IKOS Senior Living
31-07 31st Street
QUEENS, NEW YORK

Remedial Investigation Report

OER Project Number: 24TMP1507Q

E-Designation: E-1001

Prepared For:

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LIST OF ACRONYMS

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

CERTIFICATION

I, Deborah Shapiro, am a Qualified Environmental Professional, as defined in RCNY § 43-1402(ar). I have primary direct responsibility for implementation of the Remedial Investigation for the 31-07 31st Street Site, (NYC VCP Site No. site number). I am responsible for the content of this Remedial Investigation Report (RIR), have reviewed its contents and certify that this RIR is accurate to the best of my knowledge and contains all available environmental information and data regarding the property.

Qualified Environmental Professional Date Signature

EXECUTIVE SUMMARY

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

Site Location and Current Usage

The Site is located at 31-07 31st Street in the Astoria section of Queens, New York and is identified as Block 611 and Lot 25 on the New York City Tax Map. Figure 1 shows the Site location. The Site is approximately 20,880-square feet and is bounded by commercial uses to the north, residential and institutional uses to the south, commercial uses, residential uses, and 32nd Street to the east, and 31st Street and an elevated subway station to the west. A map of the Site boundary is shown in Figure 2. Currently, the Site is used as a municipal, asphalt-paved parking lot and is not developed with any permanent structures.

Summary of Proposed Redevelopment Plan

The proposed future use of the Site will consist of the construction of two new buildings: a 13-story mixed-use building with approximately 167 affordable senior residential units and partial cellar level is proposed along 31st Street, and a three-story community facility building with slab-on-grade is proposed on 32nd Street. The two buildings will be connected through a one-story community room. Excavation will be required to approximately 12 feet below grade for the cellar level, to approximately 6 feet below grade for the crawl space, and to approximately 2 feet below grade for the slab-on-grade portion and outside the building footprint. Layout of the proposed site development is presented in Figure 2. The Site will be rezoned from a R5 with a C1-2 overlay to a C4-5 district along 31st Street and from R5 to C4-2A along 32nd Street.

Summary of Past Uses of Site and Areas of Concern

Historical maps were reviewed for indications of uses (or other evidence) suggesting hazardous materials generation, usage or disposal on or near the Site, specifically Sanborn Fire Insurance Maps in multiple years between 1898 and 2006. In 1898 and 1915, the Site was depicted as multiple vacant lots with one dwelling and associated shed located on the northern portion of the Site. In 1936, the Site remained mostly unchanged except for the addition of a one-car garage to the east of the previously identified dwelling. The Site continued as unchanged until 1979-1896, when the identified dwelling was no longer depicted on the Site, while the one-car garage remained. The western portion of the Site was now identified as parking. In 1988-1989 the Site was developed in its current configuration, as the one-car garage was no longer identified on the Site, and the entirety of the Site was labeled as parking.

The following environmental issues are considered Areas of Concern (AOCs) for the Site:

1. Elevated concentrations of polycyclic aromatic hydrocarbons (PAHs) exceeding the New York State Department of Environmental Conservation (NYSDEC) Unrestricted Use Soil Cleanup Objectives (UUSCOs) and Restricted Residential Soil Cleanup Objectives (RRSCOs) in soil. The samples exhibiting the highest concentrations were generally encountered in the northeastern portion of the Site.
2. Elevated concentrations of chlorinated solvents in groundwater and soil vapor samples. The samples exhibiting the highest concentrations in groundwater were generally encountered in the central portions of the Site and the highest concentration in soil vapor was detected in the southern portion of the Site.

Summary of the Work Performed under the Remedial Investigation

On behalf of Ikos Senior Living LLC, AKRF performed the following scope of work in general accordance with the OER-approved Phase II Work Plan, dated November 2024:

1. Conducted a Site inspection to identify AOCs and physical obstructions (i.e. structures, buildings, etc.);
2. Installed nine soil borings across the Site, and collected 23 soil samples for chemical analysis from the soil borings to evaluate soil quality;
3. Installed three groundwater monitoring wells throughout the Site to establish groundwater flow and collected three groundwater samples for chemical analysis to evaluate groundwater quality; and
4. Installed three soil vapor probes and collected three soil vapor samples for chemical analysis.

Summary of Environmental Findings

1. Based on the U.S. Geological Survey, Central Park, New York 2013 Quadrangle map, the Site lies at approximately 50 feet above mean sea level, with the general surrounding area topography gently sloping down in a westerly direction towards the East River. Based on an architectural survey dated September 2021, elevation of the property ranges from 49 to 57 feet above mean sea level.
2. The depth to groundwater was measured using a Solinst® oil/water interface probe. Depth to groundwater beneath the Site ranged from approximately 31.40 feet below grade in the eastern portion of the Site at temporary well TW-08 to 35.06 feet below grade in the southwestern portion of the Site at temporary well TW-10.
3. Based upon a review of topographical data, groundwater is assumed to flow in a westerly direction toward the East River; however, actual groundwater flow at the Site can be affected by many factors, including past filling activities, underground utilities, and other subsurface openings or obstructions such as basements, nearby subway lines, and other factors beyond the scope of this study. There are no surface water bodies or streams on or immediately adjacent to the Site. Groundwater in this portion of Queens is not used as a source of potable water.
4. Based on USGS mapping, bedrock is expected at approximately 50 to 60 feet below grade in this area of Queens.
5. The stratigraphy of the Site consists of fill (consisting of brown sand, silt, and gravel, with varying amounts of brick, asphalt, and concrete) down to approximately 3 to 11 feet below grade, underlain by apparent native sand with trace to little amounts of gravel to the boring terminus.
6. Twenty-three soil samples were collected for laboratory analysis during this investigation. The analytical results for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), pesticides and metals were compared to the NYSDEC UUSCOs and RRSCOs. One sample (SB-08_0-2_20241213) was also analyzed for PFAS, and the analytical results were compared to the Unrestricted Use Guidance Values (UUGVs) and the Restricted Residential Guidance Values (RRGVs) as outlined in NYSDEC's *Sampling, Analysis and Assessment of PFAS* guidance dated April 2023. The results are summarized below:
    - VOCs were detected at concentrations up to 0.087 milligrams per kilogram (mg/kg), below the UUSCOs and RRSCOs.
    - Six SVOCs [benzo(a)anthracene (max. 2.8 mg/kg), benzo(a)pyrene (max. 2.7 mg/kg), benzo(b)fluoranthene (max. 3.8 mg/kg), benzo(k)fluoranthene (max. 1.4 mg/kg), chrysene (max. 2.8 mg/kg), and indeno(1,2,3-c,d)pyrene (max. 1.4 mg/kg)] were detected above the UUSCOs and/or RRSCOs in five soil samples.

- The following four metals were detected above their respective UUSCOs in one or more of the soil samples: copper (max. 62.3 mg/kg), lead (max. 379 mg/kg), mercury (max. 0.27 mg/kg), and zinc (max. 173 mg/kg). No metals were detected above the RRSCOs.
- PCBs were not detected above laboratory reporting limits in any of the soil samples analyzed during the investigation.
- The pesticides P,P'-DDE and P,P'-DDT were detected in one sample at concentrations of 0.004 mg/kg and 0.008 mg/kg, respectively, above the UUSCO of 0.0033 mg/kg, but below their respective RRSCOs.
- Perfluorooctanesulfonic acid (PFOS) was detected in the soil sample analyzed (SB-08_0-2_20241213) at a concentration of 2.17 parts per billion (ppb), above the UUSCO guidance value of 0.88 ppb, but below the RRSCO guidance value of 44 ppb. Perfluorooctanoic acid (PFOA) and 1,4-dioxane were not detected above laboratory reporting limits.

7. Three groundwater samples were collected during the RI for laboratory analysis from the three temporary monitoring wells (TW-08 through TW-10). Groundwater sample analytical results for VOCs, SVOCs, PCBs, pesticides, metals (total and dissolved), and 1,4-dioxane were compared to the NYSDEC Class GA Ambient Water Quality Standards and Guidance Values (AWQSGVs), which were developed based on use as a source of drinking water, although groundwater in this portion of Queens is not used as a source of potable water. The results are summarized below:
    - Six VOCs [bromodichloromethane, chloroform, cis-1,2-dichloroethylene, dibromochloromethane, tetrachloroethylene (PCE), and trichloroethylene (TCE)] were detected in one or more groundwater samples at concentrations ranging from 0.34 micrograms per liter (µg/L) of bromodichloromethane to 310 µg/L of PCE. PCE was detected in all three groundwater samples at concentrations ranging from 60 to 310 µg/L, above the AWQSGV of 5 µg/L.
    - Three SVOCs, 1,4-dioxane, caprolactam, and di-n-butyl phthalate, were detected in one or more of the groundwater samples at concentrations up to 21 µg/L, below their respective AWQSGVs.
    - The following 14 metals were detected above the AWQSGVs in one or more of the total (unfiltered) samples: arsenic (max. 73.3 µg/L), barium (max. 4,580 µg/L), beryllium (max. 14 µg/L), total chromium (max. 1,350 µg/L), copper (max. 1,000 µg/L), iron (max. 667,000 µg/L), lead (max. 707 µg/L), magnesium (max. 370,000 µg/L), manganese (max. 18,400 µg/L), mercury (max. 1.1 µg/L), nickel (max. 814 µg/L), sodium (max. 123,000 µg/L), thallium (max. 1.6 µg/L), and zinc (max. 2,040 µg/L). Manganese and sodium were also detected above the AWQSGVs in the dissolved (filtered) groundwater samples.
    - No PCBs or pesticides were detected above laboratory reporting limits in any of the groundwater samples.
    - 1,4-Dioxane was detected in two groundwater samples at concentrations up to 0.13 µg/L, below the AWQSGV of 0.35 µg/L.
8. Three soil vapor samples were collected for laboratory analysis during the RI from the three temporary soil vapor points. Soil vapor samples were analyzed by EPA Method TO-15 for VOCs and results were compared to the NYSDOH Final Guidance for Evaluating Soil Vapor Intrusion matrices dated October 2006 (updated May 2017 and February 2024). The results are as follows.
    - Petroleum-related VOCs were detected at concentrations ranging from 2.3 micrograms per cubic meter (µg/m^3) to 66 µg/m^3.

- Solvent-related VOCs were detected at concentrations ranging from 1.4 µg/m^3 to 25 µg/m^3.
- No compounds were detected above the NYSDOH Soil Vapor/Indoor Air Matrices requiring mitigation, regardless of indoor air concentration.

REMEDIAL INVESTIGATION REPORT

1.0 SITE BACKGROUND

The 31-07 31st Street Site has been assigned an E-Designation to investigate and remediate an approximately 0.48-acre site located in the Astoria section of Queens, New York. Residential use is proposed for the property. The Remedial Investigation (RI) work was performed between December 11 and 13, 2024 in accordance with the November 2024 Phase II Work Plan (Work Plan). This RIR summarizes the nature and extent of contamination and provides sufficient information for establishment of remedial action objectives, evaluation of remedial action alternatives, and selection of a remedy that is protective of human health and the environment consistent with the use of the property pursuant to RCNY§ 43-1407(f).

1.1 Site Location and Current Usage

The Site is located at 31-07 31st Street in the Astoria section of Queens, New York and is identified as Block 611 and Lot 25 on the New York City Tax Map. Figure 1 shows the Site location. The Site is approximately 20,880-square feet and is bounded by commercial uses to the north, residential and institutional uses to the south, commercial uses, residential uses, and 32nd Street to the east, and 31st Street and an elevated subway station to the west. A map of the site boundary is shown in Figure 2. Currently, the Site is used as a municipal, asphalt-paved parking lot and is not developed with any permanent structures.

1.2 Proposed Redevelopment Plan

The proposed future use of the Site will consist of the construction of two new buildings: a 13-story residential building with approximately 167 affordable senior residential units and partial cellar level is proposed along 31st Street, and a three-story community facility building with full cellar level is proposed on 32nd Street. The two buildings will be connected through a one-story community room. Excavation will be required to approximately 12 feet below grade for the cellar level, to approximately 6 feet below grade for the crawl space, and to approximately 2 feet below grade for the slab-on-grade portion and outside the building footprint. Layout of the proposed site development is presented in Figure 2. The Site will be rezoned from R5 with a C1-2 overlay to a C4-5 district along 31st Street and from R5 to C4-2A along 32nd Street.

1.3 Description of Surrounding Property

The Site is abutted to the north by commercial/retail units, followed by Broadway; to the west by 31st Street and an elevated subway station, followed by commercial/retail and residential units; to the south by residential units and the Cretans Association Omonia, Inc. Cultural Facility, followed by retail and commercial units; and to the east by residential units and 32nd Street. The greater surrounding area was primarily commercial/retail, residential, and transit uses.

One sensitive receptor is located within 500 feet of the Site: The Learning Experience daycare located at 31-57 31st Street is approximately 330 feet north-northeast of the Site.

Figure 3 shows the surrounding land usage.

2.0 SITE HISTORY

2.1 Past Uses and Ownership

Historical maps were reviewed for indications of uses (or other evidence) suggesting hazardous materials generation, usage or disposal on or near the Site, specifically Sanborn Fire Insurance Maps in multiple years between 1898 and 2006. In 1898 and 1915, the Site was depicted as multiple vacant lots with one dwelling and associated shed located on the northern portion of the Site. In 1936, the Site remained mostly unchanged except for the addition of a one-car garage to the east of the previously identified dwelling. The Site continued as unchanged until 1979-1896, when the identified dwelling was no longer depicted on the Site, while the one-car garage remained. The western portion of the Site was now identified as parking. In 1988-1989 the Site was developed in its current configuration, as the one-car garage was no longer identified on the Site, and the entirety of the Site was labeled as parking.

Sanborn maps identified primarily residential and commercial historical uses, adjacent to the Site and surrounding area. Some of the pertinent commercial listings between circa 1936 and 2006 included a filling station located north-northeast of the Site; a garage and auto repair shop with gasoline tanks located northwest of the Site; a dry cleaners located northeast of the Site; and a machine shop and warehouse located southwest of the Site.

2.2 Previous Investigations

Previous reports prepared for the Site are included in Appendix A and summarized below.

Phase I Environmental Site Assessment – 31-07 31st Street, Astoria, NY, AKRF, Inc., June 2021

AKRF prepared a Phase I Environmental Site Assessment (ESA) for the Site in June 2021 in accordance with the requirements of American Society for Testing and Materials (ASTM) Standard E1527-13 (the applicable standard at that time). At the time of AKRF's assessment, the Site was occupied by a municipal parking lot with no structures. The Phase I ESA included a review of current and historical Sanborn Fire Insurance maps; state and federal environmental regulatory databases; local records; and reconnaissance of the Site and its surroundings. Based on the findings of the Phase I ESA, the following Recognized Environmental Conditions (RECs) and De Minimus conditions were identified:

- One groundwater monitoring well was observed on the 31st Street sidewalk west-adjacent of the Site.
- Sanborn maps, city directories, and the environmental databases reviewed identified automotive and dry-cleaning uses in the surrounding area.

AKRF identified the following Business Environmental Risks (BERs) outside the scope of ASTM E1527-13:

- Buried demolition debris from former on-site structures could contain asbestos-containing materials (ACM), lead-based paint (LBP), polychlorinated biphenyls (PCBs), and/or underground storage tanks.
- Three five-gallon containers of orphan waste were located on the southeastern-most corner of the Site. Two of the three containers were labeled as kerosene and lacquer; the third container was unmarked.

Subsurface (Phase II) Investigation Report – 31-07 31st Street, Astoria, NY, AKRF, Inc., January 2024

AKRF conducted a Phase II investigation at the Site in October 2022 in accordance with a New York City Department of Environmental Protection (NYCDEP)-approved Phase II Work Plan, dated June 2022. Field activities included a geophysical survey, the advancement of seven soil borings, and the installation of four temporary wells and five soil vapor probes, with the collection of 14 soil samples, 4 groundwater samples, and 5 soil vapor samples for laboratory analysis. A summary of the findings is provided below:

- Fill material was encountered at depths ranging from just below surface grade down to approximately 5 to 14 feet below grade. The fill material was underlain by apparent native material consisting of sand and gravel. Groundwater, as measured from the temporary wells, was encountered between approximately 30.3 and 36.6 feet below grade. No field evidence of contamination was noted in the soil borings or groundwater samples.
- Two soil samples were collected from each boring and analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), pesticides, and metals. The 14 soil samples were compared to the New York State Department of Environmental Conservation (NYSDEC) Part 375 Unrestricted Use Soil Cleanup Objectives (UUSCOs) and Restricted Residential Use Soil Cleanup Objectives (RRSCOs). Acetone was detected above the UUSCO in two samples; no VOCs were detected above the RRSCOs. Seven SVOCs were detected above the UUSCOs and/or RRSCOs, including benzo(a)anthracene [max. 25 milligrams per kilogram (mg/kg)], benzo(a)pyrene (max. 23 mg/kg), benzo(b)fluoranthene (max. 29 mg/kg), benzo(k)fluoranthene (max. 7.6 mg/kg), chrysene (max. 23 mg/kg), dibenz(a,h)anthracene (max 2.7 mg/kg), and indeno(1,2,3-c-d)pyrene (max. 17 mg/kg). Four metals were detected in up to four samples above their UUSCOs, but below the RRSCOs, including copper (max. 63.1 mg/kg), lead (max. 283 mg/kg), mercury (max. 0.59 mg/kg), and zinc (max. 149 mg/kg). The pesticide P,P'-DDT was detected in sample SB-05_0-2_20221004 at a concentration of 0.0063 mg/kg above the UUSCO of 0.0033 mg/kg, but below the RRSCO.
- Four groundwater samples were collected from temporary wells TW-01 through TW-04 (installed in borings SB-01 through SB-04) and analyzed for VOCs, SVOCs, PCBs, pesticides, and metals (total and dissolved). Three VOCs [tetrachloroethylene (PCE) (max. 330 micrograms per liter (µg/L)], cis-1,2-dichloroethene (max. 14 µg/L), and chloroform (max. 9.2 µg/L)] were detected in at least one of the four samples above the NYSDEC Class GA Ambient Water Quality Standards and Guidance Values (AWQSGVs). Six SVOCs, including benzo(a)anthracene (max. 2.1 µg/L), benzo(a)pyrene (max. 1.6 µg/L), benzo(b)fluoranthene (max. 2.2 µg/L), bis(2-ethylhexyl) phthalate (max. 6.2 µg/L), chrysene (max 2 µg/L), and indeno(1,2,3-c-d)pyrene (max. 1.6 µg/L), were detected in sample TW-01_20221005 at concentrations above the AWQSGVs. In the unfiltered (total) metals analysis, 14 metals were detected at concentrations above the AWQSGVs, including arsenic (max. 62.9 µg/L), barium (max. 3,540 µg/L), beryllium (max. 14.2 µg/L), chromium, total (max. 3,390 µg/L), copper (max. 1,340 µg/L), iron (max. 971,000 µg/L), lead (max. 857 µg/L), magnesium (max. 355,000 µg/L), manganese (max. 24,600 µg/L), mercury (max. 1.7 µg/L), nickel (max. 922 µg/L), sodium (max. 140,000 µg/L), thallium (max. 5.1 µg/L), and zinc (max. 2,640 µg/L). In the filtered (dissolved) metals analysis, four metals, including iron (max. 1,630 µg/L), magnesium (max. 45,900 µg/L), manganese (max. 450 µg/L), and sodium (max. 141,000 µg/L) were detected at concentrations above the AWQSGVs. No PCBs or pesticides were detected above laboratory reporting limits in the groundwater samples.

- Several solvent-related VOCs [including PCE (max 1,900 µg/L), trichloroethylene (TCE) (max. 45 µg/L), and cis-1,2-dichloroethylene (max. 200 µg/L)] were detected in the soil vapor samples. Petroleum-related VOCs benzene, toluene, ethylbenzene, and xylenes (collectively referred to as BTEX) were detected in up to all five soil vapor samples at concentrations up to 29 µg/m^3 (toluene in SV-04_20221003).

2.3 Site Inspection

On December 12, 2024, Mr. Stephen Schmid and Mr. Jonas Peters of AKRF conducted a reconnaissance of the Site as part of the RI. The weather was rainy and approximately 56 °F, with generally good visibility. Some of the parking spaces were occupied by vehicles. As a result, surface conditions of the Site were not fully visible during inspection.

At the time of the inspection, the Site consisted of a municipal parking lot for short-term parking and was generally bounded by commercial/retail units to the north, residential/commercial units to the south, residential units and 32nd Street to the east, and 31st Street/an elevated subway station to the west.

The asphalt pavement of the lot was in fair condition, with some surficial cracking and patches observed. Several pole lights and traffic barriers were observed on Site. No other above-grade structures were observed on the Site. Three apparent storm drains were observed and were connected to the municipal sewer system. Utility manholes were observed along 31st Street and 32nd Street.

No pits, ponds, or lagoons exhibiting evidence (e.g., discolored water, distressed vegetation, obvious wastewater discharge) of holding liquids or sludge containing hazardous substances or petroleum products were observed on the Site.

2.4 Areas of Concern

The following environmental issues discussed in Section 2.2 are considered Areas of Concern (AOCs) for the Site:

1. Elevated concentrations of polycyclic aromatic hydrocarbons (PAHs) exceeding the UUSCOs and RRSCOs in soil samples. The samples exhibiting the highest concentrations were generally encountered in the northeastern portion of the Site.
2. Elevated concentrations of chlorinated solvents in groundwater and soil vapor samples. The samples exhibiting the highest concentrations in groundwater were generally encountered in the central portions of the Site and the highest concentration in soil vapor was detected in the southern portion of the Site.

3.0 PROJECT MANAGEMENT

3.1 Project Organization

The Qualified Environmental Profession (QEP) responsible for preparation of this RIR is Deborah Shapiro.

3.2 Health and Safety

All work described in this RIR was performed in full compliance with applicable laws and regulations, including Site and Occupational Safety and Health Administration (OSHA) worker safety requirements and Hazardous Waste Operations and Emergency Response (HAZWOPER) requirements. The work described in this RIR was also performed in accordance with a site-specific Health and Safety Plan (HASP).

3.3 Materials Management

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

4.0 REMEDIAL INVESTIGATION ACTIVITIES

On behalf of Ikos Senior Living LLC, AKRF performed the following scope of work in general accordance with the OER-approved Phase II Work Plan, dated November 2024:

1. Conducted a Site inspection to identify AOCs and physical obstructions (i.e. structures, buildings, etc.);
2. Installed nine soil borings across the Site, and collected 23 soil samples for chemical analysis from the soil borings to evaluate soil quality;
3. Installed three groundwater monitoring wells throughout the Site to establish groundwater flow and collected three groundwater samples for chemical analysis to evaluate groundwater quality; and
4. Installed three soil vapor probes and collected three soil vapor samples for chemical analysis.

4.1 Geophysical Investigation

On December 11, 2024, a geophysical survey was conducted by Coastal Environmental Solutions, Inc (Coastal) of Long Beach, New York across accessible areas of the Site, to clear the proposed soil boring locations for subsurface utilities and/or structures. The geophysical survey included electromagnetic (EM) and ground penetrating radar (GPR) methods. During the geophysical survey, multiple shallow electrical lines associated with on-site lighting and parking meters were located and marked with spray paint. Several manholes connected to the municipal sewer system were also identified. The geophysical investigation report is attached as Appendix B. In addition to the geophysical survey, Coastal, the drilling contractor, notified Dig Safely New York at least 3 days prior to the start of the intrusive investigation work.

4.2 Borings and Monitoring Wells

4.2.1 Drilling and Soil Logging

On December 11 through 13, 2024, Coastal advanced eight soil borings (SB-04, and SB-08 through SB-15). The borings were advanced continuously using a track-mounted Geoprobe® Direct Push Probe (DPP) drill rig at the locations shown on Figure 2.

The borings were advanced to enable collection of soil samples from the proposed excavation depths and delineate contamination identified during the previous Phase II investigation. Soil borings SB-04 and SB-13 through SB-15 were advanced to approximately 5 feet below grade (bg), soil boring SB-11 was advanced to approximately 10 feet bg, soil boring SB-12 was advanced to approximately 15 feet bg, and soil borings SB-08 through SB-10 were advanced to approximately 40 feet bg (approximately 5 to 7 feet below the groundwater interface) to facilitate installation of temporary wells and collection of groundwater samples. During sampling at each boring location, soil samples were collected in five-foot long, two-inch diameter, stainless steel macrocore piston rod samplers fitted with dedicated internal acetate liners. Each core was split lengthwise and field-screened by AKRF personnel for organic vapors using a photoionization detector (PID), which measures relative concentrations of VOCs. The PID was calibrated at the start of each workday with 100 parts per million (ppm) isobutylene gas and fresh air in accordance with the manufacturer's specifications. Soil cores were also screened for visual and olfactory impacts (e.g., staining, sheen, or odor) prior to the collection of environmental samples, and logged using the modified Burmeister Classification System. All field work activities were recorded in a field book and on soil boring logs.

Soil boring locations are shown on Figure 2. Boring logs are included in Appendix C.

4.2.2 Groundwater Monitoring Well Construction

Three temporary monitoring wells (TW-08 through TW-10) were installed by Coastal on December 12 and 13, 2024. Soil borings advanced at the Site were retrofitted with 1-inch-diameter temporary wells constructed of polyvinyl chloride (PVC). Each temporary well consisted of 10-feet of 0.020-slotted well screen which extended approximately 5 feet into the groundwater table and a solid riser to grade. The annular space between the well screen and borehole was backfilled with No.2 Morie sand.

The temporary monitoring wells were sampled using dedicated high-density polyethylene (HDPE) tubing and a submersible pump. The wells were purged of a minimum of three well volumes prior to sampling. Prior to collecting groundwater samples, the temporary monitoring wells were gauged with an oil/water interface probe prior to sampling to record depth to groundwater and depth to bottom readings (to 1/100 of a foot), and to confirm or deny the presence of any non-aqueous phase liquid (NAPL). The purged groundwater was field screened for evidence of contamination (i.e., elevated PID readings, odor, or sheen) and water quality parameters including temperature, dissolved oxygen, pH, turbidity, conductivity, and oxidation reduction potential were recorded using a YSI ProDSS multiparameter digital water quality meter. Sampling was conducted in accordance with NYSDEC *Draft DER-10 Technical Guidance for Site Investigation and Remediation,* dated May 2010, and *Sampling Guidelines and Protocols,* dated March 1991.

Temporary groundwater monitoring well locations are shown on Figure 2. Groundwater monitoring well construction logs are included in Appendix C and groundwater sampling logs are included in Appendix D.

4.2.3 Survey

At each soil boring, temporary well, and soil vapor point distances were recorded using a measuring wheel to determine the location in respect to fixed object reference points (the Site boundary or permanent on-site structures).

4.2.4 Water Level Measurement

Prior to the collection of groundwater samples, each temporary well was gauged with an oil/water interface probe attached to a measuring tape accurate to 0.01 feet, to measure depth to water and total well depth. During gauging activities, groundwater levels ranged from 31.40 to 35.06 feet bg. No evidence of non-aqueous phase liquid (NAPL) was detected in the temporary wells or on the purge water. Depth to water measurements are summarized in Table 1.

4.3 Sample Collection and Chemical Analysis

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

4.3.1 Soil Sampling

During this investigation, 23 soil samples were collected for chemical analysis from the soil boring locations indicated on Figure 2. In accordance with the Work Plan, samples were collected from 0 to 2 feet at each boring location and a second sample was collected from the 2-foot interval at the bottom of the proposed excavation depth of either 4 feet, 6 feet, or 12 feet. A third sample was collected from select borings within the fill layer to delineate previously identified contamination.

All equipment was properly decontaminated between each sampling event and after each use to prevent the cross-contamination of samples. Non-disposable equipment was field decontaminated by scrubbing with a non-phosphate detergent (i.e., Alconox® or Simple Green®) and rinsing with distilled water prior to use at each sample location. Soil samples were placed in laboratory-supplied containers in ice-filled coolers and submitted to the laboratory via courier with appropriate chain-of-custody documentation. Soil samples were submitted to Eurofins Edison (Eurofins) of Edison, New Jersey, a New York State Department of Health (NYSDOH)-certified laboratory for analysis of Target Compound List (TCL) VOCs by U.S. Environmental Protection Agency (EPA) Method 8260, TCL SVOCs by EPA Method 8270, TCL pesticides by EPA Method 8081, PCBs by EPA Method 8082, and Target Analyte List (TAL) metals by EPA 6000/7000 series. One sample (SB-08_0-2_20241213) was additionally analyzed for the per- and polyfluoroalkyl substances (PFAS) by EPA Method 1633 and 1,4-dioxane by EPA Method 8270D. One aqueous trip blank was included with sample shipment for Quality Assurance/Quality Control (QA/QC) purposes and was analyzed for VOCs only.

Data on soil sample collection, including chemical analyses, dates of collection, and sample depths, are reported in Tables 3 through 8. Laboratory analytical methods are discussed in Section 4.3.4 below.

4.3.2 Groundwater Sampling

During this investigation, three groundwater samples were collected for chemical analysis from three temporary groundwater monitoring wells.

Groundwater samples were collected using a peristaltic pump and dedicated tubing. Groundwater samples were placed in laboratory-supplied containers in ice-filled coolers and submitted to Eurofins via courier with appropriate chain-of-custody documentation. Groundwater samples were analyzed for TCL VOCs by EPA Method 8260, TCL SVOCs by EPA Method 8270, TCL pesticides by EPA Method 8081, PCBs by EPA Method 8082, per- and polyfluoroalkyl substances (PFAS) by EPA Method 1633, 1,4-dioxane by EPA Method 8270, and TAL metals by EPA 6000/7000 series. The groundwater analysis for metals were conducted on both filtered (total) and unfiltered (dissolved) samples. Filtering occurred in the field using dedicated 0.45 micron field filters. One aqueous trip blank was included with sample shipment for QA/QC purposes and was analyzed for VOCs only.

The groundwater sample jars for PFAS analysis were handed off to the lab courier; however, the cooler was lost during transit to the Eurofins Cleveland laboratory in Barberton, Ohio.

Data on groundwater sample collection, including chemical analyses and dates of collection, are reported in Tables 9 through 14. Laboratory analytical methods are discussed in Section 4.3.4 below.

4.3.3 Soil Vapor Sampling

Three soil vapor probes were installed at the locations shown on Figure 2 and three soil vapor samples were collected for chemical analysis. The soil vapor probes were installed using a track-mounted Geoprobe® DPP unit to advance a 0.75-inch-diameter hollow probe rod fitted with a 6-inch-long stainless steel screened implant. As specified in the Phase II Work Plan, the soil vapor points were set at the proposed excavation depths. Soil vapor points SV-06 and SV-07 were installed to approximately 2 feet bg and soil vapor point SV-11 was installed to approximately 6 feet bg.

At each location, a 6-inch long, 0.5-inch diameter stainless steel vapor screen implant was installed at the target depth, and dedicated Teflon™-lined tubing extending above grade was threaded into the drive point. The probe was then retracted approximately six inches to create a void. No. 2 Morie sand was used to fill the annular space around the vapor point to 6 to 12 inches above the screen. Hydrated bentonite was used to fill the remaining void around the sampling tubing to the ground surface.

Prior to sampling the soil vapor points, approximately three sampler volumes were purged using a Gilair Plus low flow sampling pump. During purging, an inverted bucket was placed over each sampling point and tubing and sealed with hydrated bentonite. Helium was introduced to saturate the atmosphere through a small hole in the bucket. Purged vapors were collected in dedicated 1-liter Tedlar® bags and field-screened with a portable helium detector to check for short-circuiting by ambient air (i.e., to verify the adequacy of the bentonite seal above the probe so that samples would be representative of soil vapor conditions). Helium concentrations less than the NYSDOH guideline of 10 percent were considered sufficient to verify the integrity of the seal. The Tedlar® bags were also screened for organic vapors using the PID. The flow rate did not exceed 0.2 liters per minute during purging. After purging, the tubing was connected to a laboratory-supplied batch-certified clean 1-liter SUMMA canister equipped with a flow regulator to collect a sample over approximately two hours. Immediately after opening the flow control valve, the initial SUMMA® canister vacuum (inches of mercury) was noted. After approximately two hours, the flow controller valve was closed, the final vacuum noted, and the canister placed in a shipping carton for delivery with appropriate chain-of-custody documentation to Eurofins, a NYSDOH ELAP-certified laboratory for analysis of VOCs be EPA Method TO-15. After sampling, the soil vapor points were removed, the boreholes were backfilled, and the surface was restored to pre-sampling conditions.

Soil vapor sample collection data is reported in Table 15. Soil vapor sampling logs are included in Appendix E.

Soil vapor sampling logs are included in Appendix E. Methodologies used for soil vapor assessment conform to the *NYSDOH Final Guidance on Soil Vapor Intrusion, October 2006.*

4.3.4 Chemical Analysis

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

Factor	Description
Quality Assurance Officer	The chemical analytical quality assurance was directed by Carl Armbruster of Eurofins.
Chemical Analytical Laboratory	Chemical analytical laboratory used in the RI was Eurofins, a NYS ELAP-certified laboratory.

Chemical Analytical Methods	Soil analytical methods: • TAL Metals by EPA Method 6010 and 7471 (rev. 2007); • VOCs by EPA Method 8260 (rev. 2006); • SVOCs by EPA Method 8270 (rev. 2007); • Pesticides by EPA Method 8081 (rev. 2000); • PCBs by EPA Method 8082 (rev. 2000); • Per- and Polyfluroalkyl Substances (PFAS) by EPA Method 1633 and 1,4-dioxane by EPA Method 8270D Groundwater analytical methods: • TAL Metals by EPA Method 6010C (rev. 2007); • VOCs by EPA Method 8260C (rev. 2006); • SVOCs by EPA Method 8270D (rev. 2007); • Pesticides by EPA Method 8081B (rev. 2000); • PCBs by EPA Method 8082A (rev. 2000); • 1,4-dioxane by EPA Method 8270D SIM Soil vapor analytical methods: • VOCs by TO-15 VOC parameters.

4.3.5 Results of Chemical Analyses

Laboratory data for soil, groundwater and soil vapor are summarized in Table 3 through 8, 9 through 14, and 15, respectively. Laboratory data deliverables for all samples evaluated in this RIR are provided in digital form in Appendix F.

5.0 ENVIRONMENTAL EVALUATION

5.1 Geological and Hydrogeological Conditions

The Site is relatively level, with the topography of the general surrounding area gently sloping down in a westerly direction. Based on an architectural survey dated September 2021, elevation of the Site ranges from 49 to 57 feet above mean sea level.

5.1.1 Stratigraphy

The stratigraphy of the Site consists of fill material (consisting of brown sand, silt, and gravel, with varying amounts of brick, asphalt, and concrete) down to approximately 3 to 11 feet below grade, underlain by apparent native sand with trace to little amounts of gravel to the boring terminus. Bedrock was not encountered in any of the borings during this investigation.

5.1.2 Hydrogeology

The depth to groundwater was measured using a Solinst® oil/water interface probe. Depth to groundwater beneath the Site ranged from approximately 31.40 feet below grade in the eastern portion of the Site at temporary well TW-08 to 35.06 feet below grade in the southwestern portion of the Site at temporary well TW-10. Based upon a review of topographical data, groundwater is assumed to flow in a westerly direction toward the East River, approximately 1 mile west of the Site; however, actual groundwater flow at the Site can be affected by many factors, including past filling activities, underground utilities, and other subsurface openings or obstructions such as basements, nearby subway lines, and other factors beyond the scope of this study. There are no surface water bodies or streams on or immediately adjacent to the Site. Groundwater in this portion of Queens is not used as a source of potable water.

A summary of water level data for all temporary monitoring wells is included in Table 1. The average depth to groundwater is 33.04 and the range in depth is 31.4 to 35.06.

5.2 Soil Chemistry

Twenty-three soil samples were collected for laboratory analysis during the RI from soil borings SB-04, and SB-08 through SB-15. The analytical results for VOCs, SVOCs, PCBs, pesticides and metals were compared to the NYSDEC 6 New York Codes, Rules, and Regulations (NYCRR) Part 375 UUSCOs and RRSCOs. One sample (SB-08_0-2_20241213) was also analyzed for PFAS, and the analytical results were compared to the Unrestricted Use Guidance Values (UUGVs) and the Restricted Residential Guidance Values (RRGVs) as outlined in NYSDEC's *Sampling, Analysis and Assessment of PFAS* guidance dated April 2023. One aqueous trip blank was included with the sample shipment for QA/QC purposes and was analyzed for VOCs only. Soil sample analytical results are presented in Tables 3 through 8. Figure 4 shows the location and posts the values for soil/fill that exceed the NYSDEC UUSCOs, RRSCOs, and PFAS guidance values. The complete soil laboratory analytical data reports from the RI are included in Appendix F.

Data collected during the RI is sufficient to delineate the vertical and horizontal distribution of contaminants in soil/fill at the Site. A summary table of data for chemical analyses performed on soil samples is included in Table 2.

Volatile Organic Compounds (VOCs)

The VOCs acetone, methyl ethyl ketone, methylene chloride, PCE, and toluene were detected in up to 19 of the 23 soil samples analyzed during the RI at concentrations up to 0.087 mg/kg. No VOCs were detected above their respective UUSCOs or RRSCOs.

Soil analytical results for VOCs are presented in Table 3.

Semi-volatile Organic Compounds (SVOCs)

SVOCs were detected in each of the 23 soil samples analyzed during the investigation at concentrations up to 5.1 mg/kg. Six SVOCs [benzo(a)anthracene (max. 2.8 mg/kg), benzo(a)pyrene (max. 2.7 mg/kg), benzo(b)fluoranthene (max. 3.8 mg/kg), benzo(k)fluoranthene (max. 1.4 mg/kg), chrysene (max. 2.8 mg/kg), and indeno(1,2,3-c,d)pyrene (max. 1.4 mg/kg)] were detected above the UUSCOs in one or more of the following samples: SB-11_2-4_20241212, SB-13_0-2_20241211, SB-14_0-2_2024121, SB-14_2-4_20241211, and SB-15_2-4_20241211.

Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-c,d)pyrene were additionally detected above the RRSCOs in samples SB-13_0-2_20241211, SB-14_0-2_20241211, SB-14_2-4_20241211, and SB-15_2-4_20241211. Benzo(b)fluoranthene was also detected above the RRSCO in sample SB-11_2-4_20241212.

The SVOCs that exceeded their respective UUSCOs and/or RRSCOs are polycyclic aromatic hydrocarbons (PAHs), a class of compounds found in some petroleum products, coal tar, coal ash, and other combustion products commonly found in historic fill. Therefore, the detected PAH concentrations in the soil samples can be generally attributed to historic fill material in the soil borings.

Soil analytical results for SVOCs are presented in Table 4.

Metals

Twenty-three metals were detected in one or more of the soil samples analyzed. The following four metals were detected above their respective UUSCOs in one or more of the soil samples: copper (max. 62.3 mg/kg), lead (max. 379 mg/kg), mercury (max. 0.27 mg/kg), and zinc (max. 173 mg/kg). No metals were detected above the RRSCOs. The detected concentrations in the soil samples are most likely attributable some combination of historic fill, which often contains variable concentrations of metals, and prior Site uses.

Soil analytical results for metals are presented in Table 5.

PCBs and Pesticides

PCBs were not detected above laboratory reporting limits in any of the soil samples analyzed during the investigation.

The pesticides P,P'-DDE and P,P'-DDT were detected in the sample SB-08_0-2_20241213 at concentrations of 0.004 mg/kg and 0.008 mg/kg, respectively. These values are above the UUSCO of 0.0033 mg/kg, but below their RRSCOs. The pesticide cis-chlordane was also detected in the sample SB-15_2-4_20241211, but below its UUSCO and RRSCO.

Soil analytical results for PCBs are presented in Table 6, and results for pesticides are presented in Table 7.

Per- and Polyfluoroalkyl Substances (PFAS) and 1,4-Dioxane in Soil

Perfluorooctanesulfonic acid (PFOS) was detected in the soil sample analyzed (SB-08_0-2_20241213) at a concentration of 2.17 parts per billion (ppb), above the UUSCO guidance value of 0.88 ppb, but below the RRSCO guidance value of 44 ppb. Perfluorooctanoic acid (PFOA) was

not detected above laboratory reporting limits. The compound 1,4-dioxane, analyzed as an SVOC, was not detected above laboratory reporting limits in any of the soil samples.

Soil analytical results for PFAS are presented in Table 8. Soil analytical results for 1,4-dioxane are presented in Table 4.

Data collected during the RI is sufficient to delineate the vertical and horizontal distribution of contaminants in soil/fill at the Site. A summary table of data for chemical analyses performed on soil samples is included in Table 2. Figure 4 shows the location and posts the values for soil/fill that exceed the 6NYCRR Part 375-6.8 Track 2 Soil Cleanup Objectives for Unrestricted Use and Restricted Residential Use.

5.3 Groundwater Chemistry

Three groundwater samples were collected during the RI for laboratory analysis from the three temporary monitoring wells (TW-08 through TW-10). Groundwater sample analytical results for VOCs, SVOCs, PCBs, pesticides, metals (total and dissolved), and 1,4-dioxane were compared to the NYSDEC Class GA Ambient Water Quality Standards and Guidance Values (AWQSGVs), which were developed based on use as a source of drinking water, although groundwater in this portion of Queens is not used as a source of potable water. One aqueous trip blank was included with the sample shipment for QA/QC purposes and was analyzed for VOCs only. Analytical results are presented in Tables 9 through 14. Figure 5 shows the location and posts the values for groundwater that exceeded the AWQSGVs. Groundwater laboratory analytical data reports for the RI are included in Appendix F.

The groundwater samples were additionally submitted for analysis of PFAS; however, after the sample jars were handed off to the lab courier, the cooler was lost during transit to the Eurofins Cleveland laboratory in Barberton, Ohio.

Data collected during the RI is sufficient to delineate the distribution of contaminants in groundwater at the Site. A summary table of data for chemical analyses performed on groundwater samples is included in Table 2.

Volatile Organic Compounds (VOCs) in Groundwater

Six VOCs (bromodichloromethane, chloroform, cis-1,2-dichloroethylene, dibromochloromethane, PCE, and TCE) were detected in one or more groundwater samples at concentrations ranging from 0.34 micrograms per liter (µg/L) of bromodichloromethane to 310 µg/L of PCE. PCE was detected in all three groundwater samples at concentrations ranging from 60 to 310 µg/L, above the AWQSGV of 5 µg/L. The highest concentration was detected in sample TW-10_20241212, collected from the southern portion of the Site. No other VOCs were detected in the groundwater samples above the AWQSGVs. No VOCs were detected above laboratory reporting limits in the aqueous trip blank samples. Groundwater analytical results for VOCs are presented in Table 9.

Semi-volatile Organic Compounds (SVOCs) in Groundwater

Three SVOCs, 1,4-dioxane, caprolactam, and di-n-butyl phthalate, were detected in one or more of the groundwater samples at concentrations up to 21 µg/L. Caprolactam and di-n-butyl phthalate were detected in all three groundwater samples; however, 1,4-dioxane was only detected in groundwater samples TW-08_20241213 and TW-10_20241213. No SVOCs were detected above their respective AWQSGVs.

Groundwater analytical results for SVOCs are presented in Table 10.

Metals in Groundwater

Twenty-two metals were detected in the total (unfiltered) groundwater samples. The following fourteen metals were detected above the AWQSGVs in one or more of the samples: arsenic (max. 73.3_µg/L), barium (max. 4,580 µg/L), beryllium (max. 14 µg/L), total chromium (max. 1,350 µg/L), copper (max. 1,000 µg/L), iron (max. 667,000 µg/L), lead (max. 707 µg/L), magnesium (max. 370,000 µg/L), manganese (max. 18,400 µg/L), mercury (max. 1.1 µg/L), nickel (max. 814 µg/L), sodium (max. 123,000 µg/L), thallium (max. 1.6 µg/L), and zinc (max. 2,040 µg/L).

Thirteen metals were detected in the dissolved (filtered) groundwater samples. The following two metals were detected above the AWQSGVs in one or more samples: manganese (max. 412 µg/L), and sodium (max. 134,000 µg/L)

The metal detections are likely related to regional groundwater conditions and not due to an on-site source. Groundwater analytical results for total metals are presented in Table 11 and results for dissolved metals are presented in Table 12.

Polychlorinated Biphenyls (PCBs) and Pesticides in Groundwater

No PCBs or pesticides were detected above laboratory reporting limits in any of the groundwater samples.

Groundwater analytical results for PCBs are presented in Table 13 and results for pesticides are presented in Table 14.

Data collected during the RI is sufficient to delineate the distribution of contaminants in groundwater at the Site. A summary table of data for chemical analyses performed on groundwater samples is included in Table 2. Exceedances of applicable groundwater standards are shown.

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

5.4 Soil Vapor Chemistry

Soil vapor samples collected during the RI were compared to the Soil Vapor/Indoor Air Decision Matrices A through F, as detailed in the May 2017 and February 2024 updates to the NYSDOH Final Guidance for Evaluating Soil Vapor Intrusion. Since indoor air samples were not collected as part of the RI (and could not be collected since there are no structures on-site), the results were conservatively compared to the soil vapor matrix concentrations that correspond to a recommended action of "Mitigate," regardless of the corresponding indoor air concentrations.

Petroleum-related VOCs, including 1,3-butadiene, 2,2,4-trimethylpentane, benzene, butane, cyclohexane, methyl ethyl ketone, n-heptane, n-hexane, styrene, and toluene were detected at concentrations ranging from 2.3 µg/m^3 (2,2,4-trimethylpentane in sample SV-06_20241213) to 66 µg/m^3 (butane in sample SV-07_20241213). Solvent-related VOCs, including carbon disulfide, chloroform, cis-1,2-dichloroethylene, PCE, and TCE were detected at concentrations ranging from 1.4 µg/m^3 (PCE in sample SV-07_20241213) to 25 µg/m^3 (PCE in sample SV-11_20241213).

TCE was detected in soil vapor sample SV-11_20241213, at a concentration of 4.4 µg/m^3, below the Matrix Value of 60 µg/m^3. According to Matrix A, the applicable matrix for TCE, soil vapor concentrations greater than 60 µg/m^3 result in a recommendation for mitigation, regardless of the indoor air concentration.

PCE was detected in soil vapor samples SV-07_20241213 and SV-11_20241213, at concentrations of 1.4 µg/m^3 and 25 µg/m^3 respectively, below Matrix Value of 1,000 µg/m^3. According to Matrix B, the applicable matrix for PCE, soil vapor concentrations greater than 1,000 µg/m^3 result in a recommendation for mitigation, regardless of the indoor air concentration.

Based on the distribution of elevated chlorinated solvent-related VOCs, and previous soil vapor results from the 2021 Phase II investigation, the soil vapor detections are likely attributable to an on-site source.

Data collected during the RI is sufficient to delineate the distribution of contaminants in soil vapor at the Site. A summary table of data for chemical analyses performed on soil vapor samples is included in Table 15. Figure 6 shows the location and posts the values for soil vapor samples with detected concentrations.

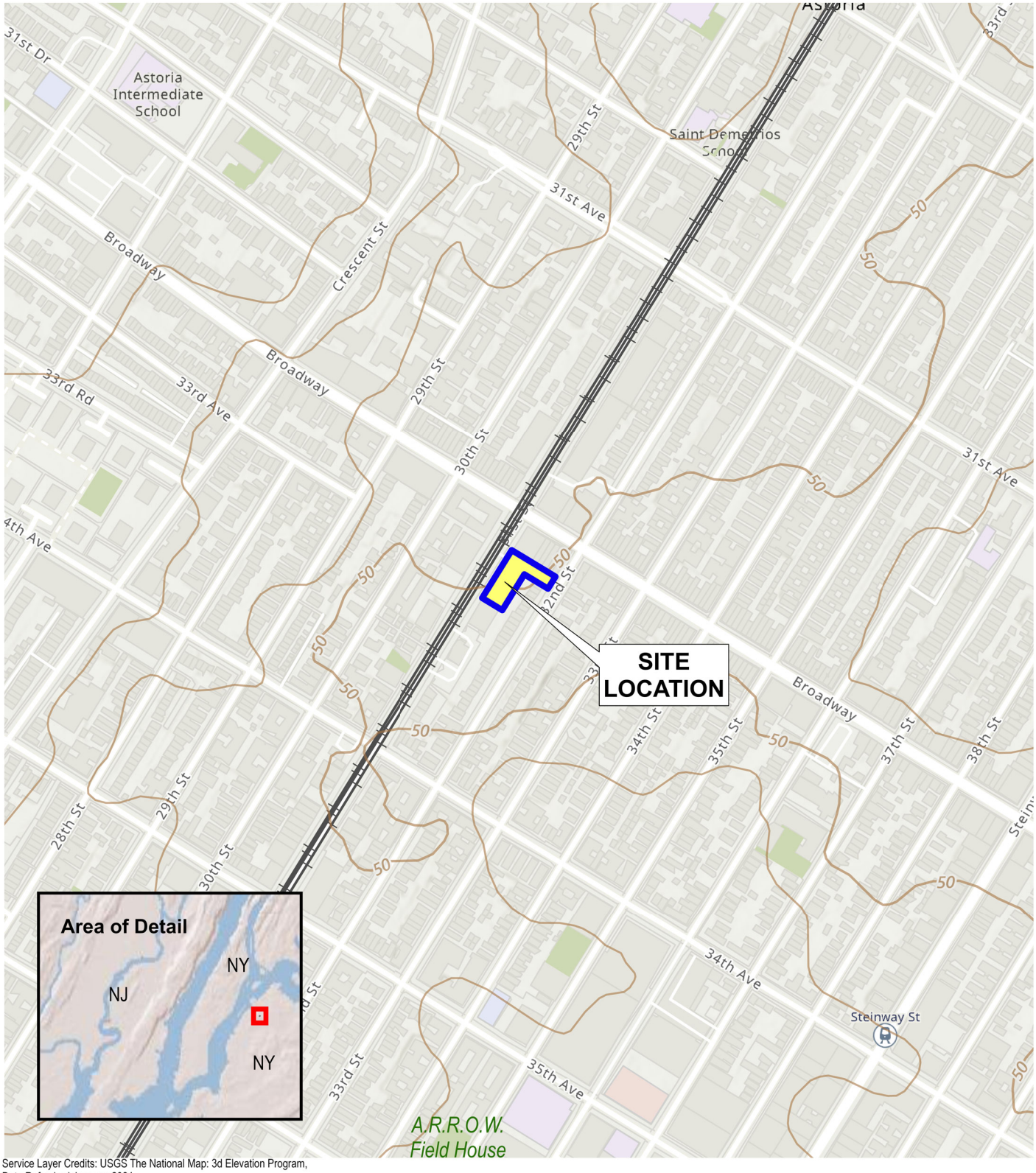
5.5 Prior Activity

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

5.6 Impediments to Remedial Action

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

FIGURES



Service Layer Credits: USGS The National Map: 3d Elevation Program, Data Refreshed January, 2024

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SCALE IN FEET

N

akrf

440 Park Avenue South, New York, NY 10016

31-07 31st Street
Queens, New York

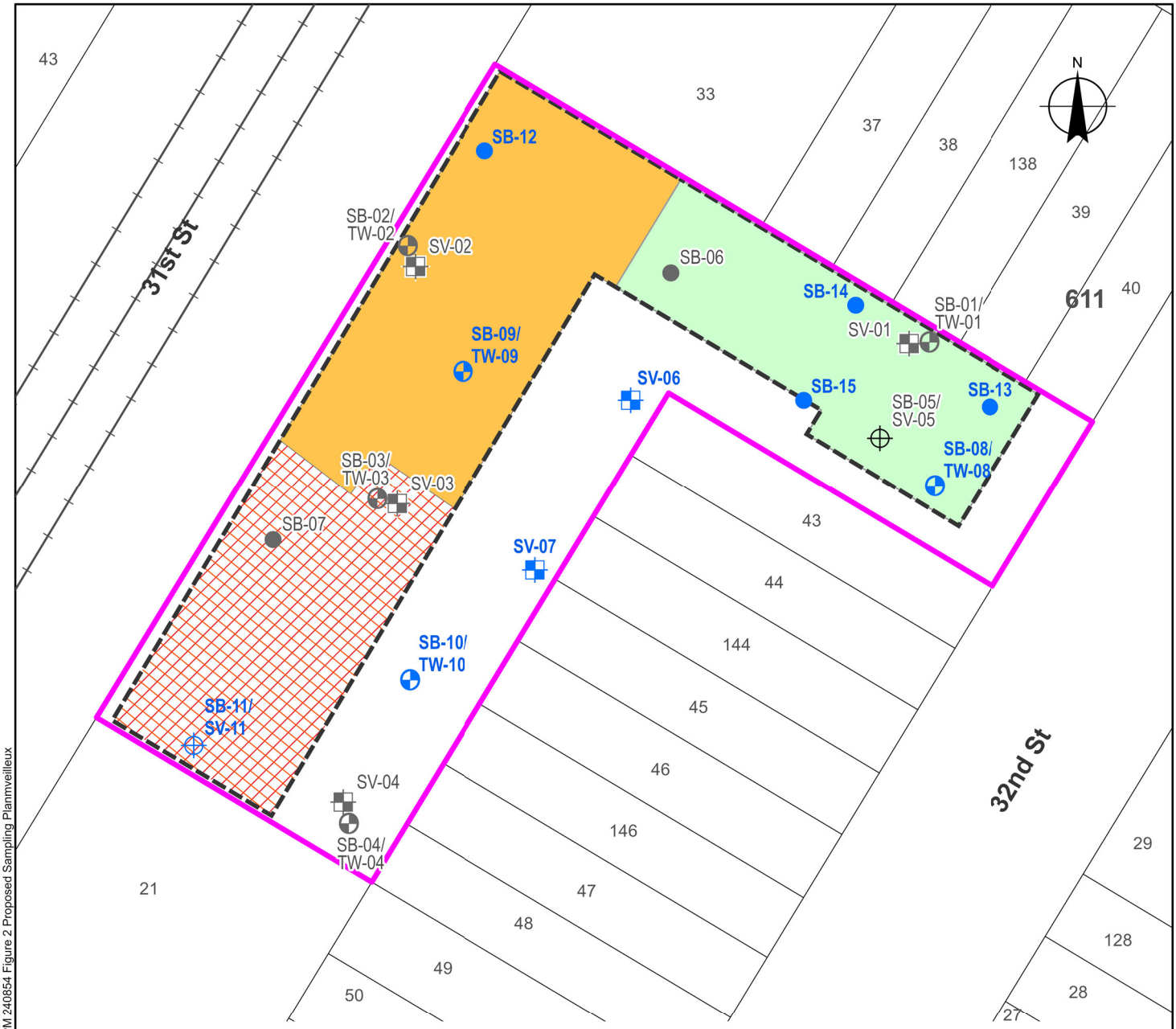
SITE LOCATION

DATE
1/10/2025

PROJECT NO.
240854

FIGURE
1

AKRF O:\Projects\240854 - IKOS SENIOR LIVING-SARIS\AR\Phase II Figures_DCEDITS.aprx8/2/2024 11:48 AM240854 Fig 1 Site Locationmveilleux



LEGEND

PROJECT SITE BOUNDARY	2022 PHASE II SOIL BORING
25 LOT BOUNDARY AND TAX LOT NUMBER	2022 PHASE II SOIL BORING/SOIL VAPOR POINT
611 BLOCK NUMBER	2022 PHASE II SOIL VAPOR POINT
PROPOSED CRAWLSPACE	2022 PHASE II SOIL BORING/TEMPORARY WELL
PROPOSED BUILDING	2024 PHASE II SOIL BORING
PROPOSED CELLAR	2024 PHASE II SOIL BORING/SOIL VAPOR POINT
PROPOSED SLAB-ON-GRADE	2024 PHASE II SOIL BORING/TEMPORARY WELL
	2024 PHASE II SOIL VAPOR POINT

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Aerial Source:
2022 New York State ITS GIS Orthoimagery

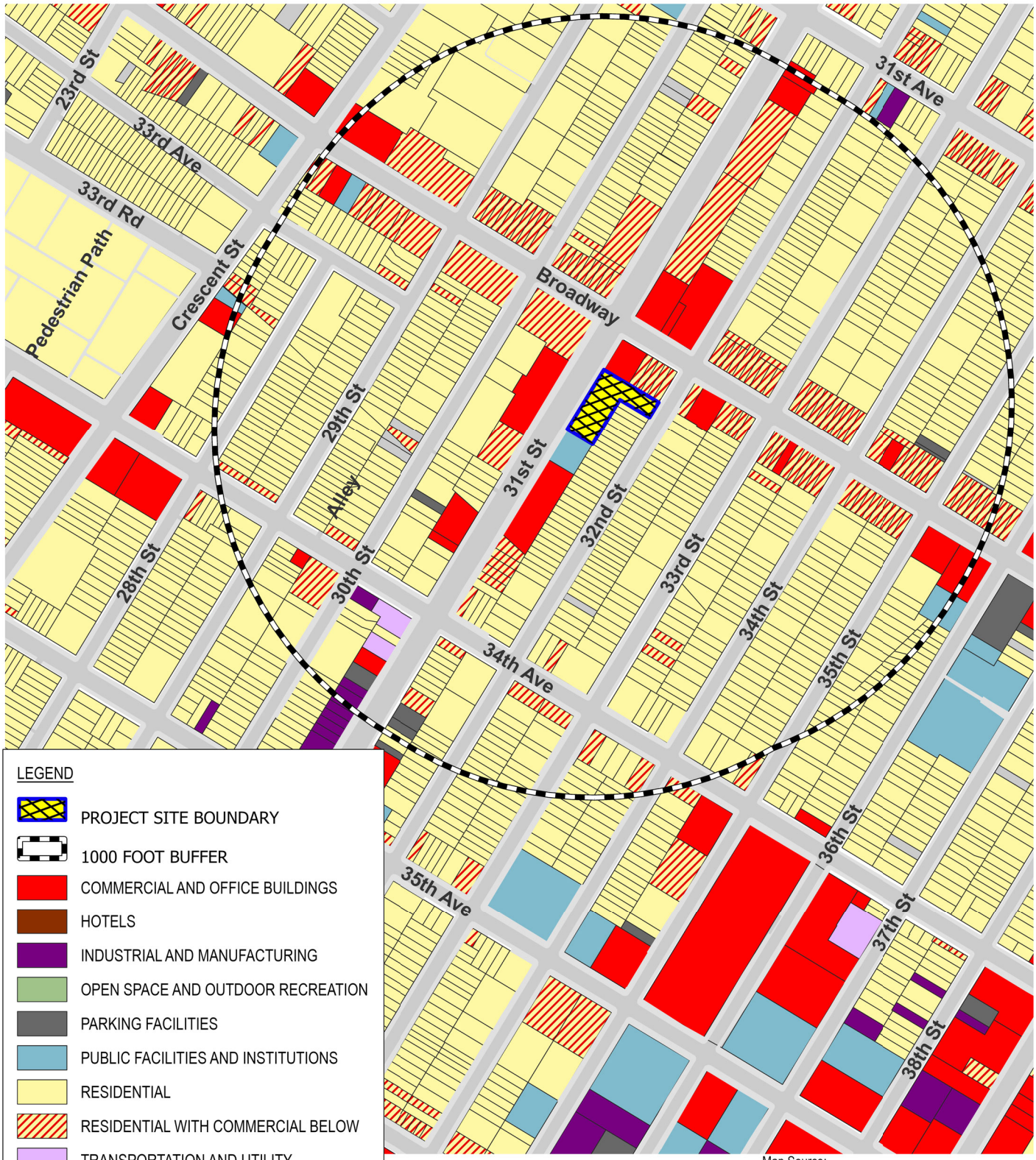
akrf
440 Park Avenue South, New York, NY 10016

31-07 31st Street
Queens, New York

SITE PLAN AND SAMPLING LOCATIONS

DATE
1/10/2025
PROJECT NO.
240854
FIGURE
2

AKRF O:\Projects\240854 - IKOS SENIOR LIVING-SARISAR\Phase II Figures_DCEDITS.aprx1/8/2025 4:47 PM 240854 Figure 2 Proposed Sampling Plannveilleux



Map Source:
NYCDCP (NYC Dept. of City Planning) GIS database

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AKRF O:\Projects\240854 - IKOS SENIOR LIVING-SARISAR\Phase II Surrounding Land Use Figure.aprx1/26/2022 9:52 AMFig 3 Surrounding Land Usemveilleux

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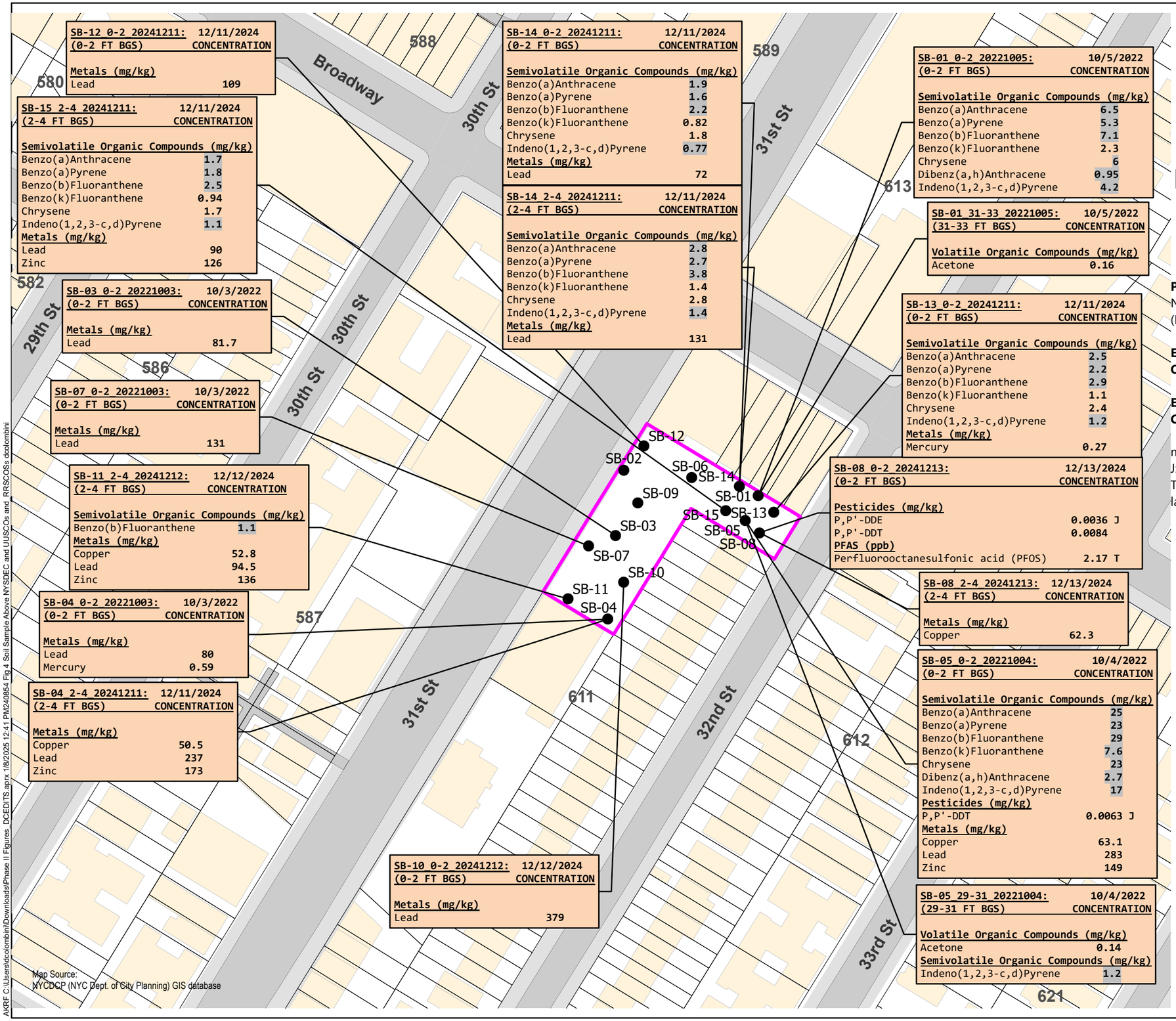
440 Park Avenue South, New York, NY 10016

31-07 31st Street
Queens, New York

SURROUNDING LAND USE

DATE
1/10/2025
PROJECT NO.
240854
FIGURE
3



AKRF C:\Users\dcolombini\Downloads\Phase II Figures_DCED\TS.aprx 1/8/2025 12:41 PM240854 Fig 4 Soil Sample Above NYSDEC and UUSCOs and RRSCOs dcolombini

N

LEGEND

- SOIL SAMPLE LOCATION
- PROJECT SITE BOUNDARY
- 20 LOT BOUNDARY AND TAX LOT NUMBER
- 2389 BLOCK NUMBER

Part 375 Soil Cleanup Objectives (SCOs): SCOs listed in the New York State Department of Environmental Conservation (NYSDEC) "Part 375" Regulations (6 NYCRR Part 375).

Exceedances of NYSDEC Unrestricted Use Soil Cleanup Objectives (UUSCOs) are presented in bold font.

Exceedances of NYSDEC Restricted Residential Soil Cleanup Objectives (RRSCOs) are shaded

mg/kg: milligrams per kilogram = parts per million (ppm)
J: The concentration given is an estimated value.
T: Indicates that a quality control parameter has exceeded laboratory limits

	UUGVs ppb	RRGVs ppb	RRSCO mg/kg	UUSCO mg/kg
Volatile Organic Compounds				
Acetone			100	0.05
Semivolatile Organic Compounds				
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
Dibenz(a,h)Anthracene			0.33	0.33
Indeno(1,2,3-c,d)Pyrene			0.5	0.5
Metals				
Copper			270	50
Lead			400	63
Mercury			0.81	0.18
Zinc			10,000	109
Pesticides				
P,P'-DDE			8.9	0.0033
P,P'-DDT			7.9	0.0033
PFAS				
Perfluorooctanesulfonic acid (PFOS)	0.88	44		

0 50 100 200
SCALE IN FEET

Sample ID — Sample Date

SB-12 0-2 20241211: 12/11/2024
(0-2 FT BGS) CONCENTRATION
Metals (mg/kg)
Lead 109

Analyte/Compound — Concentration

akrf
440 Park Avenue South, New York, NY 10016

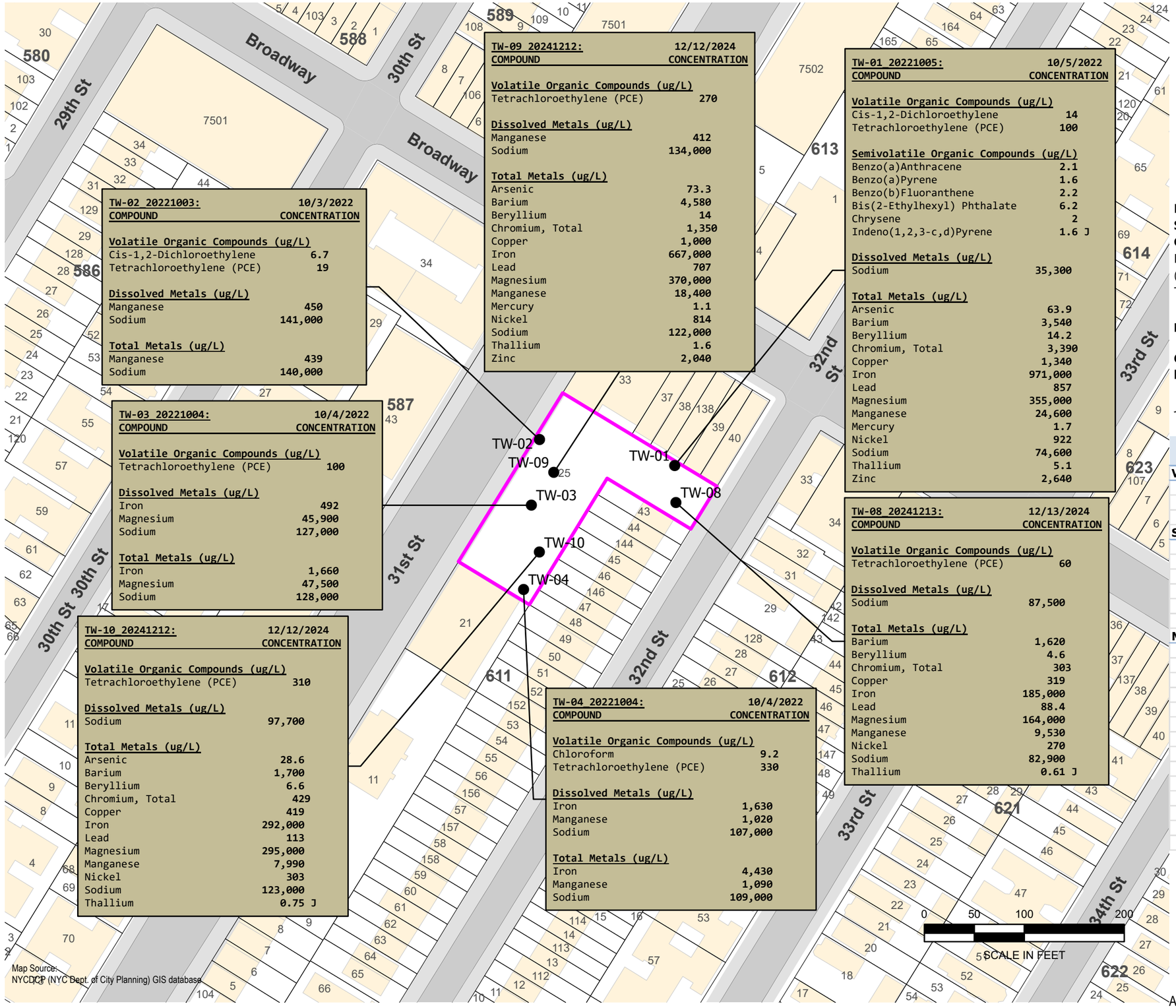
SOIL SAMPLE CONCENTRATIONS ABOVE NYSDEC UUSCOS AND RRSCOS

31-07 31st Street
Queens, New York

DATE
1/8/2025

PROJECT NO.
240854

FIGURE
4



LEGEND

- 2389 BLOCK NUMBER
- 20 LOT BOUNDARY AND TAX LOT NUMBER
- PROJECT SITE BOUNDARY
- GROUNDWATER SAMPLE LOCATION

NYSDEC TOGS Class GA Ambient Water Quality Standard and Guidance Values (AWQSGVs):
New York State Department of Environmental Conservation (NYSDEC)
Technical and Operational Guidance Series (TOGS) (1.1.1):

µg/L: micrograms per Liter = parts per billion (ppb)

Only Exceedances of NYSDEC AWQSGVs are shown in bold font.

J: The reported value is estimated.

	NYSDEC AWQSGVs ug/l
Volatile Organic Compounds	
Chloroform	7
Cis-1,2-Dichloroethylene	5
Tetrachloroethylene (PCE)	5
Semivolatile Organic Compounds	
Benzo(a)Anthracene	0.002
Benzo(a)Pyrene	0
Benzo(b)Fluoranthene	0.002
Bis(2-Ethylhexyl) Phthalate	5
Chrysene	0.002
Indeno(1,2,3-c,d)Pyrene	0.002
Metals	
Arsenic	25
Barium	1,000
Beryllium	3
Chromium, Total	50
Copper	200
Iron	300
Lead	25
Magnesium	35,000
Manganese	300
Mercury	0.7
Nickel	100
Sodium	20,000
Thallium	0.5
Zinc	2,000

Sample ID — Sample Date

TW-02 20221003: 10/3/2022
COMPOUND CONCENTRATION
Volatile Organic Compounds (ug/L)
Cis-1,2-Dichloroethylene 6.7
Tetrachloroethylene (PCE) 19

Analyte/Compound — Concentration

akrf
440 Park Avenue South, New York, NY 10016

GROUNDWATER SAMPLE CONCENTRATIONS ABOVE NYSDEC AWQSGVS

31-07 31st Street
Queens, New York

DATE 1/8/2025
PROJECT NO. 240854
FIGURE 5

AKRF C:\Users\dcolombini\Downloads\Phase II Figures_DCEDITS.aprx 1/8/2025 12:42 PM240854 Fig 5 Groundwater Sample Above AWQSGVs dcolombini

LEGEND

- PROJECT_SITE_BOUNDARY
- SOIL VAPOR SAMPLE LOCATION
- 2389 BLOCK NUMBER
- 20 LOT BOUNDARY AND TAX LOT NUMBER

N

SOIL VAPOR

µg/m³- micrograms per cubic meter

J: The reported value is estimated.
D: Analyte concentration obtained from dilution.

0 75 150 300
SCALE IN FEET

Sample ID — Sample Date

SV-11_20241213:	12/13/2024
COMPOUND	CONC. (ug/m3)
Volatile Organic Compounds	
Chloroform	3.1 J
Cis-1,2-Dichloroethylene	7.9

Analyte/Compound — Concentration

akrf
440 Park Avenue South, New York, NY 10016

31-07 31ST STREET
Queens, New York

SOIL VAPOR DETECTIONS

DATE 1/8/2025
PROJECT NO. 240854
FIGURE 2

TABLES

Table 1
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Depth to Water in Temporary Wells

Well ID	Total Depth of Well (ft. bgs)	Screen Interval (ft. bgs)	Depth to Groundwater (ft. below TOC)
TW-08	37.9	30 to 40	31.40
TW-09	39.98	30 to 40	32.67
TW-10	40.18	30 to 40	35.06

Notes:
ft. bgs = feet below ground surface
TOC = top of casing
NA = not applicable

Table 2
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Sample Collection Summary

Matrix	Sample ID	Date of Collection	Sample Depth (ft. bgs)	Analysis
Soil	SB-04_0-2_20241211	12/11/2024	0-2	VOCs, SVOCs, Metals, PCBs, and Pesticides
	SB-04_2-4_20241211	12/11/2024	2-4	VOCs, SVOCs, Metals, PCBs, and Pesticides
	SB-08_0-2_20241213	12/13/2024	0-2	VOCs, SVOCs, Metals, PCBs, Pesticides, and PFAS
	SB-08_2-4_20241213	12/13/2024	2-4	VOCs, SVOCs, Metals, PCBs, and Pesticides
	SB-08_9-11_20241213	12/13/2024	9-11	VOCs, SVOCs, Metals, PCBs, and Pesticides
	SB-09_0-2_20241212	12/12/2024	0-2	VOCs, SVOCs, Metals, PCBs, and Pesticides
	SB-09_8-10_20241212	12/12/2024	8-10	VOCs, SVOCs, Metals, PCBs, and Pesticides
	SB-09_10-12_20241212	12/12/2024	10-12	VOCs, SVOCs, Metals, PCBs, and Pesticides
	SB-10_0-2_20241212	12/12/2024	0-2	VOCs, SVOCs, Metals, PCBs, and Pesticides
	SB-10_2-4_20241212	12/12/2024	2-4	VOCs, SVOCs, Metals, PCBs, and Pesticides
	SB-10_8-10_20241212	12/12/2024	8-10	VOCs, SVOCs, Metals, PCBs, and Pesticides
	SB-11_0-2_20241212	12/12/2024	0-2	VOCs, SVOCs, Metals, PCBs, and Pesticides
	SB-11_2-4_20241212	12/12/2024	2-4	VOCs, SVOCs, Metals, PCBs, and Pesticides
	SB-11_4-6_20241212	12/12/2024	4-6	VOCs, SVOCs, Metals, PCBs, and Pesticides
	SB-12_0-2_20241211	12/11/2024	0-2	VOCs, SVOCs, Metals, PCBs, and Pesticides
	SB-12_8-10_20241211	12/11/2024	8-10	VOCs, SVOCs, Metals, PCBs, and Pesticides
	SB-12_10-12_20241211	12/11/2024	10-12	VOCs, SVOCs, Metals, PCBs, and Pesticides
	SB-13_0-2_20241211	12/11/2024	0-2	VOCs, SVOCs, Metals, PCBs, and Pesticides
	SB-13_2-4_20241211	12/11/2024	2-4	VOCs, SVOCs, Metals, PCBs, and Pesticides
	SB-14_0-2_20241211	12/11/2024	0-2	VOCs, SVOCs, Metals, PCBs, and Pesticides
	SB-14_2-4_20241211	12/11/2024	2-4	VOCs, SVOCs, Metals, PCBs, and Pesticides
	SB-15_0-2_20241211	12/11/2024	0-2	VOCs, SVOCs, Metals, PCBs, and Pesticides
	SB-15_2-4_20241211	12/11/2024	2-4	VOCs, SVOCs, Metals, PCBs, and Pesticides
Groundwater	TW-08_20241213	12/13/2024	NA	VOCs, SVOCs, Metals (total and dissolved), PCBs, and Pesticides
	TW-09_20241212	12/12/2024	NA	VOCs, SVOCs, Metals (total and dissolved), PCBs, and Pesticides
	TW-10_20241212	12/12/2024	NA	VOCs, SVOCs, Metals (total and dissolved), PCBs, and Pesticides
Soil Vapor	SV-06_20241213	12/13/2024	2	VOCs
	SV-07_20241213	12/13/2024	2	VOCs
	SV-11_20241213	12/13/2024	6	VOCs

Notes:
ft. bg: feet below grade surface
VOCs: Volatile Organic Compounds
SVOCs: Semi-volatile Organic Compounds
PCBs: Polychlorinated Biphenyls
PFAS: Per- and Polyfluoroalkyl Substances

Table 3
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Analytical Results of Volatile Organic Compounds (VOCs)

		AKRF Sample ID	SB-04_0-2_20241211	SB-04_2-4_20241211	SB-08_0-2_20241213	SB-08_2-4_20241213	SB-08_9-11_20241213
		Laboratory Sample ID	460-317091-1	460-317091-2	460-317270-1	460-317270-2	460-317270-3
		Date Sampled	12/11/2024	12/11/2024	12/13/2024	12/13/2024	12/13/2024
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		Dilution Factor	1	1	1	1	1
Compound	**NYSDEC UUSCO**	**NYSDEC RRSCO**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
1,1,1-Trichloroethane	0.68	100	0.001 U	0.0011 U	0.00096 UT	0.00098 UT	0.0011 UT
1,1,2,2-Tetrachloroethane	NS	NS	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF)	NS	NS	0.001 U	0.0011 U	0.00096 UT	0.00098 UT	0.0011 UT
1,1,2-Trichloroethane	NS	NS	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
1,1-Dichloroethane	0.27	26	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
1,1-Dichloroethene	0.33	100	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
1,2,3-Trichlorobenzene	NS	NS	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
1,2,4-Trichlorobenzene	NS	NS	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
1,2,4-Trimethylbenzene	3.6	52	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
1,2-Dibromo-3-Chloropropane	NS	NS	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
1,2-Dibromoethane (Ethylene Dibromide)	NS	NS	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
1,2-Dichlorobenzene	1.1	100	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
1,2-Dichloroethane	0.02	3.1	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
1,2-Dichloropropane	NS	NS	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
1,3,5-Trimethylbenzene (Mesitylene)	8.4	52	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
1,3-Dichlorobenzene	2.4	49	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
1,4-Dichlorobenzene	1.8	13	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
2-Hexanone	NS	NS	0.005 U	0.0055 U	0.0048 U	0.0049 U	0.0055 U
Acetone	0.05	100	0.006 U	0.0066 U	0.0058 U	0.0059 U	0.0066 U
Benzene	0.06	4.8	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Bromochloromethane	NS	NS	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Bromodichloromethane	NS	NS	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Bromoform	NS	NS	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Bromomethane	NS	NS	0.002 U	0.0022 U	0.0019 U	0.002 U	0.0022 U
Carbon Disulfide	NS	NS	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Carbon Tetrachloride	0.76	2.4	0.001 U	0.0011 U	0.00096 UT	0.00098 UT	0.0011 UT
Chlorobenzene	1.1	100	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Chloroethane	NS	NS	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Chloroform	0.37	49	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Chloromethane	NS	NS	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Cis-1,2-Dichloroethylene	0.25	100	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Cis-1,3-Dichloropropene	NS	NS	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Cyclohexane	NS	NS	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Dibromochloromethane	NS	NS	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Dichlorodifluoromethane	NS	NS	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Ethylbenzene	1	41	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Isopropylbenzene (Cumene)	NS	NS	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
M,P-Xylenes	NS	NS	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Methyl Acetate	NS	NS	0.005 U	0.0055 U	0.0048 U	0.0049 U	0.0055 U
Methyl Ethyl Ketone (2-Butanone)	0.12	100	0.005 U	0.0055 U	0.0048 U	0.0049 U	0.0055 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	NS	NS	0.005 UT	0.0055 UT	0.0048 U	0.0049 U	0.0055 U
Methylcyclohexane	NS	NS	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Methylene Chloride	0.05	100	0.002 U	0.0022 U	0.0019 U	0.002 U	0.0022 U
N-Butylbenzene	12	100	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
N-Propylbenzene	3.9	100	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
O-Xylene (1,2-Dimethylbenzene)	NS	NS	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Sec-Butylbenzene	11	100	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Styrene	NS	NS	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
T-Butylbenzene	5.9	100	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Tert-Butyl Methyl Ether	0.93	100	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Tetrachloroethylene (PCE)	1.3	19	0.001 U	0.0016	0.0027	0.0088	0.0011 U
Toluene	0.7	100	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Trans-1,2-Dichloroethene	0.19	100	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Trans-1,3-Dichloropropene	NS	NS	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Trichloroethylene (TCE)	0.47	21	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Trichlorofluoromethane	NS	NS	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Vinyl Chloride	0.02	0.9	0.001 U	0.0011 U	0.00096 U	0.00098 U	0.0011 U
Xylenes, Total	0.26	100	0.002 U	0.0022 U	0.0019 U	0.002 U	0.0022 U

Table 3
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Analytical Results of Volatile Organic Compounds (VOCs)

		AKRF Sample ID	SB-09_0-2_20241212	SB-09_8-10_20241212	SB-09_10-12_20241212	SB-10_0-2_20241212	SB-10_2-4_20241212
		Laboratory Sample ID	460-317182-1	460-317182-2	460-317182-3	460-317182-4	460-317182-5
		Date Sampled	12/12/2024	12/12/2024	12/12/2024	12/12/2024	12/12/2024
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		Dilution Factor	1	1	1	1	1
Compound	**NYSDEC UUSCO**	**NYSDEC RRSCO**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
1,1,1-Trichloroethane	0.68	100	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
1,1,2,2-Tetrachloroethane	NS	NS	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF)	NS	NS	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
1,1,2-Trichloroethane	NS	NS	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
1,1-Dichloroethane	0.27	26	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
1,1-Dichloroethene	0.33	100	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
1,2,3-Trichlorobenzene	NS	NS	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
1,2,4-Trichlorobenzene	NS	NS	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
1,2,4-Trimethylbenzene	3.6	52	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
1,2-Dibromo-3-Chloropropane	NS	NS	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
1,2-Dibromoethane (Ethylene Dibromide)	NS	NS	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
1,2-Dichlorobenzene	1.1	100	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
1,2-Dichloroethane	0.02	3.1	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
1,2-Dichloropropane	NS	NS	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
1,3,5-Trimethylbenzene (Mesitylene)	8.4	52	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
1,3-Dichlorobenzene	2.4	49	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
1,4-Dichlorobenzene	1.8	13	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
2-Hexanone	NS	NS	0.005 U	0.0055 U	0.0056 U	0.0053 U	0.0047 U
Acetone	0.05	100	0.006 U	0.0066 U	0.0067 U	0.0064 U	0.018
Benzene	0.06	4.8	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
Bromochloromethane	NS	NS	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
Bromodichloromethane	NS	NS	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
Bromoform	NS	NS	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
Bromomethane	NS	NS	0.002 U	0.0022 U	0.0022 U	0.0021 U	0.0019 U
Carbon Disulfide	NS	NS	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00075 J
Carbon Tetrachloride	0.76	2.4	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
Chlorobenzene	1.1	100	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
Chloroethane	NS	NS	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
Chloroform	0.37	49	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
Chloromethane	NS	NS	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
Cis-1,2-Dichloroethylene	0.25	100	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
Cis-1,3-Dichloropropene	NS	NS	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
Cyclohexane	NS	NS	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
Dibromochloromethane	NS	NS	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
Dichlorodifluoromethane	NS	NS	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
Ethylbenzene	1	41	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
Isopropylbenzene (Cumene)	NS	NS	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
M,P-Xylenes	NS	NS	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
Methyl Acetate	NS	NS	0.005 U	0.0055 U	0.0056 U	0.0053 U	0.0047 U
Methyl Ethyl Ketone (2-Butanone)	0.12	100	0.005 U	0.0055 U	0.0056 U	0.0053 U	0.0065
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	NS	NS	0.005 UT	0.0055 UT	0.0056 UT	0.0053 UT	0.0047 UT
Methylcyclohexane	NS	NS	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
Methylene Chloride	0.05	100	0.002 U	0.0022 U	0.0022 U	0.0021 U	0.0011 J
N-Butylbenzene	12	100	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
N-Propylbenzene	3.9	100	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
O-Xylene (1,2-Dimethylbenzene)	NS	NS	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
Sec-Butylbenzene	11	100	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
Styrene	NS	NS	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
T-Butylbenzene	5.9	100	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
Tert-Butyl Methyl Ether	0.93	100	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
Tetrachloroethylene (PCE)	1.3	19	0.0036	0.0026	0.001 J	0.00077 J	0.0059
Toluene	0.7	100	0.001 U	0.0011 U	0.0011 U	0.00035 J	0.00023 J
Trans-1,2-Dichloroethene	0.19	100	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
Trans-1,3-Dichloropropene	NS	NS	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
Trichloroethylene (TCE)	0.47	21	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
Trichlorofluoromethane	NS	NS	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
Vinyl Chloride	0.02	0.9	0.001 U	0.0011 U	0.0011 U	0.0011 U	0.00094 U
Xylenes, Total	0.26	100	0.002 U	0.0022 U	0.0022 U	0.0021 U	0.0019 U

Table 3
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Analytical Results of Volatile Organic Compounds (VOCs)

		AKRF Sample ID	SB-10_8-10_20241212	SB-11_0-2_20241212	SB-11_2-4_20241212	SB-11_4-6_20241212	SB-12_0-2_20241211
		Laboratory Sample ID	460-317182-6	460-317182-7	460-317182-8	460-317182-9	460-317091-3
		Date Sampled	12/12/2024	12/12/2024	12/12/2024	12/12/2024	12/11/2024
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		Dilution Factor	1	1	1	1	1
Compound	**NYSDEC UUSCO**	**NYSDEC RRSCO**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
1,1,1-Trichloroethane	0.68	100	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
1,1,2,2-Tetrachloroethane	NS	NS	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF)	NS	NS	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
1,1,2-Trichloroethane	NS	NS	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
1,1-Dichloroethane	0.27	26	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
1,1-Dichloroethene	0.33	100	0.0012 U	0.0014 U	0.0011 UT	0.0012 UT	0.001 U
1,2,3-Trichlorobenzene	NS	NS	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
1,2,4-Trichlorobenzene	NS	NS	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
1,2,4-Trimethylbenzene	3.6	52	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
1,2-Dibromo-3-Chloropropane	NS	NS	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
1,2-Dibromoethane (Ethylene Dibromide)	NS	NS	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
1,2-Dichlorobenzene	1.1	100	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
1,2-Dichloroethane	0.02	3.1	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
1,2-Dichloropropane	NS	NS	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
1,3,5-Trimethylbenzene (Mesitylene)	8.4	52	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
1,3-Dichlorobenzene	2.4	49	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
1,4-Dichlorobenzene	1.8	13	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
2-Hexanone	NS	NS	0.006 U	0.0069 U	0.0053 U	0.0059 U	0.005 U
Acetone	0.05	100	0.0072 U	0.0083 U	0.0063 U	0.0071 U	0.006 U
Benzene	0.06	4.8	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Bromochloromethane	NS	NS	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Bromodichloromethane	NS	NS	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Bromoform	NS	NS	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Bromomethane	NS	NS	0.0024 U	0.0028 U	0.0021 U	0.0024 U	0.002 U
Carbon Disulfide	NS	NS	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Carbon Tetrachloride	0.76	2.4	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Chlorobenzene	1.1	100	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Chloroethane	NS	NS	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Chloroform	0.37	49	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Chloromethane	NS	NS	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Cis-1,2-Dichloroethylene	0.25	100	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Cis-1,3-Dichloropropene	NS	NS	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Cyclohexane	NS	NS	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Dibromochloromethane	NS	NS	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Dichlorodifluoromethane	NS	NS	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Ethylbenzene	1	41	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Isopropylbenzene (Cumene)	NS	NS	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
M,P-Xylenes	NS	NS	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Methyl Acetate	NS	NS	0.006 U	0.0069 U	0.0053 U	0.0059 U	0.005 U
Methyl Ethyl Ketone (2-Butanone)	0.12	100	0.006 U	0.0069 U	0.0053 U	0.0059 U	0.005 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	NS	NS	0.006 UT	0.0069 UT	0.0053 U	0.0059 U	0.005 UT
Methylcyclohexane	NS	NS	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Methylene Chloride	0.05	100	0.0024 U	0.0028 U	0.0021 U	0.0024 U	0.002 U
N-Butylbenzene	12	100	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
N-Propylbenzene	3.9	100	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
O-Xylene (1,2-Dimethylbenzene)	NS	NS	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Sec-Butylbenzene	11	100	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Styrene	NS	NS	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
T-Butylbenzene	5.9	100	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Tert-Butyl Methyl Ether	0.93	100	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Tetrachloroethylene (PCE)	1.3	19	0.00076 J	0.0043	0.087	0.0023	0.0057
Toluene	0.7	100	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Trans-1,2-Dichloroethene	0.19	100	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Trans-1,3-Dichloropropene	NS	NS	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Trichloroethylene (TCE)	0.47	21	0.0012 U	0.0014 U	0.00038 J	0.0012 U	0.001 U
Trichlorofluoromethane	NS	NS	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Vinyl Chloride	0.02	0.9	0.0012 U	0.0014 U	0.0011 U	0.0012 U	0.001 U
Xylenes, Total	0.26	100	0.0024 U	0.0028 U	0.0021 U	0.0024 U	0.002 U

Table 3
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Analytical Results of Volatile Organic Compounds (VOCs)

		AKRF Sample ID	SB-12_8-10_20241211	SB-12_10-12_20241211	SB-13_0-2_20241211	SB-13_2-4_20241211	SB-14_0-2_20241211
		Laboratory Sample ID	460-317091-4	460-317091-5	460-317091-10	460-317091-11	460-317091-8
		Date Sampled	12/11/2024	12/11/2024	12/11/2024	12/11/2024	12/11/2024
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		Dilution Factor	1	1	1	1	1
Compound	**NYSDEC UUSCO**	**NYSDEC RRSCO**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
1,1,1-Trichloroethane	0.68	100	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
1,1,2,2-Tetrachloroethane	NS	NS	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF)	NS	NS	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
1,1,2-Trichloroethane	NS	NS	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
1,1-Dichloroethane	0.27	26	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
1,1-Dichloroethene	0.33	100	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
1,2,3-Trichlorobenzene	NS	NS	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
1,2,4-Trichlorobenzene	NS	NS	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
1,2,4-Trimethylbenzene	3.6	52	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
1,2-Dibromo-3-Chloropropane	NS	NS	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
1,2-Dibromoethane (Ethylene Dibromide)	NS	NS	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
1,2-Dichlorobenzene	1.1	100	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
1,2-Dichloroethane	0.02	3.1	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
1,2-Dichloropropane	NS	NS	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
1,3,5-Trimethylbenzene (Mesitylene)	8.4	52	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
1,3-Dichlorobenzene	2.4	49	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
1,4-Dichlorobenzene	1.8	13	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
2-Hexanone	NS	NS	0.0053 U	0.0055 U	0.0053 U	0.0055 U	0.005 U
Acetone	0.05	100	0.0063 U	0.0066 U	0.0063 U	0.0066 U	0.006 U
Benzene	0.06	4.8	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Bromochloromethane	NS	NS	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Bromodichloromethane	NS	NS	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Bromoform	NS	NS	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Bromomethane	NS	NS	0.0021 U	0.0022 U	0.0021 U	0.0022 U	0.002 U
Carbon Disulfide	NS	NS	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Carbon Tetrachloride	0.76	2.4	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Chlorobenzene	1.1	100	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Chloroethane	NS	NS	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Chloroform	0.37	49	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Chloromethane	NS	NS	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Cis-1,2-Dichloroethylene	0.25	100	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Cis-1,3-Dichloropropene	NS	NS	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Cyclohexane	NS	NS	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Dibromochloromethane	NS	NS	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Dichlorodifluoromethane	NS	NS	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Ethylbenzene	1	41	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Isopropylbenzene (Cumene)	NS	NS	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
M,P-Xylenes	NS	NS	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Methyl Acetate	NS	NS	0.0053 U	0.0055 U	0.0053 U	0.0055 U	0.005 U
Methyl Ethyl Ketone (2-Butanone)	0.12	100	0.0053 U	0.0055 U	0.0053 U	0.0055 U	0.005 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	NS	NS	0.0053 UT	0.0055 UT	0.0053 UT	0.0055 UT	0.005 UT
Methylcyclohexane	NS	NS	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Methylene Chloride	0.05	100	0.0021 U	0.0022 U	0.0021 U	0.0022 U	0.002 U
N-Butylbenzene	12	100	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
N-Propylbenzene	3.9	100	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
O-Xylene (1,2-Dimethylbenzene)	NS	NS	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Sec-Butylbenzene	11	100	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Styrene	NS	NS	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
T-Butylbenzene	5.9	100	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Tert-Butyl Methyl Ether	0.93	100	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Tetrachloroethylene (PCE)	1.3	19	0.00051 J	0.00073 J	0.0011 U	0.0011 U	0.002
Toluene	0.7	100	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Trans-1,2-Dichloroethene	0.19	100	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Trans-1,3-Dichloropropene	NS	NS	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Trichloroethylene (TCE)	0.47	21	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Trichlorofluoromethane	NS	NS	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Vinyl Chloride	0.02	0.9	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.001 U
Xylenes, Total	0.26	100	0.0021 U	0.0022 U	0.0021 U	0.0022 U	0.002 U

Table 3
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Analytical Results of Volatile Organic Compounds (VOCs)

		AKRF Sample ID	SB-14_2-4_20241211	SB-15_0-2_20241211	SB-15_2-4_20241211
		Laboratory Sample ID	460-317091-9	460-317091-6	460-317091-7
		Date Sampled	12/11/2024	12/11/2024	12/11/2024
		Unit	mg/kg	mg/kg	mg/kg
		Dilution Factor	1	1	1
Compound	**NYSDEC UUSCO**	**NYSDEC RRSCO**	CONC Q	CONC Q	CONC Q
1,1,1-Trichloroethane	0.68	100	0.0011 U	0.0011 U	0.00097 U
1,1,2,2-Tetrachloroethane	NS	NS	0.0011 U	0.0011 U	0.00097 U
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF)	NS	NS	0.0011 U	0.0011 U	0.00097 U
1,1,2-Trichloroethane	NS	NS	0.0011 U	0.0011 U	0.00097 U
1,1-Dichloroethane	0.27	26	0.0011 U	0.0011 U	0.00097 U
1,1-Dichloroethene	0.33	100	0.0011 U	0.0011 U	0.00097 U
1,2,3-Trichlorobenzene	NS	NS	0.0011 U	0.0011 U	0.00097 U
1,2,4-Trichlorobenzene	NS	NS	0.0011 U	0.0011 U	0.00097 U
1,2,4-Trimethylbenzene	3.6	52	0.0011 U	0.0011 U	0.00097 U
1,2-Dibromo-3-Chloropropane	NS	NS	0.0011 U	0.0011 U	0.00097 U
1,2-Dibromoethane (Ethylene Dibromide)	NS	NS	0.0011 U	0.0011 U	0.00097 U
1,2-Dichlorobenzene	1.1	100	0.0011 U	0.0011 U	0.00097 U
1,2-Dichloroethane	0.02	3.1	0.0011 U	0.0011 U	0.00097 U
1,2-Dichloropropane	NS	NS	0.0011 U	0.0011 U	0.00097 U
1,3,5-Trimethylbenzene (Mesitylene)	8.4	52	0.0011 U	0.0011 U	0.00097 U
1,3-Dichlorobenzene	2.4	49	0.0011 U	0.0011 U	0.00097 U
1,4-Dichlorobenzene	1.8	13	0.0011 U	0.0011 U	0.00097 U
2-Hexanone	NS	NS	0.0055 U	0.0053 U	0.0049 U
Acetone	0.05	100	0.0066 U	0.0063 U	0.0058 U
Benzene	0.06	4.8	0.0011 U	0.0011 U	0.00097 U
Bromochloromethane	NS	NS	0.0011 U	0.0011 U	0.00097 U
Bromodichloromethane	NS	NS	0.0011 U	0.0011 U	0.00097 U
Bromoform	NS	NS	0.0011 U	0.0011 U	0.00097 U
Bromomethane	NS	NS	0.0022 U	0.0021 U	0.0019 U
Carbon Disulfide	NS	NS	0.0011 U	0.0011 U	0.00097 U
Carbon Tetrachloride	0.76	2.4	0.0011 U	0.0011 U	0.00097 U
Chlorobenzene	1.1	100	0.0011 U	0.0011 U	0.00097 U
Chloroethane	NS	NS	0.0011 U	0.0011 U	0.00097 U
Chloroform	0.37	49	0.0011 U	0.0011 U	0.00097 U
Chloromethane	NS	NS	0.0011 U	0.0011 U	0.00097 U
Cis-1,2-Dichloroethylene	0.25	100	0.0011 U	0.0011 U	0.00097 U
Cis-1,3-Dichloropropene	NS	NS	0.0011 U	0.0011 U	0.00097 U
Cyclohexane	NS	NS	0.0011 U	0.0011 U	0.00097 U
Dibromochloromethane	NS	NS	0.0011 U	0.0011 U	0.00097 U
Dichlorodifluoromethane	NS	NS	0.0011 U	0.0011 U	0.00097 U
Ethylbenzene	1	41	0.0011 U	0.0011 U	0.00097 U
Isopropylbenzene (Cumene)	NS	NS	0.0011 U	0.0011 U	0.00097 U
M,P-Xylenes	NS	NS	0.0011 U	0.0011 U	0.00097 U
Methyl Acetate	NS	NS	0.0055 U	0.0053 U	0.0049 U
Methyl Ethyl Ketone (2-Butanone)	0.12	100	0.0055 U	0.0053 U	0.0049 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	NS	NS	0.0055 UT	0.0053 UT	0.0049 UT
Methylcyclohexane	NS	NS	0.0011 U	0.0011 U	0.00097 U
Methylene Chloride	0.05	100	0.0022 U	0.0021 U	0.0019 U
N-Butylbenzene	12	100	0.0011 U	0.0011 U	0.00097 U
N-Propylbenzene	3.9	100	0.0011 U	0.0011 U	0.00097 U
O-Xylene (1,2-Dimethylbenzene)	NS	NS	0.0011 U	0.0011 U	0.00097 U
Sec-Butylbenzene	11	100	0.0011 U	0.0011 U	0.00097 U
Styrene	NS	NS	0.0011 U	0.0011 U	0.00097 U
T-Butylbenzene	5.9	100	0.0011 U	0.0011 U	0.00097 U
Tert-Butyl Methyl Ether	0.93	100	0.0011 U	0.0011 U	0.00097 U
Tetrachloroethylene (PCE)	1.3	19	0.0079	0.00088 J	0.012
Toluene	0.7	100	0.0011 U	0.0011 U	0.00097 U
Trans-1,2-Dichloroethene	0.19	100	0.0011 U	0.0011 U	0.00097 U
Trans-1,3-Dichloropropene	NS	NS	0.0011 U	0.0011 U	0.00097 U
Trichloroethylene (TCE)	0.47	21	0.0011 U	0.0011 U	0.00097 U
Trichlorofluoromethane	NS	NS	0.0011 U	0.0011 U	0.00097 U
Vinyl Chloride	0.02	0.9	0.0011 U	0.0011 U	0.00097 U
Xylenes, Total	0.26	100	0.0022 U	0.0021 U	0.0019 U

Table 4
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Analytical Results of Semivolatile Organic Compounds (SVOCs)

		AKRF Sample ID	SB-04_0-2_20241211	SB-04_2-4_20241211	SB-08_0-2_20241213	SB-08_2-4_20241213	SB-08_9-11_20241213	SB-09_0-2_20241212
		Laboratory Sample ID	460-317091-1	460-317091-2	460-317270-1	460-317270-2	460-317270-3	460-317182-1
		Date Sampled	12/11/2024	12/11/2024	12/13/2024	12/13/2024	12/13/2024	12/12/2024
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		Dilution Factor	1	1	1	1	1	1
Compound	**NYSDEC UUSCO**	**NYSDEC RRSCO**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
1,2,4,5-Tetrachlorobenzene	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
1,4-Dioxane (P-Dioxane)	0.1	13	0.035 U	0.035 U	0.033 U	0.033 U	0.033 U	0.033 U
2,3,4,6-Tetrachlorophenol	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
2,4,5-Trichlorophenol	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
2,4,6-Trichlorophenol	NS	NS	0.14 U	0.14 U	0.13 U	0.13 U	0.13 U	0.13 U
2,4-Dichlorophenol	NS	NS	0.14 U	0.14 U	0.13 U	0.13 U	0.13 U	0.13 U
2,4-Dimethylphenol	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
2,4-Dinitrophenol	NS	NS	0.29 U	0.29 U	0.27 U	0.27 U	0.27 U	0.27 U
2,4-Dinitrotoluene	NS	NS	0.072 U	0.072 U	0.067 U	0.067 U	0.067 U	0.067 U
2,6-Dinitrotoluene	NS	NS	0.072 U	0.072 U	0.067 U	0.067 U	0.067 U	0.067 U
2-Chloronaphthalene	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
2-Chlorophenol	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
2-Methylnaphthalene	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
2-Methylphenol (O-Cresol)	0.33	100	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
2-Nitroaniline	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
2-Nitrophenol	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
3- And 4- Methylphenol (Total)	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
3,3'-Dichlorobenzidine	NS	NS	0.14 U	0.14 U	0.13 U	0.13 U	0.13 U	0.13 U
3-Nitroaniline	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
4,6-Dinitro-2-Methylphenol	NS	NS	0.29 U	0.29 U	0.27 U	0.27 U	0.27 U	0.27 U
4-Bromophenyl Phenyl Ether	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
4-Chloro-3-Methylphenol	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
4-Chloroaniline	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
4-Chlorophenyl Phenyl Ether	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
4-Methylphenol (P-Cresol)	0.33	100	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
4-Nitroaniline	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
4-Nitrophenol	NS	NS	0.72 U	0.72 U	0.67 U	0.67 U	0.67 U	0.67 U
Acenaphthene	20	100	0.35 U	0.021 J	0.33 U	0.33 U	0.33 U	0.33 U
Acenaphthylene	100	100	0.35 U	0.021 J	0.016 J	0.33 U	0.33 U	0.33 U
Acetophenone	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
Anthracene	100	100	0.014 J	0.065 J	0.028 J	0.011 J	0.33 U	0.013 J
Atrazine	NS	NS	0.14 U	0.14 U	0.13 U	0.13 U	0.13 U	0.13 U
Benzaldehyde	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
Benzo(a)Anthracene	**1**	1	0.081	0.32	0.17	0.074	0.033 U	0.091
Benzo(a)Pyrene	**1**	1	0.074	0.32	0.16	0.08	0.033 U	0.096
Benzo(b)Fluoranthene	**1**	1	0.097	0.41	0.21	0.11	0.033 U	0.13
Benzo(g,h,i)Perylene	100	100	0.06 J	0.2 J	0.12 J	0.059 J	0.33 U	0.067 J
Benzo(k)Fluoranthene	**0.8**	3.9	0.045	0.15	0.082	0.04	0.033 U	0.044
Benzyl Butyl Phthalate	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
Biphenyl (Diphenyl)	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
Bis(2-Chloroethoxy) Methane	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	NS	NS	0.035 U	0.035 U	0.033 U	0.033 U	0.033 U	0.033 U
Bis(2-Chloroisopropyl) Ether	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
Bis(2-Ethylhexyl) Phthalate	NS	NS	0.35 U	0.046 J	0.33 U	0.33 U	0.33 U	0.33 U
Caprolactam	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
Carbazole	NS	NS	0.35 U	0.026 J	0.33 U	0.33 U	0.33 U	0.33 U
Chrysene	**1**	3.9	0.079 J	0.34 J	0.18 J	0.076 J	0.33 U	0.099 J
Dibenz(a,h)Anthracene	0.33	0.33	0.035 U	0.045	0.033	0.015 J	0.033 U	0.017 J
Dibenzofuran	7	59	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
Diethyl Phthalate	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
Dimethyl Phthalate	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
Di-N-Butyl Phthalate	NS	NS	0.35 U	0.013 J	0.33 U	0.33 U	0.33 U	0.33 U
Di-N-Octylphthalate	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
Fluoranthene	100	100	0.14 J	0.61	0.23 J	0.11 J	0.33 U	0.15 J
Fluorene	30	100	0.35 U	0.017 J	0.33 U	0.33 U	0.33 U	0.33 U
Hexachlorobenzene	0.33	1.2	0.035 U	0.035 U	0.033 U	0.033 U	0.033 U	0.033 U
Hexachlorobutadiene	NS	NS	0.072 U	0.072 U	0.067 U	0.067 U	0.067 U	0.067 U
Hexachlorocyclopentadiene	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
Hexachloroethane	NS	NS	0.035 U	0.035 U	0.033 U	0.033 U	0.033 U	0.033 U
Indeno(1,2,3-c,d)Pyrene	**0.5**	0.5	0.053	0.19	0.11	0.055	0.033 U	0.064
Isophorone	NS	NS	0.14 U	0.14 U	0.13 U	0.13 U	0.13 U	0.13 U
Naphthalene	12	100	0.35 U	0.009 J	0.33 U	0.33 U	0.33 U	0.33 U
Nitrobenzene	NS	NS	0.035 U	0.035 U	0.033 U	0.033 U	0.033 U	0.033 U
N-Nitrosodi-N-Propylamine	NS	NS	0.035 U	0.035 U	0.033 U	0.033 U	0.033 U	0.033 U
N-Nitrosodiphenylamine	NS	NS	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
Pentachlorophenol	0.8	6.7	0.29 U	0.29 U	0.27 U	0.27 U	0.27 U	0.27 U
Phenanthrene	100	100	0.068 J	0.32 J	0.11 J	0.052 J	0.33 U	0.065 J
Phenol	0.33	100	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U	0.33 U
Pyrene	100	100	0.13 J	0.6	0.27 J	0.11 J	0.33 U	0.14 J

Table 4
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Analytical Results of Semivolatile Organic Compounds (SVOCs)

		AKRF Sample ID	SB-09_8-10_20241212	SB-09_10-12_20241212	SB-10_0-2_20241212	SB-10_2-4_20241212	SB-10_8-10_20241212	SB-11_0-2_20241212
		Laboratory Sample ID	460-317182-2	460-317182-3	460-317182-4	460-317182-5	460-317182-6	460-317182-7
		Date Sampled	12/12/2024	12/12/2024	12/12/2024	12/12/2024	12/12/2024	12/12/2024
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		Dilution Factor	1	1	1	1	1	1
Compound	**NYSDEC UUSCO**	**NYSDEC RRSCO**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
1,2,4,5-Tetrachlorobenzene	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,4-Dioxane (P-Dioxane)	0.1	13	0.033 U	0.033 U	0.033 U	0.033 U	0.033 U	0.033 U
2,3,4,6-Tetrachlorophenol	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
2,4,5-Trichlorophenol	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
2,4,6-Trichlorophenol	NS	NS	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2,4-Dichlorophenol	NS	NS	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2,4-Dimethylphenol	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
2,4-Dinitrophenol	NS	NS	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
2,4-Dinitrotoluene	NS	NS	0.067 U	0.067 U	0.067 U	0.068 U	0.067 U	0.067 U
2,6-Dinitrotoluene	NS	NS	0.067 U	0.067 U	0.067 U	0.068 U	0.067 U	0.067 U
2-Chloronaphthalene	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
2-Chlorophenol	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
2-Methylnaphthalene	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
2-Methylphenol (O-Cresol)	0.33	100	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
2-Nitroaniline	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
2-Nitrophenol	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
3- And 4- Methylphenol (Total)	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
3,3'-Dichlorobenzidine	NS	NS	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
3-Nitroaniline	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
4,6-Dinitro-2-Methylphenol	NS	NS	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
4-Bromophenyl Phenyl Ether	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
4-Chloro-3-Methylphenol	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
4-Chloroaniline	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
4-Chlorophenyl Phenyl Ether	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
4-Methylphenol (P-Cresol)	0.33	100	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
4-Nitroaniline	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
4-Nitrophenol	NS	NS	0.67 U	0.67 U	0.67 U	0.68 U	0.67 U	0.67 U
Acenaphthene	20	100	0.33 U	0.33 U	0.0097 J	0.0097 J	0.33 U	0.017 J
Acenaphthylene	100	100	0.33 U	0.33 U	0.012 J	0.051 J	0.33 U	0.33 U
Acetophenone	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Anthracene	100	100	0.33 U	0.33 U	0.034 J	0.086 J	0.33 U	0.028 J
Atrazine	NS	NS	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Benzaldehyde	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Benzo(a)Anthracene	**1**	1	0.033 U	0.033 U	0.19	0.61	0.033 U	0.075
Benzo(a)Pyrene	**1**	1	0.033 U	0.033 U	0.21	0.6	0.033 U	0.066
Benzo(b)Fluoranthene	**1**	1	0.033 U	0.033 U	0.25	0.67	0.033 U	0.092
Benzo(g,h,i)Perylene	100	100	0.33 U	0.33 U	0.12 J	0.39	0.33 U	0.039 J
Benzo(k)Fluoranthene	**0.8**	3.9	0.033 U	0.033 U	0.098	0.26	0.033 U	0.027 J
Benzyl Butyl Phthalate	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Biphenyl (Diphenyl)	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Bis(2-Chloroethoxy) Methane	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	NS	NS	0.033 U	0.033 U	0.033 U	0.033 U	0.033 U	0.033 U
Bis(2-Chloroisopropyl) Ether	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Bis(2-Ethylhexyl) Phthalate	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Caprolactam	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Carbazole	NS	NS	0.33 U	0.33 U	0.014 J	0.014 J	0.33 U	0.013 J
Chrysene	**1**	3.9	0.33 U	0.33 U	0.2 J	0.61	0.33 U	0.087 J
Dibenz(a,h)Anthracene	0.33	0.33	0.033 U	0.033 U	0.032 J	0.097	0.033 U	0.033 U
Dibenzofuran	7	59	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Diethyl Phthalate	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Dimethyl Phthalate	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Di-N-Butyl Phthalate	NS	NS	0.33 U	0.33 U	0.024 J	0.33 U	0.33 U	0.33 U
Di-N-Octylphthalate	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Fluoranthene	100	100	0.33 U	0.33 U	0.34	1	0.33 U	0.16 J
Fluorene	30	100	0.33 U	0.33 U	0.33 U	0.01 J	0.33 U	0.01 J
Hexachlorobenzene	0.33	1.2	0.033 U	0.033 U	0.033 U	0.033 U	0.033 U	0.033 U
Hexachlorobutadiene	NS	NS	0.067 U	0.067 U	0.067 U	0.068 U	0.067 U	0.067 U
Hexachlorocyclopentadiene	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Hexachloroethane	NS	NS	0.033 U	0.033 U	0.033 U	0.033 U	0.033 U	0.033 U
Indeno(1,2,3-c,d)Pyrene	**0.5**	0.5	0.033 U	0.033 U	0.12	0.36	0.033 U	0.036
Isophorone	NS	NS	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Naphthalene	12	100	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Nitrobenzene	NS	NS	0.033 U	0.033 U	0.033 U	0.033 U	0.033 U	0.033 U
N-Nitrosodi-N-Propylamine	NS	NS	0.033 U	0.033 U	0.033 U	0.033 U	0.033 U	0.033 U
N-Nitrosodiphenylamine	NS	NS	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Pentachlorophenol	0.8	6.7	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
Phenanthrene	100	100	0.33 U	0.33 U	0.17 J	0.29 J	0.33 U	0.11 J
Phenol	0.33	100	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Pyrene	100	100	0.33 U	0.33 U	0.34	1.2	0.33 U	0.14 J

Table 4
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Analytical Results of Semivolatile Organic Compounds (SVOCs)

		AKRF Sample ID	SB-11_2-4_20241212	SB-11_4-6_20241212	SB-12_0-2_20241211	SB-12_8-10_20241211	SB-12_10-12_20241211	SB-13_0-2_20241211
		Laboratory Sample ID	460-317182-8	460-317182-9	460-317091-3	460-317091-4	460-317091-5	460-317091-10
		Date Sampled	12/12/2024	12/12/2024	12/11/2024	12/11/2024	12/11/2024	12/11/2024
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		Dilution Factor	1	1	1	1	1	1
Compound	**NYSDEC UUSCO**	**NYSDEC RRSCO**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
1,2,4,5-Tetrachlorobenzene	NS	NS	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
1,4-Dioxane (P-Dioxane)	0.1	13	0.033 U	0.033 U	0.035 U	0.033 U	0.034 U	0.038 U
2,3,4,6-Tetrachlorophenol	NS	NS	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
2,4,5-Trichlorophenol	NS	NS	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
2,4,6-Trichlorophenol	NS	NS	0.13 U	0.13 U	0.14 U	0.13 U	0.14 U	0.15 U
2,4-Dichlorophenol	NS	NS	0.13 U	0.13 U	0.14 U	0.13 U	0.14 U	0.15 U
2,4-Dimethylphenol	NS	NS	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
2,4-Dinitrophenol	NS	NS	0.27 U	0.27 U	0.28 U	0.27 U	0.27 U	0.3 U
2,4-Dinitrotoluene	NS	NS	0.067 U	0.067 U	0.07 U	0.068 U	0.069 U	0.076 U
2,6-Dinitrotoluene	NS	NS	0.067 U	0.067 U	0.07 U	0.068 U	0.069 U	0.076 U
2-Chloronaphthalene	NS	NS	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
2-Chlorophenol	NS	NS	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
2-Methylnaphthalene	NS	NS	0.034 J	0.33 U	0.35 U	0.33 U	0.34 U	0.059 J
2-Methylphenol (O-Cresol)	0.33	100	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
2-Nitroaniline	NS	NS	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
2-Nitrophenol	NS	NS	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
3- And 4- Methylphenol (Total)	NS	NS	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
3,3'-Dichlorobenzidine	NS	NS	0.13 U	0.13 U	0.14 U	0.13 U	0.14 U	0.15 U
3-Nitroaniline	NS	NS	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
4,6-Dinitro-2-Methylphenol	NS	NS	0.27 U	0.27 U	0.28 U	0.27 U	0.27 U	0.3 U
4-Bromophenyl Phenyl Ether	NS	NS	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
4-Chloro-3-Methylphenol	NS	NS	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
4-Chloroaniline	NS	NS	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
4-Chlorophenyl Phenyl Ether	NS	NS	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
4-Methylphenol (P-Cresol)	0.33	100	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
4-Nitroaniline	NS	NS	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
4-Nitrophenol	NS	NS	0.67 U	0.67 U	0.7 U	0.68 U	0.69 U	0.76 U
Acenaphthene	20	100	0.29 J	0.33 U	0.35 U	0.33 U	0.34 U	0.26 J
Acenaphthylene	100	100	0.021 J	0.33 U	0.01 J	0.33 U	0.34 U	0.11 J
Acetophenone	NS	NS	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
Anthracene	100	100	0.35	0.33 U	0.019 J	0.33 U	0.34 U	0.9
Atrazine	NS	NS	0.13 U	0.13 U	0.14 U	0.13 U	0.14 U	0.15 U
Benzaldehyde	NS	NS	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
Benzo(a)Anthracene	**1**	1	0.87	0.033 U	0.12	0.033 U	0.034 U	**2.5**
Benzo(a)Pyrene	**1**	1	0.84	0.033 U	0.13	0.033 U	0.034 U	**2.2**
Benzo(b)Fluoranthene	**1**	1	**1.1**	0.033 U	0.16	0.033 U	0.034 U	**2.9**
Benzo(g,h,i)Perylene	100	100	0.42	0.33 U	0.077 J	0.33 U	0.34 U	1.2
Benzo(k)Fluoranthene	**0.8**	3.9	0.42	0.033 U	0.06	0.033 U	0.034 U	**1.1**
Benzyl Butyl Phthalate	NS	NS	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
Biphenyl (Diphenyl)	NS	NS	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.021 J
Bis(2-Chloroethoxy) Methane	NS	NS	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	NS	NS	0.033 U	0.033 U	0.035 U	0.033 U	0.034 U	0.038 U
Bis(2-Chloroisopropyl) Ether	NS	NS	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
Bis(2-Ethylhexyl) Phthalate	NS	NS	0.05 J	0.33 U	0.023 J	0.33 U	0.34 U	0.05 J
Caprolactam	NS	NS	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
Carbazole	NS	NS	0.15 J	0.33 U	0.35 U	0.33 U	0.34 U	0.37 J
Chrysene	**1**	3.9	0.86	0.33 U	0.13 J	0.33 U	0.34 U	**2.4**
Dibenz(a,h)Anthracene	0.33	0.33	0.11	0.033 U	0.018 J	0.033 U	0.034 U	0.31
Dibenzofuran	7	59	0.094 J	0.33 U	0.35 U	0.33 U	0.34 U	0.15 J
Diethyl Phthalate	NS	NS	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
Dimethyl Phthalate	NS	NS	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
Di-N-Butyl Phthalate	NS	NS	0.017 J	0.33 U	0.35 U	0.038 J	0.013 J	0.046 J
Di-N-Octylphthalate	NS	NS	0.33 U	0.33 U	0.35 U	0.6	0.19 J	0.38 U
Fluoranthene	100	100	2	0.33 U	0.22 J	0.33 U	0.34 U	5.5
Fluorene	30	100	0.17 J	0.33 U	0.35 U	0.33 U	0.34 U	0.23 J
Hexachlorobenzene	0.33	1.2	0.033 U	0.033 U	0.035 U	0.033 U	0.034 U	0.038 U
Hexachlorobutadiene	NS	NS	0.067 U	0.067 U	0.07 U	0.068 U	0.069 U	0.076 U
Hexachlorocyclopentadiene	NS	NS	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
Hexachloroethane	NS	NS	0.033 U	0.033 U	0.035 U	0.033 U	0.034 U	0.038 U
Indeno(1,2,3-c,d)Pyrene	**0.5**	0.5	0.41	0.033 U	0.077	0.033 U	0.034 U	**1.2**
Isophorone	NS	NS	0.13 U	0.13 U	0.14 U	0.13 U	0.14 U	0.15 U
Naphthalene	12	100	0.053 J	0.33 U	0.35 U	0.33 U	0.34 U	0.074 J
Nitrobenzene	NS	NS	0.033 U	0.033 U	0.035 U	0.033 U	0.034 U	0.038 U
N-Nitrosodi-N-Propylamine	NS	NS	0.033 U	0.033 U	0.035 U	0.033 U	0.034 U	0.038 U
N-Nitrosodiphenylamine	NS	NS	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
Pentachlorophenol	0.8	6.7	0.27 U	0.27 U	0.28 U	0.27 U	0.27 U	0.3 U
Phenanthrene	100	100	1.6	0.33 U	0.1 J	0.33 U	0.017 J	4.3
Phenol	0.33	100	0.33 U	0.33 U	0.35 U	0.33 U	0.34 U	0.38 U
Pyrene	100	100	1.7	0.33 U	0.21 J	0.33 U	0.013 J	4.7

Table 4
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Analytical Results of Semivolatile Organic Compounds (SVOCs)

		AKRF Sample ID	SB-13_2-4_20241211	SB-14_0-2_20241211	SB-14_2-4_20241211	SB-15_0-2_20241211	SB-15_2-4_20241211
		Laboratory Sample ID	460-317091-11	460-317091-8	460-317091-9	460-317091-6	460-317091-7
		Date Sampled	12/11/2024	12/11/2024	12/11/2024	12/11/2024	12/11/2024
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		Dilution Factor	1	1	1	1	1
Compound	**NYSDEC UUSCO**	**NYSDEC RRSCO**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
1,2,4,5-Tetrachlorobenzene	NS	NS	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
1,4-Dioxane (P-Dioxane)	0.1	13	0.036 U	0.036 U	0.036 U	0.035 U	0.034 U
2,3,4,6-Tetrachlorophenol	NS	NS	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
2,4,5-Trichlorophenol	NS	NS	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
2,4,6-Trichlorophenol	NS	NS	0.15 U	0.15 U	0.14 U	0.14 U	0.14 U
2,4-Dichlorophenol	NS	NS	0.15 U	0.15 U	0.14 U	0.14 U	0.14 U
2,4-Dimethylphenol	NS	NS	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
2,4-Dinitrophenol	NS	NS	0.29 U	0.29 U	0.29 U	0.28 U	0.28 U
2,4-Dinitrotoluene	NS	NS	0.074 U	0.074 U	0.072 U	0.071 U	0.069 U
2,6-Dinitrotoluene	NS	NS	0.074 U	0.074 U	0.072 U	0.071 U	0.069 U
2-Chloronaphthalene	NS	NS	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
2-Chlorophenol	NS	NS	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
2-Methylnaphthalene	NS	NS	0.36 U	0.084 J	0.094 J	0.35 U	0.028 J
2-Methylphenol (O-Cresol)	0.33	100	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
2-Nitroaniline	NS	NS	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
2-Nitrophenol	NS	NS	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
3- And 4- Methylphenol (Total)	NS	NS	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
3,3'-Dichlorobenzidine	NS	NS	0.15 U	0.15 U	0.14 U	0.14 U	0.14 U
3-Nitroaniline	NS	NS	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
4,6-Dinitro-2-Methylphenol	NS	NS	0.29 U	0.29 U	0.29 U	0.28 U	0.28 U
4-Bromophenyl Phenyl Ether	NS	NS	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
4-Chloro-3-Methylphenol	NS	NS	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
4-Chloroaniline	NS	NS	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
4-Chlorophenyl Phenyl Ether	NS	NS	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
4-Methylphenol (P-Cresol)	0.33	100	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
4-Nitroaniline	NS	NS	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
4-Nitrophenol	NS	NS	0.74 U	0.74 U	0.72 U	0.71 U	0.69 U
Acenaphthene	20	100	0.36 U	0.21 J	0.32 J	0.044 J	0.24 J
Acenaphthylene	100	100	0.36 U	0.18 J	0.27 J	0.023 J	0.13 J
Acetophenone	NS	NS	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
Anthracene	100	100	0.02 J	0.93	1	0.089 J	0.47
Atrazine	NS	NS	0.15 U	0.15 U	0.14 U	0.14 U	0.14 U
Benzaldehyde	NS	NS	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
Benzo(a)Anthracene	**1**	1	0.06	**1.9**	**2.8**	0.42	**1.7**
Benzo(a)Pyrene	**1**	1	0.044	**1.6**	**2.7**	0.44	**1.8**
Benzo(b)Fluoranthene	**1**	1	0.055	**2.2**	**3.8**	0.58	**2.5**
Benzo(g,h,i)Perylene	100	100	0.031 J	0.69	1.3	0.22 J	0.96
Benzo(k)Fluoranthene	**0.8**	3.9	0.025 J	**0.82**	**1.4**	0.22	**0.94**
Benzyl Butyl Phthalate	NS	NS	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
Biphenyl (Diphenyl)	NS	NS	0.36 U	0.026 J	0.028 J	0.35 U	0.34 U
Bis(2-Chloroethoxy) Methane	NS	NS	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	NS	NS	0.036 U	0.036 U	0.036 U	0.035 U	0.034 U
Bis(2-Chloroisopropyl) Ether	NS	NS	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
Bis(2-Ethylhexyl) Phthalate	NS	NS	0.36 U	0.8	0.24 J	0.35 U	0.34 U
Caprolactam	NS	NS	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
Carbazole	NS	NS	0.36 U	0.29 J	0.43	0.034 J	0.23 J
Chrysene	**1**	3.9	0.053 J	**1.8**	**2.8**	0.41	**1.7**
Dibenz(a,h)Anthracene	0.33	0.33	0.036 U	0.19	0.32	0.051	0.23
Dibenzofuran	7	59	0.36 U	0.23 J	0.21 J	0.35 U	0.078 J
Diethyl Phthalate	NS	NS	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
Dimethyl Phthalate	NS	NS	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
Di-N-Butyl Phthalate	NS	NS	0.36 U	0.071 J	0.032 J	0.35 U	0.036 J
Di-N-Octylphthalate	NS	NS	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
Fluoranthene	100	100	0.11 J	4.3	5.9	0.77	3.5
Fluorene	30	100	0.36 U	0.28 J	0.31 J	0.025 J	0.16 J
Hexachlorobenzene	0.33	1.2	0.036 U	0.036 U	0.036 U	0.035 U	0.034 U
Hexachlorobutadiene	NS	NS	0.074 U	0.074 U	0.072 U	0.071 U	0.069 U
Hexachlorocyclopentadiene	NS	NS	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
Hexachloroethane	NS	NS	0.036 U	0.036 U	0.036 U	0.035 U	0.034 U
Indeno(1,2,3-c,d)Pyrene	**0.5**	0.5	0.032 J	**0.77**	**1.4**	0.23	**1.1**
Isophorone	NS	NS	0.15 U	0.15 U	0.14 U	0.14 U	0.14 U
Naphthalene	12	100	0.36 U	0.069 J	0.12 J	0.0085 J	0.067 J
Nitrobenzene	NS	NS	0.036 U	0.036 U	0.036 U	0.035 U	0.034 U
N-Nitrosodi-N-Propylamine	NS	NS	0.036 U	0.036 U	0.036 U	0.035 U	0.034 U
N-Nitrosodiphenylamine	NS	NS	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
Pentachlorophenol	0.8	6.7	0.29 U	0.29 U	0.29 U	0.28 U	0.28 U
Phenanthrene	100	100	0.09 J	4.1	4.6	0.38	2
Phenol	0.33	100	0.36 U	0.36 U	0.36 U	0.35 U	0.34 U
Pyrene	100	100	0.11 J	3.6	5.1	0.7	2.9

Table 5
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Analytical Results of Metals

		AKRF Sample ID	SB-04_0-2_20241211	SB-04_2-4_20241211	SB-08_0-2_20241213	SB-08_2-4_20241213	SB-08_9-11_20241213
		Laboratory Sample ID	460-317091-1	460-317091-2	460-317270-1	460-317270-2	460-317270-3
		Date Sampled	12/11/2024	12/11/2024	12/13/2024	12/13/2024	12/13/2024
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		Dilution Factor	1	1	1	1	1
Compound	**NYSDEC UUSCO**	**NYSDEC RRSCO**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
Aluminum	NS	NS	6,570	5,950	5,770	8,140	2,730
Antimony	NS	NS	0.93 U	0.81 J	0.9 U	0.38 J	0.92 U
Arsenic	13	16	2.4	4.5	2.3	12.7	0.99
Barium	350	400	40.5	117	55.4	51.8	25.1
Beryllium	7.2	72	0.25 J	0.31 J	0.27 J	0.35 J	0.12 J
Cadmium	2.5	4.3	0.93 U	0.55 J	0.33 J	0.26 J	0.92 U
Calcium	NS	NS	6,550	4,010	24,400	2,100	1,380
Chromium, Total	NS	NS	12.1	16.2	10.7	14.4	3.1
Cobalt	NS	NS	4.7	5.7	3.9	5.6	0.75 J
Copper	**50**	270	18.2	**50.5**	23.4	**62.3**	5.3
Iron	NS	NS	10,800	17,100	9,120	15,700	11,100
Lead	**63**	400	57.4	**237**	44.3	62.5	1.7
Magnesium	NS	NS	3,950	3,410	5,300	2,370	422
Manganese	1,600	2,000	203	299	194	280	263
Mercury	**0.18**	0.81	0.062	0.084	0.043	0.064	0.016 U
Nickel	30	310	10.9	16.9	9.8	10.7	1.7 J
Potassium	NS	NS	968	741	800	636	896
Selenium	3.9	180	1.2 U	0.27 J	0.14 J	0.33 J	1.2 U
Silver	2	180	0.37 U	0.13 J	0.36 U	0.23 J	0.37 U
Sodium	NS	NS	88.9 J	90.8 J	192	65.9 J	256
Thallium	NS	NS	0.073 J	0.091 J	0.073 J	0.17 J	0.044 J
Vanadium	NS	NS	20.5	31.6	16	21.9	2.5
Zinc	**109**	10,000	50	**173**	63.5	48.5	44

Table 5
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Analytical Results of Metals

		AKRF Sample ID	SB-04_0-2_20241211	SB-09_0-2_20241212	SB-09_8-10_20241212	SB-09_10-12_20241212	SB-10_0-2_20241212
		Laboratory Sample ID	460-317091-1	460-317182-1	460-317182-2	460-317182-3	460-317182-4
		Date Sampled	12/11/2024	12/12/2024	12/12/2024	12/12/2024	12/12/2024
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		Dilution Factor	1	1	1	1	1
Compound	**NYSDEC UUSCO**	**NYSDEC RRSCO**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
Aluminum	NS	NS	6,570	6,190	3,520	1,980	5,680
Antimony	NS	NS	0.93 U	0.83 U	0.89 U	0.88 U	0.17 J
Arsenic	13	16	2.4	3.4	0.82 J	0.36 J	2.2
Barium	350	400	40.5	38.7	23.8	12.2	53.9
Beryllium	7.2	72	0.25 J	0.22 J	0.19 J	0.12 J	0.26 J
Cadmium	2.5	4.3	0.93 U	0.12 J	0.89 U	0.88 U	0.2 J
Calcium	NS	NS	6,550	20,300	783	18,800	5,860
Chromium, Total	NS	NS	12.1	11.4	6.9	4	14.6
Cobalt	NS	NS	4.7	5.5	3.2	1.7 J	4.9
Copper	**50**	270	18.2	18.2	12.3	4.3	23.6
Iron	NS	NS	10,800	11,700	7,520	3,700	11,400
Lead	**63**	400	57.4	44.7	4.9	1.2	**379**
Magnesium	NS	NS	3,950	4,060	1,720	9,170	5,110
Manganese	1,600	2,000	203	178	184	129	255
Mercury	**0.18**	0.81	0.062	0.059	0.015 U	0.016 U	0.067
Nickel	30	310	10.9	14.7	7.2	3.5	12.9
Potassium	NS	NS	968	853	549	316	1,090
Selenium	3.9	180	1.2 U	0.11 J	1.1 U	1.1 U	0.2 J
Silver	2	180	0.37 U	0.33 U	0.36 U	0.35 U	0.39 U
Sodium	NS	NS	88.9 J	521	234	152	371
Thallium	NS	NS	0.073 J	0.059 J	0.039 J	0.35 U	0.086 J
Vanadium	NS	NS	20.5	15.3	8.5	5	19.5
Zinc	**109**	10,000	50	43.8	16.6	10	62.8

Table 5
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Analytical Results of Metals

		AKRF Sample ID	SB-04_0-2_20241211	SB-10_2-4_20241212	SB-10_8-10_20241212	SB-11_0-2_20241212	SB-11_2-4_20241212
		Laboratory Sample ID	460-317091-1	460-317182-5	460-317182-6	460-317182-7	460-317182-8
		Date Sampled	12/11/2024	12/12/2024	12/12/2024	12/12/2024	12/12/2024
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		Dilution Factor	1	1	1	1	1
Compound	**NYSDEC UUSCO**	**NYSDEC RRSCO**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
Aluminum	NS	NS	6,570	3,470	7,110	7,140	7,800
Antimony	NS	NS	0.93 U	0.9 U	0.89 U	0.9 U	0.93 U
Arsenic	13	16	2.4	0.95	1.9	1.8	10
Barium	350	400	40.5	31.4	41	30.6	62.9
Beryllium	7.2	72	0.25 J	0.15 J	0.31 J	0.24 J	0.33 J
Cadmium	2.5	4.3	0.93 U	0.9 U	0.89 U	0.9 U	0.33 J
Calcium	NS	NS	6,550	1,240	12,900	10,000	2,070
Chromium, Total	NS	NS	12.1	9.7	25	12.2	24.5
Cobalt	NS	NS	4.7	3.1	6.6	6.1	8
Copper	**50**	270	18.2	13.4	45.5	16.6	**52.8**
Iron	NS	NS	10,800	6,230	18,000	11,300	15,300
Lead	**63**	400	57.4	23.9	3.4	10.5	**94.5**
Magnesium	NS	NS	3,950	1,820	6,260	3,730	3,730
Manganese	1,600	2,000	203	155	309	213	353
Mercury	**0.18**	0.81	0.062	0.049	0.016 U	0.054	0.1
Nickel	30	310	10.9	7.9	15.2	15.4	19.8
Potassium	NS	NS	968	585	771	810	1,140
Selenium	3.9	180	1.2 U	1.1 U	1.1 U	1.1 U	0.2 J
Silver	2	180	0.37 U	0.36 U	0.36 U	0.36 U	0.089 J
Sodium	NS	NS	88.9 J	249	862	308	289
Thallium	NS	NS	0.073 J	0.048 J	0.068 J	0.063 J	0.12 J
Vanadium	NS	NS	20.5	10.8	44.5	25.4	32
Zinc	**109**	10,000	50	39.3	30.4	27.1	**136**

Table 5
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Analytical Results of Metals

		AKRF Sample ID	SB-04_0-2_20241211	SB-11_4-6_20241212	SB-12_0-2_20241211	SB-12_8-10_20241211	SB-12_10-12_20241211
		Laboratory Sample ID	460-317091-1	460-317182-9	460-317091-3	460-317091-4	460-317091-5
		Date Sampled	12/11/2024	12/12/2024	12/11/2024	12/11/2024	12/11/2024
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		Dilution Factor	1	1	1	1	1
Compound	**NYSDEC UUSCO**	**NYSDEC RRSCO**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
Aluminum	NS	NS	6,570	4,200	6,270	4,420	3,880
Antimony	NS	NS	0.93 U	0.85 U	1 U	0.97 U	0.88 U
Arsenic	13	16	2.4	0.88	3.3	4.2	0.81 J
Barium	350	400	40.5	35.3	68.1	29.8	24.9
Beryllium	7.2	72	0.25 J	0.17 J	0.28 J	0.39	0.15 J
Cadmium	2.5	4.3	0.93 U	0.85 U	0.2 J	0.12 J	0.88 U
Calcium	NS	NS	6,550	1,530	8,180	6,330	7,100
Chromium, Total	NS	NS	12.1	9.7	12.8	8.7	8.3
Cobalt	NS	NS	4.7	3.8	4.1	4	3.6
Copper	**50**	270	18.2	16.4	20.4	13.1	17.4
Iron	NS	NS	10,800	8,180	9,960	8,470	7,990
Lead	**63**	400	57.4	3	**109**	4.3	4.6
Magnesium	NS	NS	3,950	2,290	4,210	4,930	5,350
Manganese	1,600	2,000	203	224	177	219	164
Mercury	**0.18**	0.81	0.062	0.016 U	0.024	0.016 U	0.025
Nickel	30	310	10.9	9.1	11	7.5	7.4
Potassium	NS	NS	968	578	716	1,100	1,010
Selenium	3.9	180	1.2 U	1.1 U	0.24 J	0.16 J	1.1 U
Silver	2	180	0.37 U	0.34 U	0.4 U	0.39 U	0.35 U
Sodium	NS	NS	88.9 J	188	149	181	166
Thallium	NS	NS	0.073 J	0.053 J	0.077 J	0.075 J	0.061 J
Vanadium	NS	NS	20.5	12.9	21.7	12	14.2
Zinc	**109**	10,000	50	17	74.3	29.8	21.6

Table 5
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Analytical Results of Metals

		AKRF Sample ID	SB-04_0-2_20241211	SB-13_0-2_20241211	SB-13_2-4_20241211	SB-14_0-2_20241211	SB-14_2-4_20241211
		Laboratory Sample ID	460-317091-1	460-317091-10	460-317091-11	460-317091-8	460-317091-9
		Date Sampled	12/11/2024	12/11/2024	12/11/2024	12/11/2024	12/11/2024
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		Dilution Factor	1	1	1	1	1
Compound	**NYSDEC UUSCO**	**NYSDEC RRSCO**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
Aluminum	NS	NS	6,570	6,520	8,030	4,700	5,890
Antimony	NS	NS	0.93 U	0.16 J	0.89 U	0.91 U	0.19 J
Arsenic	13	16	2.4	7.2	2.7	3.5	3.5
Barium	350	400	40.5	47.9	26.2	56	57.8
Beryllium	7.2	72	0.25 J	0.28 J	0.27 J	0.22 J	0.28 J
Cadmium	2.5	4.3	0.93 U	0.15 J	0.89 U	0.31 J	0.33 J
Calcium	NS	NS	6,550	15,400	889	4,600	5,860
Chromium, Total	NS	NS	12.1	10.7	14.9	15.9	15.1
Cobalt	NS	NS	4.7	4.2	4.9	4.6	5.8
Copper	**50**	270	18.2	30.6	15.4	25.5	41.2
Iron	NS	NS	10,800	12,000	11,300	9,250	10,900
Lead	**63**	400	57.4	41.8	6.2	**72**	**131**
Magnesium	NS	NS	3,950	4,760	2,280	4,030	3,870
Manganese	1,600	2,000	203	169	210	443	270
Mercury	**0.18**	0.81	0.062	**0.27**	0.018 U	0.079	0.11
Nickel	30	310	10.9	10.3	11.3	11.4	12.9
Potassium	NS	NS	968	580	875	746	878
Selenium	3.9	180	1.2 U	0.2 J	0.12 J	0.16 J	0.2 J
Silver	2	180	0.37 U	0.091 J	0.36 U	0.084 J	0.3 J
Sodium	NS	NS	88.9 J	67.2 J	81 J	103	151
Thallium	NS	NS	0.073 J	0.081 J	0.087 J	0.13 J	0.095 J
Vanadium	NS	NS	20.5	17.4	17.5	41.4	18.1
Zinc	**109**	10,000	50	50.2	23.8	59.2	87.7

Table 5
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Analytical Results of Metals

		AKRF Sample ID	SB-04_0-2_20241211	SB-15_0-2_20241211	SB-15_2-4_20241211
		Laboratory Sample ID	460-317091-1	460-317091-6	460-317091-7
		Date Sampled	12/11/2024	12/11/2024	12/11/2024
		Unit	mg/kg	mg/kg	mg/kg
		Dilution Factor	1	1	1
Compound	**NYSDEC UUSCO**	**NYSDEC RRSCO**	CONC Q	CONC Q	CONC Q
Aluminum	NS	NS	6,570	5,480	5,720
Antimony	NS	NS	0.93 U	0.93 U	0.18 J
Arsenic	13	16	2.4	2.7	3.3
Barium	350	400	40.5	43.5	57.8
Beryllium	7.2	72	0.25 J	0.25 J	0.27 J
Cadmium	2.5	4.3	0.93 U	0.2 J	0.25 J
Calcium	NS	NS	6,550	4,540	3,950
Chromium, Total	NS	NS	12.1	17	13.8
Cobalt	NS	NS	4.7	4.7	4.8
Copper	**50**	270	18.2	21.9	29.1
Iron	NS	NS	10,800	9,580	10,900
Lead	**63**	400	57.4	49.6	**90**
Magnesium	NS	NS	3,950	3,290	3,120
Manganese	1,600	2,000	203	206	239
Mercury	**0.18**	0.81	0.062	0.049	0.043
Nickel	30	310	10.9	12.2	12
Potassium	NS	NS	968	890	871
Selenium	3.9	180	1.2 U	1.2 U	0.17 J
Silver	2	180	0.37 U	0.37 U	0.087 J
Sodium	NS	NS	88.9 J	165	184
Thallium	NS	NS	0.073 J	0.067 J	0.08 J
Vanadium	NS	NS	20.5	16.2	19.5
Zinc	**109**	10,000	50	55	**126**

Table 6
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Analytical Results of Polychlorinated Biphenyls (PCBs)

		AKRF Sample ID	SB-04_0-2_20241211	SB-04_2-4_20241211	SB-08_0-2_20241213	SB-08_2-4_20241213	SB-08_9-11_20241213
		Laboratory Sample ID	460-317091-1	460-317091-2	460-317270-1	460-317270-2	460-317270-3
		Date Sampled	12/11/2024	12/11/2024	12/13/2024	12/13/2024	12/13/2024
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		Dilution Factor	1	1	1	1	1
Compound	**NYSDEC UUSCO**	**NYSDEC RRSCO**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
PCB-1016 (Aroclor 1016)	NS	NS	0.071 U	0.072 U	0.067 U	0.067 U	0.067 U
PCB-1221 (Aroclor 1221)	NS	NS	0.071 U	0.072 U	0.067 U	0.067 U	0.067 U
PCB-1232 (Aroclor 1232)	NS	NS	0.071 U	0.072 U	0.067 U	0.067 U	0.067 U
PCB-1242 (Aroclor 1242)	NS	NS	0.071 U	0.072 U	0.067 U	0.067 U	0.067 U
PCB-1248 (Aroclor 1248)	NS	NS	0.071 U	0.072 U	0.067 U	0.067 U	0.067 U
PCB-1254 (Aroclor 1254)	NS	NS	0.071 U	0.072 U	0.067 U	0.067 U	0.067 U
PCB-1260 (Aroclor 1260)	NS	NS	0.071 U	0.072 U	0.067 U	0.067 U	0.067 U
PCB-1262 (Aroclor 1262)	NS	NS	0.071 U	0.072 U	0.067 U	0.067 U	0.067 U
PCB-1268 (Aroclor 1268)	NS	NS	0.071 U	0.072 U	0.067 U	0.067 U	0.067 U
Total PCBs	0.1	1	0.071 U	0.072 U	0.067 U	0.067 U	0.067 U

Table 6
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Analytical Results of Polychlorinated Biphenyls (PCBs)

		AKRF Sample ID	SB-09_0-2_20241212	SB-09_8-10_20241212	SB-09_10-12_20241212	SB-10_0-2_20241212	SB-10_2-4_20241212
		Laboratory Sample ID	460-317182-1	460-317182-2	460-317182-3	460-317182-4	460-317182-5
		Date Sampled	12/12/2024	12/12/2024	12/12/2024	12/12/2024	12/12/2024
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		Dilution Factor	1	1	1	1	1
Compound	**NYSDEC UUSCO**	**NYSDEC RRSCO**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
PCB-1016 (Aroclor 1016)	NS	NS	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
PCB-1221 (Aroclor 1221)	NS	NS	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
PCB-1232 (Aroclor 1232)	NS	NS	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
PCB-1242 (Aroclor 1242)	NS	NS	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
PCB-1248 (Aroclor 1248)	NS	NS	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
PCB-1254 (Aroclor 1254)	NS	NS	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
PCB-1260 (Aroclor 1260)	NS	NS	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
PCB-1262 (Aroclor 1262)	NS	NS	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
PCB-1268 (Aroclor 1268)	NS	NS	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
Total PCBs	0.1	1	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U

Table 6
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Analytical Results of Polychlorinated Biphenyls (PCBs)

		AKRF Sample ID	SB-10_8-10_20241212	SB-11_0-2_20241212	SB-11_2-4_20241212	SB-11_4-6_20241212	SB-12_0-2_20241211
		Laboratory Sample ID	460-317182-6	460-317182-7	460-317182-8	460-317182-9	460-317091-3
		Date Sampled	12/12/2024	12/12/2024	12/12/2024	12/12/2024	12/11/2024
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		Dilution Factor	1	1	1	1	1
Compound	**NYSDEC UUSCO**	**NYSDEC RRSCO**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
PCB-1016 (Aroclor 1016)	NS	NS	0.067 U	0.067 U	0.067 U	0.067 U	0.07 U
PCB-1221 (Aroclor 1221)	NS	NS	0.067 U	0.067 U	0.067 U	0.067 U	0.07 U
PCB-1232 (Aroclor 1232)	NS	NS	0.067 U	0.067 U	0.067 U	0.067 U	0.07 U
PCB-1242 (Aroclor 1242)	NS	NS	0.067 U	0.067 U	0.067 U	0.067 U	0.07 U
PCB-1248 (Aroclor 1248)	NS	NS	0.067 U	0.067 U	0.067 U	0.067 U	0.07 U
PCB-1254 (Aroclor 1254)	NS	NS	0.067 U	0.067 U	0.067 U	0.067 U	0.07 U
PCB-1260 (Aroclor 1260)	NS	NS	0.067 U	0.067 U	0.067 U	0.067 U	0.07 U
PCB-1262 (Aroclor 1262)	NS	NS	0.067 U	0.067 U	0.067 U	0.067 U	0.07 U
PCB-1268 (Aroclor 1268)	NS	NS	0.067 U	0.067 U	0.067 U	0.067 U	0.07 U
Total PCBs	0.1	1	0.067 U	0.067 U	0.067 U	0.067 U	0.07 U

Table 6
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Analytical Results of Polychlorinated Biphenyls (PCBs)

		AKRF Sample ID	SB-12_8-10_20241211	SB-12_10-12_20241211	SB-13_0-2_20241211	SB-13_2-4_20241211	SB-14_0-2_20241211
		Laboratory Sample ID	460-317091-4	460-317091-5	460-317091-10	460-317091-11	460-317091-8
		Date Sampled	12/11/2024	12/11/2024	12/11/2024	12/11/2024	12/11/2024
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		Dilution Factor	1	1	1	1	1
Compound	**NYSDEC UUSCO**	**NYSDEC RRSCO**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
PCB-1016 (Aroclor 1016)	NS	NS	0.068 U	0.069 U	0.076 U	0.073 U	0.074 U
PCB-1221 (Aroclor 1221)	NS	NS	0.068 U	0.069 U	0.076 U	0.073 U	0.074 U
PCB-1232 (Aroclor 1232)	NS	NS	0.068 U	0.069 U	0.076 U	0.073 U	0.074 U
PCB-1242 (Aroclor 1242)	NS	NS	0.068 U	0.069 U	0.076 U	0.073 U	0.074 U
PCB-1248 (Aroclor 1248)	NS	NS	0.068 U	0.069 U	0.076 U	0.073 U	0.074 U
PCB-1254 (Aroclor 1254)	NS	NS	0.068 U	0.069 U	0.076 U	0.073 U	0.074 U
PCB-1260 (Aroclor 1260)	NS	NS	0.068 U	0.069 U	0.076 U	0.073 U	0.074 U
PCB-1262 (Aroclor 1262)	NS	NS	0.068 U	0.069 U	0.076 U	0.073 U	0.074 U
PCB-1268 (Aroclor 1268)	NS	NS	0.068 U	0.069 U	0.076 U	0.073 U	0.074 U
Total PCBs	0.1	1	0.068 U	0.069 U	0.076 U	0.073 U	0.074 U

Table 6
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Analytical Results of Polychlorinated Biphenyls (PCBs)

		AKRF Sample ID	SB-14_2-4_20241211	SB-15_0-2_20241211	SB-15_2-4_20241211
		Laboratory Sample ID	460-317091-9	460-317091-6	460-317091-7
		Date Sampled	12/11/2024	12/11/2024	12/11/2024
		Unit	mg/kg	mg/kg	mg/kg
		Dilution Factor	1	1	1
Compound	**NYSDEC UUSCO**	**NYSDEC RRSCO**	CONC Q	CONC Q	CONC Q
PCB-1016 (Aroclor 1016)	NS	NS	0.072 U	0.071 U	0.069 U
PCB-1221 (Aroclor 1221)	NS	NS	0.072 U	0.071 U	0.069 U
PCB-1232 (Aroclor 1232)	NS	NS	0.072 U	0.071 U	0.069 U
PCB-1242 (Aroclor 1242)	NS	NS	0.072 U	0.071 U	0.069 U
PCB-1248 (Aroclor 1248)	NS	NS	0.072 U	0.071 U	0.069 U
PCB-1254 (Aroclor 1254)	NS	NS	0.072 U	0.071 U	0.069 U
PCB-1260 (Aroclor 1260)	NS	NS	0.072 U	0.071 U	0.069 U
PCB-1262 (Aroclor 1262)	NS	NS	0.072 U	0.071 U	0.069 U
PCB-1268 (Aroclor 1268)	NS	NS	0.072 U	0.071 U	0.069 U
Total PCBs	0.1	1	0.072 U	0.071 U	0.069 U

Table 7
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Analytical Results of Pesticides

		AKRF Sample ID	SB-04_0-2_20241211	SB-04_2-4_20241211	SB-08_0-2_20241213	SB-08_2-4_20241213	SB-08_9-11_20241213
		Laboratory Sample ID	460-317091-1	460-317091-2	460-317270-1	460-317270-2	460-317270-3
		Date Sampled	12/11/2024	12/11/2024	12/13/2024	12/13/2024	12/13/2024
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		Dilution Factor	1	1	1	1	1
Compound	**NYSDEC UUSCO**	**NYSDEC RRSCO**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
Aldrin	0.005	0.097	0.0071 U	0.0072 U	0.0067 U	0.0067 U	0.0067 U
Alpha Bhc (Alpha Hexachlorocyclohexane)	0.02	0.48	0.0021 U	0.0021 U	0.002 U	0.002 U	0.002 U
Alpha Endosulfan	NS	NS	0.0071 U	0.0072 U	0.0067 U	0.0067 U	0.0067 U
Beta Bhc (Beta Hexachlorocyclohexane)	0.036	0.36	0.0021 U	0.0021 U	0.002 U	0.002 U	0.002 U
Beta Endosulfan	NS	NS	0.0071 U	0.0072 U	0.0067 U	0.0067 U	0.0067 U
cis-Chlordane	0.094	4.2	0.0071 U	0.0072 U	0.021	0.0067 U	0.0067 U
Delta BHC (Delta Hexachlorocyclohexane)	0.04	100	0.0021 U	0.0021 U	0.002 U	0.002 U	0.002 U
Dieldrin	0.005	0.2	0.0021 U	0.0021 U	0.002 U	0.002 U	0.002 U
Endosulfan Sulfate	NS	NS	0.0071 U	0.0072 U	0.0067 U	0.0067 U	0.0067 U
Endosulfans ABS	2.4	24	0 U	0 U	0 U	0 U	0 U
Endrin	0.014	11	0.0071 U	0.0072 U	0.0067 U	0.0067 U	0.0067 U
Endrin Aldehyde	NS	NS	0.0071 U	0.0072 U	0.0067 U	0.0067 U	0.0067 U
Endrin Ketone	NS	NS	0.0071 U	0.0072 U	0.0067 U	0.0067 U	0.0067 U
Gamma Bhc (Lindane)	0.1	1.3	0.0021 U	0.0021 U	0.002 U	0.002 U	0.002 U
Heptachlor	0.042	2.1	0.0071 U	0.0072 U	0.0067 U	0.0067 U	0.0067 U
Heptachlor Epoxide	NS	NS	0.0071 U	0.0072 U	0.0067 U	0.0067 U	0.0067 U
Methoxychlor	NS	NS	0.0071 U	0.0072 U	0.0067 U	0.0067 U	0.0067 U
P,P'-DDD	0.0033	13	0.0071 U	0.0072 U	0.0067 U	0.0067 U	0.0067 U
P,P'-DDE	**0.0033**	8.9	0.0071 U	0.0072 U	**0.0036 J**	0.0067 U	0.0067 U
P,P'-DDT	**0.0033**	7.9	0.0071 U	0.0072 U	**0.0084**	0.0067 U	0.0067 U
Toxaphene	NS	NS	0.071 U	0.072 U	0.067 U	0.067 U	0.067 U

Table 7
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Analytical Results of Pesticides

		AKRF Sample ID	SB-09_0-2_20241212	SB-09_8-10_20241212	SB-09_10-12_20241212	SB-10_0-2_20241212	SB-10_2-4_20241212
		Laboratory Sample ID	460-317182-1	460-317182-2	460-317182-3	460-317182-4	460-317182-5
		Date Sampled	12/12/2024	12/12/2024	12/12/2024	12/12/2024	12/12/2024
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		Dilution Factor	1	1	1	1	1
Compound	**NYSDEC UUSCO**	**NYSDEC RRSCO**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
Aldrin	0.005	0.097	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.0067 U
Alpha Bhc (Alpha Hexachlorocyclohexane)	0.02	0.48	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Alpha Endosulfan	NS	NS	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.0067 U
Beta Bhc (Beta Hexachlorocyclohexane)	0.036	0.36	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Beta Endosulfan	NS	NS	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.0067 U
cis-Chlordane	0.094	4.2	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.0067 U
Delta BHC (Delta Hexachlorocyclohexane)	0.04	100	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Dieldrin	0.005	0.2	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Endosulfan Sulfate	NS	NS	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.0067 U
Endosulfans ABS	2.4	24	0 U	0 U	0 U	0 U	0 U
Endrin	0.014	11	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.0067 U
Endrin Aldehyde	NS	NS	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.0067 U
Endrin Ketone	NS	NS	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.0067 U
Gamma Bhc (Lindane)	0.1	1.3	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Heptachlor	0.042	2.1	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.0067 U
Heptachlor Epoxide	NS	NS	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.0067 U
Methoxychlor	NS	NS	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.0067 U
P,P'-DDD	0.0033	13	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.0067 U
P,P'-DDE	**0.0033**	8.9	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.0067 U
P,P'-DDT	**0.0033**	7.9	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.0067 U
Toxaphene	NS	NS	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U

Table 7
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Analytical Results of Pesticides

		AKRF Sample ID	SB-10_8-10_20241212	SB-11_0-2_20241212	SB-11_2-4_20241212	SB-11_4-6_20241212	SB-12_0-2_20241211
		Laboratory Sample ID	460-317182-6	460-317182-7	460-317182-8	460-317182-9	460-317091-3
		Date Sampled	12/12/2024	12/12/2024	12/12/2024	12/12/2024	12/11/2024
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		Dilution Factor	1	1	1	1	1
Compound	**NYSDEC UUSCO**	**NYSDEC RRSCO**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
Aldrin	0.005	0.097	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.007 U
Alpha Bhc (Alpha Hexachlorocyclohexane)	0.02	0.48	0.002 U	0.002 U	0.002 U	0.002 U	0.0021 U
Alpha Endosulfan	NS	NS	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.007 U
Beta Bhc (Beta Hexachlorocyclohexane)	0.036	0.36	0.002 U	0.002 U	0.002 U	0.002 U	0.0021 U
Beta Endosulfan	NS	NS	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.007 U
cis-Chlordane	0.094	4.2	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.007 U
Delta BHC (Delta Hexachlorocyclohexane)	0.04	100	0.002 U	0.002 U	0.002 U	0.002 U	0.0021 U
Dieldrin	0.005	0.2	0.002 U	0.002 U	0.002 U	0.002 U	0.0021 U
Endosulfan Sulfate	NS	NS	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.007 U
Endosulfans ABS	2.4	24	0 U	0 U	0 U	0 U	0 U
Endrin	0.014	11	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.007 U
Endrin Aldehyde	NS	NS	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.007 U
Endrin Ketone	NS	NS	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.007 U
Gamma Bhc (Lindane)	0.1	1.3	0.002 U	0.002 U	0.002 U	0.002 U	0.0021 U
Heptachlor	0.042	2.1	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.007 U
Heptachlor Epoxide	NS	NS	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.007 U
Methoxychlor	NS	NS	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.007 U
P,P'-DDD	0.0033	13	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.007 U
P,P'-DDE	**0.0033**	8.9	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.007 U
P,P'-DDT	**0.0033**	7.9	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.007 U
Toxaphene	NS	NS	0.067 U	0.067 U	0.067 U	0.067 U	0.07 U

Table 7
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Analytical Results of Pesticides

		AKRF Sample ID	SB-12_8-10_20241211	SB-12_10-12_20241211	SB-13_0-2_20241211	SB-13_2-4_20241211	SB-14_0-2_20241211
		Laboratory Sample ID	460-317091-4	460-317091-5	460-317091-10	460-317091-11	460-317091-8
		Date Sampled	12/11/2024	12/11/2024	12/11/2024	12/11/2024	12/11/2024
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		Dilution Factor	1	1	1	1	1
Compound	**NYSDEC UUSCO**	**NYSDEC RRSCO**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
Aldrin	0.005	0.097	0.0068 U	0.0069 U	0.0076 U	0.0073 U	0.0074 U
Alpha Bhc (Alpha Hexachlorocyclohexane)	0.02	0.48	0.002 U	0.0021 U	0.0023 U	0.0022 U	0.0022 U
Alpha Endosulfan	NS	NS	0.0068 U	0.0069 U	0.0076 U	0.0073 U	0.0074 U
Beta Bhc (Beta Hexachlorocyclohexane)	0.036	0.36	0.002 U	0.0021 U	0.0023 U	0.0022 U	0.0022 U
Beta Endosulfan	NS	NS	0.0068 U	0.0069 U	0.0076 U	0.0073 U	0.0074 U
cis-Chlordane	0.094	4.2	0.0068 U	0.0069 U	0.0076 U	0.0073 U	0.0074 U
Delta BHC (Delta Hexachlorocyclohexane)	0.04	100	0.002 U	0.0021 U	0.0023 U	0.0022 U	0.0022 U
Dieldrin	0.005	0.2	0.002 U	0.0021 U	0.0023 U	0.0022 U	0.0022 U
Endosulfan Sulfate	NS	NS	0.0068 U	0.0069 U	0.0076 U	0.0073 U	0.0074 U
Endosulfans ABS	2.4	24	0 U	0 U	0 U	0 U	0 U
Endrin	0.014	11	0.0068 U	0.0069 U	0.0076 U	0.0073 U	0.0074 U
Endrin Aldehyde	NS	NS	0.0068 U	0.0069 U	0.0076 U	0.0073 U	0.0074 U
Endrin Ketone	NS	NS	0.0068 U	0.0069 U	0.0076 U	0.0073 U	0.0074 U
Gamma Bhc (Lindane)	0.1	1.3	0.002 U	0.0021 U	0.0023 U	0.0022 U	0.0022 U
Heptachlor	0.042	2.1	0.0068 U	0.0069 U	0.0076 U	0.0073 U	0.0074 U
Heptachlor Epoxide	NS	NS	0.0068 U	0.0069 U	0.0076 U	0.0073 U	0.0074 U
Methoxychlor	NS	NS	0.0068 U	0.0069 U	0.0076 U	0.0073 U	0.0074 U
P,P'-DDD	0.0033	13	0.0068 U	0.0069 U	0.0076 U	0.0073 U	0.0074 U
P,P'-DDE	**0.0033**	8.9	0.0068 U	0.0069 U	0.0076 U	0.0073 U	0.0074 U
P,P'-DDT	**0.0033**	7.9	0.0068 U	0.0069 U	0.0076 U	0.0073 U	0.0074 U
Toxaphene	NS	NS	0.068 U	0.069 U	0.076 U	0.073 U	0.074 U

Table 7
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Analytical Results of Pesticides

		AKRF Sample ID	SB-14_2-4_20241211	SB-15_0-2_20241211	SB-15_2-4_20241211
		Laboratory Sample ID	460-317091-9	460-317091-6	460-317091-7
		Date Sampled	12/11/2024	12/11/2024	12/11/2024
		Unit	mg/kg	mg/kg	mg/kg
		Dilution Factor	1	1	1
Compound	**NYSDEC UUSCO**	**NYSDEC RRSCO**	CONC Q	CONC Q	CONC Q
Aldrin	0.005	0.097	0.0072 U	0.0071 U	0.0069 U
Alpha Bhc (Alpha Hexachlorocyclohexane)	0.02	0.48	0.0022 U	0.0021 U	0.0021 U
Alpha Endosulfan	NS	NS	0.0072 U	0.0071 U	0.0069 U
Beta Bhc (Beta Hexachlorocyclohexane)	0.036	0.36	0.0022 U	0.0021 U	0.0021 U
Beta Endosulfan	NS	NS	0.0072 U	0.0071 U	0.0069 U
cis-Chlordane	0.094	4.2	0.0072 U	0.0071 U	0.0035 JP
Delta BHC (Delta Hexachlorocyclohexane)	0.04	100	0.0022 U	0.0021 U	0.0021 U
Dieldrin	0.005	0.2	0.0022 U	0.0021 U	0.0021 U
Endosulfan Sulfate	NS	NS	0.0072 U	0.0071 U	0.0069 U
Endosulfans ABS	2.4	24	0 U	0 U	0 U
Endrin	0.014	11	0.0072 U	0.0071 U	0.0069 U
Endrin Aldehyde	NS	NS	0.0072 U	0.0071 U	0.0069 U
Endrin Ketone	NS	NS	0.0072 U	0.0071 U	0.0069 U
Gamma Bhc (Lindane)	0.1	1.3	0.0022 U	0.0021 U	0.0021 U
Heptachlor	0.042	2.1	0.0072 U	0.0071 U	0.0069 U
Heptachlor Epoxide	NS	NS	0.0072 U	0.0071 U	0.0069 U
Methoxychlor	NS	NS	0.0072 U	0.0071 U	0.0069 U
P,P'-DDD	0.0033	13	0.0072 U	0.0071 U	0.0069 U
P,P'-DDE	**0.0033**	8.9	0.0072 U	0.0071 U	0.0069 U
P,P'-DDT	**0.0033**	7.9	0.0072 U	0.0071 U	0.0022 J
Toxaphene	NS	NS	0.072 U	0.071 U	0.069 U

Table 8
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Analytical Results of Per- and Polyfluoroalkyl Substances (PFAS)

			AKRF Sample ID	SB-08_0-2_20241213
			Laboratory Sample ID	460-317268-1
			Date Sampled	12/13/2024
			Dilution Factor	1
			Unit	ppb
Compound	**NYSDEC UUGV**	**NYSDEC RRGV**	CONC	Q
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	NS	NS	0.73	U
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	NS	NS	0.73	U
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	NS	NS	0.73	U
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	NS	NS	0.73	U
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	NS	NS	4.55	U
3-Perfluoropentylpropanoic acid (5:3 FTCA)	NS	NS	4.55	U
3-Perfluoropropylpropanoic acid (3:3 FTCA)	NS	NS	0.91	U
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NS	NS	0.73	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	NS	NS	0.73	U
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	NS	NS	0.73	U
N-ethylperfluorooctane sulfonamide (NEtFOSA)	NS	NS	0.18	U
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	NS	NS	1.82	U
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NS	NS	0.18	U
N-methylperfluorooctane sulfonamide (NMeFOSA)	NS	NS	0.18	U
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	NS	NS	1.82	U
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NS	NS	0.18	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NS	NS	0.36	U
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	NS	NS	0.36	UT
Perfluoro-3-methoxypropanoic acid (PFMPA)	NS	NS	0.36	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	NS	NS	0.36	U
Perfluorobutanesulfonic acid (PFBS)	NS	NS	0.18	U
Perfluorobutanoic acid (PFBA)	NS	NS	0.73	U
Perfluorodecanesulfonic acid (PFDS)	NS	NS	0.18	U
Perfluorodecanoic acid (PFDA)	NS	NS	0.18	U
Perfluorododecanesulfonic acid (PFDoS)	NS	NS	0.18	U
Perfluorododecanoic acid (PFDoA)	NS	NS	0.18	U
Perfluoroheptanesulfonic acid (PFHpS)	NS	NS	0.18	U
Perfluoroheptanoic acid (PFHpA)	NS	NS	0.18	U
Perfluorohexanesulfonic acid (PFHxS)	NS	NS	0.18	U
Perfluorohexanoic acid (PFHxA)	NS	NS	0.18	U
Perfluorononanesulfonic acid (PFNS)	NS	NS	0.18	U
Perfluorononanoic acid (PFNA)	NS	NS	0.11	J
Perfluorooctanesulfonamide (PFOSA)	NS	NS	0.18	U
Perfluorooctanesulfonic acid (PFOS)	**0.88**	44	**2.17**	**T**
Perfluorooctanoic acid (PFOA)	0.66	33	0.18	U
Perfluoropentanesulfonic acid (PFPeS)	NS	NS	0.18	U
Perfluoropentanoic acid (PFPeA)	NS	NS	0.36	U
Perfluorotetradecanoic acid (PFTeDA)	NS	NS	0.18	U
Perfluorotridecanoic acid (PFTrDA)	NS	NS	0.18	U
Perfluoroundecanoic acid (PFUnA)	NS	NS	0.18	U

Table 9
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Groundwater Analytical Results of VOCs

AKRF Sample ID		TW-08_20241213	TW-09_20241212	TW-10_20241212	TB-01_20241211	TB-01_20241213
Laboratory Sample ID		460-317271-1	460-317271-2	460-317271-3	460-317091-12	460-317271-4
Date Sampled		12/13/2024	12/12/2024	12/12/2024	12/11/2024	12/13/2024
Unit		µg/L	µg/L	µg/L	µg/L	µg/L
Dilution Factor		1	1	1	1	1
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
1,1,1-Trichloroethane	5	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF)	5	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	5	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	5	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	5	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	5	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	0.04	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane (Ethylene Dibromide)	0.0006	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.6	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U
2-Hexanone	50	5 U	5 U	5 U	5 U	5 U
Acetone	50	5 U	5 U	5 U	5 U	5 U
Benzene	1	1 U	1 U	1 U	1 U	1 U
Bromochloromethane	5	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50	0.35 J	1 U	0.34 J	1 U	1 U
Bromoform	50	1 U	1 U	1 U	1 U	1 U
Bromomethane	5	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide	60	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	5	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	1 U	1 U	1 U	1 U	1 U
Chloroethane	5	1 U	1 U	1 U	1 U	1 U
Chloroform	7	2.9	3.9	1.7	1 U	1 U
Chloromethane	5	1 U	1 U	1 U	1 U	1 U
Cis-1,2-Dichloroethylene	5	1 U	3.2	4.7	1 U	1 U
Cis-1,3-Dichloropropene	NS	1 U	1 U	1 U	1 U	1 U
Cyclohexane	NS	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50	0.48 J	1 U	0.47 J	1 U	1 U
Dichlorodifluoromethane	5	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	5	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene (Cumene)	5	1 U	1 U	1 U	1 U	1 U
M,P-Xylenes	5	1 U	1 U	1 U	1 U	1 U
Methyl Acetate	NS	5 U	5 U	5 U	5 U	5 U
Methyl Ethyl Ketone (2-Butanone)	50	5 U	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	NS	5 U	5 U	5 U	5 UT	5 U
Methylcyclohexane	NS	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	5	1 U	1 U	1 U	1 U	1 U
N-Butylbenzene	5	1 U	1 U	1 U	1 U	1 U
N-Propylbenzene	5	1 U	1 U	1 U	1 U	1 U
O-Xylene (1,2-Dimethylbenzene)	5	1 U	1 U	1 U	1 U	1 U
Sec-Butylbenzene	5	1 U	1 U	1 U	1 U	1 U
Styrene	5	1 U	1 U	1 U	1 U	1 U
T-Butylbenzene	5	1 U	1 U	1 U	1 U	1 U
Tert-Butyl Methyl Ether	10	1 U	1 U	1 U	1 U	1 U
Tetrachloroethylene (PCE)	**5**	**60**	**270**	**310**	1 U	1 U
Toluene	5	1 U	1 U	1 U	1 U	1 U
Trans-1,2-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U
Trans-1,3-Dichloropropene	NS	1 U	1 U	1 U	1 U	1 U
Trichloroethylene (TCE)	5	1 U	1.5	2.5	1 U	1 U
Trichlorofluoromethane	5	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	2	1 U	1 U	1 U	1 U	1 U
Xylenes, Total	NS	2 U	2 U	2 U	2 U	2 U

Table 10
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Groundwater Analytical Results of SVOCs

	AKRF Sample ID	TW-08_20241213	TW-09_20241212	TW-10_20241212
	Laboratory Sample ID	460-317271-1	460-317271-2	460-317271-3
	Date Sampled	12/13/2024	12/12/2024	12/12/2024
	Unit	µg/L	µg/L	µg/L
	Dilution Factor	1	1	1
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q
1,2,4,5-Tetrachlorobenzene	5	10 U	10 U	10 U
1,4-Dioxane (P-Dioxane)	0.35	0.1 J	0.2 U	0.13 J
2,3,4,6-Tetrachlorophenol	NS	10 U	10 U	10 U
2,4,5-Trichlorophenol	NS	10 U	10 U	10 U
2,4,6-Trichlorophenol	NS	10 U	10 U	10 U
2,4-Dichlorophenol	5	10 U	10 U	10 U
2,4-Dimethylphenol	50	10 U	10 U	10 U
2,4-Dinitrophenol	10	40 U	40 U	40 U
2,4-Dinitrotoluene	5	10 U	10 U	10 U
2,6-Dinitrotoluene	5	2 U	2 U	2 U
2-Chloronaphthalene	10	10 U	10 U	10 U
2-Chlorophenol	NS	10 U	10 U	10 U
2-Methylnaphthalene	NS	10 U	10 U	10 U
2-Methylphenol (O-Cresol)	NS	10 U	10 U	10 U
2-Nitroaniline	5	10 U	10 U	10 U
2-Nitrophenol	NS	10 U	10 U	10 U
3- And 4- Methylphenol (Total)	NS	10 U	10 U	10 U
3,3'-Dichlorobenzidine	5	10 U	10 U	10 U
3-Nitroaniline	5	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	NS	20 U	20 U	20 U
4-Bromophenyl Phenyl Ether	NS	10 U	10 U	10 U
4-Chloro-3-Methylphenol	NS	10 U	10 U	10 U
4-Chloroaniline	5	10 U	10 U	10 U
4-Chlorophenyl Phenyl Ether	NS	10 U	10 U	10 U
4-Methylphenol (P-Cresol)	NS	10 U	10 U	10 U
4-Nitroaniline	5	10 U	10 U	10 U
4-Nitrophenol	NS	20 U	20 U	20 U
Acenaphthene	20	10 U	10 U	10 U
Acenaphthylene	NS	10 U	10 U	10 U
Acetophenone	NS	10 U	10 U	10 U
Anthracene	50	10 U	10 U	10 U
Atrazine	7.5	2 U	2 U	2 U
Benzaldehyde	NS	10 U	10 U	10 U
Benzo(a)Anthracene	0.002	1 U	1 U	1 U
Benzo(a)Pyrene	ND	1 U	1 U	1 U
Benzo(b)Fluoranthene	0.002	2 U	2 U	2 U
Benzo(g,h,i)Perylene	NS	10 U	10 U	10 U
Benzo(k)Fluoranthene	0.002	1 U	1 U	1 U
Benzyl Butyl Phthalate	50	10 U	10 U	10 U
Biphenyl (Diphenyl)	5	10 U	10 U	10 U
Bis(2-Chloroethoxy) Methane	5	10 U	10 U	10 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	1	1 U	1 U	1 U
Bis(2-Chloroisopropyl) Ether	5	10 U	10 U	10 U
Bis(2-Ethylhexyl) Phthalate	5	2 U	2 U	2 U
Caprolactam	NS	18	21	16
Carbazole	NS	10 U	10 U	10 U
Chrysene	0.002	2 U	2 U	2 U
Dibenz(a,h)Anthracene	NS	1 U	1 U	1 U
Dibenzofuran	NS	10 U	10 U	10 U
Diethyl Phthalate	50	10 U	10 U	10 U
Dimethyl Phthalate	50	10 U	10 U	10 U
Di-N-Butyl Phthalate	50	8.9 J	6.5 J	4.4 J
Di-N-Octylphthalate	50	10 U	10 U	10 U
Fluoranthene	50	10 U	10 U	10 U
Fluorene	50	10 U	10 U	10 U
Hexachlorobenzene	0.04	1 U	1 U	1 U
Hexachlorobutadiene	0.5	1 U	1 U	1 U
Hexachlorocyclopentadiene	5	10 U	10 U	10 U
Hexachloroethane	5	2 U	2 U	2 U
Indeno(1,2,3-c,d)Pyrene	0.002	2 U	2 U	2 U
Isophorone	50	10 U	10 U	10 U
Naphthalene	10	2 U	2 U	2 U
Nitrobenzene	0.4	1 U	1 U	1 U
N-Nitrosodi-N-Propylamine	NS	1 U	1 U	1 U
N-Nitrosodiphenylamine	50	10 U	10 U	10 U
Pentachlorophenol	NS	20 U	20 U	20 U
Phenanthrene	50	10 U	10 U	10 U
Phenol	1	10 U	10 U	10 U
Pyrene	50	10 U	10 U	10 U

Table 11
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Groundwater Analytical Results of Total Metals

AKRF Sample ID		TW-08_20241213	TW-09_20241212	TW-10_20241212
Laboratory Sample ID		460-317271-1	460-317271-2	460-317271-3
Date Sampled		12/13/2024	12/12/2024	12/12/2024
Unit		µg/L	µg/L	µg/L
Dilution Factor		1	1	1
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q
Aluminum	NS	98,100	311,000	134,000
Antimony	3	0.69 J	2.2 J	0.71 J
Arsenic	**25**	23	**73.3**	**28.6**
Barium	**1,000**	**1,620**	**4,580**	**1,700**
Beryllium	**3**	**4.6**	**14**	**6.6**
Cadmium	5	1.9 J	4	2.9
Calcium	NS	532,000	585,000	780,000
Chromium, Total	**50**	**303**	**1,350**	**429**
Cobalt	NS	162	311	175
Copper	**200**	**319**	**1,000**	**419**
Iron	**300**	**185,000**	**667,000**	**292,000**
Lead	**25**	**88.4**	**707**	**113**
Magnesium	**35,000**	**164,000**	**370,000**	**295,000**
Manganese	**300**	**9,530**	**18,400**	**7,990**
Mercury	**0.7**	0.35	**1.1**	0.11 J
Nickel	**100**	**270**	**814**	**303**
Potassium	NS	34,900	111,000	40,300
Selenium	10	2.5	4 J	2.6
Silver	50	2 U	4 U	2 U
Sodium	**20,000**	**82,900**	**122,000**	**123,000**
Thallium	**0.5**	**0.61 J**	**1.6**	**0.75 J**
Vanadium	NS	304	913	427
Zinc	**2,000**	596	**2,040**	826

Table 12
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Groundwater Analytical Results of Dissolved Metals

AKRF Sample ID		TW-08_20241213	TW-09_20241212	TW-10_20241212
Laboratory Sample ID		460-317271-1	460-317271-2	460-317271-3
Date Sampled		12/13/2024	12/12/2024	12/12/2024
Unit		µg/L	µg/L	µg/L
Dilution Factor		1	1	1
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q
Aluminum	NS	40 U	29.7 J	40 U
Antimony	3	2 U	2 U	2 U
Arsenic	25	2 U	2 U	2 U
Barium	1,000	57.6	62.9	65.3
Beryllium	3	0.8 U	0.8 U	0.8 U
Cadmium	5	2 U	2 U	2 U
Calcium	NS	57,900	92,700	47,500
Chromium, Total	50	4 U	4 U	4 U
Cobalt	NS	2.4 J	4.8	1.5 J
Copper	200	4.6	2.6 J	5.1
Iron	300	120 U	69.7 J	120 U
Lead	25	1.2 U	1.2 U	1.2 U
Magnesium	35,000	22,700	33,900	11,000
Manganese	**300**	69	**412**	44.9
Mercury	0.7	0.2 U	0.2 U	0.2 U
Nickel	100	1.7 J	4.8	3.1 J
Potassium	NS	5,100	4,910	4,780
Selenium	10	1.6 J	2.2 J	1.3 J
Silver	50	2 U	2 U	2 U
Sodium	**20,000**	**87,500**	**134,000**	**97,700**
Thallium	0.5	0.8 U	0.8 U	0.8 U
Vanadium	NS	4 U	4 U	4 U
Zinc	2,000	16 U	16 U	11.3 J

Table 13
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Groundwater Analytical Results of PCBs

AKRF Sample ID		TW-08_20241213	TW-09_20241212	TW-10_20241212
Laboratory Sample ID		460-317271-1	460-317271-2	460-317271-3
Date Sampled		12/13/2024	12/12/2024	12/12/2024
Unit		µg/L	µg/L	µg/L
Dilution Factor		1	1	1
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q
PCB-1016 (Aroclor 1016)	NS	0.4 U	0.4 U	0.4 U
PCB-1221 (Aroclor 1221)	NS	0.4 U	0.4 U	0.4 U
PCB-1232 (Aroclor 1232)	NS	0.4 U	0.4 U	0.4 U
PCB-1242 (Aroclor 1242)	NS	0.4 U	0.4 U	0.4 U
PCB-1248 (Aroclor 1248)	NS	0.4 U	0.4 U	0.4 U
PCB-1254 (Aroclor 1254)	NS	0.4 U	0.4 U	0.4 U
PCB-1260 (Aroclor 1260)	NS	0.4 U	0.4 U	0.4 U
PCB-1262 (Aroclor 1262)	NS	0.4 U	0.4 U	0.4 U
PCB-1268 (Aroclor 1268)	NS	0.4 U	0.4 U	0.4 U
Total PCBs	0.09	0.4 U	0.4 U	0.4 U

Table 14
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Groundwater Analytical Results of Pesticides

AKRF Sample ID		TW-08_20241213	TW-09_20241212	TW-10_20241212
Laboratory Sample ID		460-317271-1	460-317271-2	460-317271-3
Date Sampled		12/13/2024	12/12/2024	12/12/2024
Unit		µg/L	µg/L	µg/L
Dilution Factor		1	1	1
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q
Aldrin	ND	0.02 U	0.02 U	0.02 U
Alpha Bhc (Alpha Hexachlorocyclohexane)	0.01	0.02 U	0.02 U	0.02 U
Alpha Endosulfan	NS	0.02 U	0.02 U	0.02 U
Beta Bhc (Beta Hexachlorocyclohexane)	0.04	0.02 U	0.02 U	0.02 U
Beta Endosulfan	NS	0.02 U	0.02 U	0.02 U
cis-Chlordane	NS	0.02 U	0.02 U	0.02 U
Delta BHC (Delta Hexachlorocyclohexane)	0.04	0.02 U	0.02 U	0.02 U
Dieldrin	0.004	0.02 U	0.02 U	0.02 U
Endosulfan Sulfate	NS	0.02 U	0.02 U	0.02 U
Endosulfans ABS	NS	0 U	0 U	0 U
Endrin	ND	0.02 U	0.02 U	0.02 U
Endrin Aldehyde	5	0.02 U	0.02 U	0.02 U
Endrin Ketone	5	0.02 U	0.02 U	0.02 U
Gamma Bhc (Lindane)	0.05	0.02 U	0.02 U	0.02 U
Heptachlor	0.04	0.02 U	0.02 U	0.02 U
Heptachlor Epoxide	0.03	0.02 U	0.02 U	0.02 U
Methoxychlor	35	0.02 U	0.02 U	0.02 U
P,P'-DDD	0.3	0.02 U	0.02 U	0.02 U
P,P'-DDE	0.2	0.02 U	0.02 U	0.02 U
P,P'-DDT	0.2	0.02 U	0.02 U	0.02 U
Toxaphene	0.06	0.5 U	0.5 U	0.5 U

Table 15
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Soil Vapor Analytical Results of VOCs

AKRF Sample ID	SV-06_20241213		SV-07_20241213		SV-11_20241213	
Laboratory Sample ID	200-76306-1		200-76306-2		200-76306-3	
Date Sampled	12/13/2024		12/13/2024		12/13/2024	
Unit	µg/m^3		µg/m^3		µg/m^3	
Dilution Factor	10		10		10	
Compound	CONC	Q	CONC	Q	CONC	Q
1,3-Butadiene	13		5.6		4.4	U
2,2,4-Trimethylpentane	2.3	J	3.5	J	9.3	U
Acetone	54	J	78	J	120	U
Benzene	5	J	3.7	J	6.4	U
Butane	45		66		12	U
Carbon Disulfide	21		12	J	16	U
Chloroform	9.8	U	9.8	U	3.1	J
Cis-1,2-Dichloroethylene	2	U	2	U	7.9	
Cyclohexane	5.9	J	13		6.9	U
Methyl Ethyl Ketone (2-Butanone)	14	J	18		15	U
N-Heptane	3.6	J	9.4		8.2	U
N-Hexane	11	J	25		18	U
Styrene	8.5	U	8.5	U	3.1	J
Tetrachloroethylene (PCE)	14	U	1.4	J	25	
Toluene	5.5	J	2.6	J	7.5	U
Trichloroethylene (TCE)	2	U	2	U	4.4	

Tables 3-15
31-07 31st St
Queens, NY
Subsurface (Phase II) Investigation
Notes

DEFINITIONS

J	:	The concentration given is an estimated value.
ND	:	The standard is a non-detectable concentration by the approved analytical method.
NS	:	No standard.
P	:	Indicates a pesticide/aroclor target analyte had a percent difference greater than 25% between the two gc columns. The lower of the two results is reported.
T	:	Indicates that a quality control parameter has exceeded laboratory limits.
U	:	The analyte was not detected at the indicated concentration.
mg/kg	:	milligrams per kilogram
ppb	:	parts per billion
µg/L	:	micrograms per liter
µg/m^3	:	micrograms per cubic meter of air

STANDARDS

Part 375 Soil Cleanup Objectives	:	Soil Cleanup Objectives listed in New York State Department of Environmental Conservation (NYSDEC) "Part 375" Regulations [6 New York Codes, Rules and Regulations (NYCRR) Part 375].

Note: Endosulfans ABS represents the detected sum of Endosulfan I, Endosulfan II, and Endosulfan Sulfate.

Exceedances of Part 375 Unrestricted Use Soil Cleanup Objectives (UUSCOs) are highlighted in bold font.
Exceedances of Part 375 Restricted Residential Soil Cleanup Objectives (RRSCOs) are highlighted in gray shading.

NYSDEC Class GA AWQSGVs	:	New York State Department of Environmental Conservation (NYSDEC) Technical and Operational Guidance Series (1.1.1): Class GA Ambient Water Quality Standards and Guidance Values (AWQSGVs).

Exceedances of NYSDEC Class GA AWQSGVs are highlighted in bold font.

APPENDIX A
PREVIOUS REPORTS

APPENDIX B
GEOPHYSICAL REPORT

Coastal Environmental Solutions, Inc.

GEOPHYSICAL INVESTIGATION REPORT

31-07 31st Street, Astoria, NY
Date of Investigation: 12/11/2024

Prepared for:

AKRF, Inc.
440 Park Avenue South
New York, New York 10016

Prepared By:

Dennis Berthold
Director of Geophysical Operations
Coastal Environmental Solutions, Inc.
PO Box 342
Medford, New York 11763

1.0 INTRODUCTION

On 12/11/2024, Coastal Environmental Solutions, Inc (Coastal) personnel performed a limited Geophysical Investigation at the site located at 31-07 31st Street, Astoria, NY. The areas of interest include multiple locations across the asphalt parking lot as indicated by the client. Surface conditions consisted of asphalt.

2.0 SCOPE OF WORK

1. Locate and mark detectable underground utilities and other subsurface anomalies in close proximity to client proposed soil boring locations.

3.0 EQUIPMENT

ImpulseRadar PinPointR Ultra-Wide Band (UWB) Penetrating Radar System

Ground Penetrating RADAR (GPR) is a non-destructive geophysical method that produces a continuous cross-sectional profile of subsurface features in real time. GPR operates by transmitting both high and low frequency electromagnetic wave pulses down into the ground through a transmitter in the antenna. The transmitted electromagnetic waves reflect off materials with contrasting dielectric properties from surrounding medium such as underground storage tanks, utilities, distinct contacts between different earth materials, and other various subsurface objects. The antenna receiver collects the reflected electromagnetic waves which are then interpreted by the operator.

The ImpulseRadar PinPointR UWB GPR utilizes a dual band 400/800 MHz HS antenna mounted to a stroller frame which rolls over the surface. The total depth of penetration achieved with the antenna can be up to 10 feet but widely varies based on site-specific subsurface conditions. Conductive materials in the soil attenuate the GPR signal causing a decrease in effective depth of penetration and clarity.

Vivax-Metrotech vLoc3-Pro Receiver/Transmitter

The vLoc3-Pro Receiver is a hand-operated antenna capable of detecting electromagnetic (EM) fields emitted from a source. The EM antenna can detect pipes and cables in the ground at depths of up to 20 feet using active or passive tracing techniques. Passive tracing is the act of locating an underground utility through the detection of electrical or radio signals travelling along conductive utilities. Active tracing is used in conjunction with the Transmitter that is directly connected to the target utility or to a conductive rodder within a non-conductive line. A signal is sent through the utility at a specific frequency that can be detected by the Receiver. The detectability of a target utility depends on many factors including access to the target utility, grounding, depth of utility, conductivity, and other site-specific factors.

TW-6 Pipe and Cable Locator

The TW-6 Pipe and Cable locator is a handheld magnetometer which utilizes a transmitter-receiver pair attached to opposite ends of a handle and carried approximately 1-2ft from the surface. The magnetometer induces an electromagnetic (EM) field into the ground that is generated by the transmitter. Once the induced EM field passes through a buried metallic object, it generates a

secondary EM field which is detected by the receiver, generating an audible tone. Based on the calibration of the magnetometer, the audible tone reflects the strongest response as the highest pitched sound, trailing off on all sides of the peak. This piece of technology can be used to detect subsurface features such as metallic USTs, large diameter conductive pipes, and buried manholes, especially in areas in which traditional GPR methods cannot be utilized, such as overgrown or uneven surfaces.

4.0 METHODOLOGY

1. A subsurface investigation was performed in close proximity to the client proposed soil boring locations. Active and passive detection methods were utilized with the VLoc3-Pro receiver/transmitter. Coastal personnel direct connected to all accessible and traceable pipes, conduits, valve covers, and any other surface feature throughout the site. A passive scan was performed throughout the site to detect any potential underground utilities that could not be located with active scan.
2. The TW-6 was utilized (if applicable) to sweep any accessible areas for suspected UST locations in 3-to-5-foot spacings for readings that may represent a buried metallic anomaly. Upon detection of a reading, the approximate size and shape of the anomalous area was marked on the surface to be investigated further with GPR.
3. GPR was utilized to further characterize the approximate dimensions, depth, and shape of the anomalies located with the TW-6. The remainder of the areas around suspected detections were scanned with GPR in 3-to-5-foot spacing to locate any anomalous features not previously detected such as non-conductive piping and former excavations.
4. All findings were marked on the surface utilizing the American Public Works Association (APWA) recommended color code, seen below:

WHITE	Proposed Excavation
PINK	Temporary Survey Markings (Approximate UST Locations, Soil Boring Locations)
RED	Electric Power Lines, Cables, Conduit and Lighting Cables
YELLOW	Gas, Oil, Steam, Petroleum or Gaseous Materials
ORANGE	Communication, Alarm or Signal Lines, Cables or Conduit
BLUE	Water (Domestic and Fire Lines)
PURPLE	Irrigation, Slurry Lines, Reclaimed Water
GREEN	Sewers and Drain Lines

5.0 SUMMARY OF FINDINGS

Subsurface Investigation

Coastal personnel conducted a subsurface investigation on all accessible locations within the areas of concern. The site was first investigated with AKRF and Coastal personnel to identify the limit of the scope of work and identify any surface features identifying utilities. Upon visual inspection of the site, a large portion of the center of the parking lot was occupied by materials and equipment staged by another contractor working in the adjacent roadway. Coastal investigated the site for any surface and subsurface features related to utilities and after a thorough search with GPR and EM antennas, multiple features were detected. Multiple shallow electrical lines were located and

marked leading to the site lighting and parking meters within the lot. Also identified was a series of interconnected storm drains and a partially marked unknown line. Coastal proceeded to clear the proposed boring locations prior to drilling activities.

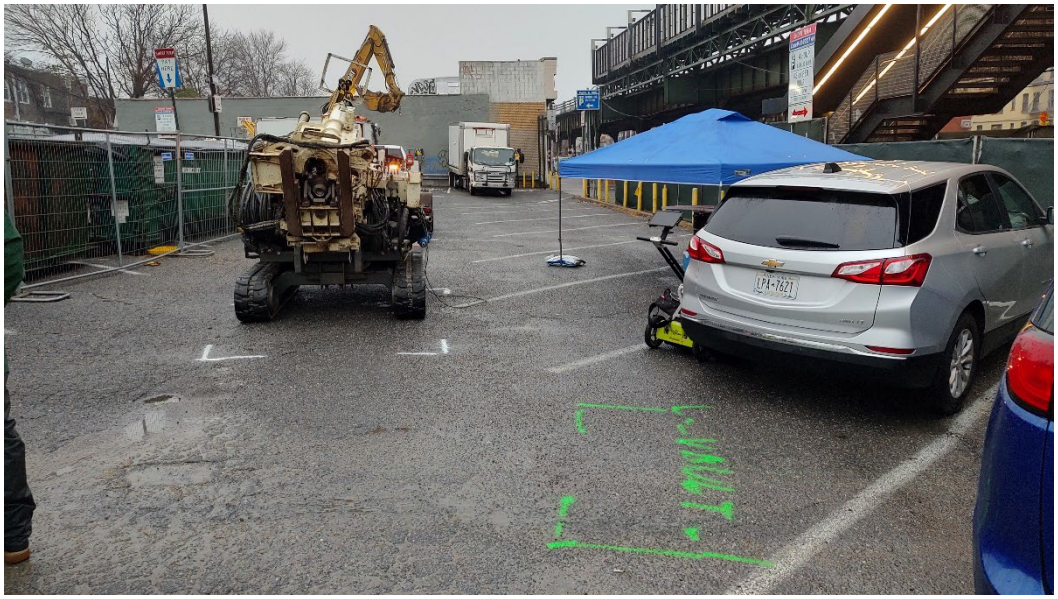
Limitations

The effective depth of GPR penetration was limited to 4.5 feet beneath the asphalt surface. The limiting factor was likely due to soil conductivity attenuating the GPR signal. The GPR and TW-6 is unable to be utilized within close proximity to parked vehicles, metallic fences and exterior walls. The fenced off area in the center of the lot as well as the areas beneath the staged equipment were not able to be fully investigated with GPR, which may have blocked access to additional significant findings.

Disclaimer

The subsurface investigation was performed by Coastal after considering the limits of the scope of work and the time constraint for the investigation. The investigation that is described in this report was undertaken in accordance with current accepted standards and practices of the geophysical survey industry. The results and interpretations that are presented are based on professional judgment and are as accurate as can reasonably be achieved. However, no geophysical equipment can accurately depict all subsurface features due to the geology and environmental conditions of the subsurface. Any intrusive work in proximity to identified anomalies should be carefully considered and cross-referenced with all available site-specific documentation. Coastal is not liable for the use, interpretation, or application of the data and information in this report.

PHOTOS & GPR SCREENSHOTS



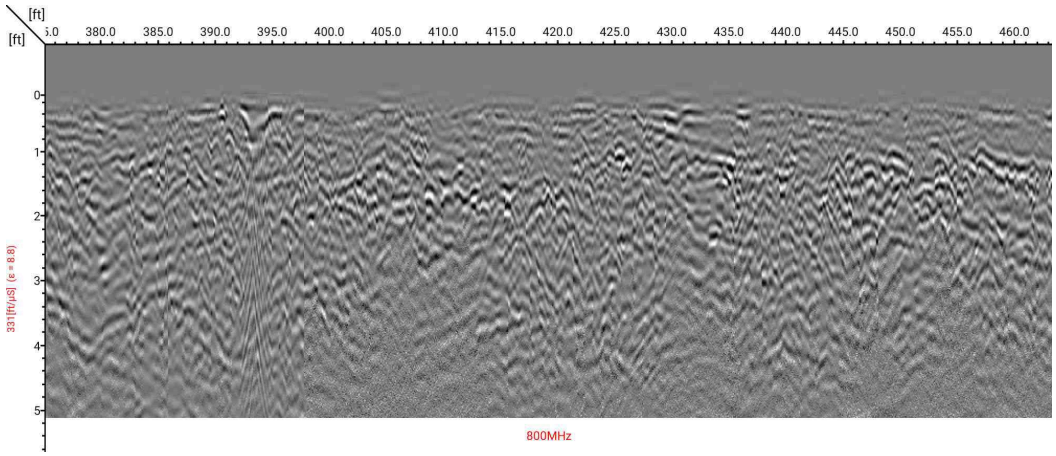
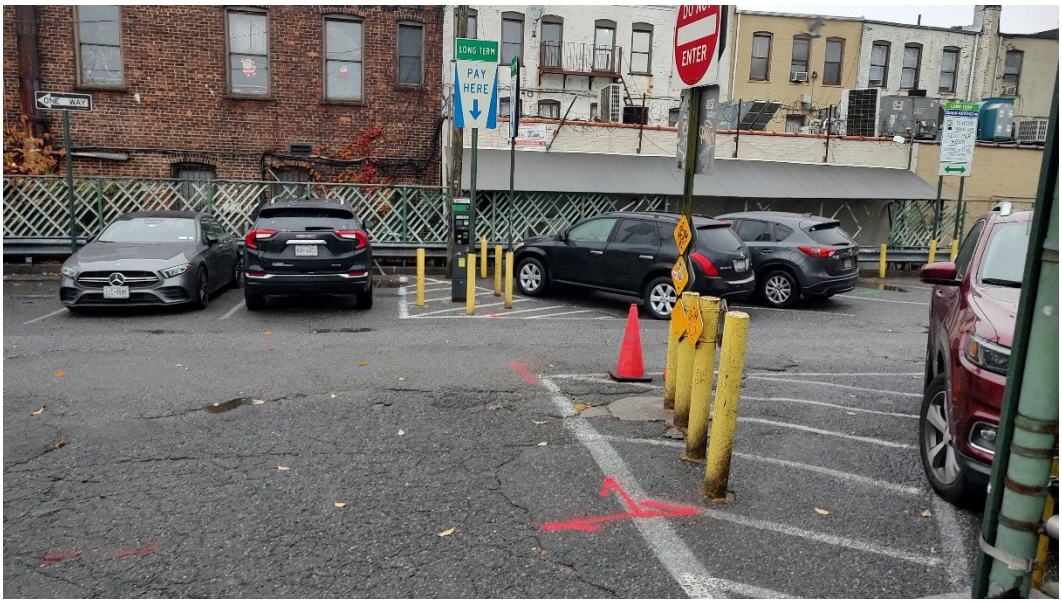


Photo 1 and GPR Screenshot 1 – Photo of the site with a storm vault and related lines leading out of it. Also visible are the fences and staged vehicles by another contractor. All proposed boring locations were cleared and marked as white boxes as seen above. The GPR screenshot shows a detection at approximately 3 feet deep which was determined to be the storm drain lines.

Photos 2 & 3 – Location of the northeastern side of the parking lot containing the storm drain line marked in green and the partial markings of the unknown line marked in pink.



Photos 4 & 5 – Location of the center of the parking lot with the detected electrical lines leading to the parking meters and site lighting, marked in red.

APPENDIX C
SOIL BORING AND TEMPORARY WELL CONSTRUCTION LOGS

Soil Boring Log

31-07 31st St, Queens, NY
AKRF Project Number: 240854

Soil Boring ID: **SB-04**

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Geoprobe 7822DT
Sampling Method:	5' Macrocore
Driller:	Coastal Environmental Solutions
Weather:	56 - 61 °F, Rainy
Logged By:	J.Peters, AKRF

Drilling
Start Time: 10:50 **Finish Time:** 11:00
Date: 12/11/2024

Depth (feet)	Recovery (Inches)	Surface Condition: Asphalt	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1	32	Top 2": ASPHALT.	ND	Dry	ND	ND	SB-04_0-2_20241211
2		Next 30": Brown SAND, some Gravel, trace Silt (Fill).	ND	Dry	ND	ND	
3							SB-04_2-4_20241211
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
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16							
17							
18							
19							
20							

Notes: Soil samples analyzed for VOCs by EPA Method 8260, SVOCs by EPA Method 8270, PCBs by EPA Method 8082, Pesticides by EPA Method 8081, and TAL Metals by EPA Method 6000/7000 series.
Groundwater not encountered during soil boring installation.
End of soil boring at 5 feet below grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ND = not detected

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

Soil Boring Log	31-07 31st St, Queens, NY AKRF Project Number: 240854		Soil Boring ID:	SB-11
akrf 440 Park Avenue South, 7th Floor New York, NY 10016	Drilling Method:	Geoprobe 7822DT	Drilling	
	Sampling Method:	5' Macrocore	Start Time: 07:40	Finish Time: 07:55
	Driller:	Coastal Environmental Solutions		
	Weather:	~35 °F, Sunny	Date: 12/12/2024	
	Logged By:	J.Peters, AKRF		

Depth (feet)	Recovery (Inches)	Surface Condition: Asphalt	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1	45	Top 3": ASPHALT.	ND	Dry	ND	ND	SB-11_0-2_20241212
2		Next 32": Brown SAND, little Brick, Gravel, trace Silt (Fill).	ND	Dry	ND	ND	
3		Bottom 10": Brown SAND, little fine Gravel	ND	Dry	ND	ND	SB-11_2-4_20241212
4							
5							
6	43	Brown SAND, little fine Gravel	ND	Dry	ND	ND	SB-11_4-6_20241212
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Notes: Soil samples analyzed for VOCs by EPA Method 8260, SVOCs by EPA Method 8270, PCBs by EPA Method 8082, Pesticides by EPA Method 8081, and TAL Metals by EPA Method 6000/7000 series.
Groundwater not encountered during soil boring installation.
End of soil boring at 10 feet below grade.

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

Soil Boring Log	31-07 31st St, Queens, NY AKRF Project Number: 240854		Soil Boring ID:	SB-12
akrf 440 Park Avenue South, 7th Floor New York, NY 10016	Drilling Method:	Geoprobe 7822DT	Drilling	
	Sampling Method:	5' Macrocore	Start Time: 09:55	Finish Time: 10:10
	Driller:	Coastal Environmental Solutions		
	Weather:	56 - 61 °F, Rainy	Date: 12/11/2024	
	Logged By:	J.Peters, AKRF		

Depth (feet)	Recovery (Inches)	Surface Condition: Asphalt	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1	40	Top 3": ASPHALT.	ND	Dry	ND	ND	SB-12_0-2_20241211
2		Bottom 37": Brown SAND, some Gravel, trace Silt (Fill).	ND	Dry	ND	ND	
3							
4							
5							
6	60	Top 50": Brown SAND, some Gravel, trace Silt (Fill).	ND	Dry	ND	ND	
7		Bottom 10": CONCRETE (Fill).	ND	Dry	ND	ND	
8							
9							SB-12_8-10_20241211
10							
11	42	Top 19": Brown SAND, some Gravel, trace Silt (Fill).	ND	Dry	ND	ND	SB-12_10-12_20241211
12		Bottom 23": Light Brown SAND, trace fine Gravel (Native).	ND	Dry	ND	ND	
13							
14							
15							
16							
17							
18							
19							
20							

Notes: Soil samples analyzed for VOCs by EPA Method 8260, SVOCs by EPA Method 8270, PCBs by EPA Method 8082, Pesticides by EPA Method 8081, and TAL Metals by EPA Method 6000/7000 series.
Groundwater not encountered during soil boring installation.
End of soil boring at 15 feet below grade.

PID = photoionization detector **NAPL = non-aqueous phase liquid** **ND = not detected**

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

Soil Boring Log	31-07 31st St, Queens, NY AKRF Project Number: 240854		Soil Boring ID:	SB-13
akrf 440 Park Avenue South, 7th Floor New York, NY 10016	Drilling Method:	Geoprobe 7822DT	Drilling	
	Sampling Method:	5' Macrocore	Start Time: 08:45	Finish Time: 09:10
	Driller:	Coastal Environmental Solutions		
	Weather:	56 - 61 °F, Rainy	Date: 12/11/2024	
	Logged By:	J.Peters, AKRF		

Depth (feet)	Recovery (Inches)	Surface Condition: Asphalt	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1	35	Top 1": ASPHALT.	ND	Dry	ND	ND	SB-13_0-2_20241211
2		Next 5": Brown SAND, some Gravel, trace Silt (Fill).	ND	Dry	ND	ND	
3		Bottom 29": Brown SANDY SILT, trace fine Gravel (Fill).	ND	Dry	ND	ND	SB-13_2-4_20241211
4							
5							
6							
7							
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19							
20							

Notes: Soil samples analyzed for VOCs by EPA Method 8260, SVOCs by EPA Method 8270, PCBs by EPA Method 8082, Pesticides by EPA Method 8081, and TAL Metals by EPA Method 6000/7000 series.
Groundwater not encountered during soil boring installation.
End of soil boring at 5 feet below grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ND = not detected

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

Soil Boring Log	31-07 31st St, Queens, NY AKRF Project Number: 240854		Soil Boring ID:	SB-14
akrf 440 Park Avenue South, 7th Floor New York, NY 10016	Drilling Method:	Geoprobe 7822DT	Drilling	
	Sampling Method:	5' Macrocore	Start Time: 09:10	Finish Time: 09:35
	Driller:	Coastal Environmental Solutions		
	Weather:	56 - 61 °F, Rainy	Date: 12/11/2024	
	Logged By:	J.Peters, AKRF		

Depth (feet)	Recovery (Inches)	Surface Condition: Asphalt	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1	33	Top 2": ASPHALT.	ND	Dry	ND	ND	SB-14_0-2_20241211
2		Next 31": Brown SAND, little Gravel, trace Silt (Fill).	ND	Dry	ND	ND	
3							SB-14_2-4_20241211
4							
5							
6							
7							
8							
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10							
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12							
13							
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16							
17							
18							
19							
20							

Notes: Soil samples analyzed for VOCs by EPA Method 8260, SVOCs by EPA Method 8270, PCBs by EPA Method 8082, Pesticides by EPA Method 8081, and TAL Metals by EPA Method 6000/7000 series.
Groundwater not encountered during soil boring installation.
End of soil boring at 5 feet below grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ND = not detected

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

Soil Boring Log	31-07 31st St, Queens, NY AKRF Project Number: 240854		Soil Boring ID:	SB-15
akrf 440 Park Avenue South, 7th Floor New York, NY 10016	Drilling Method:	Geoprobe 7822DT	Drilling	
	Sampling Method:	5' Macrocore	Start Time: 09:15	Finish Time: 09:25
	Driller:	Coastal Environmental Solutions		
	Weather:	56 - 61 °F, Rainy	Date: 12/11/2024	
	Logged By:	J.Peters, AKRF		

Depth (feet)	Recovery (Inches)	Surface Condition: Asphalt	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1	38	Top 4": ASPHALT.	ND	Dry	ND	ND	SB-15_0-2_20241211
2		Next 30": Brown to Dark Brown SAND, some Gravel, trace Silt (Fill).	ND	Dry	ND	ND	
3		Bottom 4": CONCRETE (Fill).	ND	Dry	ND	ND	SB-15_2-4_20241211
4							
5							
6							
7							
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9							
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12							
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14							
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16							
17							
18							
19							
20							

Notes: Soil samples analyzed for VOCs by EPA Method 8260, SVOCs by EPA Method 8270, PCBs by EPA Method 8082, Pesticides by EPA Method 8081, and TAL Metals by EPA Method 6000/7000 series.
Groundwater not encountered during soil boring installation.
End of soil boring at 5 feet below grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ND = not detected

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	31-07 31st St, Queens, NY AKRF Project Number: 240854	Groundwater Monitoring Well ID: Sheet 1 of 3	TW-08	Soil Boring ID:	SB-08

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Geoprobe 7822DT
Sampling Method:	5' Macrocore
Driller:	Coastal Environmental Solutions
Weather:	30 °F, Sunny
Logged by:	J.Peters, AKRF

Drilling

Start Time: 08:15 | Finish Time: 09:30

Date: 12/13/2024

Depth (feet)	Well Construction	Surface Condition: Asphalt	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1 2 3 4 5		1" PVC well casing: 0 to 28' below surface grade.	38	Top 2": ASPHALT. Next 36": Brown SAND, some Gravel, trace Silt (Fill).	ND ND	Dry Dry	ND ND	ND ND	SB-08_0-2_20241213 SB-08_2-4_20241213
6 7 8 9 10			29	Top 20": Brown SAND, little Gravel, trace Silt (Fill). Bottom 9": Brown SAND, trace Gravel.	ND ND	Dry Dry	ND ND	ND ND	SB-08_9-11_20241213
11 12 13 14 15			14	Brown SAND, trace Gravel.	ND	Dry	ND	ND	

Notes: ▽ **Groundwater Depth Indicator**

Groundwater measured at 31.4 feet below grade in TW-08.

Groundwater monitoring well installed to 38 feet below surface grade.

Soil samples analyzed for VOCs by EPA Method 8260, SVOCs by EPA Method 8270, PCBs by EPA Method 8082, Pesticides by EPA Method 8081, and TAL Metals by EPA Method 6000/7000 series. Sample SB-08_0-2_20241213 was analyzed for PFAS by EPA Method 1633.

Groundwater encountered at approximately 35 feet below surface grade during soil boring advancement.

End of soil boring at 40 feet below surface grade.

PID = photoionization detector **NAPL = non-aqueous phase liquid** **ND = not detected**

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	31-07 31st St, Queens, NY AKRF Project Number: 240854	Groundwater Monitoring Well ID: Sheet 2 of 3	TW-08	Soil Boring ID:	SB-08

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Geoprobe 7822DT
Sampling Method:	5' Macrocore
Driller:	Coastal Environmental Solutions
Weather:	30 °F, Sunny
Logged by:	J.Peters, AKRF

Drilling

Start Time: 08:15 | Finish Time: 09:30

Date: 12/13/2024

Depth (feet)	Well Construction	Surface Condition: Asphalt	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
16		1" PVC well casing: 0 to 28' below surface grade.	27	Brown SAND, trace Gravel.	ND	Dry	ND	ND	
17									
18									
19									
20									
21			24	Brown SAND, trace Gravel.	ND	Dry	ND	ND	
22									
23									
24									
25									
26			37	Brown SAND, trace Gravel.	ND	Moist @ 28'	ND	ND	
27									
28		1" PVC well screen: 28' to 38' below grade.							
29									
30		Sandpack: 26' to 38' below grade.							

Notes: ▼ Groundwater Depth Indicator

Groundwater measured at 31.4 feet below grade in TW-08.

Groundwater monitoring well installed to 38 feet below surface grade.

Soil samples analyzed for VOCs by EPA Method 8260, SVOCs by EPA Method 8270, PCBs by EPA Method 8082, Pesticides by EPA Method 8081, and TAL Metals by EPA Method 6000/7000 series. Sample SB-08_0-2_20241213 was analyzed for PFAS by EPA Method 1633.

Groundwater encountered at approximately 35 feet below surface grade during soil boring advancement.

End of soil boring at 40 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ND = not detected

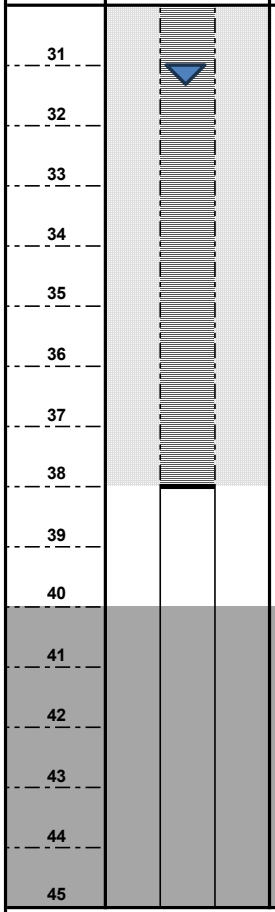
Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	31-07 31st St, Queens, NY AKRF Project Number: 240854	Groundwater Monitoring Well ID: Sheet 3 of 3	TW-08	Soil Boring ID:	SB-08

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Geoprobe 7822DT
Sampling Method:	5' Macrocore
Driller:	Coastal Environmental Solutions
Weather:	30 °F, Sunny
Logged by:	J.Peters, AKRF

Drilling
Start Time: 08:15 | Finish Time: 09:30
Date: 12/13/2024

Depth (feet)	Well Construction	Surface Condition: Asphalt	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
31–40		Sandpack: 26' to 38' below grade. 1" PVC well screen: 28' to 38' below grade.	5	Brown SAND, trace Gravel.	ND	Moist	ND	ND	
			40	Brown SAND, trace Gravel.	ND	Wet @ 35'	ND	ND	
41–45									

Notes:
Groundwater Depth Indicator
Groundwater measured at 31.4 feet below grade in TW-08.
Groundwater monitoring well installed to 38 feet below surface grade.

Soil samples analyzed for VOCs by EPA Method 8260, SVOCs by EPA Method 8270, PCBs by EPA Method 8082, Pesticides by EPA Method 8081, and TAL Metals by EPA Method 6000/7000 series. Sample SB-08_0-2_20241213 was analyzed for PFAS by EPA Method 1633.
Groundwater encountered at approximately 35 feet below surface grade during soil boring advancement.
End of soil boring at 40 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ND = not detected

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	31-07 31st St, Queens, NY AKRF Project Number: 240854	Groundwater Monitoring Well ID: Sheet 1 of 3	TW-09	Soil Boring ID:	SB-09

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Geoprobe 7822DT
Sampling Method:	5' Macrocore
Driller:	Coastal Environmental Solutions
Weather:	35 °F, Sunny
Logged by:	J.Peters, AKRF

Drilling

Start Time: 10:40 | Finish Time: 11:15

Date: 12/12/2024

Depth (feet)	Well Construction	Surface Condition: Asphalt	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1		1" PVC well casing: 0 to 30' below surface grade.	32	Top 2": ASPHALT. Bottom 30": Brown SAND, little Gravel, trace Silt (Fill).	ND ND	Dry Dry	ND ND	ND ND	SB-09_0-2_20241212
2									
3									
4									
5									
6			37	Brown SAND, little Gravel, trace Silt (Fill).	ND	Dry	ND	ND	SB-09_8-10_20241212
7									
8									
9									
10									
11			32	Brown SAND, trace Gravel.	ND	Dry	ND	ND	SB-09_10-12_20241212
12									
13									
14									
15									

Notes: ▽ **Groundwater Depth Indicator**

Groundwater measured at 32.67 feet below grade in TW-09.

Groundwater monitoring well installed to 40 feet below surface grade.

Soil samples analyzed for VOCs by EPA Method 8260, SVOCs by EPA Method 8270, PCBs by EPA Method 8082, Pesticides by EPA Method 8081, and TAL Metals by EPA Method 6000/7000 series.

Groundwater encountered at approximately 33 feet below surface grade during soil boring advancement.

End of soil boring at 40 feet below surface grade.

PID = photoionization detector **NAPL = non-aqueous phase liquid** **ND = not detected**

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	31-07 31st St, Queens, NY AKRF Project Number: 240854	Groundwater Monitoring Well ID: Sheet 2 of 3	TW-09	Soil Boring ID:	SB-09

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Geoprobe 7822DT
Sampling Method:	5' Macrocore
Driller:	Coastal Environmental Solutions
Weather:	35 °F, Sunny
Logged by:	J.Peters, AKRF

Drilling

Start Time: 10:40 | Finish Time: 11:15

Date: 12/12/2024

Depth (feet)	Well Construction	Surface Condition: Asphalt	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
16		1" PVC well casing: 0 to 30' below surface grade.	33	Brown SAND, trace Gravel.	ND	Dry	ND	ND	
17									
18									
19									
20									
21			32	Brown SAND, trace Gravel.	ND	Dry	ND	ND	
22									
23									
24									
25									
26			37	Brown SAND, trace Gravel.	ND	Dry	ND	ND	
27									
28									
29		Sandpack: 28' to 40' below grade.							
30									

Notes: ▽ **Groundwater Depth Indicator**

Groundwater measured at 32.67 feet below grade in TW-09.

Groundwater monitoring well installed to 40 feet below surface grade.

Soil samples analyzed for VOCs by EPA Method 8260, SVOCs by EPA Method 8270, PCBs by EPA Method 8082, Pesticides by EPA Method 8081, and TAL Metals by EPA Method 6000/7000 series.

Groundwater encountered at approximately 33 feet below surface grade during soil boring advancement.

End of soil boring at 40 feet below surface grade.

PID = photoionization detector **NAPL = non-aqueous phase liquid** **ND = not detected**

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	31-07 31st St, Queens, NY AKRF Project Number: 240854	Groundwater Monitoring Well ID: Sheet 3 of 3	TW-09	Soil Boring ID:	SB-09

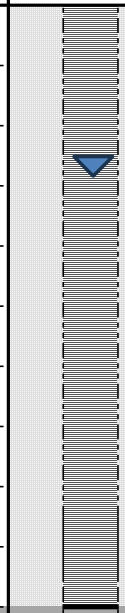
akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Geoprobe 7822DT
Sampling Method:	5' Macrocore
Driller:	Coastal Environmental Solutions
Weather:	35 °F, Sunny
Logged by:	J.Peters, AKRF

Drilling

Start Time: 10:40 | Finish Time: 11:15

Date: 12/12/2024

Depth (feet)	Well Construction	Surface Condition: Asphalt	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
31–45		1" PVC well screen: 30' to 40' below grade. Sandpack: 28' to 40' below grade.	45	Brown SAND.	ND	Moist @ 31' Wet @ 33'	ND	ND	
			40	Brown SAND.	ND	Wet	ND	ND	

Notes:

Groundwater Depth Indicator

Groundwater measured at 32.67 feet below grade in TW-09.

Groundwater monitoring well installed to 40 feet below surface grade.

Soil samples analyzed for VOCs by EPA Method 8260, SVOCs by EPA Method 8270, PCBs by EPA Method 8082, Pesticides by EPA Method 8081, and TAL Metals by EPA Method 6000/7000 series.

Groundwater encountered at approximately 33 feet below surface grade during soil boring advancement.

End of soil boring at 40 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ND = not detected

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	31-07 31st St, Queens, NY AKRF Project Number: 240854	Groundwater Monitoring Well ID: Sheet 1 of 3	TW-10	Soil Boring ID:	SB-10

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Geoprobe 7822DT
Sampling Method:	5' Macrocore
Driller:	Coastal Environmental Solutions
Weather:	~35 °F, Sunny
Logged by:	J.Peters, AKRF

Drilling

Start Time: 08:10 | Finish Time: 09:00

Date: 12/12/2024

Depth (feet)	Well Construction	Surface Condition: Asphalt	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1 2 3 4 5		1" PVC well casing: 0 to 30' below surface grade.	22	Top 4": ASPHALT. Bottom 18": Brown SAND, little Gravel, trace Silt (Fill).	ND ND	Dry Dry	ND ND	ND ND	SB-10_0-2_20241212 SB-10_2-4_20241212
6 7 8 9 10			30	Top 22": Brown SAND, little Gravel, trace Silt (Fill). Bottom 8": Brown SAND, trace Gravel.	ND ND	Dry Dry	ND ND	ND ND	SB-10_8-10_20241212
11 12 13 14 15			30	Brown SAND, trace Gravel.	ND	Dry	ND	ND	

Notes: ▼ **Groundwater Depth Indicator**

Groundwater measured at 35.06 feet below grade in TW-10.

Groundwater monitoring well installed to 40 feet below surface grade.

Soil samples analyzed for VOCs by EPA Method 8260, SVOCs by EPA Method 8270, PCBs by EPA Method 8082, Pesticides by EPA Method 8081, and TAL Metals by EPA Method 6000/7000 series.

Groundwater encountered at approximately 35 feet below surface grade during soil boring advancement.

End of soil boring at 40 feet below surface grade.

PID = photoionization detector **NAPL = non-aqueous phase liquid** **ND = not detected**

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	31-07 31st St, Queens, NY AKRF Project Number: 240854	Groundwater Monitoring Well ID: Sheet 2 of 3	TW-10	Soil Boring ID:	SB-10

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440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Geoprobe 7822DT
Sampling Method:	5' Macrocore
Driller:	Coastal Environmental Solutions
Weather:	~35 °F, Sunny
Logged by:	J.Peters, AKRF

Drilling

Start Time: 08:10 | Finish Time: 09:00

Date: 12/12/2024

Depth (feet)	Well Construction	Surface Condition: Asphalt	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
16		1" PVC well casing: 0 to 30' below surface grade.	19	Brown SAND, trace Gravel.	ND	Dry	ND	ND	
17									
18									
19									
20									
21			35	Brown SAND, trace Gravel.	ND	Dry	ND	ND	
22									
23									
24									
25									
26			30	Brown SAND, trace Gravel.	ND	Dry	ND	ND	
27									
28									
29		Sandpack: 28' to 40' below grade.							
30									

Notes: ▽ Groundwater Depth Indicator

Groundwater measured at 35.06 feet below grade in TW-10.

Groundwater monitoring well installed to 40 feet below surface grade.

Soil samples analyzed for VOCs by EPA Method 8260, SVOCs by EPA Method 8270, PCBs by EPA Method 8082, Pesticides by EPA Method 8081, and TAL Metals by EPA Method 6000/7000 series.

Groundwater encountered at approximately 35 feet below surface grade during soil boring advancement.

End of soil boring at 40 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ND = not detected

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	31-07 31st St, Queens, NY AKRF Project Number: 240854	Groundwater Monitoring Well ID: Sheet 3 of 3	TW-10	Soil Boring ID:	SB-10

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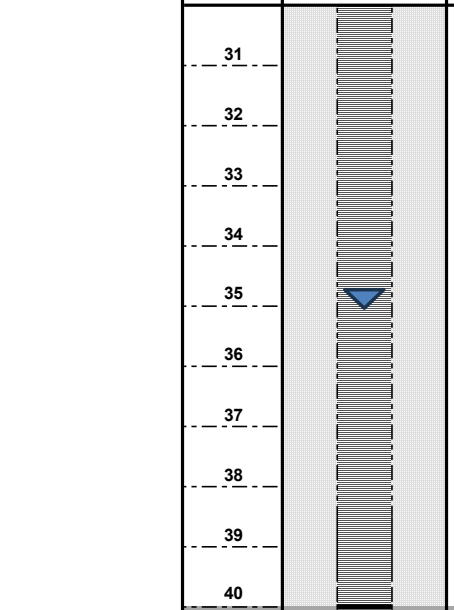
New York, NY 10016

Drilling Method:	Geoprobe 7822DT
Sampling Method:	5' Macrocore
Driller:	Coastal Environmental Solutions
Weather:	~35 °F, Sunny
Logged by:	J.Peters, AKRF

Drilling

Start Time: 08:10 | Finish Time: 09:00

Date: 12/12/2024

Depth (feet)	Well Construction	Surface Condition: Asphalt	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
31 32 33 34 35 36 37 38 39 40		1" PVC well screen: 30' to 40' below grade. Sandpack: 28' to 40' below grade.	34	Brown SAND, trace Gravel.	ND	Moist @ 34'	ND	ND	
			53	Brown SAND, trace Gravel.	ND	Wet @ 35'	ND	ND	
41 42 43 44 45									

Notes: ▼ Groundwater Depth Indicator

Groundwater measured at 35.06 feet below grade in TW-10.

Groundwater monitoring well installed to 40 feet below surface grade.

Soil samples analyzed for VOCs by EPA Method 8260, SVOCs by EPA Method 8270, PCBs by EPA Method 8082, Pesticides by EPA Method 8081, and TAL Metals by EPA Method 6000/7000 series.

Groundwater encountered at approximately 35 feet below surface grade during soil boring advancement.

End of soil boring at 40 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ND = not detected

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

APPENDIX D
GROUNDWATER SAMPLING LOGS

APPENDIX E
SOIL VAPOR SAMPLING LOGS

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440 Park Avenue South, 7th Floor
New York, NY 10016

Soil Vapor Sample Log

Project Name:	Ikos Senior Living		**Point Installed By:**	Coastal Environmental Solutions	
Project Location:	31-07 31st St, Queens, NY		**Installation Method:**	Geoprobe 7822DT	
Project Number:	240854		**Sampled By:**	S. Schmid, J. Peters	
Client:	Ikos Senior Living LLC		**Date:**	12/13/2024	
			Weather:	30°F, Sunny	
Sample Setup					
Vapor Point Depth:	24	Inches	**Purge Time:**	9.5 Minutes	
Purging Pump:	GilAir		**Purged Vapor PID:**	0.4	ppm
Pump Flow Rate*:	0.2	L/min	**Helium Concentration:**	0	%
Sample Identification					
Soil Vapor Point ID:	SV-06		**SUMMA® Canister ID:**	4658	
Flow Controller ID:	3943		**Soil Vapor Sample ID:**	SV-06_20241213	

Sample Collection

Time		Vacuum (in/Hg)	Background PID	Notes
Time Started:	9:21	-29	ND	None
Time Halfway:	10:21	-19	ND	None
Time Stopped:	11:21	-5	ND	None

Notes:	ND = non-detect	ppm = parts per million	L/min = Liters per minute	in/Hg = inches of mercury
	Soil vapor sample SV-06_20241213 collected in a 1-L SUMMA® canister using a 2-hour flow controller.			

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New York, NY 10016

Soil Vapor Sample Log

Project Name:	Ikos Senior Living	**Point Installed By:**	Coastal Environmental Solutions
Project Location:	31-07 31st St, Queens, NY	**Installation Method:**	Geoprobe 7822DT
Project Number:	240854	**Sampled By:**	S. Schmid, J. Peters
Client:	Ikos Senior Living LLC	**Date:**	12/13/2024
		Weather:	30°F, Sunny

Sample Setup

Vapor Point Depth:	24	Inches	**Purge Time:**	9.5 Minutes	
Purging Pump:	GilAir		**Purged Vapor PID:**	0.9	ppm
Pump Flow Rate*:	0.2	L/min	**Helium Concentration:**	0	%

Sample Identification

Soil Vapor Point ID:	SV-07	**SUMMA® Canister ID:**	4968
Flow Controller ID:	6549	**Soil Vapor Sample ID:**	SV-07_20241213

Sample Collection

Time		Vacuum (in/Hg)	Background PID	Notes
Time Started:	9:27	-28	ND	None
Time Halfway:	10:27	-20	ND	None
Time Stopped:	11:27	-6	ND	None

Notes:

ND = non-detect ppm = parts per million L/min = Liters per minute in/Hg = inches of mercury

Soil vapor sample SV-07_20241213 collected in a 1-L SUMMA® canister using a 2-hour flow controller.

akrf

440 Park Avenue South, 7th Floor
New York, NY 10016

Soil Vapor Sample Log

Project Name:	Ikos Senior Living		**Point Installed By:**	Coastal Environmental Solutions	
Project Location:	31-07 31st St, Queens, NY		**Installation Method:**	Geoprobe 7822DT	
Project Number:	240854		**Sampled By:**	S. Schmid, J. Peters	
Client:	Ikos Senior Living LLC		**Date:**	12/13/2024	
			Weather:	30°F, Sunny	
Sample Setup					
Vapor Point Depth:	72	Inches	**Purge Time:**	10 Minutes	
Purging Pump:	GilAir		**Purged Vapor PID:**	1.8	ppm
Pump Flow Rate*:	0.2	L/min	**Helium Concentration:**	0	%
Sample Identification					
Soil Vapor Point ID:	SV-11		**SUMMA® Canister ID:**	6805	
Flow Controller ID:	6554		**Soil Vapor Sample ID:**	SV-11_20241213	

Sample Collection

Time		Vacuum (in/Hg)	Background PID	Notes
Time Started:	9:19	-28	ND	None
Time Halfway:	10:20	-15	ND	None
Time Stopped:	11:19	-5	ND	None

Notes:	ND = non-detect	ppm = parts per million	L/min = Liters per minute	in/Hg = inches of mercury
	Soil vapor sample SV-11_20241213 collected in a 1-L SUMMA® canister using a 2-hour flow controller.			

APPENDIX F
LABORATORY DATA DELIVERABLES