307510	SW7470A	NA	MW-05-20230210	L2307510-02	Mercury	T	Yes	0.00014 J	0.0002 UJ	HTQ,MBK
L2307510	SW7470A	NA	MW-08-20230210	L2307510-01	Mercury	T	Yes	0.00013 J	0.0002 UJ	HTQ,MBK
L2307510	SW7470A	NA	MW-02-20230210	L2307510-04	Mercury	T	Yes	0.00011 J	0.0002 UJ	HTQ,MBK
L2307510	SW7470A	NA	MW-04-20230210	L2307510-03	Mercury	T	Yes	0.0001	0.0002 UJ	HTQ,MBK
L2307194	SW8260D	NA	DUP-1_02092023	L2307194-02	Chloromethane (Methyl Chloride)	N	Yes	U	UJ	LCS
L2307194	SW8260D	NA	MW-06-20230209	L2307194-01	Chloromethane (Methyl Chloride)	N	Yes	U	UJ	LCS
L2307194	SW8260D	NA	TRIP BLANK-20230209	L2307194-03	Chloromethane (Methyl Chloride)	N	Yes	U	UJ	LCS
L2308425	SW8260D	NA	MW-01-20230216	L2308425-01	Acetone	N	Yes	1.6 J	1.6 J	LCS
L2307194	SW7470A	NA	DUP-1_02092023	L2307194-02	Mercury	D	Yes	0.00018 J	0.0002 U	MBK
L2307194	SW8270ESIM	NA	DUP-1_02092023	L2307194-02	2-Methylnaphthalene	N	Yes	0.05 J	0.1 U	MBK
L2307194	SW7470A	NA	MW-06-20230209	L2307194-01	Mercury	D	Yes	0.00014 J	0.0002 U	MBK
L2307194	SW8270ESIM	NA	MW-06-20230209	L2307194-01	Acenaphthene	N	Yes	0.03 J	0.1 U	MBK
L2307194	SW8270ESIM	NA	MW-06-20230209	L2307194-01	Phenanthrene	N	Yes	0.03 J	0.1 U	MBK
L2307194	SW8270ESIM	NA	MW-06-20230209	L2307194-01	2-Methylnaphthalene	N	Yes	0.04 J	0.1 U	MBK
L2307510	SW8270ESIM	NA	MW-08-20230210	L2307510-01	Benzo(a)pyrene	N	Yes	0.06 J	0.1 U	MBK
L2307194	SW6020B	NA	DUP-1_02092023	L2307194-02	Sodium	D	Yes	10.7	10.7 J+	MBK
L2307194	SW6020B	NA	MW-06-20230209	L2307194-01	Sodium	D	Yes	10.6	10.6 J+	MBK
L2307510	SW6020B	NA	FIELD BLANK 02102023	L2307510-05	Sodium	D	Yes	0.0496 J	0.1 U	MBK
L2307194	SW6020B	NA	DUP-1_02092023	L2307194-02	Thallium	D	Yes	0.00019 J	0.002 U	MBK
L2307194	SW6020B	NA	MW-06-20230209	L2307194-01	Thallium	D	Yes	0.00049 J	0.002 U	MBK
L2307510	SW6020B	NA	FIELD BLANK 02102023	L2307510-05	Thallium	D	Yes	0.00027 J	0.002 U	MBK
L2307194	SW6020B	NA	DUP-1_02092023	L2307194-02	Thallium	T	Yes	0.00019 J	0.002 U	MBK
L2307194	SW6020B	NA	MW-06-20230209	L2307194-01	Thallium	T	Yes	0.00034 J	0.002 U	MBK
L2307510	SW6020B	NA	FIELD BLANK 02102023	L2307510-05	Thallium	T	Yes	0.00016 J	0.001 U	MBK
L2307510	SW8270ESIM	NA	MW-05-20230210	L2307510-02	Benzo(a)pyrene	N	Yes	0.12	0.12 J+	MBK
L2308425	SW7470A	NA	MW-01-20230216	L2308425-01	Mercury	D	Yes	0.00019 J	0.0002 U	MBK
L2308425	SW6020B	NA	MW-01-20230216	L2308425-01	Calcium	T	Yes	152	152 J+	MBK
L2308425	SW6020B	NA	MW-03-20230216	L2308425-02	Calcium	T	Yes	133	133 J+	MBK
L2308425	SW6020B	NA	MW-07-20230216	L2308425-03	Calcium	T	Yes	65.3	65.3 J+	MBK
L2308425	SW6020B	NA	MW-09-20230216	L2308425-04	Calcium	T	Yes	47.8	47.8 J+	MBK
L2307510	SW6020B	NA	MW-05-20230210	L2307510-02	Sodium	D	Yes	84.4	84.4 J+	MBK,FBK
L2307510	SW6020B	NA	MW-08-20230210	L2307510-01	Sodium	D	Yes	20.5	20.5 J+	MBK,FBK
L2307510	SW6020B	NA	MW-02-20230210	L2307510-04	Sodium	D	Yes	80.9	80.9 J+	MBK,FBK
L2307510	SW6020B	NA	MW-04-20230210	L2307510-03	Sodium	D	Yes	86.7	86.7 J+	MBK,FBK
L2307194	SW8260D	NA	MW-06-20230209	L2307194-01	trans-1,4-Dichloro-2-butene	N	Yes	U	UJ	MSD
L2307194	SW8270E	NA	MW-06-20230209	L2307194-01	3,3'-Dichlorobenzidine	N	Yes	U	UJ	MSD
L2308425	SW6020B	NA	MW-01-20230216	L2308425-01	Potassium	T	Yes	31.3	31.3 J-	MSD
L2308425	SW6020B	NA	MW-03-20230216	L2308425-02	Potassium	T	Yes	14.6	14.6 J-	MSD
L2308425	SW6020B	NA	MW-07-20230216	L2308425-03	Potassium	T	Yes	7.85	7.85 J-	MSD
L2308425	SW6020B	NA	MW-09-20230216	L2308425-04	Potassium	T	Yes	8.76	8.76 J-	MSD
L2307510	SW8270ESIM	NA	MW-02-20230210	L2307510-04	Naphthalene	N	Yes	9.4	9.4 J+	SUR
L2307194	SW8270ESIM	NA	DUP-1_02092023	L2307194-02	Naphthalene	N	Yes	0.21	0.21 J+	SUR,FDP
L2307194	SW8270ESIM	NA	MW-06-20230209	L2307194-01	Naphthalene	N	Yes	0.09 J	0.09 J+	SUR,FDP

Notes:

FBK = Field blank contamination.
FDP = Field duplicate qualifier due to an exceedance of the specified limits.
HTQ = holding time exceedance.
LCS = Laboratory control/laboratory control spike duplicate percent recoveries or relative percent difference were outside the specified limits.
MBK = Method blank contamination.
MSD = Matrix Spike/Matrix Spike Duplicate percent recoveries or relative percent difference were outside acceptance limits.
SUR = Surrogate percent recovery outside the specified limits.
D = Dissolved (filtered)
J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.
J- = The result is an estimated quantity, but the result may be biased low.
J+ = The result is an estimated quantity, but the result may be biased high.
N = No filtering for analyte.
R = The sample results were rejected as unusable; the compound may or may not be present in the sample.
T = Total (non-filtered)
U = The compound was analyzed for but not detected.

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Data Usability Summary Report

Project Name: 556 Baltic Street Site RIR

Project Description: Groundwater Samples, PFAS

Sample Date(s): 9 through 16 February 2023

Analytical Laboratory: Alpha Analytical – Westborough, MA

Validation Performed by: Raul Tenorio

Validation Reviewed by: Katherine Miller

Validation Date: 17 March 2023

Haley & Aldrich, Inc. prepared this Data Usability Summary Report (DUSR) to summarize the review and validation of the analytical results for Sample Delivery Group(s) (SDG) listed. This DUSR is organized into the following sections:

1. **Sample Delivery Group Numbers**
2. **Precision and Accuracy [for SDG(s) above]**
3. **Explanations**
4. **Glossary**
5. **Abbreviations**
6. **Qualifiers**

References

This data validation and usability assessment was performed per the guidance and requirements established by the United States Environmental Protection Agency (USEPA) using the following reference materials:

- Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under New York State Department of Environmental Conservation's (NYSDEC's) Part 375 Remedial Programs.

Data reported in this sampling event were reported to the laboratory reporting limit (RL). Results found between the method detection limit (MDL) and RL are flagged J as estimated.

Sample data were qualified in accordance with the laboratory's standard operating procedures (SOP). The results presented in each laboratory report were found to be compliant with the data quality objectives (DQO) for the project and therefore usable; any exceptions are noted in the following pages.

1. Sample Delivery Group Numbers

1.1 SAMPLE MANAGEMENT

This DUSR summarizes the review of SDG numbers:

- L2307194, dated 1 March 2023,
- L2307510, dated 9 March 2023, and
- L2308425, dated 8 March 2023.

Samples were also received appropriately, identified correctly, and analyzed according to the chain of custody (COC). Issues noted with sample management are listed below:

- Custody seals were not used when samples were dropped off at the laboratory or service center by the field staff, submitted to a laboratory-provided courier, or when transported between subcontracted laboratories.
- This report contains of validation for groundwater samples by PFAS analysis only.

Analyses were performed on the following samples:

Sample ID	Sample Type	Lab ID	Sample Date	Matrix	Methods
MW-06-20230209	N	L2307194-01	02/09/2023	WG	A
DUP-1_02092023	FD	L2307194-02	02/09/2023	WG	A
MW-08-20230210	N	L2307510-01	02/10/2023	WG	A
MW-05-20230210	N	L2307510-02	02/10/2023	WG	A
MW-04-20230210	N	L2307510-03	02/10/2023	WG	A
MW-02-20230210	N	L2307510-04	02/10/2023	WG	A
FIELD BLANK 02102023	FB	L2307510-05	02/10/2023	WQ	A
MW-1-20230216	N	L2308425-01	02/16/2023	WG	A
MW-3-20230216	N	L2308425-02	02/16/2023	WG	A
MW-7-20230216	N	L2308425-03	02/16/2023	WG	A
MW-9-20230216	N	L2308425-04	02/16/2023	WG	A

Method Holding Times			
A.	E1633	EPA draft method 1633 – PFAS	28 days extraction/28 days analysis for liquid, preserved

Holding time specified by NYSDEC Guidance.

1.2 CASE NARRATIVE

The laboratory report case narratives included the following issues:

- SDG L2307194, sample L2307194-03: The analyses of semivolatile organics, polychlorinated biphenyls, pesticides, PFAS, 1,4-Dioxane, total metals and dissolved metals were requested on the COC. However, sample containers were not received. This was a trip blank and these analyses were removed by the client.

- SDG L2308425: March 08, 2023 - This final report includes the results of all requested analyses. The Client IDs were amended on L2308425-01 through -04.

1.3 HOLDING TIMES/PRESERVATION

The samples arrived at the laboratory at the proper temperature and were prepared and analyzed within the holding time and preservation criteria specified per method protocol.

1.4 REPORTING LIMITS AND SAMPLE DILUTIONS

The RLs for the samples within this SDG met or were below the minimum RL requirements specified by the project specific quality assurance project plan with the following exceptions:

- SDG L2307194: Perfluorobutanoic acid (PFBA), perfluoropentanoic acid (PFPeA), 6:2 fluorotelomer sulfonate (FTS), 8:2 FTS reporting limits were slightly above 2 nanograms per liter ([ng/L], 3.02 to 6.15 ng/L). No qualification necessary.
- SDG L2307510: PFBA, PFPeA, 6:2 FTS, 8:2 FTS reporting limits were slightly above 2 ng/L (2.88 to 5.92 ng/L). No qualification necessary.
- SDG L2308425: PFBA, PFPeA, 6:2 FTS, 8:2 FTS reporting limits were slightly above 2 ng/L (2.91 to 5.98 ng/L). No qualification necessary.

No sample dilutions were performed for the analysis of the samples in this report.

1.5 LABORATORY CONTROL SAMPLES

Refer to section E 1.3. Compounds associated with the laboratory control samples (LCS) analyses associated with client samples exhibited recoveries within the specified limits with the following exceptions:

SDG #	Sample Type	Method	Analyte	%R	Qualifier	Affected Samples
L2307194	LCS	E1633	PFNA	145%	J/UJ	L2307194-01, -02
L2307510	LCS	E1633	PFHxA	132%	J/UJ	L2307510-01, -02, -03, -04, -05
L2307510	LCS	E1633	PFOSA	138%	J/UJ	L2307510-01, -02, -03, -04, -05
L2308425	LCS	E1633	NMeFOSAA	136%	J/UJ	L2308425-01, -02, -03, -04
L2308425	LCS	E1633	PFDoA	133%	J/UJ	L2308425-01, -02, -03, -04
L2308425	LCS	E1633	PFTrDA	134%	J/UJ	L2308425-01, -02, -03, -04

1.6 MATRIX SPIKE SAMPLES

Refer to section E 1.4. The sample(s) below were used for matrix spike/matrix spike duplicate (MS/MSD):

Lab Sample Number	Matrix Spike/Matrix Spike Duplicate Sample Client ID	Method(s)
L2307194-01	MW-06	E1633

The MS/MSD recoveries and the relative percent difference (RPD) between the MS and MSD results were within the specified limits with the following exceptions:

- The MS/MSD (WG1745584-04R/-05R) recoveries, performed on L2307194-01, are outside the acceptance criteria for perfluorooctanesulfonic acid ([PFOS], 4%/0%). The unacceptable percent recoveries are attributed to the elevated concentrations of target compounds present in the native sample.

Sample Type	Method	Parent Sample	Analyte	%R/RPD	Qualifier	Affected Samples
MS/MSD	E1633	L2307194-01	PFOS	4%/0%	J/UJ	L2307194-01

1.7 BLANK SAMPLE ANALYSIS

Refer to section E 1.5. Method blank samples had no detections, indicating that no contamination from laboratory activities occurred.

The analysis of the blank samples for field quality control was free of target compounds.

1.8 DUPLICATE SAMPLE ANALYSIS

Refer to section E 1.6. No client samples were used for laboratory duplicate analysis.

The following sample(s) were used for field duplicate analysis. RPDs were all below 30 percent for water (or the absolute difference rule was satisfied if detects were less than 5 times the RL).

Primary Sample ID	Duplicate Sample ID	Method(s)
MW-06	DUP-1_02092023	E1633

1.9 PFAS SAMPLE PREPARATION

Refer to section E 1.14. The laboratory's SOP was reviewed and the reviewer confirmed it is the laboratory's procedure to use solid phase extraction (SPE) for sample preparation. The entire sample plus sample bottle rinsate was extracted. No data qualification required.

1.10 PFAS IDENTIFICATION

Refer to section E 1.15. Ion ratios were reviewed and were within the laboratory specified limits with the following exceptions:

Sample ID	Analyte	Qualifier	Affected Samples
L2307194-01	PFPeA	J	L2307194-01
L2307194-01	PFBS	J	L2307194-01
L2307194-02	PFPeA	J	L2307194-02
L2307194-02	PFBS	J	L2307194-02

The laboratory's SOP was reviewed and the reviewer confirmed that, when applicable, the laboratory's procedure is to sum the branched and linear peaks.

1.11 EXTRACTION INTERNAL STANDARDS

Refer to section E 1.16. Recoveries were reviewed and found to be within the limits of 50 to 150 percent of the initial calibration (ICAL) midpoint standard/ initial continuing calibration verification (CCV), with the following exceptions:

Sample ID	Lab ID or Batch ID	Standard Name	%Recovery	Qualifier	Affected Samples
MW-08	L2307510-01	13C2-8:2FTS	162%	"J/UJ" 8:2 FTS	L2307510-01
MW-08	L2307510-01	13C2-PFTeDA	48%	"J/UJ" PFTeDA	L2307510-01
MW-04	L2307510-03	13C8-PFOSA	43%	"J/UJ" PFOSA	L2307510-03
MW-02	L2307510-04	13C2-8:2FTS	164%	"J/UJ" 8:2 FTS	L2307510-04
MW-02	L2307510-04	13C2-PFTeDA	46%	"J/UJ" PFTeDA	L2307510-04
MW-01	L2308425-01	D3-NMeFOSAA	40%	"J/UJ" NMeFOSAA	L2308425-01
MW-01	L2308425-01	13C8-PFOSA	47%	"J/UJ" PFOSA	L2308425-01
MW-01	L2308425-01	D5-NEtFOSAA	48%	"J/UJ" NEtFOSAA	L2308425-01
MW-01	L2308425-01	13C2-PFTeDA	48%	"J/UJ" PFTeDA	L2308425-01
MW-03	L2308425-02	13C6-PFDA	49%	"J/UJ" PFDA	L2308425-02
MW-03	L2308425-02	D3-NMeFOSAA	40%	"J/UJ" NMeFOSAA	L2308425-02
MW-03	L2308425-02	13C7-PFUnA	47%	"J/UJ" PFUnDA	L2308425-02
MW-03	L2308425-02	13C8-PFOSA	44%	"J/UJ" PFOSA	L2308425-02
MW-03	L2308425-02	D5-NEtFOSAA	46%	"J/UJ" NEtFOSAA	L2308425-02
MW-03	L2308425-02	13C2-PFDoA	40%	"J/UJ" PFDoA & PFTrDA	L2308425-02
MW-03	L2308425-02	13C2-PFTeDA	47%	"J/UJ" PFTeDA	L2308425-02
MW-07	L2308425-03	D3-NMeFOSAA	45%	"J/UJ" NMeFOSAA	L2308425-03

Sample ID	Lab ID or Batch ID	Standard Name	%Recovery	Qualifier	Affected Samples
MW-09	L2308425-04	D3-NMeFOSAA	46%	"J/UJ" NMeFOSAA	L2308425-04
MW-09	L2308425-04	13C8-PFOSA	48%	"J/UJ" PFOSA	L2308425-04

1.12 SYSTEM PERFORMANCE AND OVERALL ASSESSMENT

The results presented in this report were found to comply with the DQOs for the project and the guidelines specified by the analytical method. Based on the review of this report, the data are useable and acceptable as no data was rejected. A summary of qualifiers applied to this data set is shown in Table 1.

2. Precision and Accuracy [for SDG(s) above]

Refer to section E 1.7. Where required by the method, some measurement of analytical accuracy and precision was reported for each method with the site samples.

3. Explanations

The following explanations include more detailed information regarding each of the sections in the DUSR above. Not all sections in the Explanations are represented:

- E 1.3 Laboratory Control Samples
  - The laboratory control sample/laboratory control sample duplicate (LCS/LCSD) analyses are used to assess the precision and accuracy of the analytical method independent of matrix interferences.
- E 1.4 Matrix Spike Samples
  - Matrix spike/matrix spike duplicate (MS/MSD) data are used to assess the precision and accuracy of the analytical method and evaluate the effects of the sample matrix on the sample preparation procedures and measurement methodologies.
  - For inorganic methods, when a matrix spike recovery falls outside of the control limits and the sample result is less than four times the spike added, a post digestion spike (PDS) is performed.
- E 1.5 Blank Sample Analysis
  - Method blanks are prepared by the analytical laboratory and analyzed concurrently with the project samples to assess possible laboratory contamination.
  - Analysis of PFAS compliant with QSM 5.3 Table B-15 requires instrument blanks that are prepared by the analytical laboratory and analyzed concurrently with the project samples to assess contamination that could occur in the LC/MS/MS instrument.
  - Field blanks are prepared to identify contamination that may have been introduced during field activity. Equipment blanks are prepared to identify contamination that may have been introduced while decontaminating sampling equipment. Trip blanks are prepared when volatile analysis is requested to identify contamination that may have been introduced during transport.
- E 1.6 Laboratory and Field Duplicate Sample Analysis
  - The laboratory duplicate sample analysis is used by the laboratory at the time of the analysis to demonstrate acceptable method precision. The RPD or absolute difference was evaluated for each duplicate sample pair to monitor the reproducibility of the data.
  - The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. The relative percent difference (RPD) or absolute difference was evaluated for each duplicate sample pair to monitor the reproducibility of the data.
- E 1.7 Precision and Accuracy
  - Precision measures the reproducibility of repetitive measurements. In a laboratory environment, this will be measured by determining the relative percent difference (RPD) found between a primary and a duplicate sample. This can be an LCS/LCSD pair, a MS/MSD pair, a laboratory duplicate performed on a site sample, or a field duplicate collected and analyzed concurrently with a site sample.

- Accuracy is a statistical measurement of the correctness of a measured value and includes components of random error (variability caused by imprecision) and systematic error. In a laboratory environment, this will be measured by determining the percent recovery (%R) of certain spiked compounds. This can be assessed using LCS, blank spike (BS), MS, and/or surrogate recoveries.

- E 1.14 PFAS Sample Preparation
  - Analysis of PFAS requires specific sample preparation. Aqueous samples must be prepared using Solid Phase Extraction (SPE), unless samples are known to contain high PFAS concentrations or the samples are injected directly into the LC/MS/MS instrument. Samples with greater than 1 percent solids may require centrifugation prior to SPE. The entire sample plus bottle rinsate must be extracted using SPE. If high PFAS concentrations are known, the samples may alternately be prepared using serial dilution performed in duplicate. If prepared by serial dilution, there must be documented project approval for this deviation.

- E 1.15 PFAS Identification
  - Identification of PFAS requires dual confirmation. The chemical derivation of the ion transitions must be documented. A minimum of two ion transitions per analyte are required (except for PFBA and PFPeA). Ratios of the quantitation ion to the confirmation ion should be calculated for samples and be within 50 to 150 percent of the ratios of the quantitation ion to the confirmation ion for standards.
  - Identification of PFAS also requires the proper assessment of branched and linear peaks. Standards for both isomers are not currently available for every PFAS compound, resulting in the common error of quantifying the area of only the branched or the linear isomers, which results in erroneous concentrations.

- E 1.16 Extraction Internal Standards
  - Analysis of PFAS by isotope dilution includes the use of extracted internal standards, which are stable isotope analogs of the PFAS compounds of interest added to each sample prior to extraction of the sample matrix. Matrix interferences that affect the quantification of the internal standard will affect the calculated target compound concentrations.

4. Glossary

Not all of the following symbols, acronyms, or qualifiers occur in this document.

- Sample Types:
  - EB — Equipment Blank Sample
  - FB — Field Blank Sample
  - FD — Field Duplicate Sample
  - N — Primary Sample
  - TB — Trip Blank Sample
- Units:
  - µg/kg — microgram per kilogram
  - µg/L — microgram per liter
  - µg/m^3 — microgram per cubic meter
  - mg/kg — milligram per kilogram
  - mg/L — milligram per liter
  - ppb v/v — parts per billion volume/volume
  - pCi/L — picocuries per liter
  - pg/g — picograms per gram
- Matrices:
  - AA — Ambient Air
  - GS — Soil Gas
  - GW/WG — Groundwater
  - QW — Water Quality
  - IA — Indoor Air
  - SE — Sediment
  - SO — Soil
  - SSV — Sub-slab Vapor
  - WQ — Water Quality control matrix
  - WS — Surface Water
- Table Footnotes:
  - NA — Not applicable
  - ND — Non-detect
  - NR — Not reported
- Common Symbols:
  - % — percent
  - < — less than
  - ≤ — less than or equal to
  - > — greater than
  - ≥ — greater than or equal to
  - = — equal
  - °C — degrees Celsius
  - ± — plus or minus
  - ~ — approximately
  - x — times (multiplier)

5. Abbreviations

%D	Percent Difference	mg/kg	milligrams per kilogram
%R	Percent Recovery	MS/MSD	Matrix Spike/Matrix Spike Duplicate
%RSD	Percent Relative Standard Deviation	NA	not applicable
%v/v	Percent volume by volume	ND	Non-Detect
µg/L	micrograms per liter	NFG	National Functional Guidelines
2s	2 sigma	ng/L	nanograms per liter
4,4-DDT	4 4-dichlorodiphenyltrichloroethane	NH_3	Ammonia
Abs Diff	Absolute Difference	NYSDEC	New York State Department of Environmental Conservation
amu	atomic mass unit		
BPJ	Best Professional Judgement	PAH	polycyclic aromatic hydrocarbon
BS	Blank Spike	PCB	Polychlorinated Biphenyl
CCB	Continuing Calibration Blank	PDS	Post Digestion Spike
CCV	Continuing Calibration Verification	PEM	Performance Evaluation Mixture
CCVL	Continuing Calibration Verification Low	PFAS	Per- and Polyfluoroalkyl Substances
		PFBA	Perfluorbutanoic Acid
COC	Chain of Custody	PFD	Perfluorodecalin
COM	Combined Isotope Calculation	PFOA	Perfluorooctanoic Acid
Cr (VI)	Hexavalent Chromium	PFOS	Perfluorooctane sulfonate
CRI	Collision Reaction Interface	PFPeA	Perfluoropentanoic Acid
DoD	Department of Defense	QAPP	Quality Assurance Project Plan
DQO	data quality objective	QC	Quality Control
DUSR	Data Usability Summary Report	QSM	Quality Systems Manual
EMPC	Estimated Maximum Possible Concentration	R^2	R-squared value
		Ra-226	Radium-226
FBK	Field Blank Contamination	Ra-228	Radium-228
FDP	Field Duplicate	RESC	Resolution Check Measure
GC	Gas Chromatograph	RL	Laboratory Reporting Limit
GC/MS	Gas Chromatography/Mass Spectrometry	RPD	Relative Percent Difference
		RRF	Relative Response Factors
GPC	Gel Permeation Chromatography	RT	Retention Time
H2	Hydrogen gas	SAP	sampling analysis plan
HCl	Hydrochloric Acid	SDG	Sample Delivery Group
ICAL	Initial Calibration	SIM	Selected ion monitoring
ICB	Initial Calibration Blank	SOP	Laboratory Standard Operating Procedures
ICP/MS	Inductively Coupled Plasma/ Mass Spectrometry		
		SPE	Solid Phase Extraction
ICV	Initial Calibration Verification	SVOC	Semi-Volatile Organic Compounds
ICVL	Initial Calibration Verification Low	TIC	Tentatively Identified Compound
IPA	Isopropyl Alcohol	TKN	Total Kjeldahl Nitrogen
LC	Laboratory Control	TPH	Total Petroleum Hydrocarbon
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate	TPU	Total Propagated Uncertainty
		amu	atomic mass unit
MBK	Method Blank Contamination	USEPA	U.S. Environmental Protection Agency
MDC	Minimum Detectable Concentration	VOC	Volatile Organic Compounds
MDL	Laboratory Method Detection Limit	WP	Work Plan

6. Qualifiers

The qualifiers below are from the USEPA National Functional Guidelines and the data in the DUSR may contain these qualifiers:

- Concentration (C) Qualifiers:

U	The compound was analyzed for but not detected. The associated value is either the compound quantitation limit if not detected by the analytical instrument or could be the reported or blank concentration if qualified by blank contamination. This can also be displayed as less than the associated compound quantitation limit (<RL or <MDL), or “ND”.
B	The compound was found in the sample and its associated blank. Its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers:

E	The compound was quantitated above the calibration range.
D	The concentration is based on a diluted sample analysis.

- Validation Qualifiers:

J	The compound was positively identified; however, the associated numerical value is an estimated concentration only.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
J/UJ	as listed in exception tables J applies to detected data and UJ applies to non-detected data as reported by the laboratory.
UJ	The compound was not detected above the reported sample quantitation limit; however, the reported limit is estimated and may or may not represent the actual limit of quantitation.
NJ	The analysis indicated the presence of a compound for which there is presumptive evidence to make a tentative identification; the associated numerical value is an estimated concentration only.
R	The sample results were rejected as unusable; the compound may or may not be present in the sample.
S	Result is suspect. See DUSR for details.

References

1. New York State Department of Environmental Conservation (NYSDEC), 2022. Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances Under NYSDEC's Part 375 Remedial Programs. November 2022.

TABLE 1
SYSTEM PERFORMANCE SUMMARY
556 BALTIC STREET SITE RIR
BROOKLYN, NEW YORK

SDG	Method	Basis	Sample ID	Lab ID	Analyte	Fraction	Reportable Result	Reported Result	Validated Result	Reason for Qualifier
L2307510	E1633	NA	MW-08-20230210	L2307510-01	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	IDL
L2307510	E1633	NA	MW-08-20230210	L2307510-01	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2307510	E1633	NA	MW-02-20230210	L2307510-04	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N	Yes	U	UJ	IDL
L2307510	E1633	NA	MW-02-20230210	L2307510-04	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2308425	E1633	NA	MW-01-20230216	L2308425-01	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	N	Yes	U	UJ	IDL
L2308425	E1633	NA	MW-01-20230216	L2308425-01	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2308425	E1633	NA	MW-01-20230216	L2308425-01	Perfluorooctane sulfonamide (PFOSA)	N	Yes	U	UJ	IDL
L2308425	E1633	NA	MW-03-20230216	L2308425-02	Perfluoroundecanoic acid (PFUnDA)	N	Yes	U	UJ	IDL
L2308425	E1633	NA	MW-03-20230216	L2308425-02	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	N	Yes	U	UJ	IDL
L2308425	E1633	NA	MW-03-20230216	L2308425-02	Perfluorodecanoic acid (PFDA)	N	Yes	1.05 J	1.05 J	IDL
L2308425	E1633	NA	MW-03-20230216	L2308425-02	Perfluorotetradecanoic acid (PFTeDA)	N	Yes	U	UJ	IDL
L2308425	E1633	NA	MW-03-20230216	L2308425-02	Perfluorooctane sulfonamide (PFOSA)	N	Yes	U	UJ	IDL
L2308425	E1633	NA	MW-09-20230216	L2308425-04	Perfluorooctane sulfonamide (PFOSA)	N	Yes	U	UJ	IDL
L2307194	E1633	NA	MW-06-20230209	L2307194-01	Perfluoropentanoic acid (PFPeA)	N	Yes	1.84 J	1.84 J	ION
L2307194	E1633	NA	DUP-1_02092023	L2307194-02	Perfluorobutanesulfonic acid (PFBS)	N	Yes	2.72	2.72 J	ION
L2307194	E1633	NA	DUP-1_02092023	L2307194-02	Perfluoropentanoic acid (PFPeA)	N	Yes	1.29 J	1.29 J	ION
L2307194	E1633	NA	MW-06-20230209	L2307194-01	Perfluorobutanesulfonic acid (PFBS)	N	Yes	2.46	2.46 J	ION
L2307194	E1633	NA	MW-06-20230209	L2307194-01	Perfluorononanoic acid (PFNA)	N	Yes	1.54	1.54 J	LCS
L2307194	E1633	NA	DUP-1_02092023	L2307194-02	Perfluorononanoic acid (PFNA)	N	Yes	2.65	2.65 J	LCS
L2307510	E1633	NA	MW-04-20230210	L2307510-03	Perfluorohexanoic acid (PFHxA)	N	Yes	8.15	8.15 J	LCS
L2307510	E1633	NA	MW-05-20230210	L2307510-02	Perfluorohexanoic acid (PFHxA)	N	Yes	7.15	7.15 J	LCS
L2307510	E1633	NA	MW-05-20230210	L2307510-02	Perfluorooctane sulfonamide (PFOSA)	N	Yes	U	UJ	LCS
L2307510	E1633	NA	MW-08-20230210	L2307510-01	Perfluorohexanoic acid (PFHxA)	N	Yes	3.46	3.46 J	LCS
L2307510	E1633	NA	MW-08-20230210	L2307510-01	Perfluorooctane sulfonamide (PFOSA)	N	Yes	U	UJ	LCS
L2307510	E1633	NA	FIELD BLANK 02102023	L2307510-05	Perfluorohexanoic acid (PFHxA)	N	Yes	U	UJ	LCS
L2307510	E1633	NA	FIELD BLANK 02102023	L2307510-05	Perfluorooctane sulfonamide (PFOSA)	N	Yes	U	UJ	LCS
L2307510	E1633	NA	MW-02-20230210	L2307510-04	Perfluorohexanoic acid (PFHxA)	N	Yes	8.04	8.04 J	LCS
L2307510	E1633	NA	MW-02-20230210	L2307510-04	Perfluorooctane sulfonamide (PFOSA)	N	Yes	U	UJ	LCS
L2308425	E1633	NA	MW-01-20230216	L2308425-01	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2308425	E1633	NA	MW-01-20230216	L2308425-01	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	LCS
L2308425	E1633	NA	MW-07-20230216	L2308425-03	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2308425	E1633	NA	MW-07-20230216	L2308425-03	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	LCS
L2308425	E1633	NA	MW-09-20230216	L2308425-04	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS
L2308425	E1633	NA	MW-09-20230216	L2308425-04	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	LCS
L2307510	E1633	NA	MW-04-20230210	L2307510-03	Perfluorooctane sulfonamide (PFOSA)	N	Yes	U	UJ	LCS, IDL
L2308425	E1633	NA	MW-01-20230216	L2308425-01	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS, IDL
L2308425	E1633	NA	MW-03-20230216	L2308425-02	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS, IDL
L2308425	E1633	NA	MW-03-20230216	L2308425-02	Perfluorododecanoic acid (PFDoDA)	N	Yes	U	UJ	LCS, IDL
L2308425	E1633	NA	MW-03-20230216	L2308425-02	Perfluorotridecanoic acid (PFTrDA)	N	Yes	U	UJ	LCS, IDL

TABLE 1
SYSTEM PERFORMANCE SUMMARY
556 BALTIC STREET SITE RIR
BROOKLYN, NEW YORK

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L2308425	E1633	NA	MW-07-20230216	L2308425-03	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS, IDL
L2308425	E1633	NA	MW-09-20230216	L2308425-04	N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	N	Yes	U	UJ	LCS, IDL
L2307194	E1633	NA	MW-06-20230209	L2307194-01	Perfluorooctanesulfonic acid (PFOS)	N	Yes	63.6	63.6 J	MSD

Notes:

IDL = Isotope dilution outside recovery limits.

ION = Ion ratios were reviewed and were outside the limits of 50 to 150 percent or the signal to noise ratios (S/N) were not ≥ 10 for all ions used for quantitation/ ≥ 3 for all ions used for confirmation.

LCS = Laboratory control/laboratory control spike duplicate percent recoveries or relative percent difference were outside the specified limits.

MSD = Matrix Spike/Matrix Spike Duplicate percent recoveries or relative percent difference were outside acceptance limits.

J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.

U = The compound was analyzed for but not detected.

Haley & Aldrich, Inc.
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520.289.8621

Data Usability Summary Report

Project Name: 556 Baltic Street Site RIR

Project Description: Soil Vapor

Sample Date(s): 10 through 13 February 2023

Analytical Laboratory: Alpha Analytical – Mansfield, MA

Validation Performed by: Raul Tenorio

Validation Reviewed by: Katherine Miller

Validation Date: 8 March 2023

Haley & Aldrich, Inc. prepared this Data Usability Summary Report (DUSR) to summarize the review and validation of the analytical results for Sample Delivery Group(s) (SDG) listed. This DUSR is organized into the following sections:

1. Sample Delivery Group Numbers
2. Precision and Accuracy [for SDG(s) above]
3. Explanations
4. Glossary
5. Abbreviations
6. Qualifiers
References

This data validation and usability assessment was performed per the guidance and requirements established by the United States Environmental Protection Agency (USEPA) using the following reference materials:

- National Functional Guidelines (NFG) for Organic Data Review.
- Analysis of Volatile Organic Compounds (VOCs) in Air Contained in Canisters by Method TO-15.

Data reported in this sampling event were reported to the laboratory reporting limit (RL).

Sample data were qualified in accordance with the laboratory's standard operating procedures (SOP). The results presented in each laboratory report were found to be compliant with the data quality objectives (DQO) for the project and therefore usable; any exceptions are noted in the following pages.

1. Sample Delivery Group Numbers

1.1 SAMPLE MANAGEMENT

This DUSR summarizes the review of SDG numbers:

- L2307530, dated 15 February 2023; and
- L2307679, dated 16 February 2023.

Samples were collected, preserved, and shipped following standard chain of custody (COC) protocol.

Samples were also received appropriately, identified correctly, and analyzed according to the COC.

Analyses were performed on the following samples:

Sample ID	Sample Type	Lab ID	Sample Date	Matrix	Methods
VP-05-20230210	N	L2307530-01	02/10/2023	GS	A
VP-04-20230210	N	L2307530-02	02/10/2023	GS	A
VP-07-20230210	N	L2307530-03	02/10/2023	GS	A
VP-03-20230210	N	L2307530-04	02/10/2023	GS	A
VP-08-20230210	N	L2307530-05	02/10/2023	GS	A
VP-06-20230213	N	L2307679-01	02/13/2023	GS	A
VP-02-20230213	N	L2307679-02	02/13/2023	GS	A
VP-01-20230213	N	L2307679-03	02/13/2023	GS	A

Method Holding Times			
A.	TO15	Determination of volatile organic compound (VOC) in ambient air using special cannisters and gas chromatography/mass spectrometry (GC/MS)	30 days

1.2 CASE NARRATIVE

The laboratory report case narratives included the following issues:

- SDGs L2307530, L2307679: Canisters were released from the laboratory on 30 January 2023. The canister certification results are provided as an addendum.

1.3 MULTIPLE SAMPLE RESULTS

The laboratory reported multiple results for the samples listed below. The validator chose the results that best met the DQO of the project.

- SDG L2307530, sample L2307530-05: The sample was re-analyzed on dilution to quantitate the results within the calibration range. The result(s) should be considered estimated, and are qualified with an E flag, for any compound(s) that exceeded the calibration range in the initial analysis. The re-analysis was performed only for the compound(s) that exceeded the calibration range.

SDG	Lab ID	Method	Analyte	Qualification
L2307530	VP-08-20230210 analyzed at 07:55	TO15	Toluene	The laboratory reanalyzed the sample with dilution to quantitate the results within the calibration range. The original results are marked nonreportable and the reanalysis results are accepted.

1.4 HOLDING TIMES/PRESERVATION

The samples arrived at the laboratory at the proper temperature and were prepared and analyzed within the holding time and preservation criteria specified per method protocol.

1.5 REPORTING LIMITS AND SAMPLE DILUTIONS

All sample dilutions were reviewed and found to be justified. Only detected analytes were reported from a sample dilution analysis.

1.6 SURROGATE RECOVERY COMPLIANCE

Refer to section E 1.2. The percent recovery (%R) for each surrogate compound added to each project sample were determined to be within the laboratory specified quality control (QC) limits.

1.7 LABORATORY CONTROL SAMPLES

Refer to section E 1.3. Compounds associated with the laboratory control samples (LCS) analyses associated with client samples exhibited recoveries within the specified limits.

1.8 BLANK SAMPLE ANALYSIS

Refer to section E 1.5. Method blank samples had no detections, indicating that no contamination from laboratory activities occurred.

1.9 DUPLICATE SAMPLE ANALYSIS

Refer to section E 1.6. The following sample(s) were used for laboratory duplicate analysis and the relative percent differences (RPDs) were all below 20 percent (or the absolute difference rule was satisfied if detects were less than 5 times the RL):

Lab Sample Number	Laboratory Duplicate Sample Client ID	Method(s)
L2307530-01	VP-05	TO15

1.10 CLEAN CANISTER CERTIFICATION

The canisters used for the TO-15 sample collection were certified clean by batch can analysis prior to sampling to ensure that no target analytes were present. These analysis sheets were reviewed, and no target analytes were detected in the laboratory-provided canisters.

1.11 SYSTEM PERFORMANCE AND OVERALL ASSESSMENT

The results presented in this report were found to comply with the data quality objectives for the project and the guidelines specified by the analytical method. Based on the review of this report, the data are useable and acceptable as no data was rejected. No qualifiers were applied to any data in this report.

2. Precision and Accuracy [for SDG(s) above]

Refer to section E 1.7. Where required by the method, some measurement of analytical accuracy and precision was reported for each method with the site samples.

3. Explanations

The following explanations include more detailed information regarding each of the sections in the DUSR above. Not all sections in the Explanations are represented:

- E 1.2 Surrogate Recovery Compliance
  - Surrogates, also known as system monitoring compounds, are compounds added to each sample prior to sample preparation to determining the efficiency of the extraction procedure by evaluating the percent recovery (%R) of the compounds.
- E 1.3 Laboratory Control Samples
  - The laboratory control sample/laboratory control sample duplicate (LCS/LCSD) analyses are used to assess the precision and accuracy of the analytical method independent of matrix interferences.
- E 1.5 Blank Sample Analysis
  - Method blanks are prepared by the analytical laboratory and analyzed concurrently with the project samples to assess possible laboratory contamination.
- E 1.6 Laboratory and Field Duplicate Sample Analysis
  - The laboratory duplicate sample analysis is used by the laboratory at the time of the analysis to demonstrate acceptable method precision. The RPD or absolute difference was evaluated for each duplicate sample pair to monitor the reproducibility of the data.
- E 1.7 Precision and Accuracy
  - Precision measures the reproducibility of repetitive measurements. In a laboratory environment, this will be measured by determining the relative percent difference (RPD) found between a primary and a duplicate sample. This can be an LCS/LCSD pair, a MS/MSD pair, a laboratory duplicate performed on a site sample, or a field duplicate collected and analyzed concurrently with a site sample.
  - Accuracy is a statistical measurement of the correctness of a measured value and includes components of random error (variability caused by imprecision) and systematic error. In a laboratory environment, this will be measured by determining the percent recovery (%R) of certain spiked compounds. This can be assessed using LCS, blank spike (BS), MS, and/or surrogate recoveries.

4. Glossary

Not all of the following symbols, acronyms, or qualifiers occur in this document.

- Sample Types:
  - EB Equipment Blank Sample
  - FB Field Blank Sample
  - FD Field Duplicate Sample
  - N Primary Sample
  - TB Trip Blank Sample
- Units:
  - µg/kg microgram per kilogram
  - µg/L microgram per liter
  - µg/m^3 microgram per cubic meter
  - mg/kg milligram per kilogram
  - mg/L milligram per liter
  - ppb v/v parts per billion volume/volume
  - pCi/L picocuries per liter
  - pg/g picograms per gram
- Matrices:
  - AA Ambient Air
  - GS Soil Gas
  - GW/WG Groundwater
  - QW Water Quality
  - IA Indoor Air
  - SE Sediment
  - SO Soil
  - WQ Water Quality control matrix
  - WS Surface Water
- Table Footnotes:
  - NA Not applicable
  - ND Non-detect
  - NR Not reported
- Common Symbols:
  - % percent
  - < less than
  - ≤ less than or equal to
  - > greater than
  - ≥ greater than or equal to
  - = equal
  - °C degrees Celsius
  - ± plus or minus
  - ~ approximately
  - x times (multiplier)

5. Abbreviations

%D	Percent Difference
%R	Percent Recovery
%RSD	Percent Relative Standard Deviation
%v/v	Percent volume by volume
µg/L	micrograms per liter
2s	2 sigma
4,4-DDT	4 4-dichlorodiphenyltrichloroethane
Abs Diff	Absolute Difference
amu	atomic mass unit
BPJ	Best Professional Judgement
BS	Blank Spike
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
CCVL	Continuing Calibration Verification Low
COC	Chain of Custody
COM	Combined Isotope Calculation
Cr (VI)	Hexavalent Chromium
CRI	Collision Reaction Interface
DoD	Department of Defense
DQO	data quality objective
DUSR	Data Usability Summary Report
EMPC	Estimated Maximum Possible Concentration
FBK	Field Blank Contamination
FDP	Field Duplicate
GC	Gas Chromatograph
GC/MS	Gas Chromatography/Mass Spectrometry
GPC	Gel Permeation Chromatography
H2	Hydrogen gas
HCl	Hydrochloric Acid
ICAL	Initial Calibration
ICB	Initial Calibration Blank
ICP/MS	Inductively Coupled Plasma/ Mass Spectrometry
ICV	Initial Calibration Verification
ICVL	Initial Calibration Verification Low
IPA	Isopropyl Alcohol
LC	Laboratory Control
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MBK	Method Blank Contamination
MDC	Minimum Detectable Concentration
MDL	Laboratory Method Detection Limit
mg/kg	milligrams per kilogram
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NA	not applicable
ND	Non-Detect
NFG	National Functional Guidelines
NH_3	Ammonia
NYSDEC	New York State Department of Environmental Conservation
PAH	polycyclic aromatic hydrocarbon
PCB	Polychlorinated Biphenyl
PDS	Post Digestion Spike
PEM	Performance Evaluation Mixture
PFAS	Per- and Polyfluoroalkyl Substances
PFBA	Perfluorbutanoic Acid
PFD	Perfluorodecalin
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctane sulfonate
PFPeA	Perfluoropentanoic Acid
QAPP	Quality Assurance Project Plan
QC	Quality Control
QSM	Quality Systems Manual
R^2	R-squared value
Ra-226	Radium-226
Ra-228	Radium-228
RESC	Resolution Check Measure
RL	Laboratory Reporting Limit
RPD	Relative Percent Difference
RRF	Relative Response Factors
RT	Retention Time
SAP	sampling analysis plan
SDG	Sample Delivery Group
SIM	Selected ion monitoring
SOP	Laboratory Standard Operating Procedures
SPE	Solid Phase Extraction
SVOC	Semi-Volatile Organic Compounds
TIC	Tentatively Identified Compound
TKN	Total Kjeldahl Nitrogen
TPH	Total Petroleum Hydrocarbon
TPU	Total Propagated Uncertainty
amu	atomic mass unit
USEPA	U.S. Environmental Protection Agency
VOC	Volatile Organic Compounds
WP	Work Plan

6. Qualifiers

The qualifiers below are from the USEPA National Functional Guidelines and the data in the DUSR may contain these qualifiers:

- Concentration (C) Qualifiers:

  U The compound was analyzed for but not detected. The associated value is either the compound quantitation limit if not detected by the analytical instrument or could be the reported or blank concentration if qualified by blank contamination. This can also be displayed as less than the associated compound quantitation limit (<RL or <MDL), or “ND”.

  B The compound was found in the sample and its associated blank. Its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers:

  E The compound was quantitated above the calibration range.

  D The concentration is based on a diluted sample analysis.

- Validation Qualifiers:

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  J+ The result is an estimated quantity, but the result may be biased high.

  J- The result is an estimated quantity, but the result may be biased low.

  J/UJ as listed in exception tables J applies to detected data and UJ applies to non-detected data as reported by the laboratory.

  UJ The compound was not detected above the reported sample quantitation limit; however, the reported limit is estimated and may or may not represent the actual limit of quantitation.

  NJ The analysis indicated the presence of a compound for which there is presumptive evidence to make a tentative identification; the associated numerical value is an estimated concentration only.

  R The sample results were rejected as unusable; the compound may or may not be present in the sample.

  S Result is suspect. See DUSR for details.

References

1. United States Environmental Protection Agency (USEPA), 2014. Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15, SOP NO. HW-31, Revision 6. June 2014.
2. USEPA, 2020. National Functional Guidelines for Organic Superfund Methods Data Review. EPA-540-R-20-005. November 2020.

APPENDIX K
Daily Reports

DAILY FIELD REPORT

Project	556 Baltic Street	Report No.	001
NYSDEC BCP Site	C224375	Date	2/1/2023
Location	151-169 Third Avenue, Brooklyn, NY	File No.	0204090
Client	159 Third Realty LLC	Temperature	27-38°F
Contractor	Coastal Environmental Solutions, Inc. (Coastal)	Wind Direction	South, 0-4 mph
Weather	Partly Cloudy	Personnel on Site	M. Boland, S. Sotomayor
Humidity	51%	Time on Site	7:00am to 3:15pm

Haley & Aldrich of New York (Haley & Aldrich) was present to document the implementation of the Remedial Investigation Work Plan (RIWP) for the 556 Baltic Street (referred to as "159 Third Avenue" in previous investigations) BCP Site C224375, located at 151-169 Third Avenue. Site Observations are summarized below.

Daily Observations:

- Haley & Aldrich field personnel performed community air monitoring during the implementation of the activities in the approved Remedial Investigation Work Plan
- Coastal mobilized a sonic drilling rig (Eijkelkamp CRS-XL-140 Duo) to the site
- Coastal completed a site-wide GPR survey and cleared boring locations
- Coastal completed installation of five borings (HA-06, HA-08, HA-14, HA-15, and HA-16) to 20 feet below grade surface (ft bgs) and collected soil samples in accordance with the RIWP
- Coastal completed installation of two monitoring wells (MW-06 and MW-08) at 20 ft bgs

Samples Collected:

- Soil samples were collected from HA-06, HA-08, HA-14, HA-15, and HA-16 in accordance with the RIWP
- One QA/QC Field Blank
- One Trip Blank
- All samples were submitted on ice in a cooler via courier to Alpha Analytical Laboratories, Inc. in Westborough, MA for analyses in accordance with the RIWP

CAMP Activities:

- Haley & Aldrich performed community air monitoring collecting upwind background readings and at a downwind location during ground-intrusive work. Community air monitoring included a MiniRae 3000 photoionization detector (PID) and olfactory observations to monitor volatile organic compounds (VOCs) and a DusTrak II and visual observations for dust particulate matter.
    - Upwind Background/Pre-Work Conditions
        - PID: 0.0 ppm
        - No visible dust
    - Maximum Downwind Work Conditions
        - PID: 0.1 ppm
        - No visible dust

- No 15-minute average concentrations of VOCs exceeded the action levels throughout the day. No visible dust or odors were observed leaving the site perimeter.

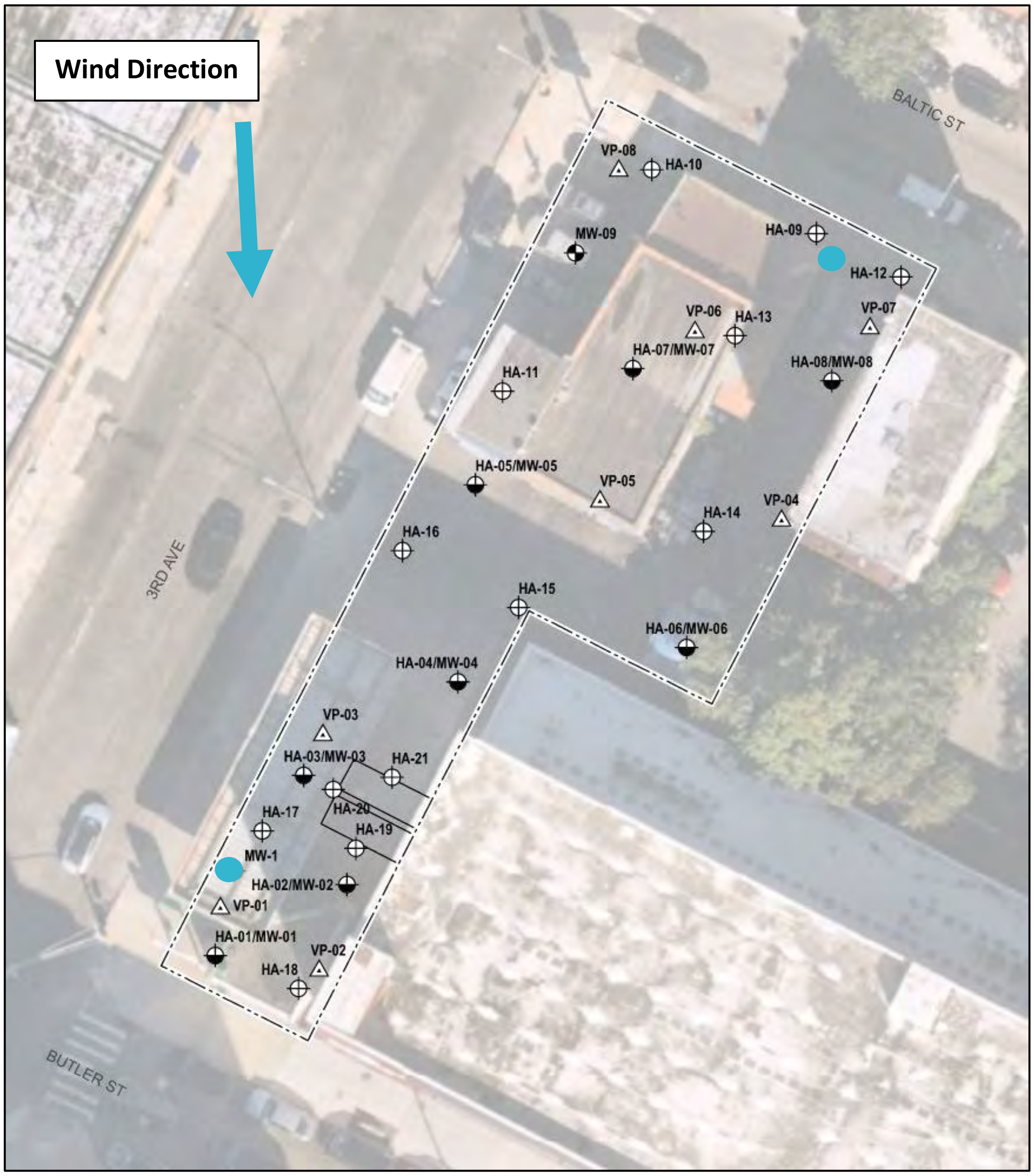
Activities Planned for Coming Week:

- Coastal will continue implementing the Remedial Investigation including soil borings, monitoring well installation and soil vapor point installation.

HALEY ALDRICH

DAILY FIELD REPORT

Site Map:



CAMP Station

Site Photographs:

Photo 1: View of drilling activities.

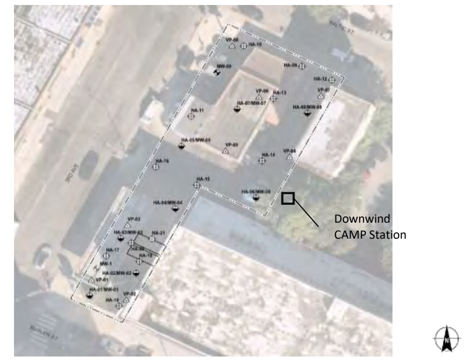
Photo 2: View of site conditions on southern portion of site and boring mark-out.

NYSDEC Site C224375
556 Baltic Street, Brooklyn, NY
Project No. 0204090
Daily Air Monitoring Log

Date: 2/1/2023
Personnel: S. Sotomayor, M. Boland
Weather: Partly Cloudy
Humidity: 51%
Temperature: 27-38°F
Wind Direction: S

PID Background (ppm): 0.0

Site Map:



Time	Visual Dust Particulates (Y/N)	Visual Dust Particulates (Y/N)	PID (ppm)	PID (ppm)	Odors (Y/N)	Notes/Comments
	Upwind	Downwind	Upwind	Downwind		
915	N	N	0.0	0.0	N	
930	N	N	0.0	0.0	N	
945	N	N	0.0	0.0	N	
1000	N	N	0.0	0.0	N	
1015	N	N	0.0	0.0	N	
1030	N	N	0.0	0.0	N	
1045	N	N	0.0	0.0	N	
1100	N	N	0.0	0.0	N	
1115	N	N	0.0	0.0	N	
1130	N	N	0.0	0.0	N	
1145	N	N	0.0	0.0	N	
1200	N	N	0.0	0.0	N	
1215	N	N	0.0	0.0	N	
1230	N	N	0.0	0.0	N	
1245	N	N	0.0	0.0	N	
1300	N	N	0.0	0.0	N	
1315	N	N	0.0	0.0	N	
1330	N	N	0.0	0.0	N	
1345	N	N	0.0	0.0	N	
1400	N	N	0.0	0.0	N	
1415	N	N	0.0	0.0	N	
1430	N	N	0.0	0.0	N	
1445	N	N	0.0	0.0	N	
1500	N	N	0.0	0.0	N	

DAILY FIELD REPORT

Project	556 Baltic Street	**Report No.**	002
NYSDEC BCP Site	C224375	**Date**	2/2/2023
Location	151-169 Third Avenue, Brooklyn, NY	**File No.**	0204090
Client	159 Third Realty LLC	**Temperature**	28-40°F
Contractor	Coastal Environmental Solutions, Inc. (Coastal)	**Wind Direction**	South, 0-10 mph
Weather	Partly Cloudy	**Personnel on Site**	M. Boland, S. Sotomayor, E. Nunez
Humidity	55%	**Time on Site**	7:00am to 3:15pm

Haley & Aldrich of New York (Haley & Aldrich) was present to document the implementation of the Remedial Investigation Work Plan (RIWP) for the 556 Baltic Street (referred to as "159 Third Avenue" in previous investigations) BCP Site C224375, located at 151-169 Third Avenue. Site Observations are summarized below.

Daily Observations:

- Haley & Aldrich field personnel performed community air monitoring during the implementation of the activities in the approved Remedial Investigation Work Plan
- Coastal initiated sonic drilling rig (Eijkelkamp CRS-XL-140 Duo) on the site
- Coastal completed installation of two borings (HA-04 & HA-05) to 20 feet below grade surface (ft bgs) and Haley & Aldrich collected soil samples in accordance with the RIWP
- Coastal completed installation of ten delineation borings centered on HA-24 to 10 feet below grade surface (ft bgs) and Haley & Aldrich collected soil samples in accordance with the RIWP
- Coastal completed installation of seven delineation borings centered on HA-25 to 20 feet below grade surface (ft bgs) and Haley & Aldrich collected soil samples in accordance with the RIWP
- Coastal completed installation of two monitoring wells (MW-04 and MW-05) at 20 ft bgs
- Coastal developed four monitoring wells (MW-04, MW-05, MW-06 & MW-08)

Samples Collected:

- Soil samples were collected from HA-04, HA-05, HA-24 (including DB-01AB, DB-02AB & DB-03AB), HA-25 (including DB-04AB & DB-05AB) in accordance with the RIWP
- One QA/QC Field Blank
- One Trip Blank
- All samples were submitted on ice in a cooler via courier to Alpha Analytical Laboratories, Inc. in Westborough, MA for analyses in accordance with the RIWP

CAMP Activities:

- Haley & Aldrich performed community air monitoring collecting upwind background readings and at a downwind location during ground-intrusive work. Community air monitoring included a MiniRae 3000 photoionization detector (PID) and olfactory observations to monitor volatile organic compounds (VOCs) and visual observations for dust particulate matter.

- Upwind Background/Pre-Work Conditions
  - PID: 0.2 ppm
  - No Visible Dust
- Maximum Downwind Work Conditions
  - PID: 0.1 ppm
  - No Visible Dust

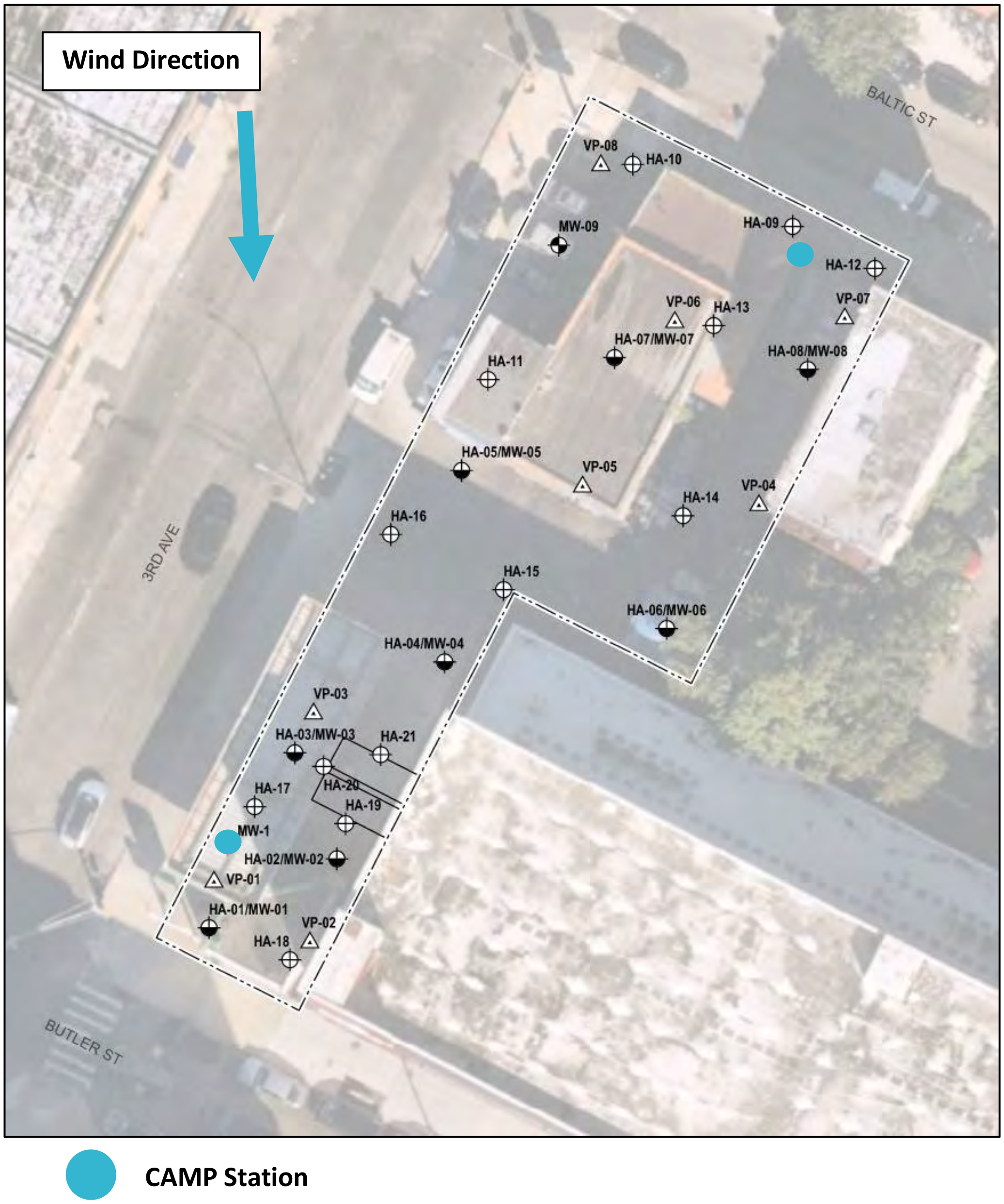
- No 15-minute average concentrations of VOCs exceeded the action levels throughout the day. No visible dust or odors were observed leaving the site perimeter.

Activities Planned for Coming Week:

- Coastal will continue implementing the Remedial Investigation including soil borings, monitoring well installation and soil vapor point installation.

DAILY FIELD REPORT

Site Map:



Site Photographs:

Photo 1: View of drilling activities and monitoring well installation.

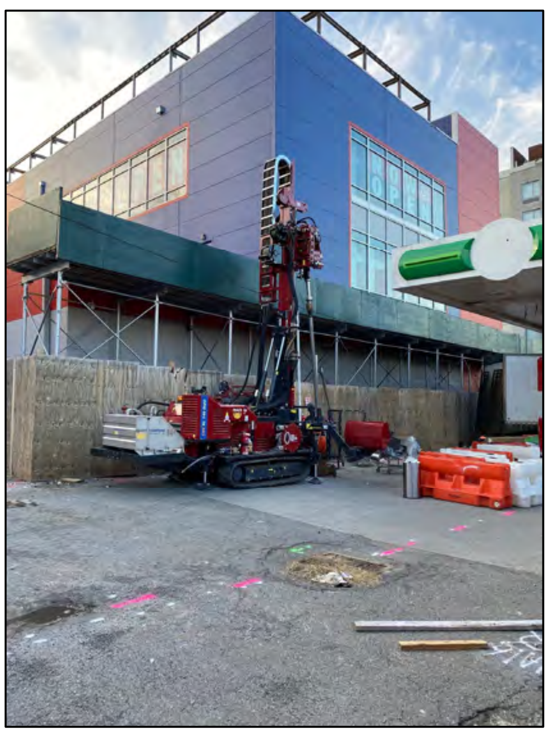


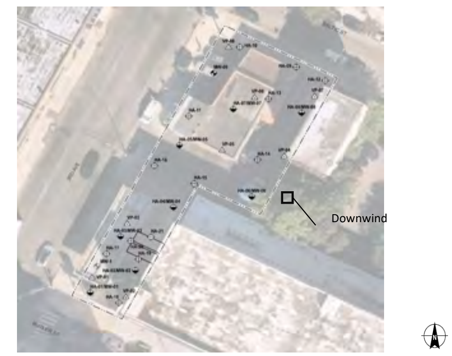
Photo 2: View of drilling activities.

NYSDEC Site C224375
556 Baltic Street, Brooklyn, NY
Project No. 0204090
Daily Air Monitoring Log

Date: 2/2/2023
Personnel: S. Sotomayor, M. Boland
Weather: Partly Cloudy
Humidity: 55%
Temperature: 28-40°F
Wind Direction: S

PID Background (ppm): 0.0

Site Map:



Time	Visual Dust Particulates (Y/N) Upwind	Visual Dust Particulates (Y/N) Downwind	PID (ppm) Upwind	PID (ppm) Downwind	Odors (Y/N)	Notes/Comments
830	N	N	0.0	0.0	N	
845	N	N	0.0	0.0	N	
900	N	N	0.0	0.0	N	
915	N	N	0.0	0.0	N	
930	N	N	0.0	0.0	N	
1000	N	N	0.0	0.0	N	
1015	N	N	0.0	0.0	N	
1030	N	N	0.0	0.0	N	
1045	N	N	0.0	0.0	N	
1100	N	N	0.0	0.0	N	
1115	N	N	0.0	0.0	N	
1130	N	N	0.0	0.0	N	
1145	N	N	0.0	0.1	N	
1200	N	N	0.0	0.0	N	
1215	N	N	0.0	0.0	N	
1230	N	N	0.0	0.0	N	
1245	N	N	0.0	0.0	N	
1300	N	N	0.0	0.0	N	
1315	N	N	0.0	0.0	N	
1330	N	N	0.0	0.0	N	
1345	N	N	0.0	0.0	N	
1400	N	N	0.0	0.0	N	
1415	N	N	0.0	0.0	N	
1430	N	N	0.0	0.1	N	

DAILY FIELD REPORT

Project	556 Baltic Street	Report No.	003
NYSDEC BCP Site	C224375	Date	2/3/2023
Location	151-169 Third Avenue, Brooklyn, NY	File No.	0204090
Client	159 Third Realty LLC	Temperature	13-26°F
Contractor	Coastal Environmental Solutions, Inc. (Coastal)	Wind Direction	South, 0-20 mph
Weather	Partly Cloudy	Personnel on Site	M. Boland, S. Sotomayor, E. Nunez
Humidity	37%	Time on Site	7:00am to 2:00pm

Haley & Aldrich of New York (Haley & Aldrich) was present to document the implementation of the Remedial Investigation Work Plan (RIWP) for the 556 Baltic Street (referred to as "159 Third Avenue" in previous investigations) BCP Site C224375, located at 151-169 Third Avenue. Site Observations are summarized below.

Daily Observations:

- Haley & Aldrich field personnel performed community air monitoring during the implementation of the activities in the approved Remedial Investigation Work Plan.
- Coastal completed installation of one deep soil boring (HA-23) to 100 feet below grade surface (ft bgs) to investigate the potential for the presence of non-aqueous phase liquid/grossly contaminated material (NAPL/GCM). NAPL/GCM was not observed or encountered during the advancement of the boring and at the final completion depth of 100 ft bgs.
- Coastal demobilized the sonic drilling rig (Eijkelkamp CRS-XL-140 Duo) from the site.

Samples Collected:

- N/A

CAMP Activities:

- Haley & Aldrich performed community air monitoring collecting upwind background readings and at a downwind location during ground-intrusive work. Community air monitoring included a MiniRae 3000 photoionization detector (PID) and olfactory observations to monitor volatile organic compounds (VOCs) and visual observations for dust particulate matter.
    - Upwind Background/Pre-Work Conditions
        - PID: 0.0 ppm
        - No Visible Dust
    - Maximum Downwind Work Conditions
        - PID: 0.1 ppm
        - No Visible Dust
- No 15-minute average concentrations of VOCs exceeded the action levels throughout the day. No visible dust or odors were observed leaving the site perimeter.

DAILY FIELD REPORT

Activities Planned for Coming Week:

- Coastal will continue implementing the Remedial Investigation including soil borings, monitoring well installation and soil vapor point installation again starting on Wednesday February 8, 2023.

DAILY FIELD REPORT

Site Map:

CAMP Station

Site Photographs:

Photo 1: View of deep soil boring activities.

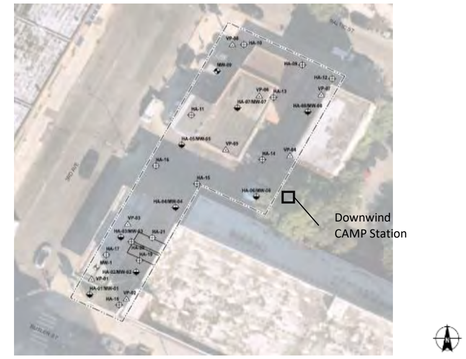
Photo 2: View of 10 to 20 ft bgs interval of deep soil boring HA-23.

NYSDEC Site C224375
556 Baltic Street, Brooklyn, NY
Project No. 0204090
Daily Air Monitoring Log

Date:	2/3/2023
Personnel:	S. Sotomayor, M. Boland
Weather:	Partly Cloudy
Humidity:	37%
Temperature:	13-26°F
Wind Direction:	S

PID Background (ppm): 0.0

Site Map:



Time	Visual Dust Particulates (Y/N)	Visual Dust Particulates (Y/N)	PID (ppm)	PID (ppm)	Odors (Y/N)	Notes/Comments
	Upwind	Downwind	Upwind	Downwind		
830	N	N	0.0	0.0	N	
845	N	N	0.0	0.0	N	
900	N	N	0.0	0.0	N	
915	N	N	0.0	0.0	N	
930	N	N	0.0	0.0	N	
1000	N	N	0.0	0.0	N	
1015	N	N	0.0	0.0	N	
1030	N	N	0.0	0.0	N	
1045	N	N	0.0	0.0	N	
1100	N	N	0.0	0.1	N	
1115	N	N	0.0	0.0	N	
1130	N	N	0.0	0.0	N	
1145	N	N	0.0	0.1	N	
1200	N	N	0.0	0.0	N	
1215	N	N	0.0	0.0	N	
1230	N	N	0.0	0.0	N	
1245	N	N	0.0	0.1	N	
1300	N	N	0.0	0.1	N	
1315	N	N	0.0	0.0	N	
1330	N	N	0.0	0.0	N	
1345	N	N	0.0	0.1	N	
1400	N	N	0.0	0.0	N	

HALEY ALDRICH

DAILY FIELD REPORT

Project	556 Baltic Street	**Report No.**	004
NYSDEC BCP Site	C224375	**Date**	2/8/2023
Location	151-169 Third Avenue, Brooklyn, NY	**File No.**	0204090
Client	159 Third Realty LLC	**Temperature**	48-50°F
Contractor	Coastal Environmental Solutions, Inc. (Coastal)	**Wind Direction**	Northwest, 0-4 mph
Weather	Sunny	**Personnel on Site**	S. Sotomayor
Humidity	47%	**Time on Site**	7:00am to 3:30pm

Haley & Aldrich of New York (Haley & Aldrich) was present to document the implementation of the Remedial Investigation Work Plan (RIWP) for the 556 Baltic Street (referred to as "159 Third Avenue" in previous investigations) BCP Site C224375, located at 151-169 Third Avenue. Site Observations are summarized below.

Daily Observations:

- Haley & Aldrich field personnel performed community air monitoring during the implementation of the activities in the approved Remedial Investigation Work Plan.
- Coastal mobilized a 6610 Geoprobe™ to the site.
- Coastal completed installation of six borings (HA-01, HA-02, HA-10, HA-17, HA-19, and HA-21) to 20 feet below grade surface (ft bgs) and Haley & Aldrich collected soil samples in accordance with the RIWP.
- Coastal completed installation of three monitoring wells (MW-01, MW-02, and MW-09) at 20 ft bgs.

Samples Collected:

- Soil samples were collected from HA-01, HA-02, HA-10, HA-17, HA-19, and HA-21 in accordance with the RIWP
- One QA/QC MS/MSD and DUP
- One Trip Blank
- All samples were submitted on ice in a cooler via courier to Alpha Analytical Laboratories, Inc. in Westborough, MA for analyses in accordance with the RIWP

CAMP Activities:

- Haley & Aldrich performed community air monitoring collecting upwind background readings and at a downwind location during ground-intrusive work. Community air monitoring included a MiniRae 3000 photoionization detector (PID) and olfactory observations to monitor volatile organic compounds (VOCs) and visual observations for dust particulate matter.
  - Upwind Background/Pre-Work Conditions
    - PID: 0.0 ppm
    - No Visible Dust
  - Maximum Downwind Work Conditions
    - PID: 0.1 ppm

- No Visible Dust

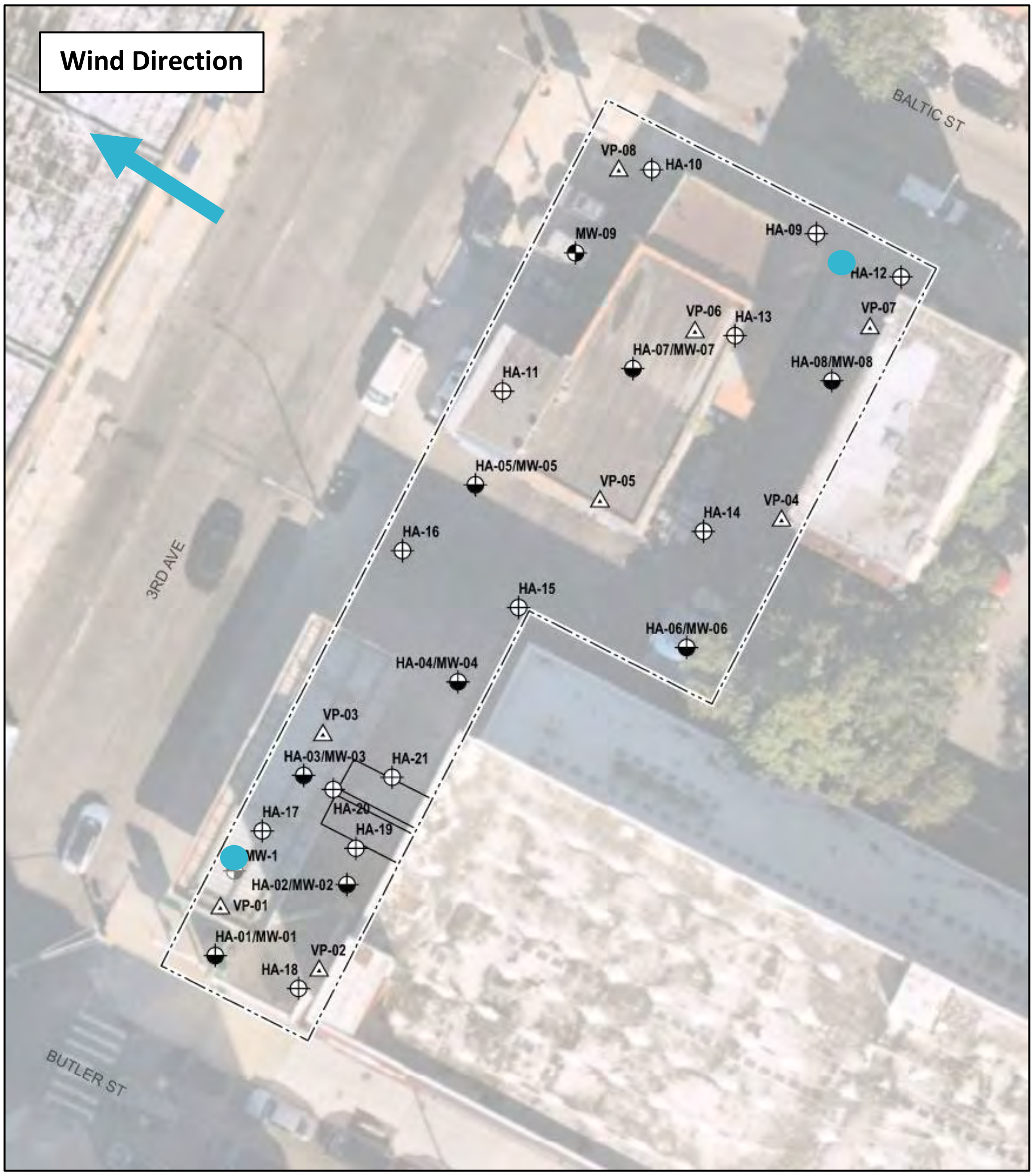
- No 15-minute average concentrations of VOCs exceeded the action levels throughout the day. No visible dust or odors were observed leaving the site perimeter.

Activities Planned for Coming Week:

- Coastal will continue implementing the Remedial Investigation including soil borings, monitoring well installation and soil vapor point installation on Thursday February 9, 2023.

DAILY FIELD REPORT

Site Map:



CAMP Station

Site Photographs:

Photo 1: View of HA-02/MW-02 soil boring drilling activities.

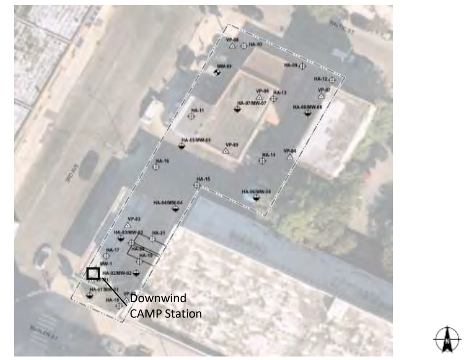
Photo 2: View of monitoring well installation MW-09.

NYSDEC Site C224375
556 Baltic Street, Brooklyn, NY
Project No. 0204090
Daily Air Monitoring Log

Date: 2/8/2023
Personnel: S. Sotomayor
Weather: Sunny
Humidity: 47%
Temperature: 48-50°F
Wind Direction: NW

PID Background (ppm): 0.0

Site Map:



Time	Visual Dust Particulates (Y/N)	Visual Dust Particulates (Y/N)	PID (ppm)	PID (ppm)	Odors (Y/N)	Notes/Comments
	Upwind	Downwind	Upwind	Downwind		
715	N	N	0.0	0.0	N	
730	N	N	0.0	0.0	N	
745	N	N	0.0	0.0	N	
800	N	N	0.0	0.0	N	
815	N	N	0.0	0.0	N	
830	N	N	0.0	0.0	N	
845	N	N	0.0	0.0	N	
900	N	N	0.0	0.0	N	
915	N	N	0.0	0.0	N	
930	N	N	0.0	0.1	N	
945	N	N	0.0	0.0	N	
1000	N	N	0.0	0.0	N	
1015	N	N	0.0	0.1	N	
1030	N	N	0.0	0.0	N	
1045	N	N	0.0	0.0	N	
1100	N	N	0.0	0.0	N	
1115	N	N	0.0	0.1	N	
1130	N	N	0.0	0.1	N	
1145	N	N	0.0	0.0	N	
1200	N	N	0.0	0.0	N	
1215	N	N	0.0	0.1	N	
1230	N	N	0.0	0.0	N	
1245	N	N	0.0	0.0	N	
1300	N	N	0.0	0	N	

NYSDEC Site C224375
556 Baltic Street, Brooklyn, NY
Project No. 0204090
Daily Air Monitoring Log

Time	Visual Dust Particulates (Y/N)	Visual Dust Particulates (Y/N)	PID (ppm)	PID (ppm)	Odors (Y/N)	Notes/Comments
	Upwind	Downwind	Upwind	Downwind		
1315	N	N	0	0	N	
1330	N	N	0	0	N	
1345	N	N	0	0	N	
1400	N	N	0	0	N	
1415	N	N	0	0	N	
1430	N	N	0	0	N	
1445	N	N	0	0	N	
1500	N	N	0	0	N	
1515	N	N	0	0	N	
1530	N	N	0	0	N	
1545	N	N	0	0	N	
1600	N	N	0	0	N	

DAILY FIELD REPORT

Project	556 Baltic Street	Report No.	005
NYSDEC BCP Site	C224375	Date	2/9/2023
Location	151-169 Third Avenue, Brooklyn, NY	File No.	0204090
Client	159 Third Realty LLC	Temperature	48-50°F
Contractor	Coastal Environmental Solutions, Inc. (Coastal)	Wind Direction	Southeast, 0-9 mph
Weather	Sunny	Personnel on Site	S. Sotomayor, N. Mooney
Humidity	93%	Time on Site	7:00am to 3:30pm

Haley & Aldrich of New York (Haley & Aldrich) was present to document the implementation of the Remedial Investigation Work Plan (RIWP) for the 556 Baltic Street (referred to as "159 Third Avenue" in previous investigations) BCP Site C224375, located at 151-169 Third Avenue. Site Observations are summarized below.

Daily Observations:

- Haley & Aldrich field personnel performed community air monitoring during the implementation of the activities in the approved Remedial Investigation Work Plan.
- Coastal completed installation of six borings (HA-07, HA-09, HA-11, HA-12, DB-06, and DB-06B) to 20 feet below grade surface (ft bgs) and Haley & Aldrich collected soil samples in accordance with the RIWP.
- Coastal completed installation of of five soil vapor points (VP-03, VP-04, VP-05, VP-07, and VP-08) to 12 feet below grade surface (ft bgs). Tubing was tied off and bentonite seal was installed on all points.
- A groundwater sample was collected from MW-06.

Samples Collected:

- Soil samples were collected from HA-07, HA-09, HA-11, HA-12, DB-06, and DB-06B in accordance with the RIWP
- One QA/QC MS/MSD for soil samples
- One Trip Blank for soil samples
- Groundwater samples were collected from MW-06
- One QA/QC MS/MSD and Duplicate for groundwater samples
- One Trip Blank for groundwater samples
- All samples were submitted on ice in a cooler via courier to Alpha Analytical Laboratories, Inc. in Westborough, MA for analyses in accordance with the RIWP

CAMP Activities:

- Haley & Aldrich performed community air monitoring collecting upwind background readings and at a downwind location during ground-intrusive work. Community air monitoring included a MiniRae 3000 photoionization detector (PID) and olfactory observations to monitor volatile organic compounds (VOCs) and visual observations for dust particulate matter.
  - Upwind Background/Pre-Work Conditions

    - PID: 0.0 ppm
    - No Visible Dust
  - Maximum Downwind Work Conditions
    - PID: 0.0 ppm
    - No Visible Dust

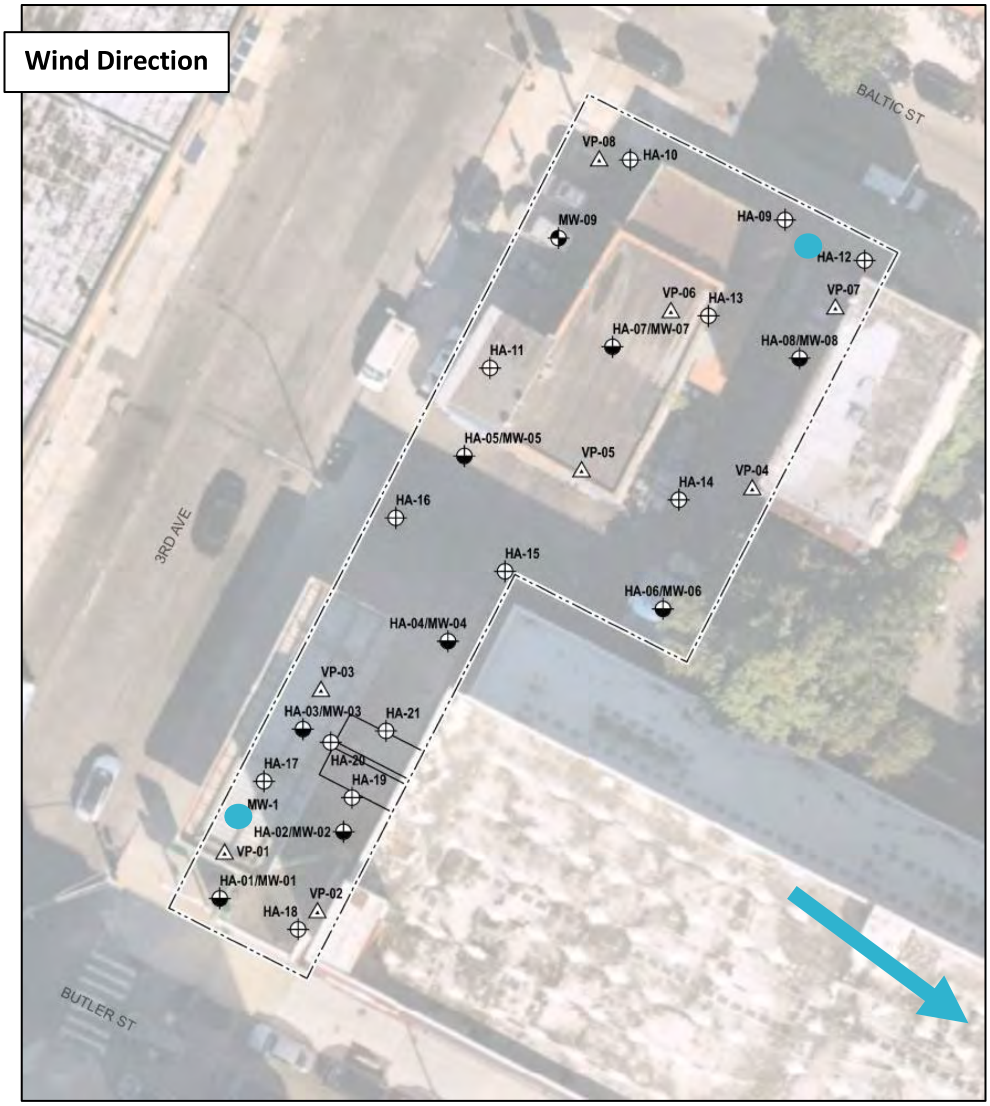
- No 15-minute average concentrations of VOCs exceeded the action levels throughout the day. No visible dust or odors were observed leaving the site perimeter.

Activities Planned for Coming Week:

- Coastal will continue implementing the Remedial Investigation including soil borings, monitoring well installation and soil vapor point installation on Friday February 10, 2023.

DAILY FIELD REPORT

Site Map:



CAMP Station

Site Photographs:

Photo 1: View of HA-09 soil boring drilling activities.

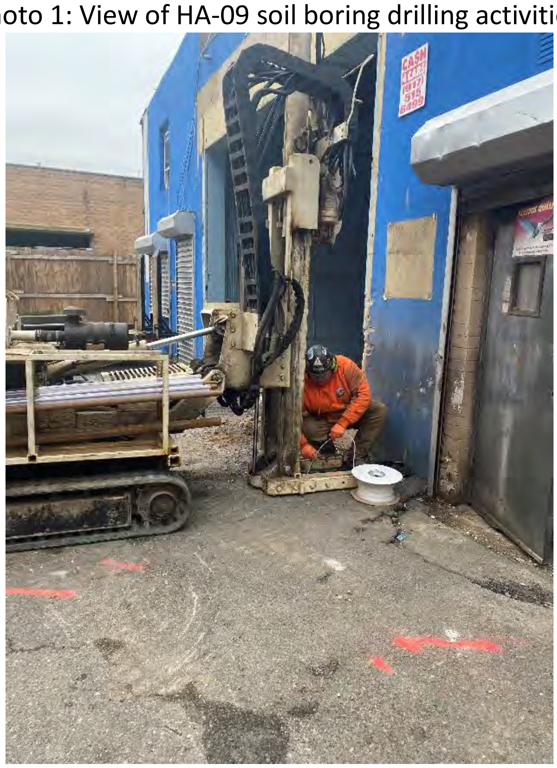
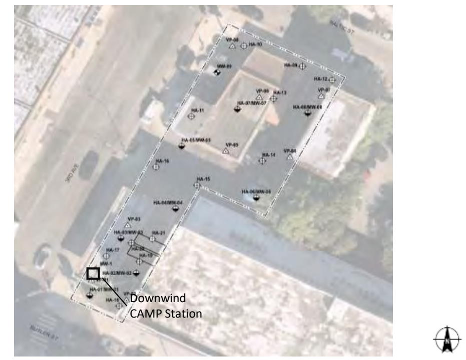


Photo 2: View of soil vapor point installation VP-05.

NYSDEC Site C224375
556 Baltic Street, Brooklyn, NY
Project No. 0204090
Daily Air Monitoring Log

Date:	2/9/2023	
Personnel:	S. Sotomayor	
Weather:	Sunny	
Humidity:	93%	
Temperature:	48-50°F	
Wind Direction:	SE	
	PID Background (ppm):	0.0

Site Map:



Time	Visual Dust Particulates (Y/N)	Visual Dust Particulates (Y/N)	PID (ppm)	PID (ppm)	Odors (Y/N)	Notes/Comments
	Upwind	Downwind	Upwind	Downwind		
715	N	N	0.0	0.0	N	
730	N	N	0.0	0.0	N	
745	N	N	0.0	0.0	N	
800	N	N	0.0	0.0	N	
815	N	N	0.0	0.0	N	
830	N	N	0.0	0.0	N	
845	N	N	0.0	0.0	N	
900	N	N	0.0	0.0	N	
915	N	N	0.0	0.0	N	
930	N	N	0.0	0.0	N	
945	N	N	0.0	0.0	N	
1000	N	N	0.0	0.0	N	
1015	N	N	0.0	0.0	N	
1030	N	N	0.0	0.0	N	
1045	N	N	0.0	0.0	N	
1100	N	N	0.0	0.0	N	
1115	N	N	0.0	0.0	N	
1130	N	N	0.0	0.0	N	
1145	N	N	0.0	0.0	N	
1200	N	N	0.0	0.0	N	
1215	N	N	0.0	0.0	N	
1230	N	N	0.0	0.0	N	
1245	N	N	0.0	0.0	N	
1300	N	N	0.0	0	N	

NYSDEC Site C224375
556 Baltic Street, Brooklyn, NY
Project No. 0204090
Daily Air Monitoring Log

Time	Visual Dust Particulates (Y/N)	Visual Dust Particulates (Y/N)	PID (ppm)	PID (ppm)	Odors (Y/N)	Notes/Comments
	Upwind	Downwind	Upwind	Downwind		
1315	N	N	0	0	N	
1330	N	N	0	0	N	
1345	N	N	0	0	N	
1400	N	N	0	0	N	
1415	N	N	0	0	N	
1430	N	N	0	0	N	
1445	N	N	0	0	N	
1500	N	N	0	0	N	
1515	N	N	0	0	N	
1530	N	N	0	0	N	
1545	N	N	0	0	N	
1600	N	N	0	0	N	

DAILY FIELD REPORT

Project	556 Baltic Street	Report No.	006
NYSDEC BCP Site	C224375	Date	2/10/2023
Location	151-169 Third Avenue, Brooklyn, NY	File No.	0204090
Client	159 Third Realty LLC	Temperature	57-58°F
Contractor	Coastal Environmental Solutions, Inc. (Coastal)	Wind Direction	West, 20-28 mph
Weather	Partly Cloudy	Personnel on Site	S. Sotomayor, N. Mooney, N. Mangione
Humidity	32%	Time on Site	7:00am to 3:45pm

Haley & Aldrich of New York (Haley & Aldrich) was present to document the implementation of the Remedial Investigation Work Plan (RIWP) for the 556 Baltic Street (referred to as “159 Third Avenue” in previous investigations) BCP Site C224375, located at 151-169 Third Avenue. Site Observations are summarized below.

Daily Observations:

- Haley & Aldrich field personnel performed community air monitoring during the implementation of the activities in the approved Remedial Investigation Work Plan.
- Coastal completed installation of HA-03 and HA-20 to 20 feet below grade surface (ft bgs) and borings HA-26, DB-07, DB-07A, DB-07B, DB-09, DB09A, and DB09B to 17 ft bgs.
- Haley & Aldrich completed sampling of five soil vapor points (VP-03, VP-04, VP-05, VP-07, and VP-08) with 2.7L Summa canisters fitted with 2-hour flow controllers.
- Coastal completed installation of one monitoring well (MW-03) at 20 ft bgs.
- Groundwater samples were collected from MW-02, MW-04, MW-05, and MW-08.

Samples Collected:

Soil

- Soil samples were collected from HA-03, HA-20, HA-26, DB-07, DB-07A, DB-07B, DB-09, DB09A, and DB09B in accordance with the RIWP
- Two QA/QC MS/MSD, Duplicates and Field Blanks for soil samples
- One Trip Blank for soil samples

Groundwater

- Groundwater samples were collected from MW-02, MW-04, MW-05, and MW-08 in accordance with the RIWP
- One QA/QC MS/MSD Field Blank for groundwater samples
- One Trip Blank for groundwater samples

Soil Vapor

- Soil vapor samples were collected from VP-03, VP-04, VP-05, VP-07, and VP-08 in accordance with the RIWP

- All samples were submitted on ice in a cooler via courier to Alpha Analytical Laboratories, Inc. in Westborough, MA for analyses in accordance with the RIWP

CAMP Activities:

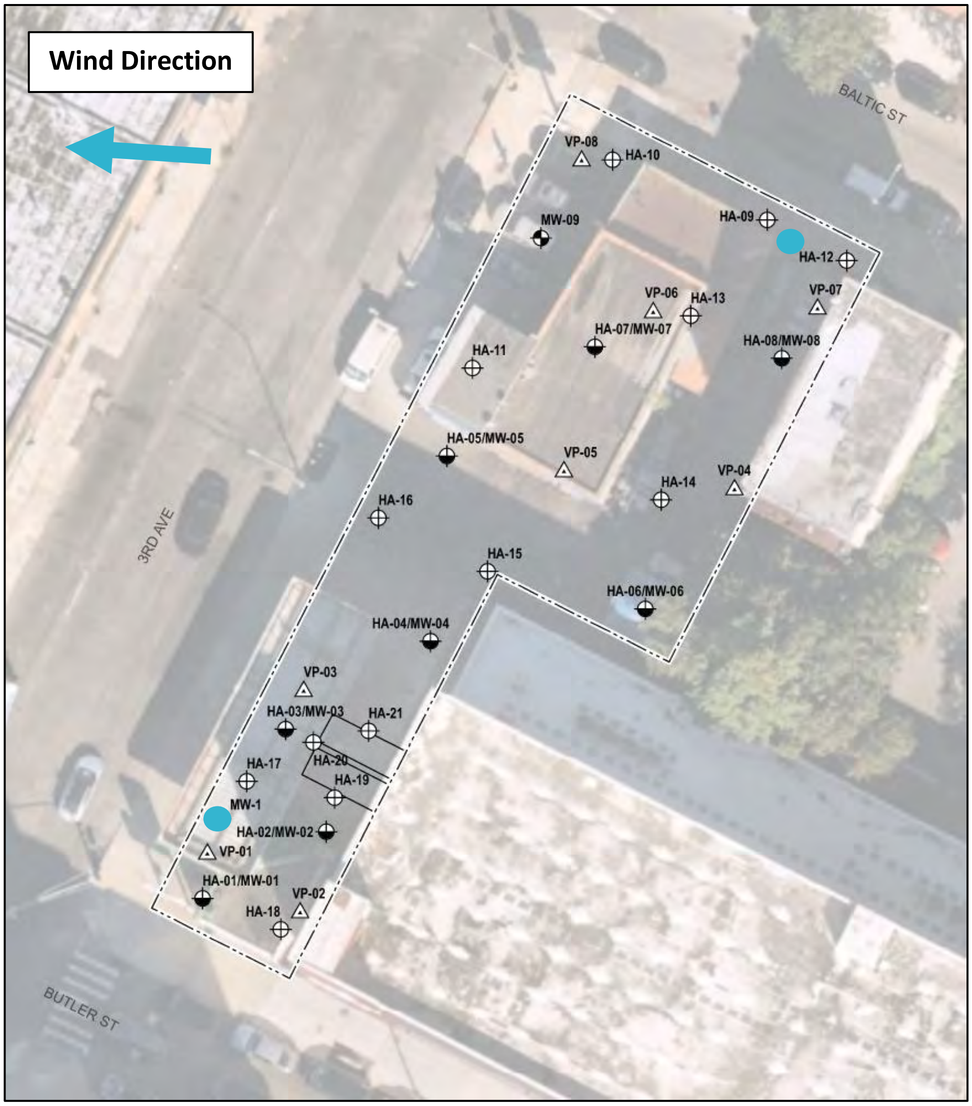
- Haley & Aldrich performed community air monitoring collecting upwind background readings and at a downwind location during ground-intrusive work. Community air monitoring included a MiniRae 3000 photoionization detector (PID) and olfactory observations to monitor volatile organic compounds (VOCs) and visual observations for dust particulate matter.
    - Upwind Background/Pre-Work Conditions
        - PID: 0.0 ppm
        - No Visible Dust
    - Maximum Downwind Work Conditions
        - PID: 0.0 ppm
        - No Visible Dust
- No 15-minute average concentrations of VOCs exceeded the action levels throughout the day. No visible dust or odors were observed leaving the site perimeter.

Activities Planned for Coming Week:

- Coastal will continue implementing the Remedial Investigation including soil borings, soil vapor point installation, and soil and soil vapor sampling on Monday February 13, 2023.

DAILY FIELD REPORT

Site Map:



CAMP Station

Site Photographs:

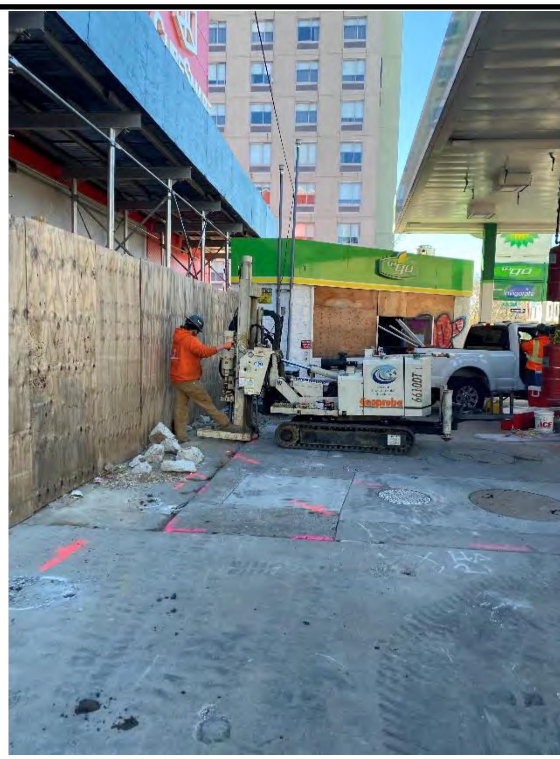


Photo 1: View of HA-26 soil boring drilling activities.

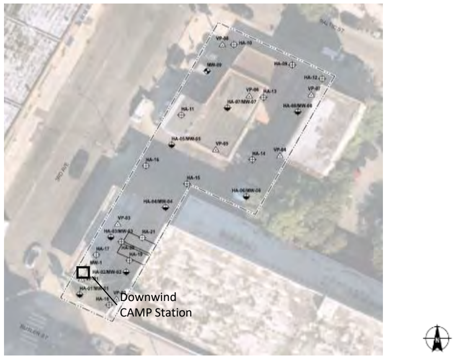
Photo 2: View of MW-05 groundwater sampling activities.

NYSDEC Site C224375
556 Baltic Street, Brooklyn, NY
Project No. 0204090
Daily Air Monitoring Log

Date:	2/10/2023
Personnel:	S. Sotomayor
Weather:	Partly Cloudy
Humidity:	32%
Temperature:	57-58°F
Wind Direction:	W

PID Background (ppm): 0.0

Site Map:



Time	Visual Dust Particulates (Y/N)	Visual Dust Particulates (Y/N)	PID (ppm)	PID (ppm)	Odors (Y/N)	Notes/Comments
	Upwind	Downwind	Upwind	Downwind		
715	N	N	0.0	0.0	N	
730	N	N	0.0	0.0	N	
745	N	N	0.0	0.0	N	
800	N	N	0.0	0.0	N	
815	N	N	0.0	0.0	N	
830	N	N	0.0	0.0	N	
845	N	N	0.0	0.0	N	
900	N	N	0.0	0.0	N	
915	N	N	0.0	0.0	N	
930	N	N	0.0	0.0	N	
945	N	N	0.0	0.0	N	
1000	N	N	0.0	0.0	N	
1015	N	N	0.0	0.0	N	
1030	N	N	0.0	0.0	N	
1045	N	N	0.0	0.0	N	
1100	N	N	0.0	0.0	N	
1115	N	N	0.0	0.0	N	
1130	N	N	0.0	0.0	N	
1145	N	N	0.0	0.0	N	
1200	N	N	0.0	0.0	N	
1215	N	N	0.0	0.0	N	
1230	N	N	0.0	0.0	N	
1245	N	N	0.0	0.0	N	
1300	N	N	0.0	0	N	

NYSDEC Site C224375
556 Baltic Street, Brooklyn, NY
Project No. 0204090
Daily Air Monitoring Log

Time	Visual Dust Particulates (Y/N)	Visual Dust Particulates (Y/N)	PID (ppm)	PID (ppm)	Odors (Y/N)	Notes/Comments
	Upwind	Downwind	Upwind	Downwind		
1315	N	N	0	0	N	
1330	N	N	0	0	N	
1345	N	N	0	0	N	
1400	N	N	0	0	N	
1415	N	N	0	0	N	
1430	N	N	0	0	N	
1445	N	N	0	0	N	
1500	N	N	0	0	N	
1515	N	N	0	0	N	
1530	N	N	0	0	N	
1545	N	N	0	0	N	

DAILY FIELD REPORT

Project	556 Baltic Street	Report No.	007
NYSDEC BCP Site	C224375	Date	2/13/2023
Location	151-169 Third Avenue, Brooklyn, NY	File No.	0204090
Client	159 Third Realty LLC	Temperature	55-57°F
Contractor	Coastal Environmental Solutions, Inc. (Coastal)	Wind Direction	South, 5-9 mph
Weather	Partly Cloudy	Personnel on Site	S. Sotomayor
Humidity	46%	Time on Site	7:00am to 3:30pm

Haley & Aldrich of New York (Haley & Aldrich) was present to document the implementation of the Remedial Investigation Work Plan (RIWP) for the 556 Baltic Street (referred to as "159 Third Avenue" in previous investigations) BCP Site C224375, located at 151-169 Third Avenue. Site Observations are summarized below.

Daily Observations:

- Haley & Aldrich field personnel performed community air monitoring during the implementation of the activities in the approved Remedial Investigation Work Plan.
- Coastal completed soil borings HA-13 and HA-18 to 20 feet below grade surface (ft bgs)
- Haley & Aldrich completed sampling of three soil vapor points (VP-01, VP-02, VP-06) with 2.7L Summa canisters fitted with 2-hour flow controllers.

Samples Collected:

Soil

- Soil samples were collected from HA-13 and HA-18 in accordance with the RIWP
- One QA/QC MS/MSD, and one Duplicate for soil samples
- One Trip Blank for soil samples

Soil Vapor

- Soil vapor samples were collected from VP-01, VP-02, and VP-06 in accordance with the RIWP
- All samples were submitted on ice in a cooler via courier to Alpha Analytical Laboratories, Inc. in Westborough, MA for analyses in accordance with the RIWP

CAMP Activities:

- Haley & Aldrich performed community air monitoring collecting upwind background readings and at a downwind location during ground-intrusive work. Community air monitoring included a MiniRae 3000 photoionization detector (PID) and olfactory observations to monitor volatile organic compounds (VOCs) and visual observations for dust particulate matter.

- Upwind Background/Pre-Work Conditions
  - PID: 0.0 ppm
  - No Visible Dust
- Maximum Downwind Work Conditions
  - PID: 0.0 ppm
  - No Visible Dust

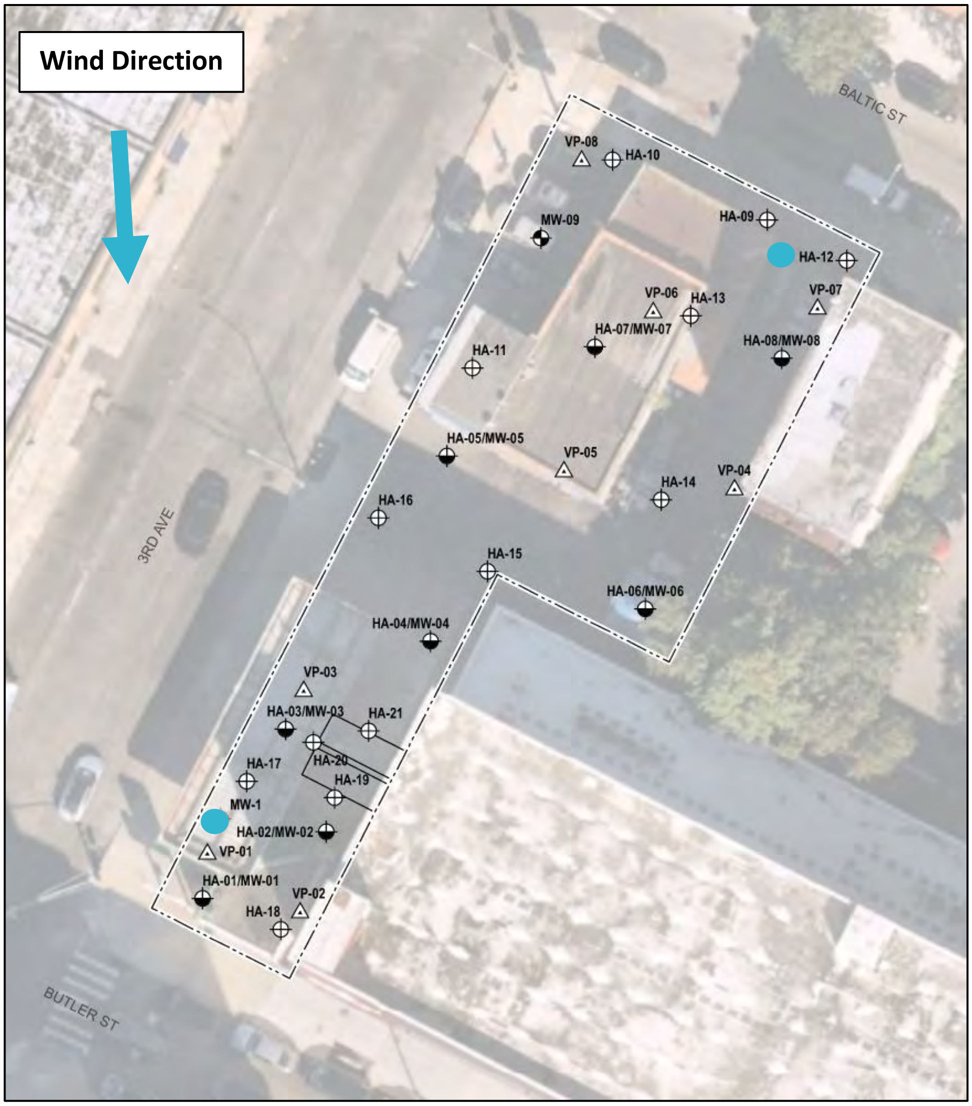
- No 15-minute average concentrations of VOCs exceeded the action levels throughout the day. No visible dust or odors were observed leaving the site perimeter.

Activities Planned for Coming Week:

- DPK Surveying will survey monitoring wells and site features on February 16, 2023.
- Haley & Aldrich will remobilize to Site and continue implementing the Remedial Investigation groundwater sampling on February 16 & 17, 2023.
- Synoptic groundwater levels will be collected on February 16, 2023.
- Coastal will re-mobilize the Sonic drilling rig to the site to complete HA-22 to complete the NAPL GCM investigation component of the RIWP (Date TBD).

DAILY FIELD REPORT

Site Map:



CAMP Station

Site Photographs:

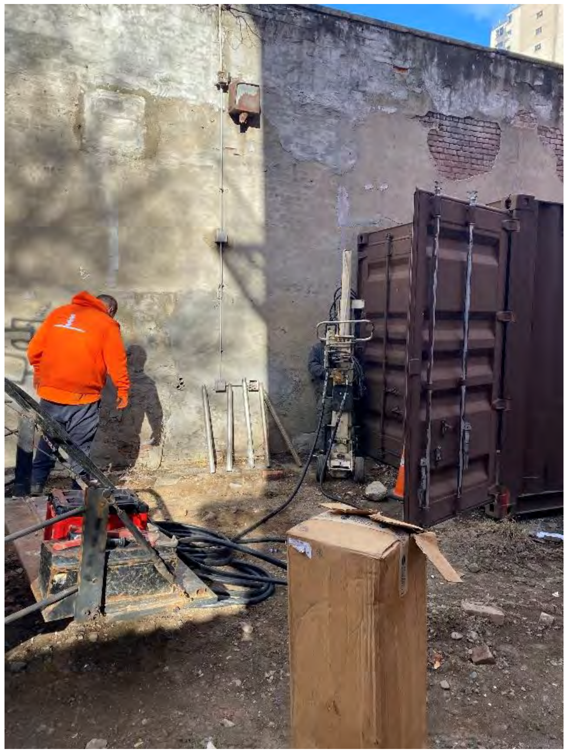


Photo 1: View of HA-13 soil boring drilling activities.

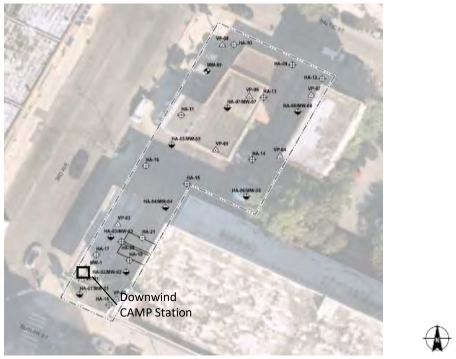
Photo 2: View of VP-02 soil vapor sampling activities.

NYSDEC Site C224375
556 Baltic Street, Brooklyn, NY
Project No. 0204090
Daily Air Monitoring Log

Date: 2/13/2023
Personnel: S. Sotomayor
Weather: Partly Cloudy
Humidity: 46%
Temperature: 55-57°F
Wind Direction: S

PID Background (ppm): 0.0

Site Map:



Time	Visual Dust Particulates (Y/N)	Visual Dust Particulates (Y/N)	PID (ppm)	PID (ppm)	Odors (Y/N)	Notes/Comments
	Upwind	Downwind	Upwind	Downwind		
715	N	N	0.0	0.0	N	
730	N	N	0.0	0.0	N	
745	N	N	0.0	0.0	N	
800	N	N	0.0	0.0	N	
815	N	N	0.0	0.0	N	
830	N	N	0.0	0.0	N	
845	N	N	0.0	0.0	N	
900	N	N	0.0	0.0	N	
915	N	N	0.0	0.0	N	
930	N	N	0.0	0.0	N	
945	N	N	0.0	0.0	N	
1000	N	N	0.0	0.0	N	
1015	N	N	0.0	0.0	N	
1030	N	N	0.0	0.0	N	
1045	N	N	0.0	0.0	N	
1100	N	N	0.0	0.0	N	
1115	N	N	0.0	0.0	N	
1130	N	N	0.0	0.0	N	
1145	N	N	0.0	0.0	N	
1200	N	N	0.0	0.0	N	
1215	N	N	0.0	0.0	N	
1230	N	N	0.0	0.0	N	
1245	N	N	0.0	0.0	N	
1300	N	N	0.0	0	N	

NYSDEC Site C224375
556 Baltic Street, Brooklyn, NY
Project No. 0204090
Daily Air Monitoring Log

Time	Visual Dust Particulates (Y/N)	Visual Dust Particulates (Y/N)	PID (ppm)	PID (ppm)	Odors (Y/N)	Notes/Comments
	Upwind	Downwind	Upwind	Downwind		
1315	N	N	0	0	N	
1330	N	N	0	0	N	
1345	N	N	0	0	N	
1400	N	N	0	0	N	
1415	N	N	0	0	N	
1430	N	N	0	0	N	
1445	N	N	0	0	N	
1500	N	N	0	0	N	
1515	N	N	0	0	N	
1530	N	N	0	0	N	
1545	N	N	0	0	N	

DAILY FIELD REPORT

Project	556 Baltic Street	**Report No.**	008
NYSDEC BCP Site	C224375	**Date**	2/16/2023
Location	151-169 Third Avenue, Brooklyn, NY	**File No.**	0204090
Client	159 Third Realty LLC	**Temperature**	58-62°F
Contractor	DPK Consulting (DPK) - Surveyor	**Wind Direction**	North, 0-2 mph
Weather	Partly Cloudy	**Personnel on Site**	S. Sotomayor
Humidity	57%	**Time on Site**	7:00am to 2:00pm

Haley & Aldrich of New York (Haley & Aldrich) was present to document the implementation of the Remedial Investigation Work Plan (RIWP) for the 556 Baltic Street (referred to as "159 Third Avenue" in previous investigations) BCP Site C224375, located at 151-169 Third Avenue. Site Observations are summarized below.

Daily Observations:

- Haley & Aldrich completed a round of synoptic groundwater level gauging from all installed wells on site.
- Haley & Aldrich completed groundwater sampling of the four remaining wells (MW-01, MW-03, MW-07, and MW-09).
- DPK Consulting was on site to survey all monitoring well points.

Samples Collected:

Groundwater

- Groundwater samples were collected from MW-01, MW-03, MW-07, and MW-09 in accordance with the RIWP
- One Trip Blank for groundwater samples

CAMP Activities:

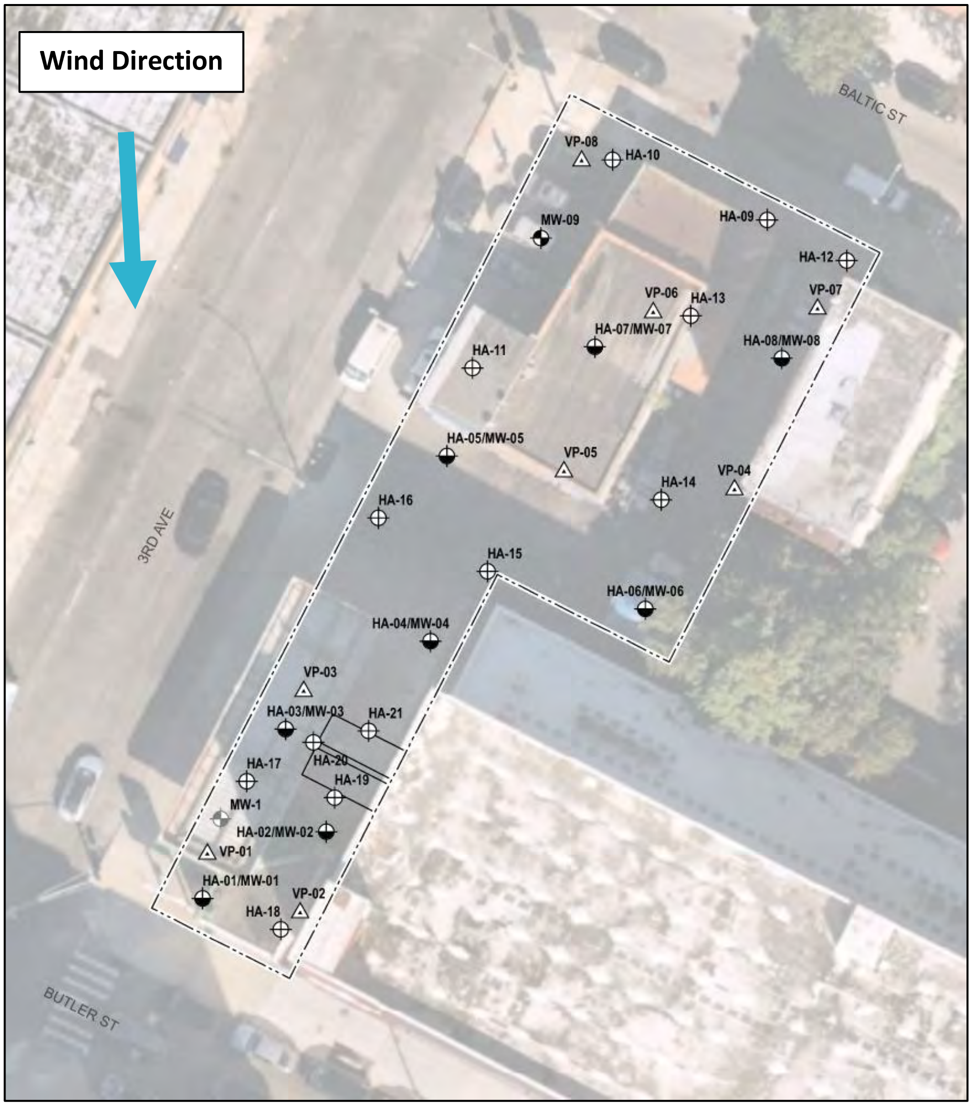
- Community air monitoring was not performed on site as there was no intrusive work completed.

Activities Planned for Coming Week:

- Coastal will re-mobilize the Sonic drilling rig to the site to complete HA-22 to finalize the NAPL GCM investigation component of the RIWP (Date TBD).

DAILY FIELD REPORT

Site Map:



HALEY ALDRICH

DAILY FIELD REPORT

Site Photographs:

Photo 1: View of MW-03.

DAILY FIELD REPORT

Project	556 Baltic Street	**Report No.**	009
NYSDEC BCP Site	C224375	**Date**	2/27/2023
Location	151-169 Third Avenue, Brooklyn, NY	**File No.**	0204090
Client	159 Third Realty LLC	**Temperature**	28-38°F
Contractor	Coastal Environmental Solutions, Inc. (Coastal)	**Wind Direction**	West, 0-10 mph
Weather	Partly Cloudy	**Personnel on Site**	L. McCartney, H. Russell, A. Stewart
Humidity	25%	**Time on Site**	7:00am to 2:00pm

Haley & Aldrich of New York (Haley & Aldrich) was present to document the implementation of the Remedial Investigation Work Plan (RIWP) for the 556 Baltic Street (referred to as "159 Third Avenue" in previous investigations) BCP Site C224375, located at 151-169 Third Avenue. Site Observations are summarized below.

Daily Observations:

- Haley & Aldrich field personnel performed community air monitoring during the implementation of the activities in the approved Remedial Investigation Work Plan.
- Coastal completed installation of one deep soil boring (HA-22) to 100 feet below grade surface (ft bgs) to investigate the potential for the presence of non-aqueous phase liquid/grossly contaminated material (NAPL/GCM). NAPL/GCM was not observed or encountered during the advancement of the boring and at the final completion depth of 100 ft bgs.
- Coastal demobilized the sonic drilling rig (Eijkelkamp CRS-XL-140 Duo) from the site.

Samples Collected:

- N/A

CAMP Activities:

- Haley & Aldrich performed community air monitoring collecting upwind background readings and at a downwind location during ground-intrusive work. Community air monitoring included a MiniRae 3000 photoionization detector (PID) and olfactory observations to monitor volatile organic compounds (VOCs) and visual observations for dust particulate matter.
    - Upwind Background/Pre-Work Conditions
        - PID: 0.0 ppm
        - No Visible Dust
    - Maximum Downwind Work Conditions
        - PID: 0.0 ppm
        - No Visible Dust
- No 15-minute average concentrations of VOCs exceeded the action levels throughout the day. No visible dust or odors were observed leaving the site perimeter.

Activities Planned for Coming Week:

- Remedial Investigation activities are complete.

DAILY FIELD REPORT

Site Map:

CAMP Station

Site Photographs:

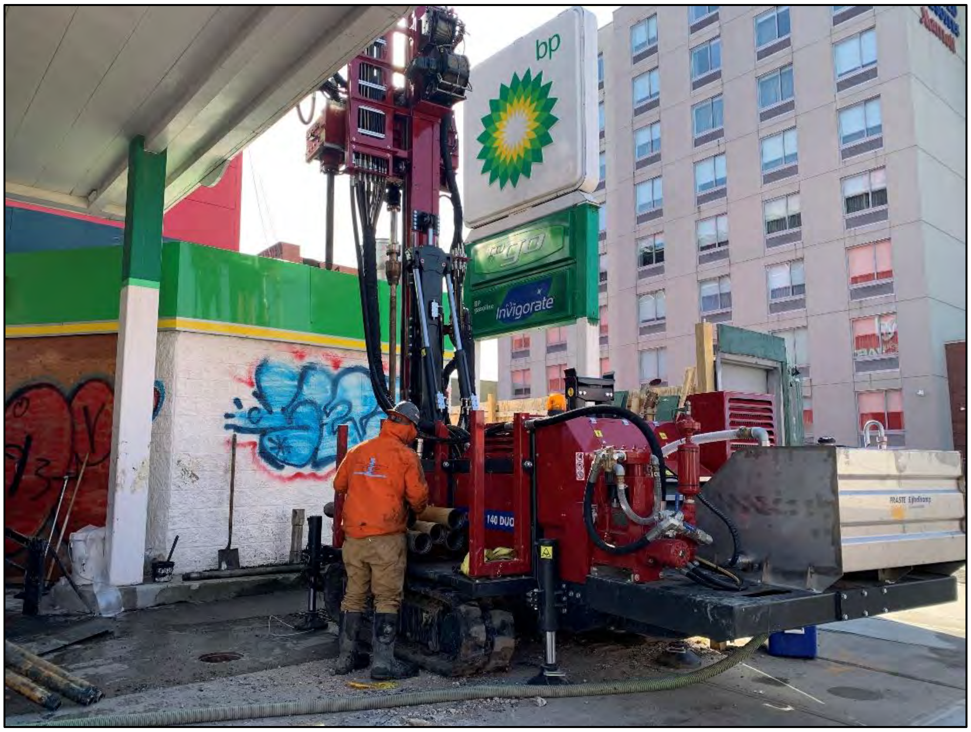


Photo 1: View of deep soil boring activities at HA-22.

Photo 2: View of 90 to 100 ft bgs interval of deep soil boring HA-22.

NYSDEC Site C224375
556 Baltic Street, Brooklyn, NY
Project No. 0204090
Daily Air Monitoring Log

Date: 2/27/2023
Personnel: L. McCartney
Weather: Partly Cloudy
Humidity: 25%
Temperature: 28-38°F
Wind Direction: W

PID Background (ppm): 0.0

Site Map:

Time	Visual Dust Particulates (Y/N)	Visual Dust Particulates (Y/N)	PID (ppm)	PID (ppm)	Odors (Y/N)	Notes/Comments
	Upwind	Downwind	Upwind	Downwind		
715	N	N	0.0	0.0	N	
730	N	N	0.0	0.0	N	
745	N	N	0.0	0.0	N	
800	N	N	0.0	0.0	N	
815	N	N	0.0	0.0	N	
830	N	N	0.0	0.0	N	
845	N	N	0.0	0.0	N	
900	N	N	0.0	0.0	N	
915	N	N	0.0	0.0	N	
930	N	N	0.0	0.0	N	
945	N	N	0.0	0.0	N	
1000	N	N	0.0	0.0	N	
1015	N	N	0.0	0.0	N	
1030	N	N	0.0	0.0	N	
1045	N	N	0.0	0.0	N	
1100	N	N	0.0	0.0	N	
1115	N	N	0.0	0.0	N	
1130	N	N	0.0	0.0	N	
1145	N	N	0.0	0.0	N	
1200	N	N	0.0	0.0	N	
1215	N	N	0.0	0.0	N	
1230	N	N	0.0	0.0	N	
1245	N	N	0.0	0.0	N	
1300	N	N	0.0	0	N	
1315	N	N	0	0	N	
1330	N	N	0	0	N	
1345	N	N	0	0	N	
1400	N	N	0	0	N	