

# 138 BRUCKNER BOULEVARD

BRONX, NEW YORK

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## Remedial Investigation Report

**AKRF Project Number: 220028**  
**NYSDEC BCP Number: C203127**

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### LIST OF ACRONYMS

Acronym	Definition
1,1,1-TCA	1,1,1-trichloroethane
1,1-DCE	1,1-dichloroethylene
ACM	Asbestos Containing Material
AOCs	Areas of Concern
ASTM	American Society for Testing and Materials
AWQSGVs	Ambient Water Quality Standards and Guidance Values
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
bsg	Below Surface Grade
BTEX	A group of VOCs comprising benzene, toluene, ethylbenzene, and xylenes
CAMP	Community Air Monitoring Plan
Cis-1,2-DCE	Cis-1,2-dichloroethylene
CoC	Chain of Custody
COC	Contaminants of Concern
DER-10	Division of Environmental Remediation Technical Guide 10
DPP	Direct-push Probe
DUSR	Data Usability Summary Report
ECs	Engineering Controls
ELAP	New York State Environmental Laboratory Approval Program
EM	Electromagnetic
EPA	United States Environmental Protection Agency
ESA	Environmental Site Assessment
ESC	Environmental Studies Corporation, Incorporated
eV	Electron Volt
GPR	Ground Penetrating Radar
HASP	Health and Safety Plan
HAZWOPER	Hazardous Waste Operations and Emergency Response
HDPE	High-density Polyethylene
ICs	Institutional Control
IDW	Investigation Derived Waste
LBP	Lead-based Paint
MCL	Maximum Contaminant Level
MEK	Methyl Ethyl Ketone
mg/kg	Milligrams per Kilogram
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NAPL	Non-Aqueous Phase Liquid
NAVD88	North American Vertical Datum of 1988
ND	Non-Detectable
NTUs	Nephelometric Turbidity Units
NYCRR	New York Codes, Rules and Regulations
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSDOT	New York State Department of Transportation
ORP	Oxidation-Reduction Potential

Acronym	Definition
OSHA	United States Occupational Safety and Health Administration
P.S.	Public School
PAHs	Polycyclic Aromatic Hydrocarbons
PCBs	Polychlorinated Biphenyls
PCE	Tetrachloroethylene
PFAS	Per- and Polyfluoroalkyl Substances
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctanesulfonic Acid
PID	Photoionization detector
ppb	Parts per billion
ppm	Parts per million
ppt	Parts per trillion
PVC	Polyvinyl Chloride
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
QEP	Qualified Environmental Professional
QHHEA	Qualitative Human Health Exposure Assessment
RA	Remedial Action
RAOs	Remedial Action Objectives
RAWP	Remedial Action Work Plan
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
RI	Remedial Investigation
RIR	Remedial Investigation Report
RIWP	Remedial Investigation Work Plan
RRSCO	Restricted Residential Soil Cleanup Objective
SCOs	Soil Cleanup Objectives
SIM	Selective Ion Monitoring
SVOC	Semivolatile Organic Compound
TAL	Target Analyte List
TCE	Trichloroethylene
UST	Underground Storage Tank
UUSCO	Unrestricted Use Soil Cleanup Objective
VEC	Vapor Encroachment Condition
VOC	Volatile Organic Compound
µg/kg	Micrograms per Kilogram
µg/L	Micrograms per Liter
µg/m <sup>3</sup>	Micrograms per Meter Cubed

**CERTIFICATION**

I, Michelle Lapin, P.E., certify that I am currently a Professional Engineer, and that this Remedial Investigation Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plans, work plan addenda, and any DER-approved modifications.

Michelle Lapin, P.E.

June 1, 2022

Qualified Environmental Professional/  
Professional Engineer

Date



Signature

## **EXECUTIVE SUMMARY**

This Remedial Investigation Report (RIR) provides information for establishment of remedial action objectives (RAOs), evaluation of remedial action (RA) alternatives, and selection of a remedy pursuant to Division of Environmental Remediation (DER)-10 Technical Guidance for Site Investigation and Remediation. The Remedial Investigation (RI) described in this RIR is consistent with applicable guidance.

### **Site Location and Current Usage**

The site is an approximately 50,625-square foot property located at 138 Bruckner Boulevard in the Mott Haven neighborhood of the Bronx, New York, also identified as Bronx Borough Tax Block 2260, Lots 10 and 19 on the New York City Tax Map (the "Site"). 138 Bruckner Owner LLC entered into a Brownfield Cleanup Agreement (BCA) (Index No. C2203127) as a Volunteer on February 18, 2020 with the New York State Department of Environmental Conservation (NYSDEC). A BCA Amendment was finalized in January 2022 to transfer the BCA to 138 Bruckner Realty LLC, the new Site owner.

The Site consists of an approximately 50,625-square foot property including a one- to two-story warehouse operated by Zaro's Bakery on Lot 10 and an asphalt-paved parking lot for the adjacent bakery on Lot 19.

### **Surrounding Area**

The Site is located in a developed area including predominantly industrial and transportation-related uses, with commercial and residential properties located further north and east. The Site is bound to the north by Bruckner Boulevard and two multi-family residential buildings, followed by a sheet metal supply warehouse and storage yard, and mixed residential and commercial uses; to the east by St. Ann's Avenue, followed by a warehouse and showroom for SICIS Mosaic Factory; to the south by East 132<sup>nd</sup> Street, followed by a food depot warehouse; and to the west by a gasoline station and an iron works.

The nearest sensitive receptors include Adalgisa Morel Day Care located approximately 750 feet northeast of the Site and P.S. 43 Jonas Bronck located approximately 840 feet northwest of the Site. The nearest body of water is the Bronx Kill (a tributary of the Harlem River), which is located approximately 600 feet southwest of the Site.

### **Historic Site Uses**

Based on the historical Sanborn Fire Insurance Maps and City Directories presented in the 2019 Phase I Environmental Site Assessment (ESA), the Site was vacant up until approximately 1908, when Lot 10 was developed with several low-rise dwellings. The warehouse on Lot 19 was constructed by 1935 and initially occupied by Vess Dry Bottling Co. on the western side of the lot and Fireproof Products Co. on the eastern side of the lot. North Eastern Bag & Burlap Co. was additionally identified in the western portion of the building between 1940 and 1947. Fireproof Products Co. occupied the entire warehouse by 1951 up until approximately 1968. Lot 19 became vacant by 1986. Operations by the current building occupant, Zaro's Bake Shop, reportedly began in 1993.

### **Areas of Concern (AOCs)**

The following environmental issues identified during previous environmental reports were considered AOCs for the RI. The AOC includes semivolatile organic compounds (SVOCs) and metals in soil and groundwater.

### **Summary of the Work Performed under the Remedial Investigation (RI)**

1. The performance of a geophysical survey across accessible portions of the Site.
2. The advancement of eight soil borings across the Site with continuous soil sampling and laboratory analysis of 16 soil samples.

3. The installation of three permanent 2-inch diameter and one 1-inch diameter groundwater monitoring wells at the Site with the collection and laboratory analysis of four groundwater samples.
4. The installation of five temporary soil vapor probes across the Site with the collection and laboratory analysis of two soil vapor samples and three sub-slab soil vapor samples.
5. Collection and laboratory analysis of three indoor air samples and one ambient (outdoor) air sample.
6. The performance of a groundwater monitoring well elevation and location survey of the newly installed monitoring wells.

### **Summary of Hydrogeological Findings**

The following geologic and hydrogeologic conditions were noted during the RI:

1. Based on a June 15, 2020 survey of the Site by Fehringer Surveying, P.C., the Site lies at an elevation of approximately 10.38 to 13.66 feet above the North American Vertical Datum (NAVD) 88.
2. The stratigraphy of the Site, from the surface down, generally consisted of fill material comprising sand, silt, and gravel, with varying amounts of concrete, asphalt, and brick extending from just below surface grade down to approximately 5 to 16 feet below grade. The fill material was underlain by sand, gravel, and silt to the boring termination depth (up to 20 feet below grade). Bedrock was not encountered during the RI.
3. Groundwater beneath the Site ranges from elevation 3.1 to elevation 5.78 (NAVD88), or approximately 6.65 to 7.53 feet below grade across the Site.
4. Based on the well elevation survey, groundwater generally flows in an easterly to northeasterly direction beneath the Site; however, regional groundwater flow is assumed to be in a southerly direction toward the Bronx Kill/East River.

### **Summary of Environmental Findings**

#### *Soil*

Sixteen soil samples were collected for laboratory analysis of volatile organic compounds (VOCs) by United States Environmental Protection Agency (EPA) Method 8260D, semivolatile organic compounds (SVOCs) by EPA Method 8270E, pesticides by EPA Method 8081B, polychlorinated biphenyls (PCBs) by EPA Method 8082A, target analyte list (TAL) metals by EPA Method 6000/7000 series, hexavalent chromium by EPA Method 7196A, NYSDEC list of 21 per- and polyfluoroalkyl substances (PFAS) by EPA Modified Method 537, and 1,4-dioxane by EPA Method 8270E. Soil sample analytical results were compared to the 6 New York Codes, Rules, and Regulations (NYCRR) Unrestricted Use Soil Cleanup Objectives (UUSCOs) and Restricted Residential Soil Cleanup Objectives (RRSCOs), the applicable Soil Cleanup Objectives (SCOs) for the proposed future use of the Site. Laboratory analytical results are summarized below:

- One VOC, acetone, was detected in sample RI-SB-07\_8-10\_20200601 at a concentration of 0.065 milligrams per kilogram (mg/kg), above the UUSCO of 0.05 mg/kg, but below the RRSCO of 100 mg/kg. No other VOCs were detected above the UUSCOs and RRSCOs.
- The SVOCs benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-c,d)pyrene were detected at concentrations up to 1.9 mg/kg, above the UUSCOs and RRSCOs. Chrysene was detected in two samples at concentrations above the UUSCO, but below the RRSCO.
- Four pesticides (dieldrin, P,P'-DDD, P,P'-DDE, and P,P'-DDT) were detected at concentrations above the UUSCOs, but below the RRSCOs in four soil samples at concentrations up to 0.46 mg/kg.

- Total PCBs were detected in two samples at concentrations of 0.11 and 0.17 mg/kg, above the UUSCO of 0.1 mg/kg, but below the RRSCO of 1 mg/kg.
- Five metals (arsenic, barium, copper, lead, mercury, and zinc) were detected in 11 soil samples at concentrations ranging from 0.2 to 2,100 mg/kg, above their respective UUSCOs. Barium, copper, lead, and/or mercury were additionally detected above the RRSCOs in three samples.
- Perfluorooctanesulfonic acid (PFOS) was detected in three soil samples at concentrations up to 2.35 parts per billion (ppb), above the NYSDEC Guidance Value for Unrestricted Use of 0.88 mg/kg. PFOS and perfluorooctanoic acid (PFOA) were not detected above the NYSDEC Guidance Values for Restricted Residential Use.
- 1,4-Dioxane was not detected above laboratory reporting limits in the soil samples.

### Groundwater

Four groundwater samples were collected for laboratory analysis of VOCs by EPA Method 8260D, SVOCs by EPA Method 8270E, pesticides by EPA Method 8081B, PCBs by EPA Method 8082A, total (unfiltered) and dissolved (filtered) TAL metals by EPA Method 6000/7000 series, PFAS by EPA Modified Method 537, and 1,4-dioxane by EPA Method 8270 Selective Ion Monitoring (SIM). Groundwater sample analytical results for VOCs, SVOCs, pesticides, PCBs, and TAL metals were conservatively compared to the NYSDEC Ambient Water Quality Standards and Guidance Values (AWQSGVs). Groundwater analytical results for the 21-compound list of PFAS were compared to the NYSDEC June 2021 draft guidance value of 6.7 parts per trillion (ppt) for PFOA, and 2.7 ppt for PFOS. 1,4-dioxane concentrations in groundwater were compared to the NYSDEC June 2021 draft guidance value of 0.35 parts per billion (ppb). These proposed guidance values are for a raw water source. Groundwater in the Bronx is not used as a potable source. Laboratory analytical results are summarized below:

- No VOCs were detected in the groundwater samples at concentrations above their respective AWQSGVs.
- The SVOCs benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, and indeno(1,2,3-c,d)pyrene were detected above the AWQSGVs in groundwater sample RI-MW-01\_20200622. Concentrations ranged from 1.3 to 3.5 µg/L.
- Pesticides were not detected above laboratory reporting limits in three of the four groundwater samples. P,P'-DDT was detected below the AWQSGV in sample RI-MW-01\_20200622.
- PCBs were not detected above laboratory reporting limits in any of the groundwater samples.
- Iron, magnesium, manganese, and sodium were detected above their respective AWQSGVs in both the unfiltered and filtered groundwater samples.
- PFOS was detected above the NYSDEC June 2021 draft guidance value of 2.7 ppt in all four groundwater samples at concentrations up to 70.4 ppt. PFOA was detected in three groundwater samples at concentrations up to 15 ppt, above the draft guidance value of 6.7 ppt.
- 1,4-Dioxane was detected in one groundwater sample (RI-MW-03\_20200615) at a concentration of 0.066 µg/L, below the draft guidance value of 0.35 ppb.

### Soil Vapor and Indoor Air

Three sub-slab soil vapor samples and two soil vapor samples were collected from temporary points installed across the Site. Three indoor air samples were collected from locations co-located to the sub-slab soil vapor points. Although there are currently no regulatory or published guidance values for VOCs in soil vapor, the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, which includes decision matrices to provide guidance on a case-by-case basis about action that should be taken to

address potential exposure to VOC-related soil vapor intrusion, were used to evaluate the soil vapor data to assess the potential for exposure to receptors and to help define the nature and extent of contamination at the Site. All samples were analyzed for VOCs by EPA Method TO-15. Laboratory analytical results are summarized below:

- Forty-two of the 71 VOCs analyzed for were detected in the sub-slab and soil vapor samples. Solvent-related VOCs [including 1,1,1-trichloroethane (1,1,1-TCA), carbon tetrachloride, chlorodifluoromethane, chloromethane, dichlorodifluoromethane, methylene chloride, tetrachloroethylene (PCE), and trichloroethylene (TCE)] were detected in the soil vapor samples at individual concentrations up to 690 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ), with the high value being associated with dichlorodifluoromethane in a diluted analysis for sample RI-SV-04\_20200608. Other VOCs, including compounds typically associated with petroleum [such as 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 1,3-butadiene, 1,3-dichlorobenzene, 2,2,4-trimethylpentane, 2-hexanone, 4-ethyltoluene, benzene, butane, cyclohexane, cymene, ethylbenzene, isopropanol, isopropylbenzene, methyl ethyl ketone (MEK), m,p-xylenes, n-butylbenzene, n-heptane, n-hexane, n-propylbenzene, o-xylene, and toluene] were detected in the soil vapor samples at individual concentrations up to 180  $\mu\text{g}/\text{m}^3$ , with the high value being associated with MEK in a diluted analysis for sample RI-SV-02\_20200608.
- Forty-five of the 71 VOCs analyzed for were detected in one or more indoor air samples. Eleven VOCs were detected in the ambient air sample (RI-AA-01\_20200608). Solvent-related VOCs (including 1,1,2,2-tetrachloroethane, 1,1,2-trichloroethane, carbon tetrachloride, chlorodifluoromethane, chloromethane, dichlorodifluoromethane, methylene chloride, PCE, and TCE) were detected in the indoor air samples at individual concentrations up to 19  $\mu\text{g}/\text{m}^3$ , with the high value being associated with dichlorodifluoromethane in sample RI-IA-04\_20200608. Other VOCs, including compounds typically associated with petroleum (such as 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 1,4-dichlorobenzene, 2,2,4-trimethylpentane, 4-ethyltoluene, benzene, butane, cyclohexane, cymene, ethylbenzene, isopropanol, m,p-xylenes, MEK, n-butylbenzene, n-heptane, n-propylbenzene, o-xylene, sec-butylbenzene, styrene, t-butylbenzene, and toluene), were detected in the indoor air samples at individual concentrations up to 40  $\mu\text{g}/\text{m}^3$ , with the high value being associated with butane in sample RI-IA-04\_20200608.
- Based on an evaluation of the co-located soil vapor and indoor air samples using the applicable New York State Department of Health (NYSDOH) Soil Vapor/Indoor Air Matrix A and B, the recommendation is “no further action.”

## REMEDIAL INVESTIGATION REPORT

### 1.0 SITE BACKGROUND

This Remedial Investigation (RI) Report (RIR) summarizes the remedial investigation work performed between June 1 and 22, 2020 at 138 Bruckner Boulevard, in the Bronx, New York (the “Site”). The goal of the RI was to determine the horizontal and vertical extent of contamination identified during previous environmental investigations performed at the Site, including: a Phase II Investigation conducted by Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan) in April 2019, and a Limited Soil Investigation conducted by AKRF, Inc. (AKRF) in August 2019. The RI was conducted in general accordance with AKRF’s March 2020 New York State Department of Health (NYSDEC)-approved Remedial Investigation Work Plan (RIWP), which included a Health and Safety Plan (HASP) and a Quality Assurance Project Plan (QAPP). Deviations from the RIWP are described throughout the document, specifically in Section 4.7.10, although none of the deviations materially affected achieving the objectives of the RI.

138 Bruckner Owner LLC entered into a Brownfield Cleanup Agreement (BCA) (Index No. C2203127) as a Volunteer on February 18, 2020 with NYSDEC. The June 2020 RI was conducted on behalf of 138 Bruckner Owner LLC. A BCA Amendment was finalized in January 2022 to transfer the BCA to 138 Bruckner Realty LLC, the new Site owner. This RIR is being prepared on behalf of 138 Bruckner Realty LLC (the “Applicant”).

#### 1.1 Site Location and Current Usage

The Site consists of an approximately 50,625-square foot parcel developed with a one- to two-story warehouse operated by Zaro’s Bakery on Lot 10 and an asphalt-paved parking lot for the adjacent bakery on Lot 19. A Site Location Map is provided as Figure 1, and a Site Location Plan is provided as Figure 2.

#### 1.2 Description of Surrounding Property

The Site is bound to the north by Bruckner Boulevard and two multi-family residential buildings, followed by a sheet metal supply warehouse and storage yard, and mixed residential and commercial uses; to the east by St. Ann’s Avenue, followed by a warehouse and showroom for SICIS Mosaic Factory; to the south by East 132<sup>nd</sup> Street, followed by a food depot warehouse; and to the west by a gasoline station and an iron works. The Site is located in a developed area including predominantly industrial and transportation-related uses, with commercial and residential properties located further north and east.

The nearest sensitive receptors include Adalgisa Morel Day Care located approximately 750 feet northeast of the Site and P.S. 43 Jonas Bronck located approximately 840 feet northwest of the Site. The nearest body of water is the Bronx Kill (a tributary of the Harlem River), which is located approximately 600 feet southwest of the Site.

## 2.0 SITE HISTORY

### 2.1 Past Uses and Ownership

Based on historical Sanborn Fire Insurance Maps and City Directories presented in the 2019 Phase I Environmental Site Assessment (ESA), the Site was vacant up until approximately 1908, when Lot 10 was developed with several low-rise dwellings. The warehouse on Lot 19 was constructed by 1935 and initially occupied by Vess Dry Bottling Co. on the western side of the lot and Fireproof Products Co. on the eastern side of the lot. North Eastern Bag & Burlap Co. was additionally identified in the western portion of the building between 1940 and 1947. Fireproof Products Co. occupied the entire warehouse by 1951 up until approximately 1968. Lot 19 became vacant by 1986. Operations by the current building occupant, Zaro's Bake Shop, reportedly began in 1993.

Known Site owners for Lot 10 include: Joseph McCain prior to 1968, Merit Holding Corp./Merit Farms, Inc. from 1968 to 1981, New York City Industrial Development Agency from 1981 to 1997, Zaro Bake Shop, Inc. from 1997 to 2005, Anjost Corporation from 2005 to 2022, and 138 Bruckner Ground Lessor, LLC. Known Site owners for Lot 19 include: the City of New York prior to 1966, William Merola from 1966 to 1972, Harriet Feldstein from 1972 to 1975, William Merola from 1975 to 1981, Richard Glazer from 1981 to 1999, Joseph Zaro in 1999, 138 Brucker Blvd. Associates, LLC/Anjost Corporation from 1999 to 2022, and 138 Bruckner Ground Lessor, LLC.

### 2.2 Proposed Redevelopment Plan

The proposed redevelopment plan includes the demolition of the existing building, followed by construction of a 12-story mixed-use building. The building will contain approximately 448 residential units and a below-grade parking garage. The proposed building and parking garage will require excavation to approximately 23 feet below grade. The proposed development plan is included in Appendix A.

### 2.3 Previous Environmental Reports

*Draft Phase I Environmental Site Assessment – 138 Bruckner, Boulevard, Bronx, Bronx County, New York, Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C., April 2019*

Langan prepared a draft Phase I ESA for the Site, dated April 2019. The Phase I ESA was performed in conformance with ASTM Standard E1527-13 and assessed the potential for the presence of hazardous materials, based on reconnaissance of the Site and surrounding area, review of data on geology and hydrology of the surrounding area, examination of historical Sanborn Fire Insurance maps and aerial photographs, and review of pertinent federal and state regulatory databases. The Phase I ESA identified the following recognized environmental conditions (RECs):

- The Site was registered under the NYSDEC Petroleum Bulk Storage (PBS) Database with one closed in-place 3,000-gallon No. 2 fuel oil underground storage tank (UST). The tank was installed in 1982 and reportedly closed-in-place in 2013. Based on a review of available records, Langan noted that a tank test was not completed prior to the closure and no subsurface investigation was completed after the closure. Langan concluded that there may have been potential impacts or undocumented releases from this tank.
- Historical and current operations at adjacent properties included petroleum storage, reported releases, spills requiring remediation, and automotive repair. Such uses may have affected subsurface conditions beneath the Site. Historical uses of concern included a gasoline filling station, auto repair facilities with gasoline storage, gasoline tanks and a paint shop, a car wash and tire repair shop, a molding company, a metalizing company, a toy manufacturer, a locomotive railyard and turntables, and a photo marker company. The west-adjacent property

historically contained over 40 petroleum storage tanks and was an active gasoline station. NYSDEC Spill No. 9405017 was reported at this facility due to free product and elevated concentrations of benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl tert-butyl ether (MTBE) in groundwater.

The following Historical Recognized Environmental Condition (HREC) were identified:

- NYSDEC closed Spill No. 9804809 was reported at the Site in July 1998 due to the release of 5 gallons of No. 2 fuel oil onto concrete as a result of equipment malfunction. The spill was reportedly immediately cleaned up and was closed in November 2003.

The following Business Environmental Risks (BERs):

- Historic urban fill material was reported to be likely present beneath the Site, which would require implementation of soil handling procedures during redevelopment.
- The Site was historically occupied by various commercial and residential uses. As such, Langan determined that unknown or unregistered heating oil USTs may have been located beneath the Site or adjacent sidewalks. Langan concluded that any unknown tanks encountered during redevelopment should be disposed of in accordance with state and local regulations.

Phase II Investigation – 138 Bruckner Boulevard, Bronx, NY, Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C., May 2019

Langan conducted a Phase II Investigation at the Site in April 2019. A full report was not issued to the Applicant; however, AKRF was provided with available figures and tables with laboratory analytical results. Langan advanced 8 soil borings with the collection and laboratory analysis of 8 soil samples, and the installation of 4 temporary groundwater monitoring wells with the collection and laboratory analysis of 4 groundwater samples. Soil and groundwater samples were analyzed for Target Compound List (TCL) volatile organic compounds (VOCs) by EPA Method 8260, TCL semivolatile organic compounds (SVOCs) by EPA Method 8270, TCL pesticides by EPA Method 8081B, polychlorinated biphenyls (PCBs) by EPA Method 8082, Target Analyte List (TAL) metals plus mercury and hexavalent chromium by EPA Methods 6020B/7471B. The metals analysis for groundwater was conducted on both unfiltered (total) and filtered (dissolved) samples.

A summary of the soil sample analytical results is as follows:

- One VOC, acetone, was detected in one sample at a concentration of 0.057 milligrams per kilogram (mg/kg), above the NYSDEC 6 NYCRR Part 375 Unrestricted Use Soil Cleanup Objective (UUSCO) of 0.05 mg/kg. No VOCs were detected above the 6 NYCRR Part 375 Restricted Residential Use Soil Cleanup Objectives (RRSCOs).
- SVOCs including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-c,d)pyrene were detected above their respective RRSCOs at concentrations ranging from 0.344 mg/kg to 5 mg/kg.
- No pesticides or PCBs were detected in the soil samples at concentrations above the RRSCOs.
- Lead was detected in one sample and the associated blind duplicate at concentrations of 420 mg/kg and 878 mg/kg, respectively, above the RRSCO of 400 mg/kg. Mercury was detected in two samples at concentrations of 1.02 mg/kg and 1.51 mg/kg, above the RRSCO of 0.81 mg/kg.

A summary of the groundwater sample analytical results is as follows:

- One VOC, MTBE, was detected in one groundwater sample at a concentration of 13.9 micrograms per liter (µg/L), above its NYSDEC 6 NYCRR Part 703.5 Class GA Groundwater

Quality Standards and Guidance Value (AWQSGV) of 10 µg/L. This sample was collected from the northern portion of the Site, in close proximity to the adjacent gas station.

- No SVOCs, pesticides, or PCBs were detected above the AWQSGVs in any of the groundwater samples.

Limited Soil Investigation – 138 Bruckner, Boulevard, Bronx, New York, AKRF, Inc., August 2019

AKRF conducted a limited soil investigation on Lot 10 to evaluate shallow soil conditions beneath the Site and support the BCP Application. The investigation was conducted on August 12, 2019 and included the advancement of five soil borings down to approximately 6 feet below grade. Two soil samples were selected for laboratory analysis from each boring: one shallow sample from the 0 to 2-foot interval (below the existing concrete slab); and one deeper sample from the 5 to 6-foot interval, or the interval of highest observed contamination. The soil samples were analyzed for Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270D, TCL pesticides by EPA Method 8081B, TAL Metals plus Mercury by EPA Methods 6020B/7471B, and TCL VOCs by EPA Method 8260 (one sample only).

Elevated photoionization detector (PID) readings of 118 parts per million (ppm) were observed between 5 and 6 feet below grade in soil sample SB-02 located in the southwestern corner of the Site. Due to this field evidence of contamination, soil sample SB-02\_5-6\_20190812 was additionally analyzed for VOCs by EPA Method 8260. No other evidence of contamination (e.g., elevated PID readings, staining, or odors) was observed in the remaining soil borings.

A summary of the soil sample analytical results is as follows:

- Six VOCs were detected in sample SB-02\_5-6\_20190812, with the highest detection of 0.054 mg/kg of acetone. All six VOCs were detected below the NYSDEC RRSCOs.
- PAHs were detected in each of the 10 soil samples at concentrations ranging from 0.011 mg/kg to 7 mg/kg, the highest of which was detected in sample SB-02\_0-2\_20190812. Five PAHs, including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, and indeno(1,2,3-c,d)pyrene, were detected above their respective NYSDEC RRSCOs.
- No pesticides were detected above laboratory reporting limits.
- Metals were detected in each of the 10 soil samples at concentrations ranging from 0.16 mg/kg to 29,600 mg/kg. Three of the metals (barium, lead, and mercury) were detected above their respective NYSDEC RRSCOs.

Previous environmental reports are included in Appendix B.

## 2.4 Areas of Concern (AOCs)

Based on the Site's history and previous reports prepared for the Site, the AOCs for the RI include SVOCs and metals in soil and groundwater.

### 3.0 PROJECT MANAGEMENT

#### 3.1 Project Organization

Contact information for the parties responsible for the work described in this RIR are included in Table A:

**Table A**  
**Project Organization**

<b>Company</b>	<b>Individual Name</b>	<b>Title</b>	<b>Contact Number(s)</b>
NYSDEC	Nathan Freeman	Project Manager	(518) 402-9767
NYSDOH	James Sullivan	Project Manager	(518) 402-7860
AKRF	Michelle Lapin	Remedial Engineer	(646) 388-9520
	Stephen Malinowski	Project Director	(631) 574-3724
	Adrianna Bosco	Project Manager	(646) 388-9576
	John Sulich	Field Team Leader/Site Safety Officer	(914) 922-2358
138 Bruckner Realty LLC	Jamal Krolowitz	BCP Applicant	(412) 708-5363

#### 3.2 Health and Safety

All work described in this report 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 RI described in this RIR was also performed in general accordance with the Site-specific HASP dated March 2020.

## 4.0 REMEDIAL INVESTIGATION (RI) ACTIVITIES

The RI included the following scope of work:

1. The performance of a geophysical survey across accessible portions of the Site.
2. The advancement of eight soil borings across the Site during the RI in June 2020 with continuous soil sampling and laboratory analysis of 16 soil samples.
3. The installation of three permanent 2-inch diameter and one 1-inch diameter groundwater monitoring wells at the Site with the collection and laboratory analysis of four groundwater samples.
4. The installation of five temporary soil vapor probes across the Site with the collection and laboratory analysis of two soil vapor samples and three sub-slab soil vapor samples.
5. Collection and laboratory analysis of three indoor air samples and one ambient (outdoor) air sample.
6. The performance of a groundwater monitoring well elevation and location survey of the newly installed monitoring wells.

The locations of the Remedial Investigation soil borings, groundwater monitoring wells, soil vapor and indoor air sample locations are shown on Figure 2.

### 4.1 Geophysical Survey

A geophysical survey was conducted on May 18, 2020 across accessible portions of the Site by Enviroprobe Service, Inc. (Enviroprobe) of Mount Laurel, New Jersey to investigate the presence of potential USTs and subsurface utilities, and to clear the proposed sampling locations. The geophysical survey included ground penetrating radar (GPR) and radio detection methods.

The geophysical survey did not identify any anomalous areas that indicated the potential presence of a UST or other buried structures. On-site utilities were delineated to the extent possible.

The Geophysical Investigation Report is included as Appendix C.

### 4.2 Soil Boring Advancement

On June 1, 2020, eight soil borings (RI-SB-01 through RI-SB-08) were advanced by Eastern Environmental Solutions, Inc. (Eastern) of Manorville, New York, using a Geoprobe® direct-push probe (DPP) drill rig. The soil boring locations are presented on Figure 2. Soil borings were advanced to approximately 15 to 20 feet below grade. Continuous soil samples were collected through the entire length of the soil boring. The soil boring locations that were converted into groundwater monitoring wells were surveyed by a licensed surveyor. The remaining soil boring locations were measured against Site boundaries and landmarks upon their completion.

Soil boring logs are provided in Appendix D. Lithological cross-sections are provided on Figures 4 and 5.

### 4.3 Groundwater Monitoring Well Installation

Four 2-inch diameter permanent groundwater monitoring wells (RI-MW-01 through RI-MW-04) were installed by Eastern using a Geoprobe® DPP drill rig at the locations shown on Figure 2. In accordance with the RIWP, the wells were constructed with up to 15 feet of 0.020-inch slotted polyvinyl chloride (PVC) well screen installed approximately 10 feet into the observed water table. Due to difficult drilling conditions at RI-MW-01, 13 feet of well screen was installed to allow for solid PVC riser to surface grade. A No. 2 morie sand pack was installed from the bottom of the well to approximately one to two feet above the well screen followed by a hydrated bentonite seal.

Non-shrinking cement grout was installed to surface grade. Each of the wells were finished with a locking j-plug, locking flush-mounted protective well cover, and concrete pad.

Groundwater well construction details and sampling location rationale are summarized in Table B.

**Table B**  
**Groundwater Monitoring Well Construction Details and Rationale**

<b>Monitoring Well ID</b>	<b>On-Site Well Location</b>	<b>Screened Interval (feet below grade)</b>	<b>Rationale for Sampling Location</b>
RI-MW-01	Northwestern	2-15	To assess groundwater quality in the northwestern portion of the Site and determine Site-specific groundwater flow direction and elevation
RI-MW-02	Southeastern	4-19	To assess groundwater quality in southeastern portion of the Site and determine Site-specific groundwater flow direction and elevation
RI-MW-03	West-central	3-18	To assess groundwater quality in the western/central portion of the Site and determine Site-specific groundwater flow direction and elevation
RI-MW-04	Northeastern	3-18	To assess groundwater quality at the northeastern portion of the Site and determine Site-specific groundwater flow direction and elevation

The groundwater monitoring well locations are shown on Figure 2. Groundwater monitoring well construction logs are provided in Appendix D. Groundwater sample analytical results are discussed in Section 5.3.

#### 4.4 Groundwater Monitoring Well Development

Following installation, each well was developed via pumping and surging with a Waterra pump affixed with dedicated high-density polyethylene (HDPE) tubing and a combined check/foot valve to remove any accumulated fines and establish a hydraulic connection with the surrounding aquifer. Development water was monitored with a Horiba U-52 water quality meter during development. The goal of well development was to reduce turbidity within the well until less than 50 nephelometric turbidity units (NTUs) for three successive readings, and until water quality indicators [pH, temperature, oxidation reduction potential (ORP), dissolved oxygen, and specific conductivity] stabilized to within 10% for three successive readings. In the event that 50 NTUs could not be achieved and/or parameters would not stabilize, the goal was to pump the wells water until at least three volumes were removed and the water was visibly clear.

Groundwater monitoring well development logs are provided in Appendix E.

#### 4.5 Groundwater Monitoring Well Elevation and Location Survey

On June 15, 2020, all groundwater monitoring wells were surveyed by Fehringer Surveying, P.C. (Fehringer) of Seaford, New York, a New York State-licensed surveyor. Elevation measurements were taken at the manhole cover and on the north side of the top of the PVC casing at each of the groundwater monitoring wells; location measurements were taken at the manhole cover. Horizontal and vertical datum were tied to the North American Vertical Datum of 1988 (NAVD88). Based on the surveyed monitoring well elevations, groundwater generally flows in an easterly to

northeasterly direction beneath the Site; however, regional groundwater flow is assumed to be in a southerly direction toward the Bronx Kill/East River.

The locations of the groundwater monitoring wells are shown on Figure 2. A groundwater elevation contour map is included as Figure 6, and groundwater elevation data is presented in Table 1. The groundwater monitoring well elevation survey for the Site is provided as Appendix F, and groundwater sampling logs are provided as Appendix G.

#### 4.6 Temporary Soil Vapor Point Installation

Five temporary soil vapor points (RI-SV-01 through RI-SV-05) were installed at the locations shown on Figure 2. Interior points (RI-SV-01, RI-SV-03, and RI-SV-04) were installed approximately 6 inches below the building slab and exterior points (RI-SV-02 and RI-SV-05) were installed approximately 6 feet below grade, above the observed water table.

The temporary soil vapor sampling points were installed by advancing an expendable drive point into the subsurface. At each point, a six-inch stainless steel screen implant connected to Teflon™-lined polyethylene tubing was installed through the drilling rods and threaded into the drive point. The sample tubing was extended from the bottom end of the screen to above grade. The rods were then removed and the borings were backfilled with clean silica sand to six inches above the screen. Hydrated bentonite was used to fill the remaining void around the sampling tubing to the ground surface.

The soil vapor sampling logs, provided as Appendix H, include vapor point construction details.

#### 4.7 Sample Collection and Chemical Analysis

Soil, groundwater, soil vapor, and indoor air have been sampled and evaluated in this RIR. The sampling performed, which is presented in this RIR, provides a basis for the evaluation of subsurface Site conditions and potential remedial actions with respect to the media sampled.

##### 4.7.1 Soil Sampling

Soil cores from soil borings RI-SB-01 through RI-SB-08 were collected in decontaminated 4- or 5-foot-long, 2-inch-diameter, stainless steel macrocore piston rod samplers fitted with dedicated, internal acetate liners. All sampling equipment was either dedicated or decontaminated between sampling locations.

Soil cores were field-screened using a PID equipped with a 10.6 electron volt (eV) lamp and logged using the modified Burmister soil classification system. The PID was calibrated at the beginning of each field day with isobutylene gas in accordance with the manufacturer's specifications. At each boring location, AKRF field personnel recorded and documented subsurface conditions. A petroleum-like odor and PID readings up to 150 ppm were observed in borings RI-SB-01, RI-SB-06, and RI-SB-08. A petroleum-like odor was detected in boring RI-SB-03. No other field evidence of contamination, including petroleum- or solvent-like odors and/or dark staining, were encountered in the remaining borings. Evidence of free phase product [non-aqueous phase liquid (NAPL)] was not identified during the RI.

During the RI, 16 soil samples were submitted for laboratory analysis. At each boring location, 1 soil sample was collected from the upper 2 feet beneath the concrete slab or asphalt pavement, and a second sample was collected from the 2-foot interval exhibiting the greatest degree of contamination. In the absence of contamination, the deeper samples was collected from the 2-foot interval immediately above the observed water table.

All soil samples were submitted to Eurofins TestAmerica, Inc. (TestAmerica) of Edison, New Jersey and Burlington, Vermont, both New York State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP)-certified laboratories, in accordance with EPA chain of custody (CoC) protocols. Soil samples were analyzed for VOCs by EPA Method 8260D, SVOCs by EPA Method 8270E, pesticides by EPA Method 8081B, PCBs by EPA Method 8082A, TAL metals by EPA Method 6000/7000 series, hexavalent chromium by EPA Method 7196A, 1,4-dioxane by EPA Method 8270E, and the NYSDEC list of 21 per- and polyfluoroalkyl substances (PFAS) by EPA Method 537 (modified).

Soil sampling locations, depths, and rationales are summarized in Table C.

**Table C**  
**Soil Boring Details and Sampling Rationale**

<b>Soil Boring</b>	<b>On-Site Location</b>	<b>Sample Depth Intervals (feet below grade)</b>	<b>Rationale</b>
RI-SB-01	Northwestern	0-2, 6-8	To assess soil quality and assess subsurface conditions in the northwestern portion of the Site
RI-SB-02	Southeastern	0-2, 6-8	To assess soil quality and assess subsurface conditions in the southeastern portion of the Site
RI-SB-03	West-central	0-2, 8-10	To assess soil quality and assess subsurface conditions at the west-central portion of the Site
RI-SB-04	Northeastern	0-2, 6-8	To assess soil quality and assess subsurface conditions at the northeastern portion of the Site
RI-SB-05	Northern	0-2, 8-10	To assess soil quality and assess subsurface conditions at the northern portion of the Site
RI-SB-06	Western	0-2, 8-10	To assess soil quality and assess subsurface conditions at western portion of the Site
RI-SB-07	Central	0-2, 8-10	To assess soil quality and assess subsurface conditions in the central portion of the Site
RI-SB-08	South-central	0-2, 6-8	To assess soil quality and assess subsurface conditions in the south-central portion of the Site

#### **4.7.2 Soil Quality Assurance/Quality Control (QA/QC) Sampling**

For QA/QC purposes, one Matrix Spike/Matrix Spike Duplicate (MS/MSD) sample, one blind duplicate sample, one aqueous field blank, and one aqueous trip blank were submitted for laboratory analysis, as discussed in Section 4.7.7.

Soil samples slated for laboratory analysis were placed in laboratory-supplied containers in accordance with EPA protocols. The soil samples were analyzed by TestAmerica. Third-party data validation was performed by L.A.B. Validation Corp., of East Northport, New York, and Data Usability Summary Reports (DUSRs) were prepared.

DUSRs are further discussed in Section 4.7.7, and soil analytical data is discussed in Section 5.2. The soil boring locations are shown on Figure 2. Soil boring logs are provided in Appendix D.

#### **4.7.3 Groundwater Sampling**

Groundwater samples were collected from the four monitoring wells in accordance with EPA low flow sampling methodology, the January 2020 NYSDEC-issued sampling

protocol (Guidelines for Sampling and Analysis of PFAS), the applicable guidance document at the time the RI was conducted, and the Site-specific QAPP (included as Appendix A of the RIWP). The groundwater samples were collected a minimum of one week after well development.

Prior to collecting the groundwater samples, the depth to groundwater and the total well depth were measured at each of the groundwater monitoring wells using an oil/water interface probe attached to a measuring tape accurate to 0.01 foot. Free phase product was not detected in the groundwater monitoring wells during installation, purging, or sampling. Purging of the wells continued with a submersible pump until at least three well volumes were removed, groundwater was visibly clear, and water quality indicators stabilized. All purge water from the groundwater monitoring wells was containerized in labeled, NYSDOT-approved 55-gallon drums for off-site disposal at a permitted facility. Disposal of IDW is further discussed in Section 4.7.9.

The groundwater samples collected were submitted to TestAmerica for analysis of VOCs by EPA Method 8260D, SVOCs by EPA Method 8270E, pesticides by EPA Method 8081B, PCBs by EPA Method 8082A, total and dissolved TAL metals by EPA Method 6000/7000 series, 1,4-dioxane by EPA Method 8270E Selective Ion Monitoring (SIM), and the NYSDEC list of 21 PFAS by Modified EPA Method 537 (modified).

#### **4.7.4 Groundwater Quality Assurance/Quality Control (QA/QC) Sampling**

For QA/QC purposes, one MS/MSD sample, one blind duplicate sample, one aqueous field blank, and one aqueous trip blank were collected and submitted with the groundwater samples. The MS/MSD, blind duplicate, and field blank samples were submitted for the same laboratory analyses as the accompanying groundwater samples; the trip blank was submitted for laboratory analysis of VOCs by EPA Method 8260 only.

Sample containers were labeled, placed in ice-filled coolers, and shipped to the laboratory via courier with CoC documentation. The laboratory samples were analyzed by TestAmerica with Category B deliverables. Third-party data validation was performed by L.A.B. Validation Corp. and DUSRs were prepared.

DUSRs are further discussed in Section 4.7.7, and groundwater analytical data is discussed in Section 5.3. Groundwater sampling logs are provided in Appendix G.

#### **4.7.5 Soil Vapor and Indoor Air Sampling**

Five soil vapor samples were collected from the temporary soil vapor points shown on Figure 2. Interior vapor points (RI-SV-01, RI-SV-03, and RI-SV-04) were installed approximately 6 inches below the building slab. Exterior vapor points (RI-SV-02 and RI-SV-05) were installed approximately 72 inches below the building grade. Prior to collection, each temporary soil vapor sampling point was purged of approximately three sample volumes using a low-flow air pump at a flow rate of approximately 0.2 liter per minute. During purging, a shroud was placed over each sampling point and helium gas was introduced to saturate the atmosphere around the sample port. Purged vapors were collected in a Tedlar<sup>®</sup> bag and field-screened for organic vapors using a 10.6 eV PID. The purged air was also monitored using a portable helium detector to check for short-circuiting of ambient air into the vapor sampling point. All soil vapor points passed the seal integrity tests with helium detections of non-detect.

After purging, temporary soil vapor probes were connected via Teflon<sup>™</sup>-lined polyethylene tubing to a laboratory-supplied 6-Liter SUMMA<sup>®</sup> canister equipped with a flow regulator set to collect a sample over a two-hour sampling period. After approximately two hours,

the flow controller valve was closed, the final vacuum noted, and the canister placed in a shipping carton for delivery to the laboratory.

Three indoor air samples and one outdoor ambient air sample were collected concurrent with the soil vapor samples in accordance with the NYSDOH *Final Guidance on Soil Vapor Intrusion*, October 2006, and ASTM E 2600-08 *Standard Practice for Assessment of Vapor Intrusion into Structures on Property Involved in Real Estate Transactions*. The indoor air samples were co-located with the sub-slab soil vapor samples. The ambient air sample was collected from the exterior courtyard area.

In accordance with the RIWP, soil vapor, indoor, and the ambient air samples were collected in batch certified clean 6-liter SUMMA<sup>®</sup> canisters equipped with 8-hour flow controllers. The indoor air samples were collected at approximately 4 to 5 feet above the floor/ground to simulate the breathing zone. Immediately after opening the flow control valve, the initial SUMMA<sup>®</sup> canister vacuum (inches of mercury) was noted. After approximately 8 hours, the flow controller valve was closed, the final vacuum noted, and the canister placed in a shipping carton for delivery to the laboratory.

Soil vapor sampling locations, depths, and rationales are summarized in Table D.

**Table D**  
**Soil Vapor Sample Details**

Vapor Point ID	Sample Location	Sampling Depth (Inches below grade)	Purged Vapor Readings (ppm)	Rationale for Sampling Location
RI-SV-1	Sub-slab Northwestern	6	2.5	To determine concentrations of VOCs beneath the foundation slab in the northwestern portion of the Site, evaluate the potential for off-site exposure to the northwest, and complete the significant threat determination.
RI-SV-2	Exterior Southeastern	72	1.4	To determine concentrations of VOCs beneath the asphalt parking lot in the southeastern portion of the Site.
RI-SV-3	Sub-slab North-central	6	4	To determine concentrations of VOCs beneath the foundation slab in the north-central portion of the Site, evaluate the potential for off-site exposure to the east, and complete the significant threat determination.
RI-SV-4	Sub-slab South-central	6	4.1	To determine concentrations of VOCs beneath the foundation slab in the south-central portion of the Site.
RI-SV-5	Exterior Northeastern	72	1.8	To determine concentrations of VOCs beneath the asphalt parking area in the northeastern portion of the Site, evaluate the potential for off-site exposure to the north, and complete the significant threat determination.

Methodologies used for soil vapor assessment conform to the *New York State Department of Health Final Guidance on Soil Vapor Intrusion*, October 2006; updated May, 2017. The vapor samples were analyzed for VOCs by EPA Method TO-15 by TestAmerica with Category B deliverables. Sample containers were shipped to the laboratory via courier with

appropriate CoC documentation. Third-party data validation was performed by L.A.B. Validation Corp. and DUSRs were prepared.

DUSRs are further discussed in Section 4.7.7, and soil vapor, indoor, and ambient air analytical data is discussed in Section 5.4. Soil vapor sample locations are shown on Figure 2. Soil vapor sampling logs are included as Appendix H.

#### 4.7.6 Chemical Analysis

Chemical analytical work has been performed under a Quality Assurance (QA) program, which is summarized in Table E.

**Table E**  
**QA Program**

Factor	Description
Quality Assurance Officer	The chemical analytical QA/QC was directed by Stephen Malinowski of AKRF.
Third Party Data Validator	The third-party data validation was performed by Lori Beyer of L.A.B. Validation Corp.
Chemical Analytical Laboratory	The chemical analytical laboratories used in the RI were Eurofins TestAmerica of Edison, New Jersey and Burlington, Vermont.
Chemical Analytical Methods	<p>Soil analytical methods:</p> <ul style="list-style-type: none"> <li>• VOCs by EPA Method 8260D</li> <li>• SVOCs by EPA Method 8270E</li> <li>• Pesticides by EPA Method 8081B</li> <li>• PCBs by EPA Method 8082A</li> <li>• TAL Metals by EPA Method 6000/7000 series</li> <li>• Hexavalent chromium by EPA Method 7196A</li> <li>• 1,4-Dioxane by EPA Method 8270E</li> <li>• 21 compound PFAS list by Modified EPA Method 537</li> </ul> <p>Groundwater analytical methods:</p> <ul style="list-style-type: none"> <li>• VOCs by EPA Method 8260D</li> <li>• SVOCs by EPA Method 8270E</li> <li>• Pesticides by EPA Method 8081B</li> <li>• PCBs by EPA Method 8082A</li> <li>• TAL Metals (total and dissolved) by EPA Method 6000/7000 series</li> <li>• 1,4-Dioxane by EPA Method 8270E SIM</li> <li>• 21 compound PFAS list by Modified EPA Method 537</li> </ul> <p>Soil vapor/indoor air/ambient air analytical method:</p> <ul style="list-style-type: none"> <li>• VOCs by EPA Method TO-15</li> </ul>

#### 4.7.7 Quality Assurance/Quality Control (QA/QC) Sampling

In accordance with DER-10 requirements, QA/QC procedures were used to provide performance information regarding accuracy, precision, sensitivity, representation, completeness, and comparability associated with the sampling and analyses for this investigation. Field QA/QC procedures were used (1) to document that samples are representative of actual conditions at the Site and (2) to identify possible cross-contamination from field activities or sample transit. Laboratory QA/QC procedures and analyses were used to demonstrate whether analytical results have been biased either by

interfering compounds in the sample matrix or by laboratory techniques that may have introduced systematic or random errors to the analytical process.

QA/QC samples were analyzed by TestAmerica. The third-party data validation was performed by L.A.B. Validation Corp. and reported in DUSRs for soil, soil vapor, indoor air, and groundwater. Laboratory analytical data sets are provided in Appendix I. QA/QC sampling consisted of the following:

Soil QA/QC Samples

- One MS/MSD sample: RI-SB-04\_0-2\_20200601
- One blind duplicate sample: RI-SB-X\_6-8\_20200601 (collected from RI-SB-08\_6-8\_20200601)
- One field blank sample: RI-FB-S-01\_20200601
- One trip blank sample: RI-TB-S-01\_20200601

Groundwater QA/QC Samples

- One MS/MSD sample: RI-MW-02\_20200615
- One blind duplicate sample: RI-MW-X01\_20200615 (collected from RI-MW-03\_20200615)
- One field blank sample: RI-FB-GW-01\_20200615
- Two trip blank samples: RI-TB-GW-01\_20200615

QA/QC samples were submitted with the soil and groundwater samples. The field blank, blind duplicate, and MS/MSD samples were analyzed for the same analyte list as the accompanying soil and groundwater samples. Trip blank samples were submitted for laboratory analysis of VOCs only.

Data Validation

The DUSRs concluded that the overall assessment of the data generated were of acceptable quality. The soil, groundwater, and soil vapor DUSRs identified additional qualifiers for specific compounds, as explained in Appendix I. The data were determined to be acceptable for use with the additional data qualifiers. The qualifiers have been added to the soil, groundwater, and soil vapor data summary tables provided as Tables 2 through 15, and are summarized below:

- J: The concentration given is an estimated value.
- K: Reported concentration value is proportional to dilution factor and may be exaggerated.
- L: Sample result is estimated and biased low.
- R: DUSR indicates the reported result is unusable (note: the analyte may or may not be present)
- U: The analyte was not detected at the indicated concentration.
- D: Indicates an identified compound in an analysis that has been diluted. This flag alerts the data user to any differences between the concentrations reported in the two analyses.

#### 4.7.8 Results of Chemical Analyses

Laboratory data for soil, groundwater, and soil vapor/indoor air samples are summarized in Tables 2 through 7, Tables 8 through 14, and Table 15, respectively. Soil sample concentrations above UUSCOs, RRSCOs, and PFAS Guidance Values are shown on Figure 7. Groundwater sample concentrations above AWQSGVs and PFAS Guidance Values are shown on Figure 8. Soil vapor, indoor, and ambient air sample analytical results are shown on Figure 9. Laboratory data deliverables are provided in digital form in Appendix I.

#### 4.7.9 Management of Investigation-Derived Waste (IDW)

Handling of IDW and backfilling of boreholes was conducted in accordance with Section 3.3(e) of DER-10. IDW that did not exhibit evidence of contamination (e.g., staining, elevated PID readings, oily sheens, odors, etc.) was used to backfill the corresponding borehole that generated them to within 24 inches of the surface. All development and purge water from the investigation was containerized in NYS DOT-approved 55-gallon drums.

The drums were sealed at the end of each workday and labeled with the date, the well or boring number, the type of waste (i.e., drill cuttings, decontamination fluids, development water, or purge water) and the name of an AKRF point-of-contact. All drums were labeled “pending analysis” until laboratory data became available. All boreholes were restored at the surface with concrete after being backfilled. One drum containing development and purge water (approximately 55 gallons) were disposed of off-site at Clean Water of New York in Staten Island, New York by Brookside Environmental, Inc. on July 16, 2020, in accordance with applicable regulations. The fully executed IDW disposal manifests are included as Appendix J.

#### 4.7.10 Deviations from the Remedial Investigation Work Plan (RIWP)

The following components of the RI were deviations from the RIWP:

- Due to difficult drilling conditions at RI-SB-03, monitoring well RI-MW-03 was constructed with 1-inch diameter PVC well casing and well screen instead of 2-inch diameter casing and well screen.

The deviation referenced above does not materially affect achieving the objectives of the RI.

## 5.0 ENVIRONMENTAL EVALUATION

### 5.1 Geological and Hydrogeological Conditions

#### 5.1.1 Stratigraphy

Soil observed in the borings generally consisted of fill material comprising sand, silt, and gravel, with varying amounts of concrete, asphalt, brick extending from just below surface grade down to approximately 5 to 16 feet below grade. The fill material was underlain by sand, gravel, and silt to the boring termination depth (up to 20 feet below grade). Bedrock was not encountered during the RI.

#### 5.1.2 Hydrogeology

Based on Site-specific well point measurements, groundwater beneath the Site ranges from elevation 3.10 to elevation 5.78 (NAVD88), or approximately 6.65 to 7.53 feet below grade surface across the Site. Based on the surveyed monitoring well elevations, groundwater generally flows in an easterly to northeasterly direction beneath the Site.

### 5.2 Soil Chemistry

A total of 16 soil samples were collected for laboratory analysis from soil borings RI-SB-01 through RI-SB-08. Soil samples were analyzed for VOCs by EPA Method 8260D, SVOCs by EPA Method 8270E, pesticides by EPA Method 8081B, PCBs by EPA Method 8082A, TAL metals by EPA Method 6000/7000 series, hexavalent chromium by EPA Method 7196A, PFAS Modified EPA Method 537, and 1,4-dioxane by EPA Method 8270E. The soil sample analytical results for VOCs, SVOCs, PCBs, pesticides, and metals, were compared to the 6 NYCRR Part 375 UUSCOs and RRSCOs. Concentrations of perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) were compared to the guidance values for UUSCOs and RRSCOs presented in the June 2021 *NYSDEC Sampling, Analysis and Assessment of PFAS Under NYSDEC's Part 375 Remedial Programs*. Soil sample concentrations above UUSCOs and RRSCOs are shown on Figure 7. Soil laboratory analytical data reports are included in Appendix I.

#### 5.2.1 Volatile Organic Compounds (VOCs) in Soil

One VOC, acetone, was detected in sample RI-SB-07\_8-10\_20200601 at a concentration of 0.065 mg/kg, above the UUSCO of 0.05 mg/kg, but below the RRSCO of 100 mg/kg. No other VOCs were detected above the UUSCOs and RRSCOs.

Acetone was detected in the aqueous trip blank at a concentration of 5.3 µg/L. Methylene chloride was detected in the field blank sample at a concentration of 0.33 µg/L. Acetone is a common laboratory contaminant, and the detection in soil is likely due to laboratory contamination and not an on-site source.

Soil analytical results for VOCs are presented in Table 2.

#### 5.2.2 Semivolatile Organic Compounds (SVOCs) in Soil

Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, and indeno(1,2,3-c,d)pyrene were detected at concentrations above their respective UUSCOs in samples RI-SB-05\_0-2\_20200601 and RI-SB-08\_0-2\_20200601. 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 RI-SB-05\_0-2\_20200601 and RI-SB-08\_0-2\_20200601 at concentrations ranging from 0.67 mg/kg to 1.9 mg/kg.

Benzo(a)anthracene concentrations ranged from 0.016 mg/kg in sample RI-SB-03\_8-10\_20200601 to 1.4 mg/kg in sample RI-SB-08\_0-2\_20200601. Benzo(a)pyrene was

detected from 0.011 mg/kg in sample RI-SB-03\_8-10\_20200601 to 1.4 mg/kg in sample RI-SB-08\_0-2\_20200601. Benzo(b)fluoranthene concentrations ranged from 0.016 mg/kg in sample RI-SB-03\_8-10\_20200601 to 1.9 mg/kg in sample RI-SB-08\_0-2\_20200601. Chrysene concentrations ranged from 0.015 mg/kg in sample RI-SB-03\_8-10\_20200601(0.015) to 1.5g/kg in sample RI-SB-08\_0-2\_20200601. Indeno(1,2,3-c,d)pyrene concentrations ranged from 0.015 mg/kg in sample RI-SB-05\_8-10\_20200601 to 0.98 mg/kg in sample RI-SB-08\_0-2\_20200601.

Table F summarizes SVOC exceedances above UUSCOs and RRSCOs in soil samples.

**Table F**  
**SVOC Concentrations in Soil Samples Above UUSCOs or UUSCOs/RRSCOs**

Analyte	Soil Sample Identification	UUSCO (mg/kg)	RRSCO (mg/kg)	Concentration (mg/kg)
Benzo(a)anthracene	RI-SB-05_0-2_20200601	1	1	1.1*†
	RI-SB-08_0-2_20200601			1.4*†
Benzo(a)pyrene	RI-SB-05_0-2_20200601	1	1	1.1*†
	RI-SB-08_0-2_20200601			1.4*†
Benzo(b)fluoranthene	RI-SB-05_0-2_20200601	1	1	1.3*†
	RI-SB-08_0-2_20200601			1.9*†
Chrysene	RI-SB-05_0-2_20200601	1	3.9	1.2*
	RI-SB-08_0-2_20200601			1.5*
Indeno(1,2,3-c,d)pyrene	RI-SB-05_0-2_20200601	0.5	0.5	0.67*†
	RI-SB-08_0-2_20200601			0.98*†
Notes: Sample detections that exceed the UUSCOs are designated with *. Sample detections that exceed the RRSCOs are designated with †.				

Soil analytical results for SVOCs are presented in Table 3.

### 5.2.3 Pesticides in Soil

Dieldrin, P,P'-DDD, P,P'-DDE, and P,P'-DDT were detected at concentrations above the UUSCOs, but below the RRSCOs in four soil samples. P,P'-DDD concentrations ranged from 0.0052 mg/kg in sample RI-SB-02\_0-2\_20200601 to 0.081 mg/kg in sample RI-SB-05\_0-2\_20200601. P,P'-DDE concentrations ranged from 0.032 mg/kg in sample RI-SB-04\_0-2\_20200601 to 0.097 mg/kg in sample RI-SB-05\_0-2\_20200601. P,P'-DDT concentrations ranged from 0.0027 mg/kg in sample RI-SB-04\_6-8\_20200601 to 0.46 mg/kg in sample RI-SB-08\_0-2\_20200601. Dieldrin concentrations ranged from 0.0027 mg/kg in sample RI-SB-02\_0-2\_20200601 to 0.0063 mg/kg in sample RI-SB-04\_0-2\_20200601.

Table G summarizes total pesticides exceedances above UUSCOs in soil samples.

**Table G**  
**Pesticide Concentrations in Soil Samples Above UUSCOs or UUSCOs/RRSCOs**

Analyte	Soil Sample Identification	UUSCO (mg/kg)	RRSCO (mg/kg)	Concentration (mg/kg)
Dieldrin	RI-SB-04_0-2_20200601	0.005	0.2	0.0063*

**Table G**  
**Pesticide Concentrations in Soil Samples Above UUSCOs or UUSCOs/RRSCOs**

Analyte	Soil Sample Identification	UUSCO (mg/kg)	RRSCO (mg/kg)	Concentration (mg/kg)
P,P'-DDD	RI-SB-02_0-2_20200601	0.0033	13	0.0052 J*
	RI-SB-05_0-2_20200601			0.081*
	RI-SB-08_0-2_20200601			0.031 J*
P,P'-DDE	RI-SB-02_0-2_20200601	0.0033	8.9	0.037 J*
	RI-SB-04_0-2_20200601			0.032*
	RI-SB-05_0-2_20200601			0.097*
	RI-SB-08_0-2_20200601			0.086*
P,P'-DDT	RI-SB-02_0-2_20200601	0.0033	7.9	0.14 J*
	RI-SB-04_0-2_20200601			0.069*
	RI-SB-05_0-2_20200601			0.014 J*
	RI-SB-08_0-2_20200601			0.46*
Notes: J: The concentration given in as estimated value. Sample detections that exceed the UUSCOs are designated with *. Sample detections that exceed the RRSCOs are designated with †.				

Soil analytical results for pesticides are presented in Table 4.

#### 5.2.4 Polychlorinated Biphenyls (PCBs) in Soil

Total PCBs were detected in two soil samples above the UUSCO of 0.1 mg/kg at concentrations of 0.11 mg/kg and 0.17 mg/kg. Total PCBs were not detected above the RRSCO of 1 mg/kg. Total PCBs concentrations ranged from 0.056 mg/kg in sample RI-SB-08\_0-2\_20200601 to 0.17 in sample RI-SB-05\_0-2\_20200601.

Table H summarizes total PCB exceedances above UUSCOs in soil samples.

**Table H**  
**PCB Concentrations in Soil Samples Above UUSCOs or UUSCOs/RRSCOs**

Analyte	Soil Sample Identification	UUSCO (mg/kg)	RRSCO (mg/kg)	Concentration (mg/kg)
Total PCBs	RI-SB-02_0-2_20200601	0.1	1	0.11*
	RI-SB-05_0-2_20200601			0.17*
Notes: Sample detections that exceed the UUSCOs are designated with *. Sample detections that exceed the RRSCOs are designated with †.				

Soil analytical results for PCBs are presented in Table 5.

#### 5.2.5 Target Analyte List (TAL) Metals in Soil

Six metals (arsenic, barium, copper, lead, mercury, and zinc) were detected in 11 soil samples at concentrations ranging from 0.2 to 2,100 mg/kg, above their respective UUSCOs. Barium, copper, lead, and/or mercury were additionally detected above the

RRSCOs in three samples. Arsenic concentrations ranged from 0.84 mg/kg in sample RI-SB-02\_6-8\_20200601 to 15.1 mg/kg in sample RI-SB-01\_6-8\_20200601.

Barium concentrations ranged from 8 mg/kg in sample RI-SB-02\_6-8\_20200601 to 2,100 mg/kg in sample RI-SB-08\_0-2\_20200601. Copper concentrations ranged from 1.1 mg/kg in sample RI-SB-02\_6-8\_20200601 to 530 g/kg in sample RI-SB-08\_0-2\_20200601. Lead concentrations ranged from 2 mg/kg in sample RI-SB-02\_6-8\_20200601 to 766 mg/kg in sample RI-SB-08\_0-2\_20200601. Mercury concentrations ranged from 0.012 mg/kg in sample RI-SB-04\_6-8\_20200601 to 1.3 mg/kg in sample RI-SB-05\_0-2\_20200601. Zinc concentrations ranged from 4.87 mg/kg in sample RI-SB-02\_6-8\_20200601 to 890 mg/kg in sample RI-SB-08\_0-2\_20200601.

Table I summarizes metals exceedances above the UUSCOs and RRSCOs in soil samples.

**Table I**  
**TAL Metals Concentrations in Soil Samples Above UUSCOs or UUSCOs/RRSCOs**

Analyte	Sample Identification	UUSCO (mg/kg)	RRSCO (mg/kg)	Concentration (mg/kg)
Arsenic	RI-SB-01_6-8_20200601	13	16	15.1*
Barium	RI-SB-02_0-2_20200601	350	400	1,090*†
	RI-SB-08_0-2_20200601			2,100*†
Copper	RI-SB-01_0-2_20200601	50	270	69.7*
	RI-SB-01_6-8_20200601			98*
	RI-SB-05_0-2_20200601			62.4*
	RI-SB-06_0-2_20200601			74.4*
	RI-SB-06_8-10_20200601			76.1*
	RI-SB-07_8-10_20200601			147*
	RI-SB-08_0-2_20200601			530*†
Lead	RI-SB-01_0-2_20200601	63	400	139*
	RI-SB-01_6-8_20200601			267*
	RI-SB-02_0-2_20200601			389*
	RI-SB-04_0-2_20200601			140*
	RI-SB-05_0-2_20200601			275*
	RI-SB-06_0-2_20200601			64.1*
	RI-SB-06_8-10_20200601			130*
	RI-SB-07_0-2_20200601			69.2*
	RI-SB-08_0-2_20200601			766*†
Mercury	RI-SB-03_0-2_20200601	0.18	0.81	0.41*
	RI-SB-05_0-2_20200601			1.3*†
	RI-SB-06_8-10_20200601			0.2*
	RI-SB-08_0-2_20200601			0.48*
Zinc	RI-SB-01_0-2_20200601	109	10,000	219*
	RI-SB-01_6-8_20200601			214*
	RI-SB-02_0-2_20200601			524*
	RI-SB-03_0-2_20200601			137*
	RI-SB-04_0-2_20200601			221*
	RI-SB-05_0-2_20200601			277*

**Table I**  
**TAL Metals Concentrations in Soil Samples Above UUSCOs or UUSCOs/RRSCOs**

Analyte	Sample Identification	UUSCO (mg/kg)	RRSCO (mg/kg)	Concentration (mg/kg)
Zinc (continued)	RI-SB-06_0-2_20200601	109	10,000	452*
	RI-SB-06_8-10_20200601			222*
	RI-SB-07_0-2_20200601			134*
	RI-SB-08_0-2_20200601			890*
Notes: Sample detections that exceed the UUSCOs are designated with *. Sample detections that exceed the RRSCOs are designated with †.				

Soil analytical results for TAL metals are presented in Table 6.

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

PFOS was detected in three soil samples at concentrations ranging from 1.01 to 2.34 parts per billion (ppb), above the UUSCO guidance value of 0.88 ppb, but below the RRSCO guidance value of 44 ppb. PFOA was detected at low levels up to 0.17 ppb below the UUSCO guidance value of 0.66 ppb. 1,4-Dioxane was not detected above laboratory reporting limits in any soil samples.

Table J summarizes PFOS exceedances above the UUSCO guidance value in soil samples.

**Table J**  
**PFOS Concentrations in Soil Samples Above the UUSCO or UUSCO/RRSCO Guidance Values**

Analyte	Soil Sample Identification	UUSCO Guidance Value (ppb)	RRSCO Guidance Value (ppb)	Concentration (ppb)
PFOS	RI-SB-02_0-2_20200601	0.88	44	1.11*
	RI-SB-04_0-2_20200601			1.01*
	RI-SB-08_0-2_20200601			2.34*
Notes: Sample detections that exceed the UUSCO Guidance Value are designated with *. Sample detections that exceed the RRSCOs Guidance Value are designated with †.				

Soil analytical results for PFAS compounds are presented in Table 7. Soil analytical results for 1,4-dioxane are presented in Table 3.

### 5.3 Groundwater Chemistry

Four groundwater samples were collected for laboratory analysis from groundwater monitoring wells RI-MW-01 through RI-MW-04. Groundwater sample analytical results for VOCs, SVOCs, PCBs, pesticides, and total/dissolved metals were conservatively compared to the NYSDEC AWQSGVs for Class GA groundwater. Groundwater analytical results for the 21-compound list of PFAS were compared to the NYSDEC June 2021 draft guidance values of 6.7 parts per trillion (ppt) for PFOA, and 2.7 ppt for PFOS. 1,4-dioxane concentrations in groundwater were compared to the NYSDEC June 2021 draft guidance value of 0.35 parts per billion (ppb). These proposed guidance values are for a raw water source. Groundwater in the Bronx is not used as a source of potable water.

Groundwater sample analytical results are presented in Tables 8 through 14. Groundwater sample concentrations above the AWQSGVs and guidance values are shown on Figure 8. Groundwater laboratory analytical data reports are included in Appendix I.

### 5.3.1 Volatile Organic Compounds (VOCs) in Groundwater

No VOCs were detected in the groundwater samples at concentrations above their respective AWQSGVs. Low levels of the VOCs acetone, chloromethane, isopropylbenzene, methylcyclohexane, and MTBE were detected in groundwater sample RI-MW-01\_20200622 at concentrations ranging from 0.44 to 14 µg/L. MTBE was also detected in RI-MW-03\_20200615 and its blind duplicate at concentrations of 0.56 and 0.62 µg/L, respectively.

Groundwater analytical results for VOCs are presented in Table 8.

### 5.3.2 Semivolatile Organic Compounds (SVOCs) in Groundwater

The SVOCs benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, and indeno(1,2,3-c,d)pyrene were detected above the AWQSGVs in groundwater sample RI-MW-01\_20200622. These compounds were not detected in any of the other groundwater samples, and no other SVOC detections exceeded their respective AWQSGV in any other groundwater samples.

Table K summarizes SVOC exceedances above the AWQSGVs in groundwater samples.

**Table K**  
**SVOC Concentrations in Groundwater Samples Above AWQSGVs**

Analyte	Soil Sample Identification	AWQSGVs (µg/L)	Concentration (µg/L)
Benzo(a)anthracene	RI-MW-01_20200622	0.002	3.5
Benzo(a)pyrene	RI-MW-01_20200622	ND	2.5
Benzo(b)fluoranthene	RI-MW-01_20200622	0.002	2.8
Benzo(k)fluoranthene	RI-MW-01_20200622	0.002	1.3
Chrysene	RI-MW-01_20200622	0.002	2.7
Indeno(1,2,3-c,d)pyrene	RI-MW-01_20200622	0.002	1.4 J
Notes: J: The concentration given in as estimated value.			

Groundwater analytical results for SVOCs are presented in Table 9.

### 5.3.3 Pesticides in Groundwater

Pesticides were not detected above laboratory reporting limits in three of the four groundwater samples. P,P'-DDT was detected below the AWQSGV in sample RI-MW-01\_20200622.

Groundwater analytical results for pesticides are presented in Table 10.

### 5.3.4 Polychlorinated Biphenyls (PCBs) in Groundwater

PCBs were not detected above laboratory reporting limits in any of the groundwater samples.

Groundwater analytical results for PCBs are presented in Table 11.

### 5.3.5 Metals in Groundwater

#### Dissolved (Filtered) Metals

Four metals (iron, magnesium, manganese, and sodium) were detected in the dissolved (filtered) groundwater samples at concentrations that exceeded the AWQSGVs. Iron concentrations ranged from 484 µg/L in sample RI-MW-04\_20200615 to 1,770 µg/L in sample RI-MW-03\_20200615. Magnesium concentrations ranged from 18,300 µg/L in sample RI-MW-03\_20200615 (18300) to 64,200 µg/L in sample RI-MW-02\_20200615. Manganese concentrations ranged from 444 µg/L in sample RI-MW-02\_20200615 to 1,500 µg/L in sample RI-MW-04\_20200615. Sodium concentrations ranged from 24,800 µg/L in sample RI-MW-02\_20200615 to 211,000 µg/L in sample RI-MW-01\_20200622.

Table L summarizes dissolved (filtered) metal exceedances above AWQSGVs in groundwater samples.

**Table L**  
**Dissolved (Filtered) Metals Concentrations in Groundwater Samples Above AWQSGVs**

Analyte	Groundwater Sample ID	AWQSGVs (µg/L)	Concentration (µg/L)
Iron	RI-MW-01_20200622	300	597
	RI-MW-03_20200615		1,770
	RI-MW-X01_20200615		1,670
	RI-MW-04_20200615		484
Magnesium	RI-MW-02_20200615	35,000	64,200
	RI-MW-04_20200615		54,500
Manganese	RI-MW-01_20200622	300	1,260
	RI-MW-02_20200615		444
	RI-MW-03_20200615		596
	RI-MW-X01_20200615		596
	RI-MW-04_20200615		1,500
Sodium	RI-MW-01_20200622	20,000	211,000
	RI-MW-02_20200615		24,800
	RI-MW-03_20200615		133,000
	RI-MW-X01_20200615		137,000
	RI-MW-04_20200615		26,300
Notes: RI-MW-X01_20200615 is a blind duplicate of RI-MW-03_20200615			

Groundwater analytical results for dissolved (filtered) metals are presented in Table 12.

#### Total (Unfiltered) Metals

Iron, magnesium, manganese, and sodium were detected above their respective AWQSGVs in each of the five unfiltered groundwater samples. Iron concentrations ranged from 517 µg/L in sample RI-MW-01\_20200622 to 3,380 µg/L in sample RI-MW-04\_20200615. Magnesium concentrations ranged from 19,40 µg/L in sample RI-MW-03\_20200615 (18300) to 61,900 µg/L in sample RI-MW-02\_20200615. Manganese concentrations ranged from 627 µg/L in sample RI-MW-03\_20200615 to 1,600 µg/L in

sample RI-MW-04\_20200615. Sodium concentrations ranged from 24,200 µg/L in sample RI-MW-02\_20200615 to 188,000 µg/L in sample RI-MW-01\_20200622.

Table M summarizes total (unfiltered) metals exceedances above AWQSGVs in groundwater samples.

**Table M**  
**Total (Unfiltered) Metals Concentrations in Groundwater Samples Above AWQSGVs**

Analyte	Groundwater Sample ID	AWQSGVs (µg/L)	Concentration (µg/L)
Iron	RI-MW-01_20200622	300	517
	RI-MW-02_20200615		2,550 JK
	RI-MW-03_20200615		1,920
	RI-MW-X01_20200615		1,990
	RI-MW-04_20200615		3,380
Magnesium	RI-MW-02_20200615	35,000	61,900
	RI-MW-04_20200615		53,200
Manganese	RI-MW-01_20200622	300	1,090
	RI-MW-02_20200615		628
	RI-MW-03_20200615		627
	RI-MW-X01_20200615		649
	RI-MW-04_20200615		1,600
Sodium	RI-MW-01_20200622	20,000	188,000
	RI-MW-02_20200615		24,200
	RI-MW-03_20200615		143,000
	RI-MW-X01_20200615		150,000
	RI-MW-04_20200615		26,400
Notes: J: The concentration given in as estimated value. K: Reported concentration value is proportional to dilution factor and may be exaggerated. RI-MW-X01_20200615 is a blind duplicate of RI-MW-03_20200615			

Groundwater analytical results for total (unfiltered) metals are presented in Table 13.

### 5.3.6 Per- and Polyfluoroalkyl Substances (PFAS) in Groundwater

PFOS was detected above the NYSDEC June 2021 draft guidance value of 2.7 parts per trillion (ppt) in all four groundwater samples (plus the blind duplicate) at concentrations up to 70.4 ppt. PFOA was detected in three groundwater samples at concentrations up to 15 ppt, above the draft guidance value of 6.7 ppt.

1,4-Dioxane was detected in one groundwater sample (RI-MW-03\_20200615) at a concentration of 0.066 ppb, below the NYSDEC draft guidance value of 0.35 ppb.

Table N summarizes the PFOS and PFOA exceedances above the NYSDEC guidance values in groundwater samples.

**Table N**  
**PFOA and PFOS Concentrations in Groundwater Samples Above the NYSDEC Guidance Values**

Analyte	Sample	NYSDEC PFAS Guidance Level (ppt)	Concentration (ppt)
PFOA	RI-MW-01_20200622	6.7	14.5
	RI-MW-02_20200615		15
	RI-MW-04_20200615		7.05
PFOS	RI-MW-01_20200622	2.7	70.4
	RI-MW-02_20200615		66.6 J
	RI-MW-03_20200615		20.4
	RI-MW-X01_20200615		20.2
	RI-MW-04_20200615		49.8
Notes: J: The concentration given in as estimated value. RI-MW-X01_20200615 is a blind duplicate of RI-MW-03_20200615.			

Groundwater analytical results for PFAS compounds are presented in Table 14. Groundwater analytical results for 1,4-dioxane are presented in Table 9.

## 5.4 Soil Vapor Chemistry

### 5.4.1 Soil Vapor Analytical Results

Three sub-slab soil vapor samples (RI-SV-01\_20200608, RI-SV-03\_20200608, and RI-SV-04\_20200608) and two soil vapor samples (RI-SV-02\_20200608 and RI-SV-05\_20200608) were collected from temporary soil vapor points shown on Figure 2. Although there are currently no regulatory or published guidance values for VOCs in soil vapor, soil vapor data was used to assess the potential for exposure to receptors and to help define the nature and extent of contamination at the Site.

The soil vapor samples were analyzed for VOCs by EPA Method TO-15. Forty-two of the 71 VOCs analyzed for were detected in the soil vapor samples. Solvent-related VOCs [including 1,1,1-trichloroethane (1,1,1-TCA), carbon tetrachloride, chlorodifluoromethane, chloromethane, dichlorodifluoromethane, methylene chloride, PCE, and TCE] were detected in the soil vapor samples at individual concentrations up to 690 µg/m<sup>3</sup> from a diluted analysis (dichlorodifluoromethane in sample RI-SV-04\_20200608). Other VOCs, including compounds typically associated with petroleum [such as 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 1,3-butadiene, 1,3-dichlorobenzene, 2,2,4-trimethylpentane, 2-hexanone, 4-ethyltoluene, benzene, butane, cyclohexane, cymene, ethylbenzene, isopropanol, isopropylbenzene, methyl ethyl ketone (MEK), m,p-xylenes, n-butylbenzene, n-heptane, n-hexane, n-propylbenzene, o-xylene, and toluene] were detected in the soil vapor samples at individual concentrations up to 180 µg/m<sup>3</sup> from a diluted analysis (MEK in sample RI-SV-02\_20200608).

**Table O**  
**Volatile Organic Compound Detection Ranges in Soil Vapor**

Analyte	Result ( $\mu\text{g}/\text{m}^3$ )	Sample
1,1,1-Trichloroethane	0.26 Min.	RI-SV-05_20200608
	0.64 Max.	RI-SV-04_20200608

**Table O**  
**Volatile Organic Compound Detection Ranges in Soil Vapor**

Analyte	Result (µg/m <sup>3</sup> )	Sample
1,2,4-Trimethylbenzene	4.2 Min.	RI-SV-05_20200608
	5 Max.	RI-SV-03_20200608
1,3,5-Trimethylbenzene (Mesitylene)	1.6 Min.	RI-SV-04_20200608
	2.1 Max.	RI-SV-05_20200608
1,3-Butadiene	0.13 Min.	RI-SV-05_20200608
	0.21 Max.	RI-SV-02_20200608
1,3-Dichlorobenzene	4 Min.	RI-SV-05_20200608
	6.1 Max.	RI-SV-02_20200608
2,2,4-Trimethylpentane	0.21 Min.	RI-SV-02_20200608
	2.2 Max.	RI-SV-01_20200608
2-Hexanone	0.93 Min.	RI-SV-04_20200608
	23 Max.	RI-SV-02_20200608
4-Ethyltoluene	0.78 Min.	RI-SV-03_20200608
	1.3 Max.	RI-SV-02_20200608
Acetone	14 Min.	RI-SV-01_20200608
	500 Max.	RI-SV-02_20200608
Benzene	0.3 Min.	RI-SV-02_20200608
	5.4 Max.	RI-SV-04_20200608
Butane	1.4 Min.	RI-SV-04_20200608
	15 Max.	RI-SV-02_20200608
Carbon Disulfide	1.4 Min.	RI-SV-05_20200608
	13 Max.	RI-SV-04_20200608
Carbon Tetrachloride	0.15 Min.	RI-SV-02_20200608
	0.36 Max.	RI-SV-01_20200608
Chlorobenzene	12 Min.	RI-SV-04_20200608
	12 Max.	RI-SV-04_20200608
Chlorodifluoromethane	0.85 Min.	RI-SV-05_20200608
	2.1 Max.	RI-SV-04_20200608
Chloroform	2.2 Min.	RI-SV-02_20200608
	7.5 Max.	RI-SV-05_20200608
Chloromethane	0.38 Min.	RI-SV-03_20200608
	0.96 Max.	RI-SV-01_20200608
Cyclohexane	0.16 Min.	RI-SV-01_20200608
	1.4 Max.	RI-SV-05_20200608
Cymene	1.4 Min.	RI-SV-05_20200608
	3.1 Max.	RI-SV-03_20200608
Dichlorodifluoromethane	1.9 Min.	RI-SV-03_20200608
	690 Max.	RI-SV-04_20200608
Ethylbenzene	1.2 Min.	RI-SV-03_20200608
	140 Max.	RI-SV-04_20200608
Isopropanol	1.2 Min.	RI-SV-04_20200608
	4.1 Max.	RI-SV-02_20200608
Isopropylbenzene (Cumene)	0.46 Min.	RI-SV-05_20200608
	11 Max.	RI-SV-04_20200608

**Table O**  
**Volatile Organic Compound Detection Ranges in Soil Vapor**

Analyte	Result (µg/m <sup>3</sup> )	Sample
M,P-Xylenes	3.6 Min.	RI-SV-03_20200608
	14 Max.	RI-SV-04_20200608
Methyl Ethyl Ketone (2-Butanone)	0.87 Min.	RI-SV-01_20200608
	180 Max.	RI-SV-02_20200608
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	0.38 Min.	RI-SV-01_20200608
	5.1 Max.	RI-SV-04_20200608
Methylene Chloride	1.9 Min.	RI-SV-03_20200608
	1.9 Max.	RI-SV-03_20200608
N-Butylbenzene	0.25 Min.	RI-SV-05_20200608
	0.38 Max.	RI-SV-03_20200608
N-Heptane	0.38 Min.	RI-SV-01_20200608
	4 Max.	RI-SV-05_20200608
N-Hexane	0.74 Min.	RI-SV-04_20200608
	2.9 Max.	RI-SV-05_20200608
N-Propylbenzene	0.71 Min.	RI-SV-03_20200608
	2.4 Max.	RI-SV-04_20200608
O-Xylene (1,2-Dimethylbenzene)	2 Min.	RI-SV-03_20200608
	6.9 Max.	RI-SV-04_20200608
Sec-Butylbenzene	0.26 Min.	RI-SV-02_20200608
	0.42 Max.	RI-SV-05_20200608
Styrene	0.28 Min.	RI-SV-02_20200608
	81 Max.	RI-SV-04_20200608
Tert-Butyl Alcohol	0.24 Min.	RI-SV-01_20200608
	13 Max.	RI-SV-02_20200608
Tetrachloroethylene (PCE)	25 Min.	RI-SV-05_20200608
	36 Max.	RI-SV-02_20200608
Tetrahydrofuran	1.9 Min.	RI-SV-04_20200608
	1.9 Max.	RI-SV-04_20200608
Toluene	1 Min.	RI-SV-01_20200608
	30 Max.	RI-SV-04_20200608
Trichloroethylene (TCE)	0.3 Min.	RI-SV-04_20200608
	0.75 Max.	RI-SV-02_20200608
Trichlorofluoromethane	1.1 Min.	RI-SV-03_20200608
	46 Max.	RI-SV-04_20200608
Notes: Min. = Minimum Value Detected Max.= Maximum Value Detected		

Comparison to the NYSDOH Soil Vapor/Indoor Air Matrices is discussed in Section 5.4.3, below. Soil vapor sample locations are shown on Figure 2. Soil vapor analytical results are summarized in Table 15.

#### 5.4.2 Indoor Air and Ambient Air Analytical Results

Three indoor air samples (RI-IA-01\_20200608, RI-IA-03\_20200608, and RI-IA-04\_20200608) were collected from the three locations co-located with the corresponding temporary soil vapor points (RI-SV-01, RI-SV-03, and RI-SV-04).

The indoor air samples were analyzed for VOCs by EPA Method TO-15. Forty-five of the 71 VOCs analyzed for were detected in one or more samples. Eleven VOCs were detected in the ambient air sample (RI-AA-01\_20200608). Solvent-related VOCs (including 1,1,2,2-tetrachloroethane, 1,1,2-trichloroethane, carbon tetrachloride, chlorodifluoromethane, chloromethane, dichlorodifluoromethane, methylene chloride, PCE, and TCE) were detected in the indoor air samples at individual concentrations up to 19  $\mu\text{g}/\text{m}^3$  (dichlorodifluoromethane in sample RI-IA-04\_20200608). Other VOCs, including compounds typically associated with petroleum (such as 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 1,4-dichlorobenzene, 2,2,4-trimethylpentane, 4-ethyltoluene, benzene, butane, cyclohexane, cymene, ethylbenzene, isopropanol, m,p-xylenes, MEK, n-butylbenzene, n-heptane, n-propylbenzene, o-xylene, sec-butylbenzene, styrene, t-butylbenzene, and toluene), were detected in the indoor air samples at individual concentrations up to 40  $\mu\text{g}/\text{m}^3$  (butane in sample RI-IA-04\_20200608).

**Table P**  
**Volatile Organic Compound Detection Ranges in Indoor and Ambient Air**

Analyte	Result ( $\mu\text{g}/\text{m}^3$ )	Sample
1,1,2,2-Tetrachloroethane	0.29 Min.	RI-IA-01_20200608
	0.29 Max.	RI-IA-01_20200608
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF)	0.36 Min.	RI-IA-03_20200608
	0.73 Max.	RI-IA-01_20200608
1,1,2-Trichloroethane	0.27 Min.	RI-IA-01_20200608
	0.27 Max.	RI-IA-01_20200608
1,2,4-Trimethylbenzene	0.45 Min.	RI-IA-01_20200608
	0.76 Max.	RI-IA-04_20200608
1,2-Dichloropropane	0.17 Min.	RI-IA-01_20200608
	0.17 Max.	RI-IA-01_20200608
1,2-Dichlorotetrafluoroethane	0.32 Min.	RI-IA-01_20200608
	0.32 Max.	RI-IA-01_20200608
1,3,5-Trimethylbenzene (Mesitylene)	0.22 Min.	RI-IA-04_20200608
	0.33 Max.	RI-IA-01_20200608
1,4-Dichlorobenzene	1 Min.	RI-IA-04_20200608
	1.3 Max.	RI-IA-01_20200608
2,2,4-Trimethylpentane	0.24 Min.	RI-IA-03_20200608
	1.4 Max.	RI-IA-01_20200608
2-Chlorotoluene	0.27 Min.	RI-IA-01_20200608
	0.27 Max.	RI-IA-01_20200608
4-Ethyltoluene	0.22 Min.	RI-IA-04_20200608
	0.27 Max.	RI-IA-01_20200608
Acetone	7.2 Min.	RI-AA-01_20200608
	18 Max.	RI-IA-03_20200608
Benzene	0.24 Min.	RI-AA-01_20200608
	0.54 Max.	RI-IA-01_20200608

**Table P**  
**Volatile Organic Compound Detection Ranges in Indoor and Ambient Air**

Analyte	Result (µg/m <sup>3</sup> )	Sample
Bromodichloromethane	0.27 Min.	RI-IA-01_20200608
	0.27 Max.	RI-IA-01_20200608
Butane	1 Min.	RI-AA-01_20200608
	40 Max.	RI-IA-04_20200608
Carbon Disulfide	0.27 Min.	RI-IA-01_20200608
	0.27 Max.	RI-IA-01_20200608
Carbon Tetrachloride	0.34 Min.	RI-AA-01_20200608
	0.57 Max.	RI-IA-01_20200608
Chlorodifluoromethane	0.92 Min.	RI-AA-01_20200608
	3.1 Max.	RI-IA-04_20200608
Chloroform	1.2 Min.	RI-IA-04_20200608
	2.3 Max.	RI-IA-03_20200608
Chloromethane	0.78 Min.	RI-AA-01_20200608
	0.99 Max.	RI-IA-04_20200608
Cis-1,3-Dichloropropene	0.18 Min.	RI-IA-01_20200608
	0.18 Max.	RI-IA-01_20200608
Cyclohexane	0.16 Min.	RI-IA-03_20200608
	0.72 Max.	RI-IA-01_20200608
Cymene	0.37 Min.	RI-IA-01_20200608
	0.37 Max.	RI-IA-01_20200608
Dichlorodifluoromethane	1.5 Min.	RI-AA-01_20200608
	19 Max.	RI-IA-04_20200608
Ethylbenzene	0.46 Min.	RI-IA-04_20200608
	0.54 Max.	RI-IA-01_20200608
Hexachlorobutadiene	0.9 Min.	RI-IA-01_20200608
	0.9 Max.	RI-IA-01_20200608
Isopropanol	1.2 Min.	RI-AA-01_20200608
	8.6 Max.	RI-IA-03_20200608
Isopropylbenzene (Cumene)	0.24 Min.	RI-IA-01_20200608
	0.24 Max.	RI-IA-01_20200608
M,P-Xylenes	1.5 Min.	RI-IA-04_20200608
	2 Max.	RI-IA-01_20200608
Methyl Ethyl Ketone (2-Butanone)	0.71 Min.	RI-IA-01_20200608
	3.4 Max.	RI-IA-04_20200608
Methyl Methacrylate	0.21 Min.	RI-IA-01_20200608
	0.21 Max.	RI-IA-01_20200608
Methylene Chloride	1.4 Min.	RI-IA-01_20200608
	1.4 Max.	RI-IA-01_20200608
Naphthalene	1 Min.	RI-IA-01_20200608
	1 Max.	RI-IA-01_20200608
N-Butylbenzene	0.3 Min.	RI-IA-01_20200608
	0.3 Max.	RI-IA-01_20200608
N-Heptane	0.41 Min.	RI-IA-04_20200608
	0.41 Max.	RI-IA-04_20200608

**Table P**  
**Volatile Organic Compound Detection Ranges in Indoor and Ambient Air**

Analyte	Result (µg/m <sup>3</sup> )	Sample
N-Propylbenzene	0.22 Min.	RI-IA-01_20200608
	0.22 Max.	RI-IA-01_20200608
O-Xylene (1,2-Dimethylbenzene)	0.48 Min.	RI-IA-04_20200608
	0.86 Max.	RI-IA-01_20200608
Sec-Butylbenzene	0.26 Min.	RI-IA-01_20200608
	0.26 Max.	RI-IA-01_20200608
Styrene	0.26 Min.	RI-IA-04_20200608
	0.38 Max.	RI-IA-01_20200608
T-Butylbenzene	0.26 Min.	RI-IA-01_20200608
	0.26 Max.	RI-IA-01_20200608
Tert-Butyl Alcohol	0.3 Min.	RI-IA-03_20200608
	0.47 Max.	RI-IA-01_20200608
Tetrachloroethylene (PCE)	0.4 Min.	RI-IA-01_20200608
	0.4 Max.	RI-IA-01_20200608
Tetrahydrofuran	0.44 Min.	RI-IA-04_20200608
	0.44 Max.	RI-IA-04_20200608
Toluene	0.6 Min.	RI-AA-01_20200608
	2.1 Max.	RI-IA-01_20200608
Trichloroethylene (TCE)	0.24 Min.	RI-IA-03_20200608
	0.25 Max.	RI-IA-01_20200608
Trichlorofluoromethane	1.3 Min.	RI-AA-01_20200608
	5.6 Max.	RI-IA-04_20200608
Notes: Min. = Minimum Value Detected Max.= Maximum Value Detected		

Comparison to the NYSDOH Soil Vapor/Indoor Air Matrices is discussed in Section 5.4.3, below. Indoor air and ambient air sample locations are shown on Figure 2. Indoor air and ambient air analytical results are included in Table 15.

**5.4.3 Comparison of Sub-Slab Soil Vapor/Indoor Air Vapor Results using New York State Department of Health (NYSDOH) Matrices**

NYSDOH developed decision matrices for eight compounds [1,1,1-trichloroethane, 1,1-dichloroethene, carbon tetrachloride, cis-1,2-dichloroethylene (cis-1,2-DCE), methylene chloride, PCE, TCE, and vinyl chloride]. Based on an evaluation of the co-located soil vapor and indoor air samples using the applicable matrix for each of the above-mentioned compounds, the recommendation is “no further action.”

Soil vapor, indoor, and ambient air sample analytical results are included in Table 15. VOC detections in soil vapor, indoor air, and ambient air samples are shown on Figure 9.

## 6.0 QUALITATIVE HUMAN HEALTH EXPOSURE ASSESSMENT (QHHEA)

The objective of the QHHEA is to identify potential receptors and pathways for human exposure to the contaminants of concern (COC) that are present at, or migrating from, the Site. The identification of exposure pathways describes the route that the COC takes to travel from the source to the receptor. An identified pathway indicates that the potential for exposure exists; it does not imply that exposures actually occur.

The RI, as described in this RIR, is sufficient to complete a QHHEA. The QHHEA was performed to determine whether the Site poses an existing or future health hazard to the Site's exposed or potentially exposed population. The sampling data from the RI was evaluated to determine whether there is any health risk by characterizing the exposure setting, identifying exposure pathways, and evaluating contaminant fate and transport. This QHHEA was prepared in accordance with Appendix 3B and Section 3.3 (c) 4 of the NYSDEC Draft DER-10 Technical Guidance for Site Investigation and Remediation.

### 6.1 Contaminants of Concern (COCs) in Respective Media

Based on the results of previous subsurface investigations and this RI, the COCs are:

#### Soil

- The VOC acetone was detected at concentrations above the UUSCOs.
- The SVOCs benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, and indeno(1,2,3-c,d)pyrene were detected at concentrations above the UUSCOs and RRSCOs. Benzo(k)fluoranthene and chrysene were detected above the UUSCOs, but below the RRSCOs.
- Total PCBs were detected above the UUSCOs, but below the RRSCOs.
- The pesticides dieldrin, P,P'-DDD, P,P'-DDE, and P,P'DDT were detected above the UUSCOs, but below the RRSCOs.
- The metals arsenic, nickel, zinc were detected above the UUSCOs, but below the RRSCOs; and the metals barium, copper, lead, and mercury were detected above the UUSCOs and the RRSCOs.
- PFOS was detected at concentrations above the June 2021 guidance value for Unrestricted Use.

#### Groundwater

- The VOC MTBE was detected in one groundwater sample at a concentration above the AWQSGVs during the April 2019 Phase II Investigation conducted by Langan.
- The SVOCs benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, and indeno(1,2,3-c,d)pyrene were detected at concentrations above the AWQSGVs.
- The metals iron (total and dissolved), magnesium (total and dissolved), manganese (total and dissolved), and sodium (total and dissolved) were detected at concentrations above the AWQSGVs.
- PFOA and PFOS were detected at concentrations above the June 2021 guidance values.

#### Soil Vapor

- Petroleum- and chlorinated solvent-related VOCs were detected in soil vapor.

## 6.2 Conceptual Model of Site Contamination

Based on an evaluation of the data and information in this RI, the Site is contaminated with: SVOCs, metals, PCBs, pesticides, and PFOS in soil/fill; SVOCs, metals, PFOS, and PFOA in groundwater; and solvent- and petroleum-related VOCs in soil vapor.

The elevated concentrations of SVOCs, metals, PCBs, pesticides, and PFOS in soil/fill are likely related to the presence of historic fill material. SVOCs were only detected at elevated concentrations in RI-MW-01, collected adjacent to the off-site gas station. The elevated concentrations of metals in groundwater may be related to regional conditions and/or sediment entrained in the groundwater samples. Solvent-related and petroleum-related VOCs were detected at varying concentrations in the soil vapor samples collected from the Site. The detections may be related to the Site's historical uses including, Vess Dry Bottling Co., Fireproof Products Co., and North Eastern Bag & Burlap Co. (although it could not be confirmed if any of these uses included on-site manufacturing or use of solvents or petroleum-related products.

## 6.3 Potential Routes of Exposure

The five elements of an exposure pathway are:

1. The source of contamination;
2. The environmental media and transport mechanisms;
3. The point of exposure;
4. The route of exposure; and
5. The receptor population.

These elements of an exposure pathway may be based on past, present, or future events. An exposure pathway is considered complete when all five elements of an exposure pathway are documented. A potential exposure pathway exists when any one or more of the five elements comprising an exposure pathway cannot be documented. An exposure pathway may be eliminated from further evaluation when any one of the five elements comprising an exposure pathway has not existed in the past, does not exist in the present, and will never exist in the future.

## 6.4 Exposure Route

An exposure route is the mechanism by which a receptor comes into contact with a chemical. Three potential primary routes exist by which chemicals can enter the body:

- Ingestion of water, fill, and/or soil;
- Dermal contact with water, fill, soil, and/or building materials; and
- Inhalation of vapors and/or particulates.

## 6.5 Potential Receptors

The Site is currently occupied by a bakery production and distribution facility, and a parking lot. The surrounding area is largely developed with automotive, industrial, and commercial uses with residential uses located further north. The anticipated future use of the Site is mixed-use with residential and commercial space.

**On-site Receptors:** Current on-site receptors include employees of the bakery.

During redevelopment of the Site, the on-site potential sensitive receptors will include construction workers and inspectors. Once the Site is redeveloped, the on-site potential sensitive receptors will include residents, employees, community members, and vendors.

**Off-site Receptors:** Potential off-site receptors within a 0.25-mile radius of the Site include adult and child residents, commercial and construction workers, pedestrians, trespassers, and cyclists, based on the following:

1. Commercial Businesses – existing and future
2. Residential Buildings – existing and future
3. Building Construction/Renovation – existing and future
4. Pedestrians, Cyclists – existing and future
5. Day Care Facility(ies) – existing and future
6. Schools – existing and future

## 6.6 Existence of Human Health Exposure Pathways

This evaluation consists of the following components: contaminant source; contaminant release and transport mechanism; point of exposure; route of exposure; and receptor population.

The Site is currently capped with a concrete building slab and asphalt-paved parking lot, which were noted to be in good condition. Based on the soil vapor and co-located indoor air samples, soil vapor intrusion is not anticipated to be a concern. Additionally, groundwater is not used for drinking or other potable purposes in the Bronx, and the Site is served by a public water supply that is not affected by Site contamination.

Once redevelopment activities begin, there will be a potential exposure pathway from contaminated surface soil/fill to construction workers, as these workers could potentially ingest, inhale, or have dermal contact with any exposed contaminated fill or soil; however, this will be mitigated with proper implementation of a CAMP that will prevent migration of particulates and VOCs, and a HASP that will dictate safe practices including the wearing of personal protective equipment.

## 6.7 Overall Human Health Exposure Assessment

The entirety of the Site is capped with a concrete building slab and asphalt-paved parking lot, which were noted to be in good to fair condition. Based on the soil vapor and co-located indoor air sampling, soil vapor intrusion is not anticipated to be a concern. Once redevelopment activities begin, there will be a potential exposure pathway from contaminated surface soil/fill to construction workers, as these workers could potentially ingest, inhale, or have dermal contact with any exposed contaminated fill or soil; however, this will be mitigated with proper implementation of a CAMP that will prevent migration of particulates and VOCs, and a HASP that will dictate safe practices including the wearing of personal protective equipment.

Based on the results of the QHHEA, a NYSDEC-approved Remedial Action Work Plan (RAWP), which includes a health and safety plan to protect on-site workers, should be implemented during Remedial Action (RA) and construction of the proposed Site building to ensure that the potential exposure pathways identified do not become complete. The RAWP should address the contaminated soil/fill at the Site and the installation/implementation of certain engineering and/or institutional controls (ECs and/or ICs, respectively).

## 7.0 CONCLUSIONS

This RIR summarizes the investigation work performed between June 1 and 22, 2020. The goal of the RI was to determine the horizontal and vertical extent of contamination identified during previous investigations performed at the Site by Langan and AKRF, and to aid in the design of the remedy. The RI was conducted in general accordance with AKRF's March 2020 RIWP, which included a HASP and a QAPP.

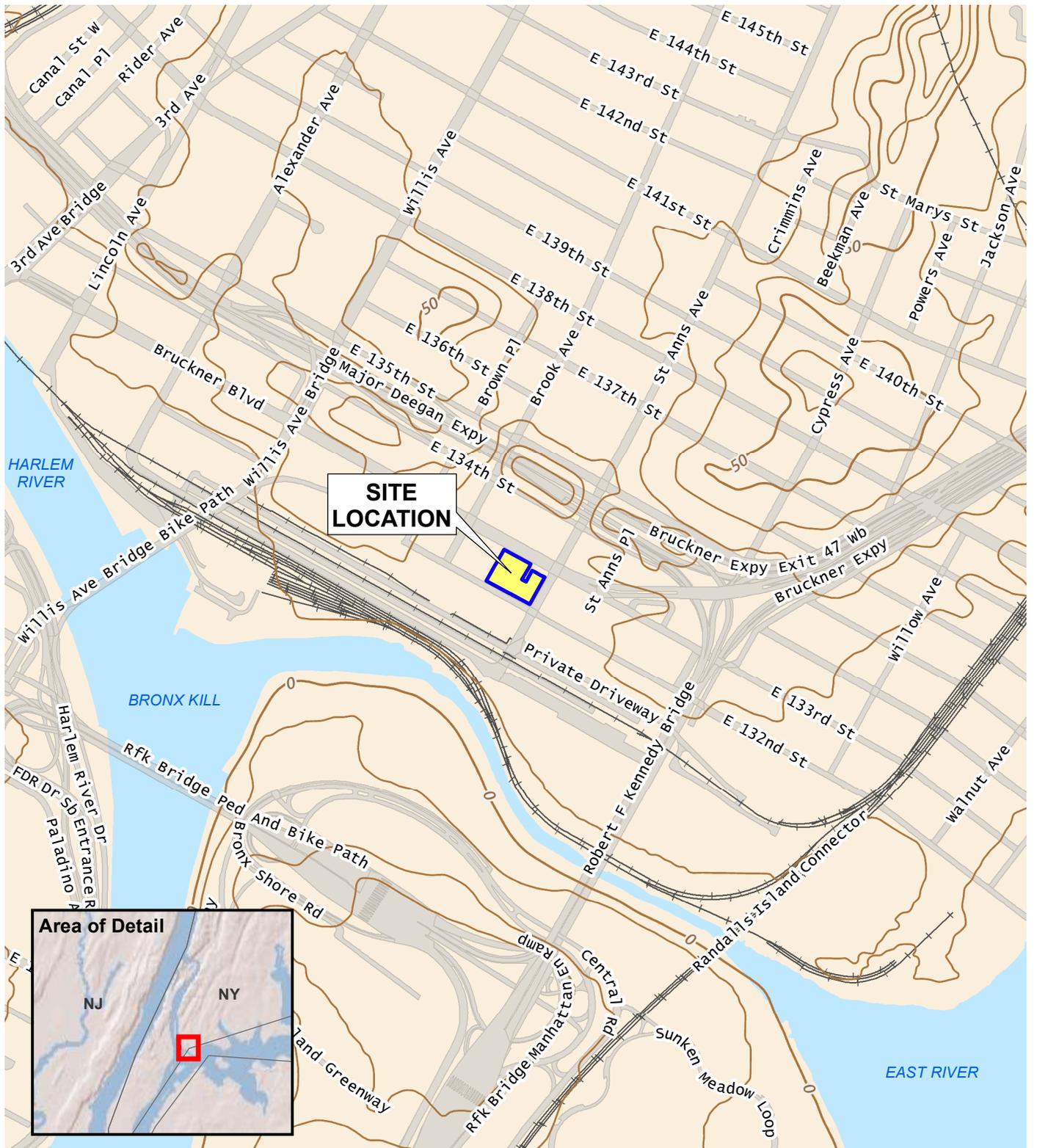
Based on the RI results, the nature and extent of contaminated soil, groundwater, and vapor present at the Site has been determined. The COCs at the Site include: SVOCs, metals, PCBs, pesticides, and PFOS in soil/fill; SVOCs, metals, PFOS, and PFOA in groundwater; and solvent- and petroleum-related VOCs in soil vapor.

This RI documented fill material from just below surface grade down to approximately 5 to 16 feet below grade. The fill/soil contained elevated concentrations of SVOCs, metals, PCBs, pesticides, and PFOS. PCBs, pesticides, and PFOS were detected above the UUSCOs, but below the RRSCOs. SVOC concentrations above UUSCOs and RRSCOs were detected in shallow soil at the Site. Detected concentrations of SVOCs in soil are likely related to the presence of historic fill material. Metals were detected in soil samples at concentrations above the UUSCOs down to 10 feet below grade. PFOS was only detected in three samples collected from the eastern parking lot, in the upper 2 feet below grade.

SVOCs and metals were detected in the groundwater samples at concentrations above their respective AWQSGVs. SVOCs were only detected at elevated concentrations in RI-MW-01, collected adjacent to the off-site gas station. The metals iron, magnesium, manganese, and sodium were detected in both the filtered and unfiltered groundwater sample analyses and are most likely related to sediment entrained in the samples or regional groundwater conditions, as opposed to an on-site release, because these metals are common constituents in fill material and in groundwater in the region. PFOS and/or PFOA were detected in each of the four groundwater samples at concentrations above the NYSDEC June 2021 draft guidance values 2.7 ppt and 6.7 ppt, respectively. The presences of PFAS in groundwater is likely the result of regional groundwater conditions.

Petroleum and chlorinated-solvent related VOCs were detected at elevated concentrations in all soil vapor samples collected. Based on an evaluation of the co-located soil vapor and indoor air samples using the applicable NYSDOH matrix values for chlorinated-solvent compounds, the recommendation is "no further action."

## FIGURES



Service Layer Credits: USGS The National Map: 3d Elevation Program, Data Refreshed July, 2021



© 2022 AKRF. W:\Projects\220028 - BRUCKNER BLVD\Technical\GIS and Graphics\ISAR\220028 Fig.1 site loc map.mxd/4/2022 12:58:48 PM mveilleux



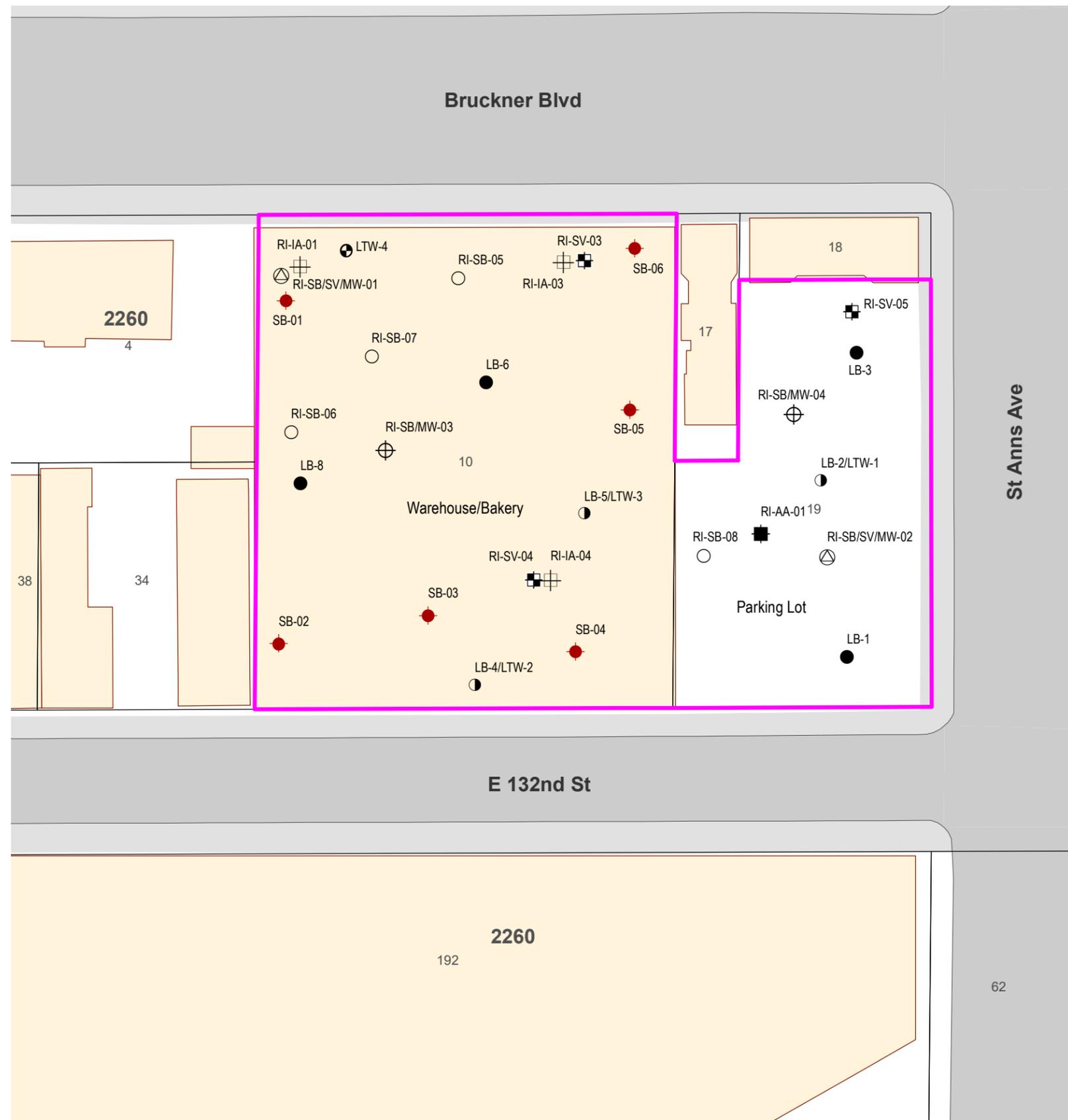
440 Park Avenue South, New York, NY 10016

**138 Bruckner Boulevard**  
Bronx, New York

**SITE LOCATION**

DATE	<b>2/4/2022</b>
PROJECT NO.	<b>220028</b>
FIGURE	<b>1</b>

© 2022 AKRF. W:\Projects\220028 - BRUCKNER BLVD\Technical\GIS and Graphics\SAR\220028 Fig 2 BCP Site and Sample Location Plan.mxd 2/17/2022 1:17:04 PM mvelieux



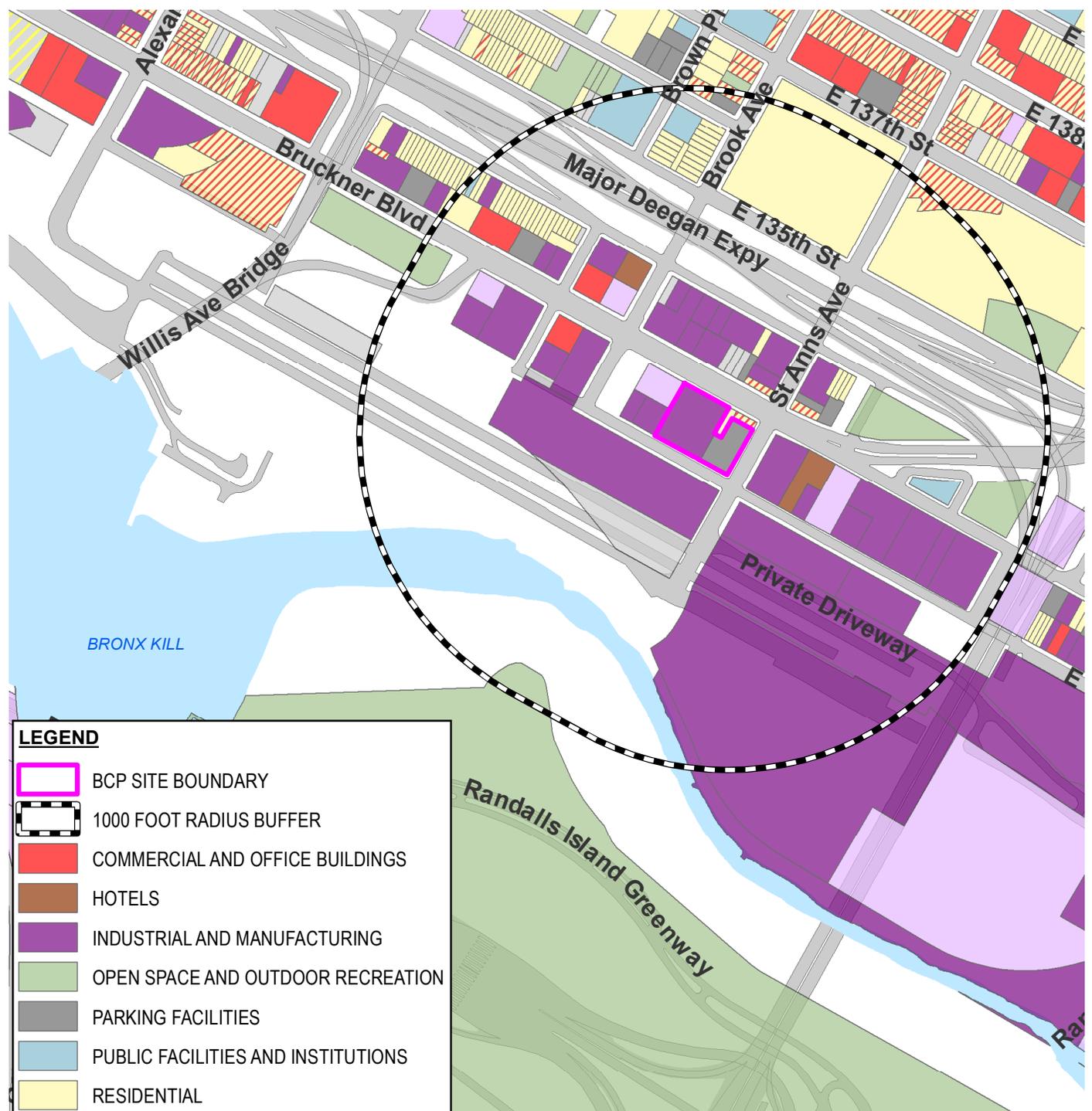
**LEGEND**

- PROJECT SITE BOUNDARY
- BUILDING
- LOT BOUNDARY AND TAX LOT NUMBER
- 2260** BLOCK NUMBER
- SOIL BORING LOCATION (AUGUST 2019,
- SOIL BORING LOCATION (APRIL 2019, LANGAN)
- TEMPORARY WELL LOCATION (APRIL 2019, LANGAN)
- SOIL BORING/TEMPORARY WELL LOCATION (APRIL 2019, LANGAN)
- REMEDIAL INVESTIGATION SOIL BORING LOCATION (JUNE 2020, AKRF)
- REMEDIAL INVESTIGATION SOIL VAPOR POINT LOCATION (JUNE 2020,
- REMEDIAL INVESTIGATION SOIL BORING/MONITORING WELL LOCATION (JUNE 2020, AKRF)
- REMEDIAL INVESTIGATION SOIL BORING/MONITORING WELL/SOIL VAPOR POINT LOCATION (JUNE 2020, AKRF)
- REMEDIAL INVESTIGATION AMBIENT AIR SAMPLE LOCATION (JUNE 2020, AKRF)
- REMEDIAL INVESTIGATION INDOOR AIR SAMPLE LOCATION (JUNE 2020, AKRF)



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

© 2022 AKRF. W:\Projects\220028 - BRUCKNER BLVD\Technical\GIS and Graphics\SAR190253 Fig 3 Surrounding Land Use map.mxd/16/2022 1:56:03 PM mvelleux



**LEGEND**

-  BCP SITE BOUNDARY
-  1000 FOOT RADIUS BUFFER
-  COMMERCIAL AND OFFICE BUILDINGS
-  HOTELS
-  INDUSTRIAL AND MANUFACTURING
-  OPEN SPACE AND OUTDOOR RECREATION
-  PARKING FACILITIES
-  PUBLIC FACILITIES AND INSTITUTIONS
-  RESIDENTIAL
-  RESIDENTIAL WITH COMMERCIAL BELOW
-  TRANSPORTATION AND UTILITY
-  VACANT LAND
-  VACANT BUILDING
-  UNDER CONSTRUCTION
-  HYDROGRAPHY - WATER

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

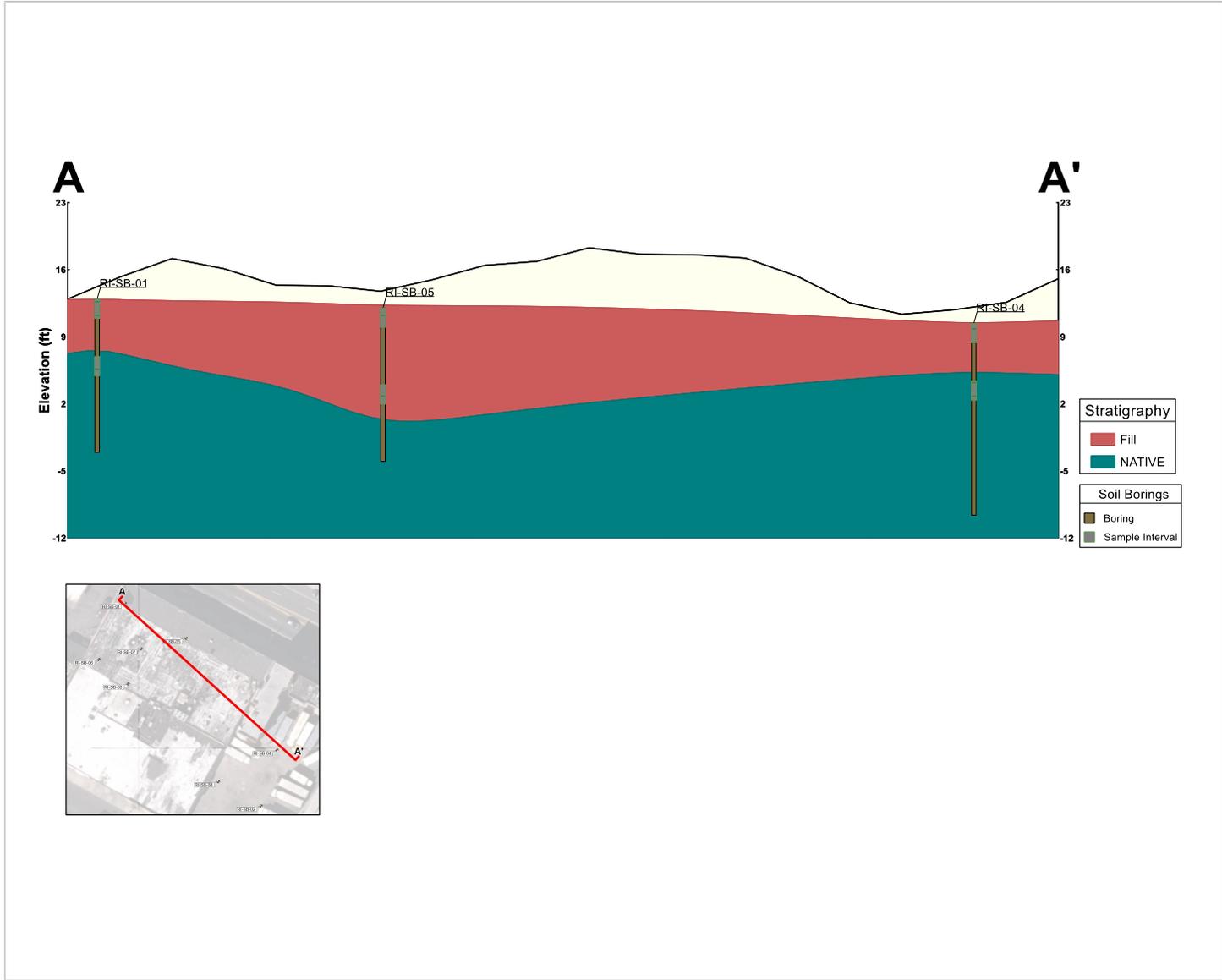


440 Park Avenue South, New York, NY 10016

**138 Bruckner Boulevard**  
Bronx, New York

**SURROUNDING LAND USE**

DATE	<b>2/16/2022</b>
PROJECT NO.	<b>220028</b>
FIGURE	<b>3</b>



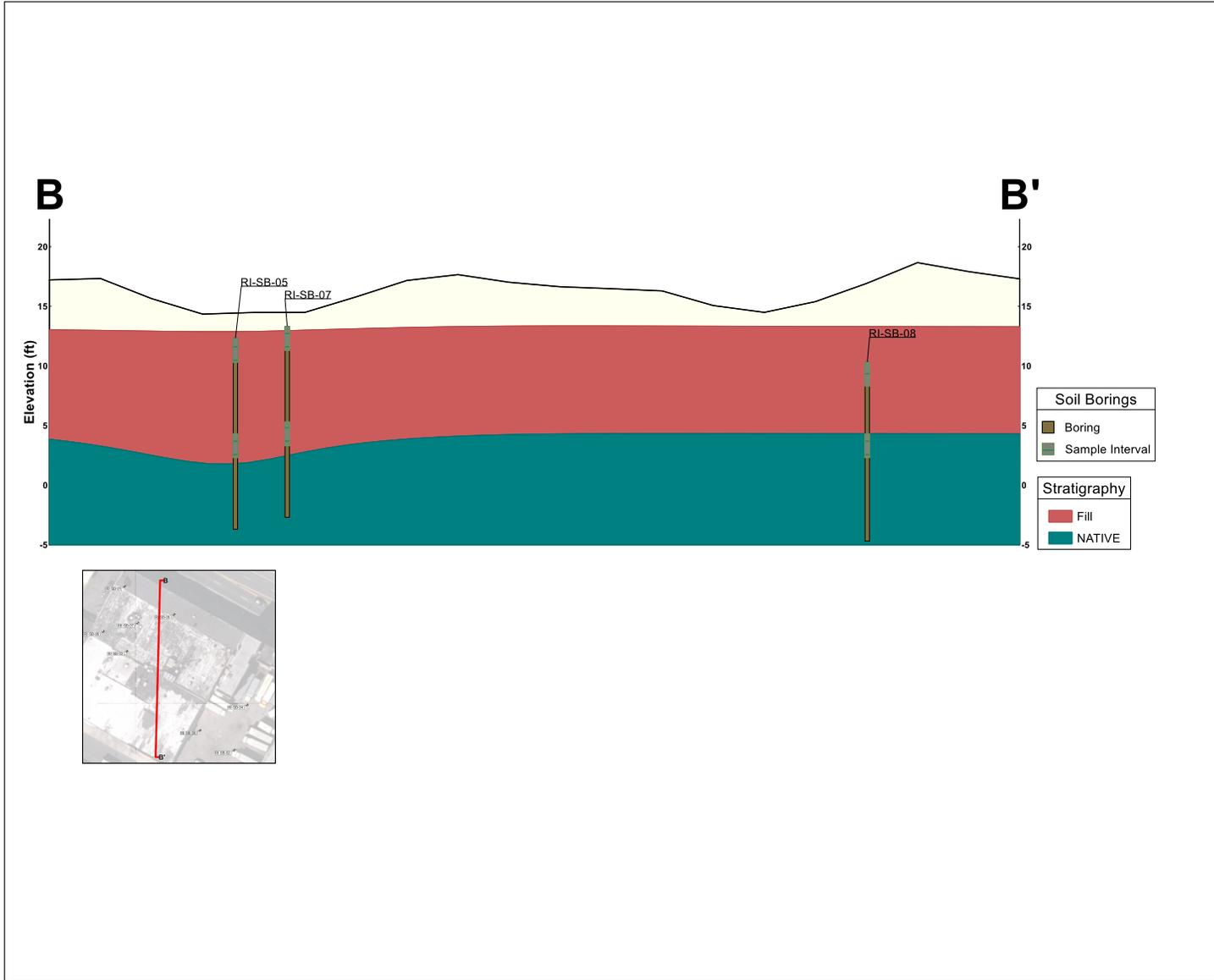
**138 Bruckner Blvd**  
Bronx, NY

**Lithological Cross Section - Northwest/Southeast**

Date  
**02/10/2022**

Project No.  
**220028**

Figure  
**4**



138 Bruckner Blvd  
Bronx, NY

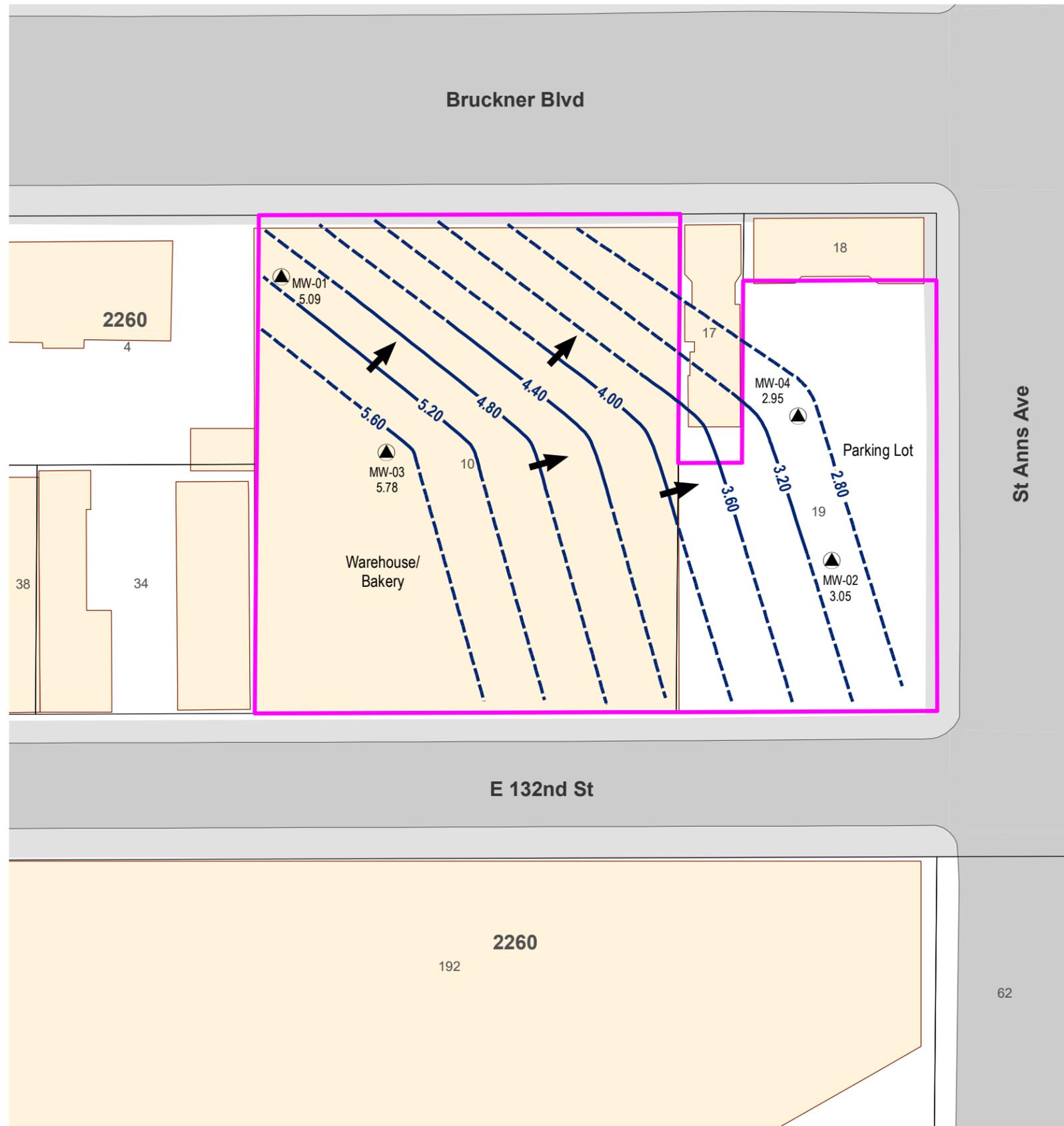
Lithological Cross Section - Northeast/Southwest

Date  
02/10/2022

Project No.  
220028

Figure  
5

© 2022 AKRF. W:\Projects\220028 - BRUCKNER BLVD\Technical\GIS and Graphics\SAR\220028 Fig 6 Groundwater Contour Map June 2020.mxd 2/17/2022 9:53:39 AM mveilleux



Well ID	Top of Casing Elevation (ft.)	Depth to Groundwater (ft. below TOC)	Groundwater Elevation (ft.)
RI-MW-01	12.62	7.53	5.09
RI-MW-02	10.2	7.15	3.05
RI-MW-03	13.28	7.5	5.78
RI-MW-04	9.8	6.85	2.95

**Notes:**

ft. = feet

TOC = top of casing

Elevation = feet above mean sea level based on the North American Vertical Datum of 1988 (NAVD88).

**LEGEND**

- PROJECT SITE BOUNDARY
- BUILDING
- LOT BOUNDARY AND TAX LOT NUMBER
- 2260** BLOCK NUMBER
- MONITORING WELL LOCATION (JUNE 2020,
- GROUNDWATER ELEVATION CONTOUR LINE (DASHED WHERE INFERRED)
- INFERRED GROUNDWATER FLOW DIRECTION



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

**138 Bruckner Boulevard**  
Bronx, New York

**AKRF**  
440 Park Avenue South, New York, NY 10016

**GROUNDWATER CONTOUR MAP - JUNE 2020**

DATE  
**2/17/2022**

PROJECT NO.  
**220028**

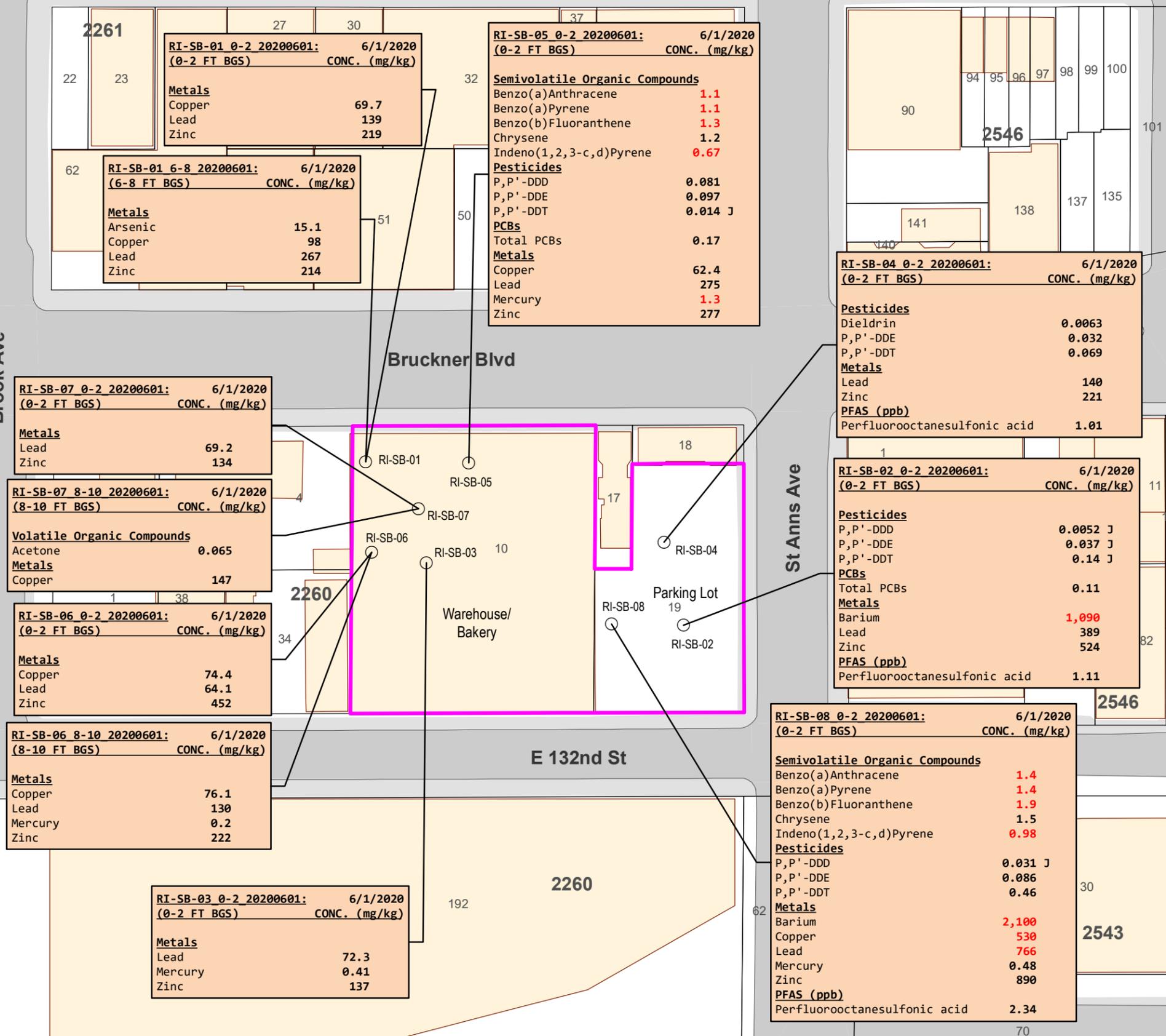
FIGURE  
**6**

Brook Ave

Bruckner Blvd

St Anns Ave

E 132nd St



	PFAS UUGV ppb	PFAS RRGV ppb	RRSCO mg/kg	UUSCO mg/kg
<b>Volatile Organic Compounds</b>				
Acetone			100	0.05
<b>Semivolatile Organic Compounds</b>				
Benzo(a)Anthracene			1	1
Benzo(a)Pyrene			1	1
Benzo(b)Fluoranthene			1	1
Chrysene			3.9	1
Indeno(1,2,3-c,d)Pyrene			0.5	0.5
<b>Metals</b>				
Arsenic			16	13
Barium			400	350
Copper			270	50
Lead			400	63
Mercury			0.81	0.18
Zinc			10000	109
<b>PCBs</b>				
Total PCBs			1	0.1
<b>Pesticides</b>				
Dieldrin			0.2	0.005
P,P'-DDD			13	0.0033
P,P'-DDE			8.9	0.0033
P,P'-DDT			7.9	0.0033
<b>PFAS</b>				
Perfluorooctanesulfonic acid (PFOS)	0.88		44	

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

**mg/kg** : milligrams per kilogram = parts per million (ppm)  
**ppb** : parts per billion = micrograms per kilogram (ug/kg)

Exceedances of Part 375 Unrestricted Use SCOs (UUSCOs) are highlighted in **bold** font.

Exceedances of Part 375 Restricted Residential SCOs (RRSCOs) are highlighted in **red** font.

Exceedances of the June 2021 PFAS Unrestricted Use Guidance Values are shown in **bold** font.

J: The concentration given is an estimated value.

Sample ID → Sample Date

Sample ID	Sample Date
RI-SB-03 0-2 20200601: (0-2 FT BGS)	6/1/2020
<b>CONC. (mg/kg)</b>	
<b>Metals</b>	
Lead	72.3
Mercury	0.41
Zinc	137
Analyte/Compound	Concentration

**LEGEND**

- PROJECT SITE BOUNDARY
- BUILDING
- LOT BOUNDARY AND TAX LOT NUMBER
- 2260** BLOCK NUMBER
- REMEDIAL INVESTIGATION SOIL BORING LOCATION (JUNE 2020, AKRF)



138 Bruckner Boulevard  
Bronx, New York

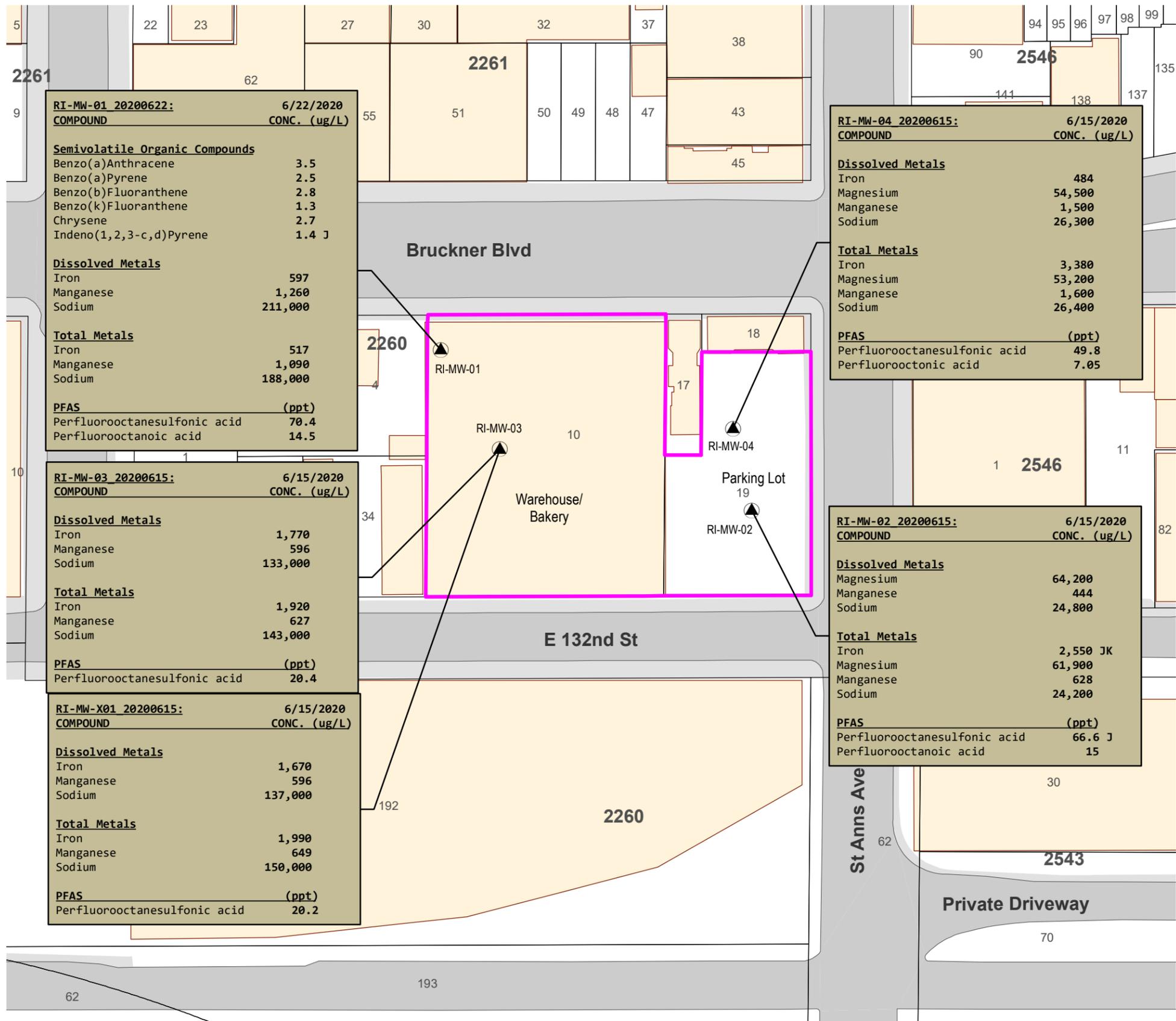
SOIL SAMPLE CONCENTRATIONS ABOVE  
UUSCOs, RRSCOs, AND PFAS GUIDANCE VALUES



440 Park Avenue South, New York, NY 10016

DATE	2/17/2022
PROJECT NO.	220028
FIGURE	7

©2022 AKRF. Q:\Projects\220028 - BRUCKNER REALTY 138 BRUCKNER BLVD\GIS and Graphics\SAR\220028 Fig 8 Groundwater Sample Concentrations above AWQSGVs.mxd/5/26/2022 9:27:49 AM mveilleux



**RI-MW-01 20200622:** 6/22/2020  
**COMPOUND** **CONC. (ug/L)**

**Semivolatile Organic Compounds**

Benzo(a)Anthracene	3.5
Benzo(a)Pyrene	2.5
Benzo(b)Fluoranthene	2.8
Benzo(k)Fluoranthene	1.3
Chrysene	2.7
Indeno(1,2,3-c,d)Pyrene	1.4 J

**Dissolved Metals**

Iron	597
Manganese	1,260
Sodium	211,000

**Total Metals**

Iron	517
Manganese	1,090
Sodium	188,000

**PFAS (ppt)**

Perfluorooctanesulfonic acid	70.4
Perfluorooctanoic acid	14.5

**RI-MW-03 20200615:** 6/15/2020  
**COMPOUND** **CONC. (ug/L)**

**Dissolved Metals**

Iron	1,770
Manganese	596
Sodium	133,000

**Total Metals**

Iron	1,920
Manganese	627
Sodium	143,000

**PFAS (ppt)**

Perfluorooctanesulfonic acid	20.4
------------------------------	------

**RI-MW-X01 20200615:** 6/15/2020  
**COMPOUND** **CONC. (ug/L)**

**Dissolved Metals**

Iron	1,670
Manganese	596
Sodium	137,000

**Total Metals**

Iron	1,990
Manganese	649
Sodium	150,000

**PFAS (ppt)**

Perfluorooctanesulfonic acid	20.2
------------------------------	------

**RI-MW-04 20200615:** 6/15/2020  
**COMPOUND** **CONC. (ug/L)**

**Dissolved Metals**

Iron	484
Magnesium	54,500
Manganese	1,500
Sodium	26,300

**Total Metals**

Iron	3,380
Magnesium	53,200
Manganese	1,600
Sodium	26,400

**PFAS (ppt)**

Perfluorooctanesulfonic acid	49.8
Perfluorooctanoic acid	7.05

**RI-MW-02 20200615:** 6/15/2020  
**COMPOUND** **CONC. (ug/L)**

**Dissolved Metals**

Magnesium	64,200
Manganese	444
Sodium	24,800

**Total Metals**

Iron	2,550 JK
Magnesium	61,900
Manganese	628
Sodium	24,200

**PFAS (ppt)**

Perfluorooctanesulfonic acid	66.6 J
Perfluorooctanoic acid	15

	NYSDEC AWQSGVs ug/l	NYSDEC Guidance Value ppt
<b>Semivolatile Organic Compounds</b>		
Benzo(a)Anthracene		0.002
Benzo(a)Pyrene		0
Benzo(b)Fluoranthene		0.002
Benzo(k)Fluoranthene		0.002
Chrysene		0.002
Indeno(1,2,3-c,d)Pyrene		0.002
<b>Metals</b>		
Iron		300
Magnesium		35000
Manganese		300
Sodium		20000
<b>PFAS</b>		
Perfluorooctanesulfonic acid (PFOS)		2.7
Perfluorooctanoic acid (PFOA)		6.7

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

RI-MW-X01\_20200615 is a blind duplicate of sample RI-MW-03\_20200615.

**ug/L :** micrograms per Liter = parts per billion (ppb)  
**ppt :** parts per trillion (ppt) = nanograms per Liter (ng/L)

**Exceedances of NYSDEC AWQSGVs and June 2021 PFAS Guidance Values are shown in bold font.**

J: The concentration given is an estimated value.  
 K: Reported concentration value is proportional to dilution factor and may be exaggerated.

Sample ID → Sample Date

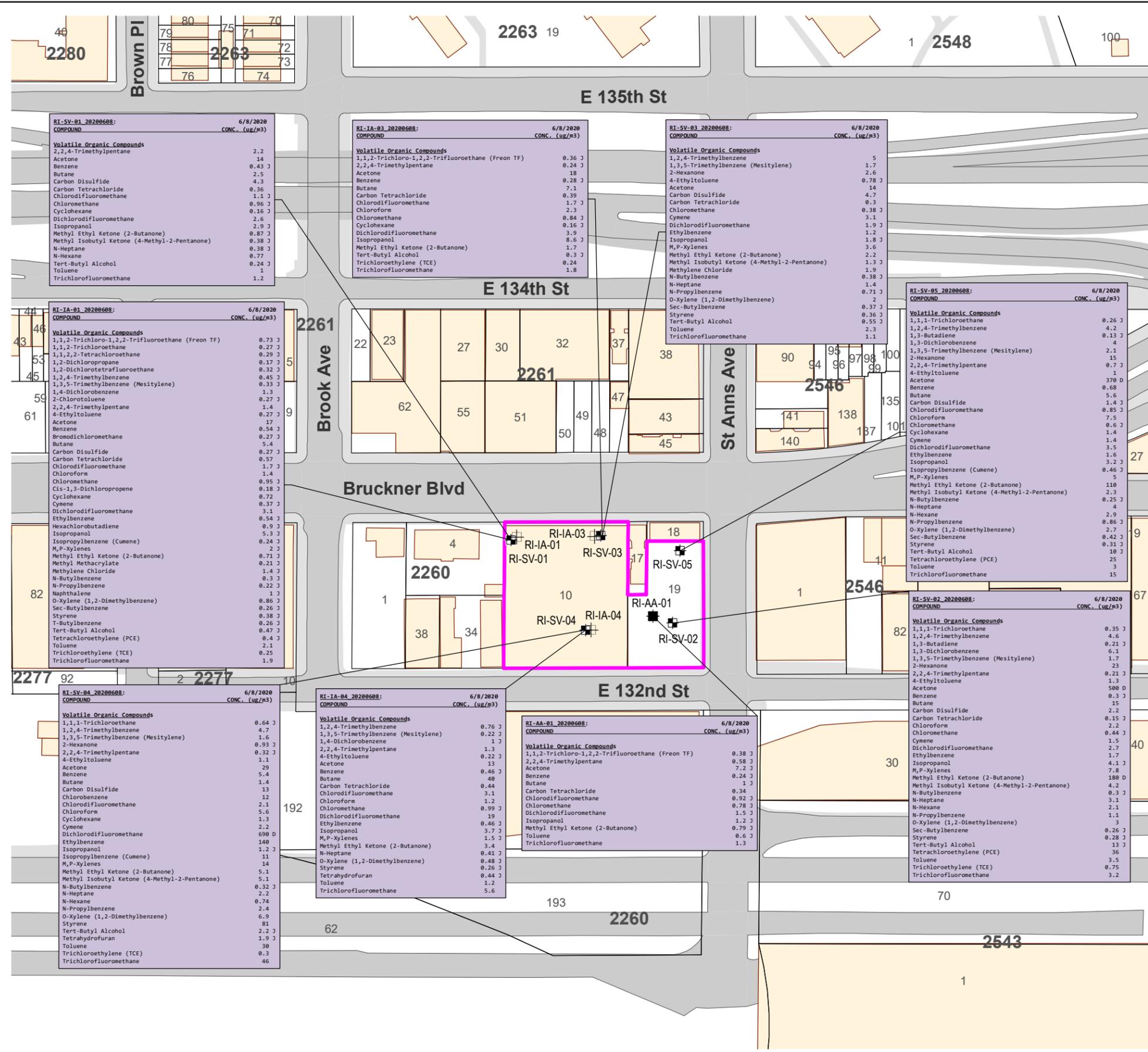
Sample ID	Sample Date
RI-MW-02 20200615:	6/15/2020
<b>COMPOUND</b>	<b>CONC. (ug/L)</b>
<b>Dissolved Metals</b>	
Magnesium	64,200
Manganese	444
Sodium	24,800
<b>Total Metals</b>	
Iron	2,550 JK
Magnesium	61,900
Manganese	628
Sodium	24,200
<b>PFAS (ppt)</b>	
Perfluorooctanesulfonic acid	66.6 J
Perfluorooctanoic acid	15

Analyte/Compound → Concentration

- LEGEND**
- PROJECT SITE BOUNDARY
  - BUILDING
  - 10 LOT BOUNDARY AND TAX LOT NUMBER
  - 2260** BLOCK NUMBER
  - MONITORING WELL LOCATION (JUNE 2020, AKRF)

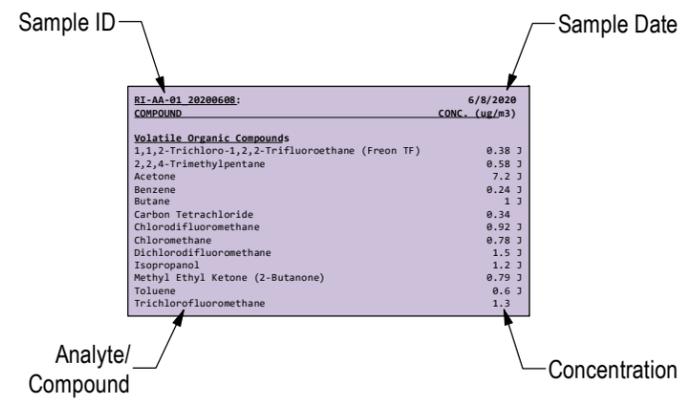


Map Source:  
 NYCDCP (NYC Dept. of City Planning) GIS database



**SOIL VAPOR**

µg/m³ - micrograms per cubic meter  
D: Analyte concentration obtained from dilution.  
J: The concentration given is an estimated value.



**LEGEND**

- PROJECT SITE BOUNDARY
- BUILDING
- 10 LOT BOUNDARY AND TAX LOT NUMBER
- 2260** BLOCK NUMBER
- REMEDIAL INVESTIGATION AMBIENT AIR SAMPLE LOCATION (JUNE 2020, AKRF)
- REMEDIAL INVESTIGATION SOIL VAPOR POINT LOCATION (JUNE 2020, AKRF)
- REMEDIAL INVESTIGATION INDOOR AIR SAMPLE LOCATION (JUNE 2020, AKRF)



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

## TABLES

**Table 1**  
**138 Bruckner Boulevard**  
**Bronx, NY**  
Remedial Investigation  
Groundwater Elevation Data

<b>Well ID</b>	<b>Top of Casing Elevation (ft.)</b>	<b>Depth to Groundwater (ft. below TOC)</b>	<b>Groundwater Elevation (ft.)</b>
RI-MW-01	12.62	7.53	5.09
RI-MW-02	10.2	7.1	3.10
RI-MW-03	13.28	7.5	5.78
RI-MW-04	9.8	6.65	3.15

**Notes:**

ft. = feet

TOC = top of casing

Elevation = feet above mean sea level based on the North American Vertical Datum of 1988 (NAVD88).

Table 2  
138 Bruckner Boulevard  
Bronx, NY  
Remedial Investigation  
Soil Analytical Results for VOCs

Compound	AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor		RI-SB-01_0-2_20200601 460-209988-1 6/01/2020 mg/kg 1	RI-SB-01_6-8_20200601 460-209988-2 6/01/2020 mg/kg 1	RI-SB-02_0-2_20200601 460-209988-3 6/01/2020 mg/kg 1
	NYSDEC UUSCO	NYSDEC RRSCO	CONC Q	CONC Q	CONC Q
1,1,1-Trichloroethane	0.68	100	0.0019 U	0.001 U	0.0015 U
1,1,2,2-Tetrachloroethane	NS	NS	0.0019 U	0.001 U	0.0015 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	NS	NS	0.0019 U	0.001 U	0.0015 U
1,1,2-Trichloroethane	NS	NS	0.0019 U	0.001 U	0.0015 U
1,1-Dichloroethane	0.27	26	0.0019 U	0.001 U	0.0015 U
1,1-Dichloroethene	0.33	100	0.0019 U	0.001 U	0.0015 U
1,2,3-Trichlorobenzene	NS	NS	0.0019 U	0.001 U	0.0015 U
1,2,4-Trichlorobenzene	NS	NS	0.0019 U	0.001 U	0.0015 U
1,2-Dibromo-3-Chloropropane	NS	NS	0.0019 U	0.001 U	0.0015 U
1,2-Dibromoethane (Ethylene Dibromide)	NS	NS	0.0019 U	0.001 U	0.0015 U
1,2-Dichlorobenzene	1.1	100	0.0019 U	0.001 U	0.0015 U
1,2-Dichloroethane	0.02	3.1	0.0019 U	0.001 U	0.0015 U
1,2-Dichloropropane	NS	NS	0.0019 U	0.001 U	0.0015 U
1,3-Dichlorobenzene	2.4	49	0.0019 U	0.001 U	0.0015 U
1,4-Dichlorobenzene	1.8	13	0.0019 U	0.001 U	0.0015 U
2-Hexanone	NS	NS	0.0096 U	0.0052 U	0.0077 U
Acetone	0.05	100	0.011 U	0.04	0.0092 U
Benzene	0.06	4.8	0.0019 U	0.001 U	0.0015 U
Bromochloromethane	NS	NS	0.0019 U	0.001 U	0.0015 U
Bromodichloromethane	NS	NS	0.0019 U	0.001 U	0.0015 U
Bromoform	NS	NS	0.0019 U	0.001 U	0.0015 U
Bromomethane	NS	NS	0.0019 U	0.001 U	0.0015 U
Carbon Disulfide	NS	NS	0.0019 U	0.001 U	0.0015 U
Carbon Tetrachloride	0.76	2.4	0.0019 U	0.001 U	0.0015 U
Chlorobenzene	1.1	100	0.0019 U	0.001 U	0.0015 U
Chloroethane	NS	NS	0.0019 U	0.001 U	0.0015 U
Chloroform	0.37	49	0.0019 U	0.001 U	0.0015 U
Chloromethane	NS	NS	0.0019 U	0.001 U	0.0015 U
Cis-1,2-Dichloroethylene	0.25	100	0.0019 U	0.001 U	0.0015 U
Cis-1,3-Dichloropropene	NS	NS	0.0019 U	0.001 U	0.0015 U
Cyclohexane	NS	NS	0.0019 U	0.001 U	0.0015 U
Dibromochloromethane	NS	NS	0.0019 U	0.001 U	0.0015 U
Dichlorodifluoromethane	NS	NS	0.0019 U	0.001 U	0.0015 U
Ethylbenzene	1	41	0.0019 U	0.001 U	0.0015 U
Isopropylbenzene (Cumene)	NS	NS	0.0019 U	0.0004 J	0.0015 U
M,P-Xylenes	NS	NS	0.0019 U	0.001 U	0.0015 U
Methyl Acetate	NS	NS	0.0096 U	0.0052 U	0.0077 U
Methyl Ethyl Ketone (2-Butanone)	0.12	100	0.0096 U	0.01 JK	0.0077 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	NS	NS	0.0096 U	0.0052 U	0.0077 U
Methylcyclohexane	NS	NS	0.0019 U	0.0013	0.0015 U
Methylene Chloride	0.05	100	0.0019 U	0.001 U	0.0015 U
O-Xylene (1,2-Dimethylbenzene)	NS	NS	0.0019 U	0.001 U	0.0015 U
Styrene	NS	NS	0.0019 U	0.001 U	0.0015 U
Tert-Butyl Methyl Ether	0.93	100	0.0019 U	0.00059 J	0.0015 U
Tetrachloroethylene (PCE)	1.3	19	0.0019 U	0.001 U	0.0015 U
Toluene	0.7	100	0.0019 U	0.001 U	0.0015 U
Trans-1,2-Dichloroethene	0.19	100	0.0019 U	0.001 U	0.0015 U
Trans-1,3-Dichloropropene	NS	NS	0.0019 U	0.001 U	0.0015 U
Trichloroethylene (TCE)	0.47	21	0.0019 U	0.001 U	0.0015 U
Trichlorofluoromethane	NS	NS	0.0019 U	0.001 U	0.0015 U
Vinyl Chloride	0.02	0.9	0.0019 U	0.001 U	0.0015 U

Table 2  
138 Bruckner Boulevard  
Bronx, NY  
Remedial Investigation  
Soil Analytical Results for VOCs

Compound	AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor		RI-SB-02_6-8_20200601 460-209988-4 6/01/2020 mg/kg 1	RI-SB-03_0-2_20200601 460-209988-5 6/01/2020 mg/kg 1	RI-SB-03_8-10_20200601 460-209988-6 6/01/2020 mg/kg 1
	NYSDEC UUSCO	NYSDEC RRSCO	CONC Q	CONC Q	CONC Q
1,1,1-Trichloroethane	0.68	100	0.00092 U	0.001 U	0.0012 U
1,1,2,2-Tetrachloroethane	NS	NS	0.00092 U	0.001 U	0.0012 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	NS	NS	0.00092 U	0.001 U	0.0012 U
1,1,2-Trichloroethane	NS	NS	0.00092 U	0.001 U	0.0012 U
1,1-Dichloroethane	0.27	26	0.00092 U	0.001 U	0.0012 U
1,1-Dichloroethene	0.33	100	0.00092 U	0.001 U	0.0012 U
1,2,3-Trichlorobenzene	NS	NS	0.00092 U	0.001 U	0.0012 U
1,2,4-Trichlorobenzene	NS	NS	0.00092 U	0.001 U	0.0012 U
1,2-Dibromo-3-Chloropropane	NS	NS	0.00092 U	0.001 U	0.0012 U
1,2-Dibromoethane (Ethylene Dibromide)	NS	NS	0.00092 U	0.001 U	0.0012 U
1,2-Dichlorobenzene	1.1	100	0.00092 U	0.001 U	0.0012 U
1,2-Dichloroethane	0.02	3.1	0.00092 U	0.001 U	0.0012 U
1,2-Dichloropropane	NS	NS	0.00092 U	0.001 U	0.0012 U
1,3-Dichlorobenzene	2.4	49	0.00092 U	0.001 U	0.0012 U
1,4-Dichlorobenzene	1.8	13	0.00092 U	0.001 U	0.0012 U
2-Hexanone	NS	NS	0.0046 U	0.0051 U	0.0059 U
Acetone	0.05	100	0.0055 U	0.0061 U	0.031
Benzene	0.06	4.8	0.00092 U	0.001 U	0.0012 U
Bromochloromethane	NS	NS	0.00092 U	0.001 U	0.0012 U
Bromodichloromethane	NS	NS	0.00092 U	0.001 U	0.0012 U
Bromoform	NS	NS	0.00092 U	0.001 U	0.0012 U
Bromomethane	NS	NS	0.00092 U	0.001 U	0.0012 U
Carbon Disulfide	NS	NS	0.00092 U	0.001 U	0.00039 J
Carbon Tetrachloride	0.76	2.4	0.00092 U	0.001 U	0.0012 U
Chlorobenzene	1.1	100	0.00092 U	0.001 U	0.0012 U
Chloroethane	NS	NS	0.00092 U	0.001 U	0.0012 U
Chloroform	0.37	49	0.00092 U	0.001 U	0.0012 U
Chloromethane	NS	NS	0.00092 U	0.001 U	0.0012 U
Cis-1,2-Dichloroethylene	0.25	100	0.00092 U	0.001 U	0.0012 U
Cis-1,3-Dichloropropene	NS	NS	0.00092 U	0.001 U	0.0012 U
Cyclohexane	NS	NS	0.00092 U	0.001 U	0.0012 U
Dibromochloromethane	NS	NS	0.00092 U	0.001 U	0.0012 U
Dichlorodifluoromethane	NS	NS	0.00092 U	0.001 U	0.0012 U
Ethylbenzene	1	41	0.00092 U	0.001 U	0.0012 U
Isopropylbenzene (Cumene)	NS	NS	0.00092 U	0.001 U	0.0012 U
M,P-Xylenes	NS	NS	0.00092 U	0.001 U	0.0012 U
Methyl Acetate	NS	NS	0.0046 U	0.0051 U	0.0059 U
Methyl Ethyl Ketone (2-Butanone)	0.12	100	0.0046 U	0.0051 U	0.0076 JK
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	NS	NS	0.0046 U	0.0051 U	0.0059 U
Methylcyclohexane	NS	NS	0.00092 U	0.001 U	0.0012 U
Methylene Chloride	0.05	100	0.00092 U	0.001 U	0.0012 U
O-Xylene (1,2-Dimethylbenzene)	NS	NS	0.00092 U	0.001 U	0.0012 U
Styrene	NS	NS	0.00092 U	0.001 U	0.0012 U
Tert-Butyl Methyl Ether	0.93	100	0.00092 U	0.001 U	0.0012 U
Tetrachloroethylene (PCE)	1.3	19	0.00092 U	0.001 U	0.0012 U
Toluene	0.7	100	0.00092 U	0.001 U	0.0012 U
Trans-1,2-Dichloroethene	0.19	100	0.00092 U	0.001 U	0.0012 U
Trans-1,3-Dichloropropene	NS	NS	0.00092 U	0.001 U	0.0012 U
Trichloroethylene (TCE)	0.47	21	0.00092 U	0.001 U	0.0012 U
Trichlorofluoromethane	NS	NS	0.00092 U	0.001 U	0.0012 U
Vinyl Chloride	0.02	0.9	0.00092 U	0.001 U	0.0012 U

**Table 2**  
**138 Bruckner Boulevard**  
**Bronx, NY**  
Remedial Investigation  
Soil Analytical Results for VOCs

Compound	AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor		RI-SB-04_0-2_20200601 460-209988-7 6/01/2020 mg/kg 1	RI-SB-04_6-8_20200601 460-209988-8 6/01/2020 mg/kg 1	RI-SB-05_0-2_20200601 460-209988-9 6/01/2020 mg/kg 1
	NYSDEC UUSCO	NYSDEC RRSCO	CONC Q	CONC Q	CONC Q
1,1,1-Trichloroethane	0.68	100	0.00094 U	0.0011 U	0.0011 U
1,1,2,2-Tetrachloroethane	NS	NS	0.00094 U	0.0011 U	0.0011 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	NS	NS	0.00094 U	0.0011 U	0.0011 U
1,1,2-Trichloroethane	NS	NS	0.00094 U	0.0011 U	0.0011 U
1,1-Dichloroethane	0.27	26	0.00094 U	0.0011 U	0.0011 U
1,1-Dichloroethene	0.33	100	0.00094 U	0.0011 U	0.0011 U
1,2,3-Trichlorobenzene	NS	NS	0.00094 UJ	0.0011 U	0.0011 U
1,2,4-Trichlorobenzene	NS	NS	0.00094 UJ	0.0011 U	0.0011 U
1,2-Dibromo-3-Chloropropane	NS	NS	0.00094 U	0.0011 U	0.0011 U
1,2-Dibromoethane (Ethylene Dibromide)	NS	NS	0.00094 U	0.0011 U	0.0011 U
1,2-Dichlorobenzene	1.1	100	0.00094 UJ	0.0011 U	0.0011 U
1,2-Dichloroethane	0.02	3.1	0.00094 U	0.0011 U	0.0011 U
1,2-Dichloropropane	NS	NS	0.00094 U	0.0011 U	0.0011 U
1,3-Dichlorobenzene	2.4	49	0.00094 UJ	0.0011 U	0.0011 U
1,4-Dichlorobenzene	1.8	13	0.00094 UJ	0.0011 U	0.0011 U
2-Hexanone	NS	NS	0.0047 U	0.0053 U	0.0057 U
Acetone	0.05	100	0.0057 U	0.011 U	0.0069 U
Benzene	0.06	4.8	0.00094 UJ	0.0011 U	0.0011 U
Bromochloromethane	NS	NS	0.00094 U	0.0011 U	0.0011 U
Bromodichloromethane	NS	NS	0.00094 U	0.0011 U	0.0011 U
Bromoform	NS	NS	0.00094 U	0.0011 U	0.0011 U
Bromomethane	NS	NS	0.00094 U	0.0011 U	0.0011 U
Carbon Disulfide	NS	NS	0.00094 U	0.00059 J	0.0011 U
Carbon Tetrachloride	0.76	2.4	0.00094 U	0.0011 U	0.0011 U
Chlorobenzene	1.1	100	0.00094 U	0.0011 U	0.0011 U
Chloroethane	NS	NS	0.00094 U	0.0011 U	0.0011 U
Chloroform	0.37	49	0.00094 U	0.0011 U	0.0011 U
Chloromethane	NS	NS	0.00094 U	0.0011 U	0.0011 U
Cis-1,2-Dichloroethylene	0.25	100	0.00094 U	0.0011 U	0.0011 U
Cis-1,3-Dichloropropene	NS	NS	0.00094 U	0.0011 U	0.0011 U
Cyclohexane	NS	NS	0.00094 UJ	0.0011 U	0.0011 U
Dibromochloromethane	NS	NS	0.00094 U	0.0011 U	0.0011 U
Dichlorodifluoromethane	NS	NS	0.00094 U	0.0011 U	0.0011 U
Ethylbenzene	1	41	0.00094 UJ	0.0011 U	0.0011 U
Isopropylbenzene (Cumene)	NS	NS	0.00094 U	0.0011 U	0.0011 U
M,P-Xylenes	NS	NS	0.00094 UJ	0.0011 U	0.0011 U
Methyl Acetate	NS	NS	0.0047 UJ	0.0053 U	0.0057 U
Methyl Ethyl Ketone (2-Butanone)	0.12	100	0.0047 U	0.0053 U	0.0057 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	NS	NS	0.0047 U	0.0053 U	0.0057 U
Methylcyclohexane	NS	NS	0.00094 UJ	0.0011 U	0.0011 U
Methylene Chloride	0.05	100	0.00094 U	0.0011 U	0.0011 U
O-Xylene (1,2-Dimethylbenzene)	NS	NS	0.00094 U	0.0011 U	0.0011 U
Styrene	NS	NS	0.00094 UJ	0.0011 U	0.0011 U
Tert-Butyl Methyl Ether	0.93	100	0.00094 U	0.0011 U	0.0011 U
Tetrachloroethylene (PCE)	1.3	19	0.00094 U	0.0011 U	0.0011 U
Toluene	0.7	100	0.00094 UJ	0.0011 U	0.0011 U
Trans-1,2-Dichloroethene	0.19	100	0.00094 U	0.0011 U	0.0011 U
Trans-1,3-Dichloropropene	NS	NS	0.00094 U	0.0011 U	0.0011 U
Trichloroethylene (TCE)	0.47	21	0.00094 U	0.0011 U	0.0011 U
Trichlorofluoromethane	NS	NS	0.00094 U	0.0011 U	0.0011 U
Vinyl Chloride	0.02	0.9	0.00094 U	0.0011 U	0.0011 U

Table 2  
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Compound	AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor		RI-SB-05_8-10_20200601 460-209988-10 6/01/2020 mg/kg 1	RI-SB-06_0-2_20200601 460-210108-1 6/01/2020 mg/kg 1	RI-SB-06_8-10_20200601 460-210108-2 6/01/2020 mg/kg 1
	NYSDEC UUSCO	NYSDEC RRSCO	CONC Q	CONC Q	CONC Q
1,1,1-Trichloroethane	0.68	100	0.00099 U	0.0014 U	0.001 U
1,1,2,2-Tetrachloroethane	NS	NS	0.00099 U	0.0014 UJ	0.001 UJ
1,1,2-Trichloro-1,2,2-Trifluoroethane	NS	NS	0.00099 U	0.0014 U	0.001 U
1,1,2-Trichloroethane	NS	NS	0.00099 U	0.0014 U	0.001 U
1,1-Dichloroethane	0.27	26	0.00099 U	0.0014 U	0.001 U
1,1-Dichloroethene	0.33	100	0.00099 U	0.0014 U	0.001 U
1,2,3-Trichlorobenzene	NS	NS	0.00099 U	0.0014 U	0.001 U
1,2,4-Trichlorobenzene	NS	NS	0.00099 U	0.0014 U	0.001 U
1,2-Dibromo-3-Chloropropane	NS	NS	0.00099 U	0.0014 U	0.001 U
1,2-Dibromoethane (Ethylene Dibromide)	NS	NS	0.00099 U	0.0014 U	0.001 U
1,2-Dichlorobenzene	1.1	100	0.00099 U	0.0014 U	0.001 U
1,2-Dichloroethane	0.02	3.1	0.00099 U	0.0014 U	0.001 U
1,2-Dichloropropane	NS	NS	0.00099 U	0.0014 U	0.001 U
1,3-Dichlorobenzene	2.4	49	0.00099 U	0.0014 U	0.001 U
1,4-Dichlorobenzene	1.8	13	0.00099 U	0.0014 U	0.001 U
2-Hexanone	NS	NS	0.0049 U	0.0069 U	0.0052 U
Acetone	0.05	100	0.016	0.0083 U	0.038
Benzene	0.06	4.8	0.00099 U	0.0014 U	0.00034 J
Bromochloromethane	NS	NS	0.00099 U	0.0014 U	0.001 U
Bromodichloromethane	NS	NS	0.00099 U	0.0014 U	0.001 U
Bromoform	NS	NS	0.00099 U	0.0014 U	0.001 U
Bromomethane	NS	NS	0.00099 U	0.0014 U	0.001 U
Carbon Disulfide	NS	NS	0.00099 U	0.0014 U	0.00044 J
Carbon Tetrachloride	0.76	2.4	0.00099 U	0.0014 U	0.001 U
Chlorobenzene	1.1	100	0.00099 U	0.0014 U	0.001 U
Chloroethane	NS	NS	0.00099 U	0.0014 U	0.001 U
Chloroform	0.37	49	0.00099 U	0.0014 U	0.001 U
Chloromethane	NS	NS	0.00099 U	0.0014 U	0.001 U
Cis-1,2-Dichloroethylene	0.25	100	0.00099 U	0.0014 U	0.001 U
Cis-1,3-Dichloropropene	NS	NS	0.00099 U	0.0014 U	0.001 U
Cyclohexane	NS	NS	0.00099 U	0.0014 U	0.001 U
Dibromochloromethane	NS	NS	0.00099 U	0.0014 U	0.001 U
Dichlorodifluoromethane	NS	NS	0.00099 U	0.0014 U	0.001 U
Ethylbenzene	1	41	0.00099 U	0.0014 U	0.0097
Isopropylbenzene (Cumene)	NS	NS	0.00099 U	0.0014 U	0.017
M,P-Xylenes	NS	NS	0.00099 U	0.0014 U	0.00061 J
Methyl Acetate	NS	NS	0.0049 U	0.0069 U	0.0052 U
Methyl Ethyl Ketone (2-Butanone)	0.12	100	0.0035 JK	0.0069 U	0.0064
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	NS	NS	0.0049 U	0.0069 U	0.0052 U
Methylcyclohexane	NS	NS	0.00099 U	0.0014 U	0.0019
Methylene Chloride	0.05	100	0.00099 U	0.0014 U	0.001 U
O-Xylene (1,2-Dimethylbenzene)	NS	NS	0.00099 U	0.0014 U	0.001 U
Styrene	NS	NS	0.00099 U	0.0014 U	0.001 U
Tert-Butyl Methyl Ether	0.93	100	0.00021 J	0.0014 U	0.001 U
Tetrachloroethylene (PCE)	1.3	19	0.00099 U	0.0014 U	0.001 U
Toluene	0.7	100	0.00099 U	0.0014 U	0.001 U
Trans-1,2-Dichloroethene	0.19	100	0.00099 U	0.0014 U	0.001 U
Trans-1,3-Dichloropropene	NS	NS	0.00099 U	0.0014 U	0.001 U
Trichloroethylene (TCE)	0.47	21	0.00099 U	0.0014 U	0.001 U
Trichlorofluoromethane	NS	NS	0.00099 U	0.0014 U	0.001 U
Vinyl Chloride	0.02	0.9	0.00099 U	0.0014 U	0.001 U

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Compound	AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor		RI-SB-07_0-2_20200601 460-210108-3 6/01/2020 mg/kg 1	RI-SB-07_8-10_20200601 460-210108-4 6/01/2020 mg/kg 1	RI-SB-08_0-2_20200601 460-209988-11 6/01/2020 mg/kg 1
	NYSDEC UUSCO	NYSDEC RRSCO	CONC Q	CONC Q	CONC Q
1,1,1-Trichloroethane	0.68	100	0.0013 U	0.0012 U	0.0013 U
1,1,2,2-Tetrachloroethane	NS	NS	0.0013 UJ	0.0012 UJ	0.0013 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	NS	NS	0.0013 U	0.0012 U	0.0013 U
1,1,2-Trichloroethane	NS	NS	0.0013 U	0.0012 U	0.0013 U
1,1-Dichloroethane	0.27	26	0.0013 U	0.0012 U	0.0013 U
1,1-Dichloroethene	0.33	100	0.0013 U	0.0012 U	0.0013 U
1,2,3-Trichlorobenzene	NS	NS	0.0013 U	0.0012 U	0.0013 U
1,2,4-Trichlorobenzene	NS	NS	0.0013 U	0.0012 U	0.0013 U
1,2-Dibromo-3-Chloropropane	NS	NS	0.0013 U	0.0012 U	0.0013 U
1,2-Dibromoethane (Ethylene Dibromide)	NS	NS	0.0013 U	0.0012 U	0.0013 U
1,2-Dichlorobenzene	1.1	100	0.0013 U	0.0012 U	0.0013 U
1,2-Dichloroethane	0.02	3.1	0.0013 U	0.0012 U	0.0013 U
1,2-Dichloropropane	NS	NS	0.0013 U	0.0012 U	0.0013 U
1,3-Dichlorobenzene	2.4	49	0.0013 U	0.0012 U	0.0013 U
1,4-Dichlorobenzene	1.8	13	0.0013 U	0.0012 U	0.0013 U
2-Hexanone	NS	NS	0.0066 U	0.0061 U	0.0063 U
Acetone	0.05	100	0.0079 U	0.065	0.0076 U
Benzene	0.06	4.8	0.0013 U	0.0012 U	0.0013 U
Bromochloromethane	NS	NS	0.0013 U	0.0012 U	0.0013 U
Bromodichloromethane	NS	NS	0.0013 U	0.0012 U	0.0013 U
Bromoform	NS	NS	0.0013 U	0.0012 U	0.0013 U
Bromomethane	NS	NS	0.0013 U	0.0012 U	0.0013 U
Carbon Disulfide	NS	NS	0.0013 U	0.00055 J	0.0013 U
Carbon Tetrachloride	0.76	2.4	0.0013 U	0.0012 U	0.0013 U
Chlorobenzene	1.1	100	0.0013 U	0.0012 U	0.0013 U
Chloroethane	NS	NS	0.0013 U	0.0012 U	0.0013 U
Chloroform	0.37	49	0.0013 U	0.0012 U	0.0013 U
Chloromethane	NS	NS	0.0013 U	0.0012 U	0.0013 U
Cis-1,2-Dichloroethylene	0.25	100	0.0013 U	0.0012 U	0.0013 U
Cis-1,3-Dichloropropene	NS	NS	0.0013 U	0.0012 U	0.0013 U
Cyclohexane	NS	NS	0.0013 U	0.0012 U	0.0013 U
Dibromochloromethane	NS	NS	0.0013 U	0.0012 U	0.0013 U
Dichlorodifluoromethane	NS	NS	0.0013 U	0.0012 U	0.0013 U
Ethylbenzene	1	41	0.0013 U	0.0012 U	0.0013 U
Isopropylbenzene (Cumene)	NS	NS	0.0013 U	0.0012 U	0.0013 U
M,P-Xylenes	NS	NS	0.0013 U	0.0012 U	0.0013 U
Methyl Acetate	NS	NS	0.0066 U	0.0061 U	0.0063 U
Methyl Ethyl Ketone (2-Butanone)	0.12	100	0.0066 U	0.011	0.0063 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	NS	NS	0.0066 U	0.0061 U	0.0063 U
Methylcyclohexane	NS	NS	0.0013 U	0.0012 U	0.0013 U
Methylene Chloride	0.05	100	0.0013 U	0.0012 U	0.0013 U
O-Xylene (1,2-Dimethylbenzene)	NS	NS	0.0013 U	0.0012 U	0.0013 U
Styrene	NS	NS	0.0013 U	0.0012 U	0.0013 U
Tert-Butyl Methyl Ether	0.93	100	0.0013 U	0.00092 J	0.0013 U
Tetrachloroethylene (PCE)	1.3	19	0.0013 U	0.0012 U	0.0013 U
Toluene	0.7	100	0.0013 U	0.0012 U	0.0013 U
Trans-1,2-Dichloroethene	0.19	100	0.0013 U	0.0012 U	0.0013 U
Trans-1,3-Dichloropropene	NS	NS	0.0013 U	0.0012 U	0.0013 U
Trichloroethylene (TCE)	0.47	21	0.0013 U	0.0012 U	0.0013 U
Trichlorofluoromethane	NS	NS	0.0013 U	0.0012 U	0.0013 U
Vinyl Chloride	0.02	0.9	0.0013 U	0.0012 U	0.0013 U

**Table 2**  
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Soil Analytical Results for VOCs

Compound	AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor		RI-SB-08_6-8_20200601 460-209988-12 6/01/2020 mg/kg 50	RI-SB-X_6-8_20200601 460-209988-13 6/01/2020 mg/kg 1	RI-FB-S-01_20200601 460-209988-14 6/01/2020 µg/L 1
	NYSDEC UUSCO	NYSDEC RRSCO	CONC Q	CONC Q	CONC Q
1,1,1-Trichloroethane	0.68	100	0.13 U	0.0011 U	1 U
1,1,2,2-Tetrachloroethane	NS	NS	0.13 U	0.0011 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	NS	NS	0.13 U	0.0011 U	1 U
1,1,2-Trichloroethane	NS	NS	0.13 U	0.0011 U	1 U
1,1-Dichloroethane	0.27	26	0.13 U	0.0011 U	1 U
1,1-Dichloroethene	0.33	100	0.13 U	0.0011 U	1 U
1,2,3-Trichlorobenzene	NS	NS	0.13 U	0.0011 U	1 U
1,2,4-Trichlorobenzene	NS	NS	0.13 U	0.0011 U	1 U
1,2-Dibromo-3-Chloropropane	NS	NS	0.13 U	0.0011 U	1 U
1,2-Dibromoethane (Ethylene Dibromide)	NS	NS	0.13 U	0.0011 U	1 U
1,2-Dichlorobenzene	1.1	100	0.13 U	0.0011 U	1 U
1,2-Dichloroethane	0.02	3.1	0.13 U	0.0011 U	1 U
1,2-Dichloropropane	NS	NS	0.13 U	0.0011 U	1 U
1,3-Dichlorobenzene	2.4	49	0.13 U	0.0011 U	1 U
1,4-Dichlorobenzene	1.8	13	0.13 U	0.0011 U	1 U
2-Hexanone	NS	NS	0.67 U	0.0057 U	5 U
Acetone	0.05	100	0.67 U	0.013 U	5 U
Benzene	0.06	4.8	0.13 U	0.0011 U	1 U
Bromochloromethane	NS	NS	0.13 U	0.0011 U	1 U
Bromodichloromethane	NS	NS	0.13 U	0.0011 U	1 U
Bromoform	NS	NS	0.13 U	0.0011 U	1 U
Bromomethane	NS	NS	0.13 U	0.0011 U	1 U
Carbon Disulfide	NS	NS	0.13 U	0.0011 U	1 U
Carbon Tetrachloride	0.76	2.4	0.13 U	0.0011 U	1 U
Chlorobenzene	1.1	100	0.13 U	0.0011 U	1 U
Chloroethane	NS	NS	0.13 U	0.0011 U	1 U
Chloroform	0.37	49	0.13 U	0.0011 U	1 U
Chloromethane	NS	NS	0.13 U	0.0011 U	1 U
Cis-1,2-Dichloroethylene	0.25	100	0.13 U	0.0011 U	1 U
Cis-1,3-Dichloropropene	NS	NS	0.13 U	0.0011 U	1 U
Cyclohexane	NS	NS	0.19	0.014 JK	1 U
Dibromochloromethane	NS	NS	0.13 U	0.0011 U	1 U
Dichlorodifluoromethane	NS	NS	0.13 U	0.0011 U	1 U
Ethylbenzene	1	41	0.13 U	0.0011 U	1 U
Isopropylbenzene (Cumene)	NS	NS	1.1	0.069 JL	1 U
M,P-Xylenes	NS	NS	0.13 U	0.0011 U	1 U
Methyl Acetate	NS	NS	0.67 U	0.0057 U	5 U
Methyl Ethyl Ketone (2-Butanone)	0.12	100	0.67 U	0.0057 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	NS	NS	0.67 U	0.0057 U	5 U
Methylcyclohexane	NS	NS	3.6	0.21 JL	1 U
Methylene Chloride	0.05	100	0.13 U	0.0011 U	0.33 J
O-Xylene (1,2-Dimethylbenzene)	NS	NS	0.13 U	0.0011 U	1 U
Styrene	NS	NS	0.13 U	0.0011 U	1 U
Tert-Butyl Methyl Ether	0.93	100	0.13 U	0.0011 U	1 U
Tetrachloroethylene (PCE)	1.3	19	0.13 U	0.0011 U	1 U
Toluene	0.7	100	0.13 U	0.0011 U	1 U
Trans-1,2-Dichloroethene	0.19	100	0.13 U	0.0011 U	1 U
Trans-1,3-Dichloropropene	NS	NS	0.13 U	0.0011 U	1 U
Trichloroethylene (TCE)	0.47	21	0.13 U	0.0011 U	1 U
Trichlorofluoromethane	NS	NS	0.13 U	0.0011 U	1 U
Vinyl Chloride	0.02	0.9	0.13 U	0.0011 U	1 U

**Table 2**  
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 Soil Analytical Results for VOCs

Compound	AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor		RI-TB-S-01_20200601 460-209988-15 6/01/2020 µg/L 1
	NYSDEC UUSCO	NYSDEC RRSCO	CONC Q
1,1,1-Trichloroethane	0.68	100	1 U
1,1,2,2-Tetrachloroethane	NS	NS	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	NS	NS	1 U
1,1,2-Trichloroethane	NS	NS	1 U
1,1-Dichloroethane	0.27	26	1 U
1,1-Dichloroethene	0.33	100	1 U
1,2,3-Trichlorobenzene	NS	NS	1 U
1,2,4-Trichlorobenzene	NS	NS	1 U
1,2-Dibromo-3-Chloropropane	NS	NS	1 U
1,2-Dibromoethane (Ethylene Dibromide)	NS	NS	1 U
1,2-Dichlorobenzene	1.1	100	1 U
1,2-Dichloroethane	0.02	3.1	1 U
1,2-Dichloropropane	NS	NS	1 U
1,3-Dichlorobenzene	2.4	49	1 U
1,4-Dichlorobenzene	1.8	13	1 U
2-Hexanone	NS	NS	5 U
Acetone	0.05	100	5.3
Benzene	0.06	4.8	1 U
Bromochloromethane	NS	NS	1 U
Bromodichloromethane	NS	NS	1 U
Bromoform	NS	NS	1 U
Bromomethane	NS	NS	1 U
Carbon Disulfide	NS	NS	1 U
Carbon Tetrachloride	0.76	2.4	1 U
Chlorobenzene	1.1	100	1 U
Chloroethane	NS	NS	1 U
Chloroform	0.37	49	1 U
Chloromethane	NS	NS	1 U
Cis-1,2-Dichloroethylene	0.25	100	1 U
Cis-1,3-Dichloropropene	NS	NS	1 U
Cyclohexane	NS	NS	1 U
Dibromochloromethane	NS	NS	1 U
Dichlorodifluoromethane	NS	NS	1 U
Ethylbenzene	1	41	1 U
Isopropylbenzene (Cumene)	NS	NS	1 U
M,P-Xylenes	NS	NS	1 U
Methyl Acetate	NS	NS	5 U
Methyl Ethyl Ketone (2-Butanone)	0.12	100	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	NS	NS	5 U
Methylcyclohexane	NS	NS	1 U
Methylene Chloride	0.05	100	1 U
O-Xylene (1,2-Dimethylbenzene)	NS	NS	1 U
Styrene	NS	NS	1 U
Tert-Butyl Methyl Ether	0.93	100	1 U
Tetrachloroethylene (PCE)	1.3	19	1 U
Toluene	0.7	100	1 U
Trans-1,2-Dichloroethene	0.19	100	1 U
Trans-1,3-Dichloropropene	NS	NS	1 U
Trichloroethylene (TCE)	0.47	21	1 U
Trichlorofluoromethane	NS	NS	1 U
Vinyl Chloride	0.02	0.9	1 U

Table 3  
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Soil Analytical Results for SVOCs

Compound	AKRF Sample ID		RI-SB-01_0-2_20200601	RI-SB-01_6-8_20200601	RI-SB-02_0-2_20200601	RI-SB-02_6-8_20200601
	Laboratory Sample ID		460-209988-1	460-209988-2	460-209988-3	460-209988-4
	Date Sampled		6/01/2020	6/01/2020	6/01/2020	6/01/2020
	Unit		mg/kg	mg/kg	mg/kg	mg/kg
	Dilution Factor		1	1	1	1
	NYSDEC UUSCO	NYSDEC RRSCO	CONC Q	CONC Q	CONC Q	CONC Q
1,2,4,5-Tetrachlorobenzene	NS	NS	0.37 U	0.4 U	0.35 U	0.33 U
1,4-Dioxane (P-Dioxane)	0.1	13	0.11 U	0.12 U	0.11 U	0.1 U
2,3,4,6-Tetrachlorophenol	NS	NS	0.37 U	0.4 U	0.35 U	0.33 U
2,4,5-Trichlorophenol	NS	NS	0.37 U	0.4 U	0.35 U	0.33 U
2,4,6-Trichlorophenol	NS	NS	0.15 U	0.16 U	0.14 U	0.13 U
2,4-Dichlorophenol	NS	NS	0.15 U	0.16 U	0.14 U	0.13 U
2,4-Dimethylphenol	NS	NS	0.37 U	0.4 U	3 U	0.33 U
2,4-Dinitrophenol	NS	NS	0.3 UJ	0.32 UJ	0.28 UJ	0.27 UJ
2,4-Dinitrotoluene	NS	NS	0.075 U	0.081 U	0.071 U	0.068 U
2,6-Dinitrotoluene	NS	NS	0.075 U	0.081 U	0.071 U	0.068 U
2-Chloronaphthalene	NS	NS	0.37 U	0.4 U	0.35 U	0.33 U
2-Chlorophenol	NS	NS	0.37 U	0.4 U	0.35 U	0.33 U
2-Methylnaphthalene	NS	NS	0.37 U	0.4 U	0.011 J	0.33 U
2-Methylphenol (O-Cresol)	0.33	100	0.37 U	0.4 U	0.35 U	0.33 U
2-Nitroaniline	NS	NS	0.37 U	0.4 U	0.35 U	0.33 U
2-Nitrophenol	NS	NS	0.37 U	0.4 U	0.35 U	0.33 U
3,3'-Dichlorobenzidine	NS	NS	0.15 U	0.16 U	0.14 U	0.13 U
3-Nitroaniline	NS	NS	0.37 U	0.4 U	0.35 U	0.33 U
4,6-Dinitro-2-Methylphenol	NS	NS	0.3 U	0.32 U	0.28 U	0.27 U
4-Bromophenyl Phenyl Ether	NS	NS	0.37 U	0.4 U	0.35 U	0.33 U
4-Chloro-3-Methylphenol	NS	NS	0.37 U	0.4 U	0.35 U	0.33 U
4-Chloroaniline	NS	NS	0.37 U	0.4 U	0.35 U	0.33 U
4-Chlorophenyl Phenyl Ether	NS	NS	0.37 U	0.4 U	0.35 U	0.33 U
4-Methylphenol (P-Cresol)	0.33	100	0.37 U	0.4 U	0.35 U	0.33 U
4-Nitroaniline	NS	NS	0.37 U	0.4 U	0.35 U	0.33 U
4-Nitrophenol	NS	NS	0.75 U	0.81 U	0.71 U	0.68 U
Acenaphthene	20	100	0.37 U	0.4 U	0.35 U	0.33 U
Acenaphthylene	100	100	0.012 J	0.4 U	0.063 J	0.33 U
Acetophenone	NS	NS	0.37 U	0.4 U	0.018 J	0.33 U
Anthracene	100	100	0.37 U	0.4 U	0.084 J	0.33 U
Atrazine	NS	NS	0.15 U	0.16 U	0.14 U	0.13 U
Benzaldehyde	NS	NS	0.37 UJ	0.4 UJ	0.35 UJ	0.33 UJ
Benzo(a)Anthracene	1	1	0.07	0.04 U	0.42	0.033 U
Benzo(a)Pyrene	1	1	0.056	0.04 U	0.46	0.033 U
Benzo(b)Fluoranthene	1	1	0.078	0.04 U	0.54	0.033 U
Benzo(g,h,i)Perylene	100	100	0.031 J	0.4 U	0.41	0.33 U
Benzo(k)Fluoranthene	0.8	3.9	0.03 J	0.04 U	0.23	0.033 U
Benzyl Butyl Phthalate	NS	NS	0.37 U	0.4 U	0.35 U	0.33 U
Biphenyl (Diphenyl)	NS	NS	0.37 U	0.4 U	0.35 U	0.33 U
Bis(2-Chloroethoxy) Methane	NS	NS	0.37 U	0.4 U	0.35 U	0.33 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	NS	NS	0.037 U	0.04 U	0.035 U	0.033 U
Bis(2-Chloroisopropyl) Ether	NS	NS	0.37 U	0.4 U	0.35 U	0.33 U
Bis(2-Ethylhexyl) Phthalate	NS	NS	0.37 U	0.4 U	0.032 J	0.33 U
Caprolactam	NS	NS	0.37 U	0.4 U	0.35 U	0.33 U
Carbazole	NS	NS	0.37 U	0.4 U	0.044 J	0.33 U
Chrysene	1	3.9	0.073 J	0.4 U	0.47	0.33 U
Dibenz(a,h)Anthracene	0.33	0.33	0.037 U	0.04 U	0.1	0.033 U
Dibenzofuran	7	59	0.37 U	0.4 U	0.024 J	0.33 U
Diethyl Phthalate	NS	NS	0.37 U	0.4 U	0.35 U	0.33 U
Dimethyl Phthalate	NS	NS	0.37 U	0.4 U	0.35 U	0.33 U
Di-N-Butyl Phthalate	NS	NS	0.37 U	0.4 U	0.35 U	0.33 U
Di-N-Octylphthalate	NS	NS	0.37 U	0.4 U	0.35 U	0.33 U
Fluoranthene	100	100	0.12 J	0.4 U	0.69	0.33 U
Fluorene	30	100	0.37 U	0.4 U	0.032 J	0.33 U
Hexachlorobenzene	0.33	1.2	0.037 U	0.04 U	0.035 U	0.033 U
Hexachlorobutadiene	NS	NS	0.075 U	0.081 U	0.071 U	0.068 U
Hexachlorocyclopentadiene	NS	NS	0.37 U	0.4 U	0.35 U	0.33 U
Hexachloroethane	NS	NS	0.037 U	0.04 U	0.035 U	0.033 U
Indeno(1,2,3-c,d)Pyrene	0.5	0.5	0.035 J	0.04 U	0.4	0.033 U
Isophorone	NS	NS	0.15 U	0.16 U	0.14 U	0.13 U
Naphthalene	12	100	0.024 J	0.4 U	0.019 J	0.33 U
Nitrobenzene	NS	NS	0.037 U	0.04 U	0.035 U	0.033 U
N-Nitrosodi-N-Propylamine	NS	NS	0.037 U	0.04 U	0.035 U	0.033 U
N-Nitrosodiphenylamine	NS	NS	0.37 U	0.4 U	0.35 U	0.33 U
Pentachlorophenol	0.8	6.7	0.3 U	0.32 U	0.28 U	0.27 U
Phenanthrene	100	100	0.085 J	0.4 U	0.57	0.33 U
Phenol	0.33	100	0.37 U	0.4 U	0.35 U	0.33 U
Pyrene	100	100	0.14 J	0.4 U	0.85	0.33 U

Table 3  
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Compound	AKRF Sample ID		RI-SB-03_0-2_20200601	RI-SB-03_8-10_20200601	RI-SB-04_0-2_20200601	RI-SB-04_6-8_20200601
	Laboratory Sample ID		460-209988-5	460-209988-6	460-209988-7	460-209988-8
	Date Sampled		6/01/2020	6/01/2020	6/01/2020	6/01/2020
	Unit		mg/kg	mg/kg	mg/kg	mg/kg
	Dilution Factor		1	1	1	1
	NYSDEC UUSCO	NYSDEC RRSCO	CONC Q	CONC Q	CONC Q	CONC Q
1,2,4,5-Tetrachlorobenzene	NS	NS	0.38 U	0.39 U	0.38 U	0.38 U
1,4-Dioxane (P-Dioxane)	0.1	13	0.12 U	0.12 U	0.12 UJ	0.12 U
2,3,4,6-Tetrachlorophenol	NS	NS	0.38 U	0.39 U	0.38 UJ	0.38 U
2,4,5-Trichlorophenol	NS	NS	0.38 U	0.39 U	0.38 UJ	0.38 U
2,4,6-Trichlorophenol	NS	NS	0.15 U	0.16 U	0.15 UJ	0.15 U
2,4-Dichlorophenol	NS	NS	0.15 U	0.16 U	0.15 UJ	0.15 U
2,4-Dimethylphenol	NS	NS	0.38 U	0.39 U	0.38 UJ	0.38 U
2,4-Dinitrophenol	NS	NS	0.31 UJ	0.32 UJ	0.31 UJ	0.31 UJ
2,4-Dinitrotoluene	NS	NS	0.078 U	0.08 U	0.077 UJ	0.078 U
2,6-Dinitrotoluene	NS	NS	0.078 U	0.08 U	0.077 UJ	0.078 U
2-Chloronaphthalene	NS	NS	0.38 U	0.39 U	0.38 UJ	0.38 U
2-Chlorophenol	NS	NS	0.38 U	0.39 U	0.38 UJ	0.38 U
2-Methylnaphthalene	NS	NS	0.38 U	0.39 U	0.38 UJ	0.38 U
2-Methylphenol (O-Cresol)	0.33	100	0.38 U	0.39 U	0.38 UJ	0.38 U
2-Nitroaniline	NS	NS	0.38 U	0.39 U	0.38 UJ	0.38 U
2-Nitrophenol	NS	NS	0.38 U	0.39 U	0.38 UJ	0.38 U
3,3'-Dichlorobenzidine	NS	NS	0.15 U	0.16 U	0.15 UJ	0.15 U
3-Nitroaniline	NS	NS	0.38 U	0.39 U	0.38 UJ	0.38 U
4,6-Dinitro-2-Methylphenol	NS	NS	0.31 U	0.32 U	0.31 UJ	0.31 U
4-Bromophenyl Phenyl Ether	NS	NS	0.38 U	0.39 U	0.38 UJ	0.38 U
4-Chloro-3-Methylphenol	NS	NS	0.38 U	0.39 U	0.38 UJ	0.38 U
4-Chloroaniline	NS	NS	0.38 U	0.39 U	0.38 UJ	0.38 U
4-Chlorophenyl Phenyl Ether	NS	NS	0.38 U	0.39 U	0.38 UJ	0.38 U
4-Methylphenol (P-Cresol)	0.33	100	0.38 U	0.39 U	0.38 UJ	0.38 U
4-Nitroaniline	NS	NS	0.38 U	0.39 U	0.38 UJ	0.38 U
4-Nitrophenol	NS	NS	0.78 U	0.8 U	0.77 U	0.78 U
Acenaphthene	20	100	0.055 J	0.39 U	0.38 U	0.38 U
Acenaphthylene	100	100	0.38 U	0.39 U	0.38 UJ	0.38 U
Acetophenone	NS	NS	0.38 U	0.39 U	0.38 UJ	0.38 U
Anthracene	100	100	0.16 J	0.39 U	0.38 UJ	0.38 U
Atrazine	NS	NS	0.15 U	0.16 U	0.15 U	0.15 U
Benzaldehyde	NS	NS	0.38 UJ	0.39 UJ	0.38 UJ	0.38 UJ
Benzo(a)Anthracene	1	1	0.74	0.016 J	0.15 JL	0.038 U
Benzo(a)Pyrene	1	1	0.66	0.011 J	0.16 JL	0.038 U
Benzo(b)Fluoranthene	1	1	0.79	0.016 J	0.17	0.038 U
Benzo(g,h,i)Perylene	100	100	0.37 J	0.39 U	0.09 JL	0.38 U
Benzo(k)Fluoranthene	0.8	3.9	0.31	0.039 U	0.083 JL	0.038 U
Benzyl Butyl Phthalate	NS	NS	0.38 U	0.39 U	0.38 UJ	0.38 U
Biphenyl (Diphenyl)	NS	NS	0.38 U	0.39 U	0.38 UJ	0.38 U
Bis(2-Chloroethoxy) Methane	NS	NS	0.38 U	0.39 U	0.38 UJ	0.38 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	NS	NS	0.038 U	0.039 U	0.038 UJ	0.038 U
Bis(2-Chloroisopropyl) Ether	NS	NS	0.38 U	0.39 U	0.38 UJ	0.38 U
Bis(2-Ethylhexyl) Phthalate	NS	NS	0.38 U	0.39 U	0.13 JL	0.38 U
Caprolactam	NS	NS	0.38 U	0.39 U	0.38 UJ	0.38 U
Carbazole	NS	NS	0.04 J	0.39 U	0.38 UJ	0.38 U
Chrysene	1	3.9	0.74	0.015 J	0.14 JL	0.38 U
Dibenz(a,h)Anthracene	0.33	0.33	0.11	0.039 U	0.023 JL	0.038 U
Dibenzofuran	7	59	0.022 J	0.39 U	0.38 UJ	0.38 U
Diethyl Phthalate	NS	NS	0.38 U	0.39 U	0.38 UJ	0.38 U
Dimethyl Phthalate	NS	NS	0.38 U	0.39 U	0.38 UJ	0.38 U
Di-N-Butyl Phthalate	NS	NS	0.38 U	0.39 U	0.38 UJ	0.38 U
Di-N-Octylphthalate	NS	NS	0.38 U	0.39 U	0.38 UJ	0.38 U
Fluoranthene	100	100	1.2	0.021 J	0.23 JL	0.38 U
Fluorene	30	100	0.049 J	0.39 U	0.012 JL	0.38 U
Hexachlorobenzene	0.33	1.2	0.038 U	0.039 U	0.038 UJ	0.038 U
Hexachlorobutadiene	NS	NS	0.078 U	0.08 U	0.077 UJ	0.078 U
Hexachlorocyclopentadiene	NS	NS	0.38 U	0.39 U	0.38 UJ	0.38 U
Hexachloroethane	NS	NS	0.038 U	0.039 U	0.038 UJ	0.038 U
Indeno(1,2,3-c,d)Pyrene	0.5	0.5	0.39	0.039 U	0.079 UJ	0.038 U
Isophorone	NS	NS	0.15 U	0.16 U	0.15 UJ	0.15 U
Naphthalene	12	100	0.016 J	0.39 U	0.38 UJ	0.38 U
Nitrobenzene	NS	NS	0.038 U	0.039 U	0.038 UJ	0.038 U
N-Nitrosodi-N-Propylamine	NS	NS	0.038 U	0.039 U	0.038 UJ	0.038 U
N-Nitrosodiphenylamine	NS	NS	0.38 U	0.39 U	0.38 UJ	0.38 U
Pentachlorophenol	0.8	6.7	0.31 U	0.32 U	0.31 UJ	0.31 U
Phenanthrene	100	100	0.89	0.016 J	0.16 JL	0.38 U
Phenol	0.33	100	0.38 U	0.39 U	0.38 UJ	0.38 U
Pyrene	100	100	1.5	0.023 J	0.34 JL	0.38 U

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Compound	AKRF Sample ID		RI-SB-05_0-2_20200601	RI-SB-05_8-10_20200601	RI-SB-06_0-2_20200601	RI-SB-06_8-10_20200601
	Laboratory Sample ID		460-209988-9	460-209988-10	460-210108-1	460-210108-2
	Date Sampled		6/01/2020	6/01/2020	6/01/2020	6/01/2020
	Unit		mg/kg	mg/kg	mg/kg	mg/kg
	Dilution Factor		1	1	1	5
	NYSDEC UUSCO	NYSDEC RRSCO	CONC Q	CONC Q	CONC Q	CONC Q
1,2,4,5-Tetrachlorobenzene	NS	NS	0.38 U	0.37 U	0.36 U	1.9 U
1,4-Dioxane (P-Dioxane)	0.1	13	0.11 U	0.11 U	0.11 U	0.58 U
2,3,4,6-Tetrachlorophenol	NS	NS	0.38 U	0.37 U	0.36 U	1.9 U
2,4,5-Trichlorophenol	NS	NS	0.38 U	0.37 U	0.36 U	1.9 U
2,4,6-Trichlorophenol	NS	NS	0.15 U	0.15 U	0.15 U	0.77 U
2,4-Dichlorophenol	NS	NS	0.15 U	0.15 U	0.15 U	0.77 U
2,4-Dimethylphenol	NS	NS	0.38 U	0.37 U	0.36 U	1.9 U
2,4-Dinitrophenol	NS	NS	0.3 UJ	0.3 UJ	0.29 U	1.5 U
2,4-Dinitrotoluene	NS	NS	0.076 U	0.075 U	0.074 U	0.39 U
2,6-Dinitrotoluene	NS	NS	0.076 U	0.075 U	0.074 U	0.39 U
2-Chloronaphthalene	NS	NS	0.027 J	0.37 U	0.13 J	1.9 U
2-Chlorophenol	NS	NS	0.38 U	0.37 U	0.36 U	1.9 U
2-Methylnaphthalene	NS	NS	0.06 J	0.37 U	0.047 J	23
2-Methylphenol (O-Cresol)	0.33	100	0.38 U	0.37 U	0.36 U	1.9 U
2-Nitroaniline	NS	NS	0.38 U	0.37 U	0.36 U	1.9 U
2-Nitrophenol	NS	NS	0.38 U	0.37 U	0.36 U	1.9 U
3,3'-Dichlorobenzidine	NS	NS	0.15 U	0.15 U	0.15 U	0.77 U
3-Nitroaniline	NS	NS	0.38 U	0.37 U	0.36 U	1.9 U
4,6-Dinitro-2-Methylphenol	NS	NS	0.3 U	0.3 U	0.29 U	1.5 U
4-Bromophenyl Phenyl Ether	NS	NS	0.38 U	0.37 U	0.36 U	1.9 U
4-Chloro-3-Methylphenol	NS	NS	0.38 U	0.37 U	0.36 U	1.9 U
4-Chloroaniline	NS	NS	0.38 U	0.37 U	0.36 U	1.9 U
4-Chlorophenyl Phenyl Ether	NS	NS	0.38 U	0.37 U	0.36 U	1.9 U
4-Methylphenol (P-Cresol)	0.33	100	0.38 U	0.37 U	0.36 U	1.9 U
4-Nitroaniline	NS	NS	0.38 U	0.37 U	0.36 U	1.9 U
4-Nitrophenol	NS	NS	0.76 U	0.75 U	0.74 U	3.9 U
Acenaphthene	20	100	0.14 J	0.37 U	0.028 J	1.9 U
Acenaphthylene	100	100	0.13 J	0.37 U	0.15 J	1.9 U
Acetophenone	NS	NS	0.38 U	0.37 U	0.36 U	1.9 U
Anthracene	100	100	0.37 J	0.37 U	0.076 J	0.52 J
Atrazine	NS	NS	0.15 U	0.15 U	0.15 U	0.77 U
Benzaldehyde	NS	NS	0.38 UJ	0.37 UJ	0.047 J	1.9 UJ
Benzo(a)Anthracene	1	1	1.1	0.021 J	0.19	0.46
Benzo(a)Pyrene	1	1	1.1	0.023 J	0.16	0.5
Benzo(b)Fluoranthene	1	1	1.3	0.024 J	0.23	0.54
Benzo(g,h,i)Perylene	100	100	0.64	0.014 J	0.11 J	0.47 J
Benzo(k)Fluoranthene	0.8	3.9	0.56	0.0099 J	0.086	0.2
Benzyl Butyl Phthalate	NS	NS	0.38 U	0.37 U	0.36 U	1.9 U
Biphenyl (Diphenyl)	NS	NS	0.033 J	0.37 U	0.044 J	1.9 U
Bis(2-Chloroethoxy) Methane	NS	NS	0.38 U	0.37 U	0.36 U	1.9 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	NS	NS	0.038 U	0.037 U	0.036 U	0.19 U
Bis(2-Chloroisopropyl) Ether	NS	NS	0.38 U	0.37 U	0.36 U	1.9 U
Bis(2-Ethylhexyl) Phthalate	NS	NS	0.02 J	0.37 U	0.36 U	1.9 U
Caprolactam	NS	NS	0.38 U	0.37 U	0.36 U	1.9 U
Carbazole	NS	NS	0.14 J	0.37 U	0.023 J	1.9 U
Chrysene	1	3.9	1.2	0.021 J	0.31 J	0.48 J
Dibenz(a,h)Anthracene	0.33	0.33	0.17	0.037 U	0.033 J	0.19 U
Dibenzofuran	7	59	0.1 J	0.37 U	0.029 J	1.9 U
Diethyl Phthalate	NS	NS	0.38 U	0.37 U	0.36 U	1.9 U
Dimethyl Phthalate	NS	NS	0.38 U	0.37 U	0.36 U	1.9 U
Di-N-Butyl Phthalate	NS	NS	0.38 U	0.37 U	0.36 U	1.9 U
Di-N-Octylphthalate	NS	NS	0.38 U	0.37 U	0.36 U	1.9 U
Fluoranthene	100	100	2.3	0.029 J	0.45	1.1 J
Fluorene	30	100	0.16 J	0.37 U	0.044 J	2.7
Hexachlorobenzene	0.33	1.2	0.038 U	0.037 U	0.036 U	0.19 U
Hexachlorobutadiene	NS	NS	0.076 U	0.075 U	0.074 U	0.39 U
Hexachlorocyclopentadiene	NS	NS	0.38 U	0.37 U	0.36 U	1.9 U
Hexachloroethane	NS	NS	0.038 U	0.037 U	0.036 U	0.19 U
Indeno(1,2,3-c,d)Pyrene	0.5	0.5	0.67	0.015 J	0.1	0.46
Isophorone	NS	NS	0.15 U	0.15 U	0.15 U	0.77 U
Naphthalene	12	100	0.29 J	0.37 U	0.38	6.1
Nitrobenzene	NS	NS	0.038 U	0.037 U	0.036 U	0.19 U
N-Nitrosodi-N-Propylamine	NS	NS	0.038 U	0.037 U	0.036 U	0.19 U
N-Nitrosodiphenylamine	NS	NS	0.38 U	0.37 U	0.36 U	1.9 U
Pentachlorophenol	0.8	6.7	0.3 U	0.3 U	0.29 U	1.5 U
Phenanthrene	100	100	2.2	0.022 J	0.54	5.9
Phenol	0.33	100	0.38 U	0.37 U	0.36 U	1.9 U
Pyrene	100	100	2.8	0.034 J	0.43	1.3 J

Table 3  
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Compound	AKRF Sample ID		RI-SB-07_0-2_20200601	RI-SB-07_8-10_20200601	RI-SB-08_0-2_20200601	RI-SB-08_6-8_20200601
	Laboratory Sample ID		460-210108-3	460-210108-4	460-209988-11	460-209988-12
	Date Sampled		6/01/2020	6/01/2020	6/01/2020	6/01/2020
	Unit		mg/kg	mg/kg	mg/kg	mg/kg
	Dilution Factor		1	1	1	2
	NYSDEC UUSCO	NYSDEC RRSCO	CONC Q	CONC Q	CONC Q	CONC Q
1,2,4,5-Tetrachlorobenzene	NS	NS	0.39 U	0.41 U	0.38 U	0.82 U
1,4-Dioxane (P-Dioxane)	0.1	13	0.12 U	0.12 U	0.12 U	0.25 U
2,3,4,6-Tetrachlorophenol	NS	NS	0.39 U	0.41 U	0.38 U	0.82 U
2,4,5-Trichlorophenol	NS	NS	0.39 U	0.41 U	0.38 U	0.82 U
2,4,6-Trichlorophenol	NS	NS	0.16 U	0.16 U	0.15 U	0.33 U
2,4-Dichlorophenol	NS	NS	0.16 U	0.16 U	0.15 U	0.33 U
2,4-Dimethylphenol	NS	NS	0.39 U	0.41 U	0.38 U	0.82 U
2,4-Dinitrophenol	NS	NS	0.31 U	0.33 U	0.31 UJ	0.66 U
2,4-Dinitrotoluene	NS	NS	0.079 U	0.082 U	0.078 U	0.17 U
2,6-Dinitrotoluene	NS	NS	0.079 U	0.082 UJ	0.078 U	0.17 U
2-Chloronaphthalene	NS	NS	0.39 U	0.41 U	0.38 U	0.82 U
2-Chlorophenol	NS	NS	0.39 U	0.41 U	0.38 U	0.82 U
2-Methylnaphthalene	NS	NS	0.089 J	0.019 J	0.042 J	13
2-Methylphenol (O-Cresol)	0.33	100	0.39 U	0.41 U	0.38 U	0.82 U
2-Nitroaniline	NS	NS	0.39 U	0.41 U	0.38 U	0.82 U
2-Nitrophenol	NS	NS	0.39 U	0.41 U	0.38 U	0.82 U
3,3'-Dichlorobenzidine	NS	NS	0.16 U	0.16 U	0.15 U	0.33 U
3-Nitroaniline	NS	NS	0.39 U	0.41 U	0.38 U	0.82 U
4,6-Dinitro-2-Methylphenol	NS	NS	0.31 U	0.33 U	0.31 U	0.66 U
4-Bromophenyl Phenyl Ether	NS	NS	0.39 U	0.41 U	0.38 U	0.82 U
4-Chloro-3-Methylphenol	NS	NS	0.39 U	0.41 U	0.38 U	0.82 U
4-Chloroaniline	NS	NS	0.39 U	0.41 U	0.38 U	0.82 U
4-Chlorophenyl Phenyl Ether	NS	NS	0.39 U	0.41 U	0.38 U	0.82 U
4-Methylphenol (P-Cresol)	0.33	100	0.39 U	0.41 U	0.38 U	0.82 U
4-Nitroaniline	NS	NS	0.39 U	0.41 U	0.38 U	0.82 U
4-Nitrophenol	NS	NS	0.79 U	0.82 U	0.78 U	1.7 U
Acenaphthene	20	100	0.39 U	0.41 U	0.12 J	0.82 R
Acenaphthylene	100	100	0.39 U	0.41 U	0.1 J	0.82 U
Acetophenone	NS	NS	0.39 U	0.41 U	0.38 U	0.82 U
Anthracene	100	100	0.39 U	0.41 U	0.36 J	0.46 J
Atrazine	NS	NS	0.16 U	0.16 U	0.15 U	0.33 U
Benzaldehyde	NS	NS	0.39 UJ	0.41 UJ	0.38 UJ	0.82 UJ
Benzo(a)Anthracene	1	1	0.076	0.028 J	1.4	0.11
Benzo(a)Pyrene	1	1	0.071	0.021 J	1.4	0.079 J
Benzo(b)Fluoranthene	1	1	0.094	0.033 J	1.9	0.09
Benzo(g,h,i)Perylene	100	100	0.051 J	0.41 U	0.9	0.82 U
Benzo(k)Fluoranthene	0.8	3.9	0.034 J	0.011 J	0.66	0.039 J
Benzyl Butyl Phthalate	NS	NS	0.39 U	0.41 U	0.38 U	0.82 U
Biphenyl (Diphenyl)	NS	NS	0.39 U	0.41 U	0.38 U	0.82 U
Bis(2-Chloroethoxy) Methane	NS	NS	0.39 U	0.41 U	0.38 U	0.82 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	NS	NS	0.039 U	0.041 U	0.038 U	0.082 U
Bis(2-Chloroisopropyl) Ether	NS	NS	0.39 U	0.41 U	0.38 U	0.82 U
Bis(2-Ethylhexyl) Phthalate	NS	NS	0.39 U	0.41 U	0.089 J	0.82 U
Caprolactam	NS	NS	0.39 U	0.41 U	0.38 U	0.82 U
Carbazole	NS	NS	0.39 U	0.41 U	0.16 J	0.82 U
Chrysene	1	3.9	0.092 J	0.025 J	1.5	0.16 J
Dibenz(a,h)Anthracene	0.33	0.33	0.039 U	0.041 U	0.29	0.082 U
Dibenzofuran	7	59	0.013 J	0.41 U	0.082 J	0.82 U
Diethyl Phthalate	NS	NS	0.39 U	0.41 U	0.38 U	0.82 U
Dimethyl Phthalate	NS	NS	0.39 U	0.41 U	0.38 U	0.82 U
Di-N-Butyl Phthalate	NS	NS	0.39 U	0.41 U	0.38 U	0.82 U
Di-N-Octylphthalate	NS	NS	0.39 U	0.41 U	0.38 U	0.82 U
Fluoranthene	100	100	0.13 J	0.046 J	2.4	0.33 J
Fluorene	30	100	0.016 J	0.41 U	0.13 J	4.1
Hexachlorobenzene	0.33	1.2	0.039 U	0.041 U	0.038 U	0.082 U
Hexachlorobutadiene	NS	NS	0.079 U	0.082 U	0.078 U	0.17 U
Hexachlorocyclopentadiene	NS	NS	0.39 U	0.41 UJ	0.38 U	0.82 UJ
Hexachloroethane	NS	NS	0.039 U	0.041 U	0.038 U	0.082 U
Indeno(1,2,3-c,d)Pyrene	0.5	0.5	0.053	0.041 U	0.98	0.033 J
Isophorone	NS	NS	0.16 U	0.16 U	0.15 U	0.33 U
Naphthalene	12	100	0.036 J	0.41 U	0.059 J	0.82 U
Nitrobenzene	NS	NS	0.039 U	0.041 U	0.038 U	0.082 U
N-Nitrosodi-N-Propylamine	NS	NS	0.039 U	0.041 U	0.038 U	0.082 U
N-Nitrosodiphenylamine	NS	NS	0.39 U	0.41 U	0.38 U	0.82 U
Pentachlorophenol	0.8	6.7	0.31 U	0.33 U	0.31 U	0.66 U
Phenanthrene	100	100	0.11 J	0.043 J	1.9	8.7
Phenol	0.33	100	0.39 U	0.41 U	0.38 U	0.82 U
Pyrene	100	100	0.12 J	0.043 J	2.8	0.52 J

Table 3  
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Soil Analytical Results for SVOCs

Compound	AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor		RI-SB-X_6-8_20200601 460-209988-13 6/01/2020 mg/kg 2	RI-FB-S-01_20200601 460-209988-14 6/01/2020 µg/L 1
	NYSDEC UUSCO	NYSDEC RRSCO	CONC Q	CONC Q
1,2,4,5-Tetrachlorobenzene	NS	NS	0.81 U	10 U
1,4-Dioxane (P-Dioxane)	0.1	13	0.25 U	NR
2,3,4,6-Tetrachlorophenol	NS	NS	0.81 U	10 U
2,4,5-Trichlorophenol	NS	NS	0.81 U	10 U
2,4,6-Trichlorophenol	NS	NS	0.33 U	10 U
2,4-Dichlorophenol	NS	NS	0.33 U	10 U
2,4-Dimethylphenol	NS	NS	0.81 U	10 U
2,4-Dinitrophenol	NS	NS	0.66 U	20 U
2,4-Dinitrotoluene	NS	NS	0.17 U	2 U
2,6-Dinitrotoluene	NS	NS	0.17 U	2 U
2-Chloronaphthalene	NS	NS	0.81 U	10 U
2-Chlorophenol	NS	NS	0.81 U	10 U
2-Methylnaphthalene	NS	NS	13	10 U
2-Methylphenol (O-Cresol)	0.33	100	0.81 U	10 U
2-Nitroaniline	NS	NS	0.81 U	10 U
2-Nitrophenol	NS	NS	0.81 U	10 U
3,3'-Dichlorobenzidine	NS	NS	0.33 U	10 U
3-Nitroaniline	NS	NS	0.81 U	10 U
4,6-Dinitro-2-Methylphenol	NS	NS	0.66 U	20 U
4-Bromophenyl Phenyl Ether	NS	NS	0.81 U	10 U
4-Chloro-3-Methylphenol	NS	NS	0.81 U	10 U
4-Chloroaniline	NS	NS	0.81 U	10 U
4-Chlorophenyl Phenyl Ether	NS	NS	0.81 U	10 U
4-Methylphenol (P-Cresol)	0.33	100	0.81 U	10 U
4-Nitroaniline	NS	NS	0.81 U	10 U
4-Nitrophenol	NS	NS	1.7 U	20 U
Acenaphthene	20	100	1.7	10 U
Acenaphthylene	100	100	0.81 U	10 U
Acetophenone	NS	NS	0.81 U	10 U
Anthracene	100	100	0.48 J	10 U
Atrazine	NS	NS	0.33 U	2 U
Benzaldehyde	NS	NS	0.81 UJ	10 UJ
Benzo(a)Anthracene	1	1	0.11	1 U
Benzo(a)Pyrene	1	1	0.08 J	1 U
Benzo(b)Fluoranthene	1	1	0.084	2 U
Benzo(g,h,i)Perylene	100	100	0.81 U	10 U
Benzo(k)Fluoranthene	0.8	3.9	0.036 J	1 U
Benzyl Butyl Phthalate	NS	NS	0.81 U	10 U
Biphenyl (Diphenyl)	NS	NS	0.81 U	10 U
Bis(2-Chloroethoxy) Methane	NS	NS	0.81 U	10 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	NS	NS	0.081 U	1 U
Bis(2-Chloroisopropyl) Ether	NS	NS	0.81 U	10 U
Bis(2-Ethylhexyl) Phthalate	NS	NS	0.81 U	2 U
Caprolactam	NS	NS	0.81 U	10 U
Carbazole	NS	NS	0.81 U	10 U
Chrysene	1	3.9	0.15 J	2 U
Dibenz(a,h)Anthracene	0.33	0.33	0.081 U	1 U
Dibenzofuran	7	59	0.81 U	10 U
Diethyl Phthalate	NS	NS	0.81 U	10 U
Dimethyl Phthalate	NS	NS	0.81 U	10 U
Di-N-Butyl Phthalate	NS	NS	0.81 U	10 U
Di-N-Octylphthalate	NS	NS	0.81 U	10 U
Fluoranthene	100	100	0.36 J	10 U
Fluorene	30	100	4	10 U
Hexachlorobenzene	0.33	1.2	0.081 U	1 U
Hexachlorobutadiene	NS	NS	0.17 U	1 U
Hexachlorocyclopentadiene	NS	NS	0.81 UJ	10 U
Hexachloroethane	NS	NS	0.081 U	2 U
Indeno(1,2,3-c,d)Pyrene	0.5	0.5	0.081 U	2 U
Isophorone	NS	NS	0.33 U	10 U
Naphthalene	12	100	0.81 U	2 U
Nitrobenzene	NS	NS	0.081 U	1 U
N-Nitrosodi-N-Propylamine	NS	NS	0.081 U	1 U
N-Nitrosodiphenylamine	NS	NS	0.81 U	10 U
Pentachlorophenol	0.8	6.7	0.66 U	20 U
Phenanthrene	100	100	8.3	10 U
Phenol	0.33	100	0.81 U	10 U
Pyrene	100	100	0.53 J	10 U

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Compound	AKRF Sample ID		RI-SB-01_0-2_20200601	RI-SB-01_6-8_20200601	RI-SB-02_0-2_20200601	RI-SB-02_6-8_20200601	RI-SB-03_0-2_20200601
	Laboratory Sample ID		460-209988-1	460-209988-2	460-209988-3	460-209988-4	460-209988-5
	Date Sampled		6/01/2020	6/01/2020	6/01/2020	6/01/2020	6/01/2020
	Unit		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution Factor		1	1	1	1	1	
	NYSDEC UUSCO	NYSDEC RRSCO	CONC Q				
Aldrin	0.005	0.097	0.0075 U	0.0081 U	0.0071 U	0.0068 U	0.0078 U
Alpha Bhc (Alpha Hexachlorocyclohexane)	0.02	0.48	0.0022 U	0.0024 U	0.0021 U	0.002 U	0.0023 U
Alpha Endosulfan	NS	NS	0.0075 U	0.0081 U	0.0071 U	0.0068 U	0.0078 U
Beta Bhc (Beta Hexachlorocyclohexane)	0.036	0.36	0.0022 U	0.0024 U	0.0021 U	0.002 U	0.0023 U
Beta Endosulfan	NS	NS	0.0075 U	0.0081 U	0.0071 U	0.0068 U	0.0078 U
Chlordane, Total	NS	NS	0.075 U	0.081 U	0.071 U	0.068 U	0.078 U
cis-Chlordane	0.094	4.2	0.0075 U	0.0081 U	0.0084 J	0.0068 U	0.0078 U
Delta BHC (Delta Hexachlorocyclohexane)	0.04	100	0.0022 U	0.0024 U	0.0021 U	0.002 U	0.0023 U
Dieldrin	0.005	0.2	0.0022 U	0.0024 U	0.0027 J	0.002 U	0.0023 U
Endosulfan Sulfate	NS	NS	0.0075 U	0.0081 U	0.0071 U	0.0068 U	0.0078 U
Endosulfans ABS	2.4	24	0 U	0 U	0 U	0 U	0 U
Endrin	0.014	11	0.0075 U	0.0081 U	0.0071 U	0.0068 U	0.0078 U
Endrin Aldehyde	NS	NS	0.0075 U	0.0081 U	0.0071 U	0.0068 U	0.0078 U
Endrin Ketone	NS	NS	0.0075 U	0.0081 U	0.0071 U	0.0068 U	0.0078 U
Gamma Bhc (Lindane)	0.1	1.3	0.0022 U	0.0024 U	0.0021 U	0.002 U	0.0023 U
Heptachlor	0.042	2.1	0.0075 U	0.0081 U	0.0071 U	0.0068 U	0.0078 U
Heptachlor Epoxide	NS	NS	0.0075 U	0.0081 U	0.0071 U	0.0068 U	0.0078 U
Methoxychlor	NS	NS	0.0075 U	0.0081 U	0.0071 U	0.0068 U	0.0078 U
P,P'-DDD	0.0033	13	0.0075 U	0.0081 U	0.0052 J	0.0068 U	0.0078 U
P,P'-DDE	0.0033	8.9	0.0075 U	0.0081 U	0.037 J	0.0068 U	0.0078 U
P,P'-DDT	0.0033	7.9	0.0075 U	0.0081 U	0.14 J	0.0068 U	0.0078 U
Toxaphene	NS	NS	0.075 U	0.081 U	0.071 U	0.068 U	0.078 U
trans-Chlordane	NS	NS	0.0075 U	0.0081 U	0.0098 J	0.0068 U	0.0078 U

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Compound	AKRF Sample ID		RI-SB-03_8-10_20200601	RI-SB-04_0-2_20200601	RI-SB-04_6-8_20200601	RI-SB-05_0-2_20200601	RI-SB-05_8-10_20200601
	Laboratory Sample ID		460-209988-6	460-209988-7	460-209988-8	460-209988-9	460-209988-10
	Date Sampled		6/01/2020	6/01/2020	6/01/2020	6/01/2020	6/01/2020
	Unit		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution Factor		1	1	1	1	1	
	NYSDEC UUSCO	NYSDEC RRSCO	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
Aldrin	0.005	0.097	0.008 U	0.0077 U	0.0078 U	0.0076 U	0.0075 U
Alpha Bhc (Alpha Hexachlorocyclohexane)	0.02	0.48	0.0024 U	0.0023 U	0.0023 U	0.0023 U	0.0022 U
Alpha Endosulfan	NS	NS	0.008 U	0.0077 U	0.0078 U	0.0076 U	0.0075 U
Beta Bhc (Beta Hexachlorocyclohexane)	0.036	0.36	0.0024 U	0.0023 U	0.0023 U	0.0023 U	0.0022 U
Beta Endosulfan	NS	NS	0.008 U	0.0077 U	0.0078 U	0.0076 U	0.0075 U
Chlordane, Total	NS	NS	0.08 U	0.077 U	0.078 U	0.076 U	0.075 U
cis-Chlordane	0.094	4.2	0.008 U	0.0045 J	0.0078 U	0.0076 U	0.0075 U
Delta BHC (Delta Hexachlorocyclohexane)	0.04	100	0.0024 U	0.0023 U	0.0023 U	0.0023 U	0.0022 U
Dieldrin	0.005	0.2	0.0024 U	0.0063	0.0023 U	0.0023 U	0.0022 U
Endosulfan Sulfate	NS	NS	0.008 U	0.0077 U	0.0078 U	0.0076 U	0.0075 U
Endosulfans ABS	2.4	24	0 U	0 U	0 U	0 U	0 U
Endrin	0.014	11	0.008 U	0.0077 U	0.0078 U	0.0076 U	0.0075 U
Endrin Aldehyde	NS	NS	0.008 U	0.0077 U	0.0078 U	0.0076 U	0.0075 U
Endrin Ketone	NS	NS	0.008 U	0.0077 U	0.0078 U	0.0076 U	0.0075 U
Gamma Bhc (Lindane)	0.1	1.3	0.0024 U	0.0023 U	0.0023 U	0.0023 U	0.0022 U
Heptachlor	0.042	2.1	0.008 U	0.0077 U	0.0078 U	0.0076 U	0.0075 U
Heptachlor Epoxide	NS	NS	0.008 U	0.0077 U	0.0078 U	0.0076 U	0.0075 U
Methoxychlor	NS	NS	0.008 U	0.0077 U	0.0078 U	0.0076 U	0.0075 U
P,P'-DDD	0.0033	13	0.008 U	0.0077 U	0.0078 U	0.081	0.0075 U
P,P'-DDE	0.0033	8.9	0.008 U	0.032	0.0078 U	0.097	0.0075 U
P,P'-DDT	0.0033	7.9	0.008 U	0.069	0.0027 J	0.014 J	0.0075 U
Toxaphene	NS	NS	0.08 U	0.077 U	0.078 U	0.076 U	0.075 U
trans-Chlordane	NS	NS	0.008 U	0.0049 J	0.0078 U	0.0076 U	0.0075 U

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Compound	AKRF Sample ID		RI-SB-06_0-2_20200601	RI-SB-06_8-10_20200601	RI-SB-07_0-2_20200601	RI-SB-07_8-10_20200601	RI-SB-08_0-2_20200601
	NYSDEC UUSCO	NYSDEC RRSCO	460-210108-1	460-210108-2	460-210108-3	460-210108-4	460-209988-11
	Laboratory Sample ID		6/01/2020	6/01/2020	6/01/2020	6/01/2020	6/01/2020
	Date Sampled		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	Unit		1	1	1	1	5
	Dilution Factor		1	1	1	1	5
	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
Aldrin	0.005	0.097	0.0074 U	0.0078 U	0.0079 U	0.0082 U	0.039 U
Alpha Bhc (Alpha Hexachlorocyclohexane)	0.02	0.48	0.0022 U	0.0023 U	0.0023 U	0.0025 U	0.012 U
Alpha Endosulfan	NS	NS	0.0074 U	0.0078 U	0.0079 U	0.0082 U	0.039 U
Beta Bhc (Beta Hexachlorocyclohexane)	0.036	0.36	0.0022 U	0.0023 U	0.0023 U	0.0025 U	0.012 U
Beta Endosulfan	NS	NS	0.0074 U	0.0078 U	0.0079 U	0.0082 U	0.039 U
Chlordane, Total	NS	NS	0.074 U	0.078 U	0.079 U	0.082 U	0.39 U
cis-Chlordane	0.094	4.2	0.0074 U	0.0078 U	0.0079 U	0.0082 U	0.023 J
Delta BHC (Delta Hexachlorocyclohexane)	0.04	100	0.0022 U	0.0023 U	0.0023 U	0.0025 U	0.012 U
Dieldrin	0.005	0.2	0.0022 U	0.0023 U	0.0023 U	0.0025 U	0.012 U
Endosulfan Sulfate	NS	NS	0.0074 U	0.0078 U	0.0079 U	0.0082 U	0.039 U
Endosulfans ABS	2.4	24	0 U	0 U	0 U	0 U	0 U
Endrin	0.014	11	0.0074 U	0.0078 U	0.0079 U	0.0082 U	0.039 U
Endrin Aldehyde	NS	NS	0.0074 U	0.0078 U	0.0079 U	0.0082 U	0.039 U
Endrin Ketone	NS	NS	0.0074 U	0.0078 U	0.0079 U	0.0082 U	0.039 U
Gamma Bhc (Lindane)	0.1	1.3	0.0022 U	0.0023 U	0.0023 U	0.0025 U	0.012 U
Heptachlor	0.042	2.1	0.0074 U	0.0078 U	0.0079 U	0.0082 U	0.039 U
Heptachlor Epoxide	NS	NS	0.0074 U	0.0078 U	0.0079 U	0.0082 U	0.039 U
Methoxychlor	NS	NS	0.0074 U	0.0078 U	0.0079 U	0.0082 U	0.039 U
P,P'-DDD	0.0033	13	0.0074 U	0.0078 U	0.0079 U	0.0082 U	0.031 J
P,P'-DDE	0.0033	8.9	0.0074 U	0.0078 U	0.0079 U	0.0082 U	0.086
P,P'-DDT	0.0033	7.9	0.0074 U	0.0078 U	0.0079 U	0.0082 U	0.46
Toxaphene	NS	NS	0.074 U	0.078 U	0.079 U	0.082 U	0.39 U
trans-Chlordane	NS	NS	0.0074 U	0.0078 U	0.0079 U	0.0082 U	0.017 J

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	AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor		RI-SB-08_6-8_20200601 460-209988-12 6/01/2020 mg/kg 1	RI-SB-X_6-8_20200601 460-209988-13 6/01/2020 mg/kg 1	RI-FB-S-01_20200601 460-209988-14 6/01/2020 µg/L 1
Compound	NYSDEC UUSCO	NYSDEC RRSCO	CONC Q	CONC Q	CONC Q
Aldrin	0.005	0.097	0.0083 U	0.0083 U	0.02 U
Alpha Bhc (Alpha Hexachlorocyclohexane)	0.02	0.48	0.0025 U	0.0025 U	0.02 U
Alpha Endosulfan	NS	NS	0.0083 U	0.0083 U	0.02 U
Beta Bhc (Beta Hexachlorocyclohexane)	0.036	0.36	0.0025 U	0.0025 U	0.02 U
Beta Endosulfan	NS	NS	0.0083 U	0.0083 U	0.02 U
Chlordane, Total	NS	NS	0.083 U	0.083 U	
cis-Chlordane	0.094	4.2	0.0083 U	0.0083 U	
Delta BHC (Delta Hexachlorocyclohexane)	0.04	100	0.0025 U	0.0025 U	0.02 U
Dieldrin	0.005	0.2	0.0025 U	0.0025 U	0.02 U
Endosulfan Sulfate	NS	NS	0.0083 U	0.0083 U	0.02 U
Endosulfans ABS	2.4	24	0 U	0 U	0 U
Endrin	0.014	11	0.0083 U	0.0083 U	0.02 U
Endrin Aldehyde	NS	NS	0.0083 U	0.0083 U	0.02 U
Endrin Ketone	NS	NS	0.0083 U	0.0083 U	0.02 U
Gamma Bhc (Lindane)	0.1	1.3	0.0025 U	0.0025 U	0.02 U
Heptachlor	0.042	2.1	0.0083 U	0.0083 U	0.02 U
Heptachlor Epoxide	NS	NS	0.0083 U	0.0083 U	0.02 U
Methoxychlor	NS	NS	0.0083 U	0.0083 U	0.02 U
P,P'-DDD	0.0033	13	0.0083 U	0.0083 U	0.02 U
P,P'-DDE	0.0033	8.9	0.0083 U	0.0083 U	0.02 U
P,P'-DDT	0.0033	7.9	0.0083 U	0.0083 U	0.02 U
Toxaphene	NS	NS	0.083 U	0.083 U	0.5 U
trans-Chlordane	NS	NS	0.0083 U	0.0083 U	

**Table 5**  
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 Soil Analytical Results for PCBs

AKRF Sample ID		RI-SB-01_0-2_20200601	RI-SB-01_6-8_20200601	RI-SB-02_0-2_20200601	RI-SB-02_6-8_20200601	RI-SB-03_0-2_20200601
Laboratory Sample ID		460-209988-1	460-209988-2	460-209988-3	460-209988-4	460-209988-5
Date Sampled		6/01/2020	6/01/2020	6/01/2020	6/01/2020	6/01/2020
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
PCB-1016 (Aroclor 1016)	NS	NS	0.075 U	0.081 U	0.071 U	0.068 U
PCB-1221 (Aroclor 1221)	NS	NS	0.075 U	0.081 U	0.071 U	0.068 U
PCB-1232 (Aroclor 1232)	NS	NS	0.075 U	0.081 U	0.071 U	0.068 U
PCB-1242 (Aroclor 1242)	NS	NS	0.075 U	0.081 U	0.071 U	0.068 U
PCB-1248 (Aroclor 1248)	NS	NS	0.075 U	0.081 U	0.071 U	0.068 U
PCB-1254 (Aroclor 1254)	NS	NS	0.075 U	0.081 U	0.071 U	0.068 U
PCB-1260 (Aroclor 1260)	NS	NS	0.075 U	0.081 U	0.071 U	0.068 U
PCB-1262 (Aroclor 1262)	NS	NS	0.075 U	0.081 U	0.071 U	0.068 U
PCB-1268 (Aroclor 1268)	NS	NS	0.075 U	0.081 U	0.11	0.068 U
<b>Total PCBs</b>	<b>0.1</b>	<b>1</b>	0.075 U	0.081 U	<b>0.11</b>	0.068 U

**Table 5**  
**138 Bruckner Boulevard**  
**Bronx, NY**  
 Remedial Investigation  
 Soil Analytical Results for PCBs

AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor			RI-SB-03_8-10_2020601 460-209988-6 6/01/2020 mg/kg 1	RI-SB-04_0-2_2020601 460-209988-7 6/01/2020 mg/kg 1	RI-SB-04_6-8_2020601 460-209988-8 6/01/2020 mg/kg 1	RI-SB-05_0-2_2020601 460-209988-9 6/01/2020 mg/kg 1	RI-SB-05_8-10_2020601 460-209988-10 6/01/2020 mg/kg 1
Compound	NYSDEC UUSCO	NYSDEC RRSCO	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
PCB-1016 (Aroclor 1016)	NS	NS	0.08 U	0.077 U	0.078 U	0.076 U	0.075 U
PCB-1221 (Aroclor 1221)	NS	NS	0.08 U	0.077 U	0.078 U	0.076 U	0.075 U
PCB-1232 (Aroclor 1232)	NS	NS	0.08 U	0.077 U	0.078 U	0.076 U	0.075 U
PCB-1242 (Aroclor 1242)	NS	NS	0.08 U	0.077 U	0.078 U	0.076 U	0.075 U
PCB-1248 (Aroclor 1248)	NS	NS	0.08 U	0.077 U	0.078 U	0.076 U	0.075 U
PCB-1254 (Aroclor 1254)	NS	NS	0.08 U	0.077 U	0.078 U	0.076 U	0.075 U
PCB-1260 (Aroclor 1260)	NS	NS	0.08 U	0.077 U	0.078 U	0.17	0.075 U
PCB-1262 (Aroclor 1262)	NS	NS	0.08 U	0.077 U	0.078 U	0.076 U	0.075 U
PCB-1268 (Aroclor 1268)	NS	NS	0.08 U	0.077 U	0.078 U	0.076 U	0.075 U
<b>Total PCBs</b>	<b>0.1</b>	<b>1</b>	0.08 U	0.077 U	0.078 U	<b>0.17</b>	0.075 U

**Table 5**  
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AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor			RI-SB-06_0-2_20200601 460-210108-1 6/01/2020 mg/kg 1	RI-SB-06_8-10_20200601 460-210108-2 6/01/2020 mg/kg 1	RI-SB-07_0-2_20200601 460-210108-3 6/01/2020 mg/kg 1	RI-SB-07_8-10_20200601 460-210108-4 6/01/2020 mg/kg 1	RI-SB-08_0-2_20200601 460-209988-11 6/01/2020 mg/kg 1
Compound	NYSDEC UUSCO	NYSDEC RRSCO	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
PCB-1016 (Aroclor 1016)	NS	NS	0.074 U	0.078 U	0.079 U	0.082 U	0.078 U
PCB-1221 (Aroclor 1221)	NS	NS	0.074 U	0.078 U	0.079 U	0.082 U	0.078 U
PCB-1232 (Aroclor 1232)	NS	NS	0.074 U	0.078 U	0.079 U	0.082 U	0.078 U
PCB-1242 (Aroclor 1242)	NS	NS	0.074 U	0.078 U	0.079 U	0.082 U	0.078 U
PCB-1248 (Aroclor 1248)	NS	NS	0.074 U	0.078 U	0.079 U	0.082 U	0.078 U
PCB-1254 (Aroclor 1254)	NS	NS	0.074 U	0.078 U	0.079 U	0.082 U	0.078 U
PCB-1260 (Aroclor 1260)	NS	NS	0.074 U	0.078 U	0.079 U	0.082 U	0.056 J
PCB-1262 (Aroclor 1262)	NS	NS	0.074 U	0.078 U	0.079 U	0.082 U	0.078 U
PCB-1268 (Aroclor 1268)	NS	NS	0.074 U	0.078 U	0.079 U	0.082 U	0.078 U
<b>Total PCBs</b>	<b>0.1</b>	<b>1</b>	0.074 U	0.078 U	0.079 U	0.082 U	0.056 J

**Table 5**  
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 Soil Analytical Results for PCBs

AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor			RI-SB-08_6-8_20200601 460-209988-12 6/01/2020 mg/kg 1	RI-SB-X_6-8_20200601 460-209988-13 6/01/2020 mg/kg 1	RI-FB-S-01_20200601 460-209988-14 6/01/2020 µg/L 1
Compound	NYSDEC UUSCO	NYSDEC RRSCO	CONC Q	CONC Q	CONC Q
PCB-1016 (Aroclor 1016)	NS	NS	0.083 U	0.083 U	0.4 U
PCB-1221 (Aroclor 1221)	NS	NS	0.083 U	0.083 U	0.4 U
PCB-1232 (Aroclor 1232)	NS	NS	0.083 U	0.083 U	0.4 U
PCB-1242 (Aroclor 1242)	NS	NS	0.083 U	0.083 U	0.4 U
PCB-1248 (Aroclor 1248)	NS	NS	0.083 U	0.083 U	0.4 U
PCB-1254 (Aroclor 1254)	NS	NS	0.083 U	0.083 U	0.4 U
PCB-1260 (Aroclor 1260)	NS	NS	0.083 U	0.083 U	0.4 U
PCB-1262 (Aroclor 1262)	NS	NS	0.083 U	0.083 U	0.4 U
PCB-1268 (Aroclor 1268)	NS	NS	0.083 U	0.083 U	0.4 U
<b>Total PCBs</b>	<b>0.1</b>	<b>1</b>	<b>0.083 U</b>	<b>0.083 U</b>	<b>0.4 U</b>

**Table 6**  
**138 Bruckner Boulevard**  
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 Soil Analytical Results for TAL Metals

AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor		RI-SB-01_0-2_20200601 460-209988-1 6/01/2020 mg/kg 1	RI-SB-01_0-2_20200601 460-209988-1 6/01/2020 mg/kg 10	RI-SB-01_6-8_20200601 460-209988-2 6/01/2020 mg/kg 1	RI-SB-01_6-8_20200601 460-209988-2 6/01/2020 mg/kg 10	RI-SB-02_0-2_20200601 460-209988-3 6/01/2020 mg/kg 1
Compound	NYSDEC UUSCO	NYSDEC RRSCO	CONC Q	CONC Q	CONC Q	CONC Q
Aluminum	NS	NS	NR	8.610	NR	13,900
Antimony	NS	NS	NR	0.57 J	NR	0.75 J
Arsenic	13	16	NR	9.5	NR	15.1
Barium	350	400	NR	141	NR	128
Beryllium	7.2	72	NR	0.59	NR	0.74
Cadmium	2.5	4.3	NR	0.56 J	NR	0.75 J
Calcium	NS	NS	NR	61,200	NR	3,890
Chromium, Hexavalent	1	110	2.3 U	NR	2.4 U	NR
Chromium, Total	NS	NS	NR	14.2	NR	27.9
Cobalt	NS	NS	NR	6.4	NR	10.9
Copper	50	270	NR	69.7	NR	98
Iron	NS	NS	NR	15,400	NR	25,300
Lead	63	400	NR	139	NR	267
Magnesium	NS	NS	NR	6,160	NR	5,990
Manganese	1,600	2,000	NR	290	NR	391
Mercury	0.18	0.81	0.18	NR	0.027	NR
Nickel	30	310	NR	19.2	NR	23.3
Potassium	NS	NS	NR	2,040	NR	2,010
Selenium	3.9	180	NR	0.77 J	NR	2.9 J
Silver	2	180	NR	1.1 U	NR	1.2 U
Sodium	NS	NS	NR	510	NR	269
Thallium	NS	NS	NR	0.19 J	NR	0.51
Vanadium	NS	NS	NR	26.9	NR	34.5
Zinc	109	10,000	NR	219	NR	214

**Table 6**  
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 Soil Analytical Results for TAL Metals

AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor			RI-SB-02_0-2_20200601 460-209988-3 6/01/2020 mg/kg 10	RI-SB-02_6-8_20200601 460-209988-4 6/01/2020 mg/kg 1	RI-SB-02_6-8_20200601 460-209988-4 6/01/2020 mg/kg 10	RI-SB-03_0-2_20200601 460-209988-5 6/01/2020 mg/kg 1	RI-SB-03_0-2_20200601 460-209988-5 6/01/2020 mg/kg 10
Compound	NYSDEC UUSCO	NYSDEC RRSCO	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
Aluminum	NS	NS	868	NR	437	NR	11,400
Antimony	NS	NS	1 U	NR	0.97 U	NR	1.1 U
Arsenic	13	16	1.7	NR	0.84 J	NR	6.7
Barium	350	400	1,090	NR	8	NR	114
Beryllium	7.2	72	0.41 U	NR	0.39 U	NR	0.82
Cadmium	2.5	4.3	0.91 J	NR	0.97 U	NR	0.37 J
Calcium	NS	NS	37,400	NR	777	NR	20,300
Chromium, Hexavalent	1	110	NR	2 U	NR	2.3 U	NR
Chromium, Total	NS	NS	8.5	NR	1.5 J	NR	22.6
Cobalt	NS	NS	1.3 J	NR	1.9 U	NR	10.4
Copper	50	270	8.2	NR	1.1 J	NR	42.8
Iron	NS	NS	3,320	NR	753	NR	20,800
Lead	63	400	389	NR	2	NR	72.3
Magnesium	NS	NS	2,110	NR	330	NR	7,930
Manganese	1,600	2,000	45.1	NR	4.7	NR	394
Mercury	0.18	0.81	NR	0.017 U	NR	0.41	NR
Nickel	30	310	2.9	NR	1.9 U	NR	18.7
Potassium	NS	NS	152	NR	50.2 J	NR	1,800
Selenium	3.9	180	5.1 U	NR	4.9 U	NR	0.61 J
Silver	2	180	1 U	NR	0.97 U	NR	1.1 U
Sodium	NS	NS	62.5 J	NR	97.5 U	NR	302
Thallium	NS	NS	0.41 U	NR	0.39 U	NR	0.24 J
Vanadium	NS	NS	2.7	NR	1.5 J	NR	31.5
Zinc	109	10,000	524	NR	4.8 J	NR	137

**Table 6**  
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AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor			RI-SB-03_8-10_20200601 460-209988-6 6/01/2020 mg/kg 1	RI-SB-03_8-10_20200601 460-209988-6 6/01/2020 mg/kg 10	RI-SB-04_0-2_20200601 460-209988-7 6/01/2020 mg/kg 1	RI-SB-04_0-2_20200601 460-209988-7 6/01/2020 mg/kg 10	RI-SB-04_6-8_20200601 460-209988-8 6/01/2020 mg/kg 1
Compound	NYSDEC UUSCO	NYSDEC RRSCO	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
Aluminum	NS	NS	NR	14,800	NR	12,200	NR
Antimony	NS	NS	NR	1.1 U	NR	1.2 UJ	NR
Arsenic	13	16	NR	4.2	NR	4.5	NR
Barium	350	400	NR	81.7	NR	327	NR
Beryllium	7.2	72	NR	0.76	NR	0.42 J	NR
Cadmium	2.5	4.3	NR	1.1 U	NR	0.69 J	NR
Calcium	NS	NS	NR	10,900	NR	23,700	NR
Chromium, Hexavalent	1	110	2.4 U	NR	2.3 U	NR	2.3 U
Chromium, Total	NS	NS	NR	25.7	NR	17.3 JK	NR
Cobalt	NS	NS	NR	10.5	NR	7.2 JK	NR
Copper	50	270	NR	23.3	NR	20.3 JK	NR
Iron	NS	NS	NR	22,800	NR	18,400	NR
Lead	63	400	NR	23.6	NR	140	NR
Magnesium	NS	NS	NR	10,700	NR	11,700	NR
Manganese	1,600	2,000	NR	469	NR	285	NR
Mercury	0.18	0.81	0.062	NR	0.087	NR	0.012 J
Nickel	30	310	NR	19.8	NR	13.8 JK	NR
Potassium	NS	NS	NR	1,690	NR	1,250 JK	NR
Selenium	3.9	180	NR	5.5 U	NR	5.8 U	NR
Silver	2	180	NR	1.1 U	NR	1.2 U	NR
Sodium	NS	NS	NR	244	NR	90.6 J	NR
Thallium	NS	NS	NR	0.2 J	NR	0.46 U	NR
Vanadium	NS	NS	NR	34.1	NR	25.2	NR
Zinc	109	10,000	NR	61.9	NR	221	NR

**Table 6**  
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AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor			RI-SB-04_6-8_20200601 460-209988-8 6/01/2020 mg/kg 10	RI-SB-05_0-2_20200601 460-209988-9 6/01/2020 mg/kg 1	RI-SB-05_0-2_20200601 460-209988-9 6/01/2020 mg/kg 3	RI-SB-05_0-2_20200601 460-209988-9 6/01/2020 mg/kg 10	RI-SB-05_8-10_20200601 460-209988-10 6/01/2020 mg/kg 1
Compound	NYSDEC UUSCO	NYSDEC RRSCO	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
Aluminum	NS	NS	11,400	NR	NR	8,460	NR
Antimony	NS	NS	1.1 U	NR	NR	0.38 J	NR
Arsenic	13	16	4.4	NR	NR	6.3	NR
Barium	350	400	37	NR	NR	192	NR
Beryllium	7.2	72	0.52	NR	NR	0.59	NR
Cadmium	2.5	4.3	1.1 U	NR	NR	0.49 J	NR
Calcium	NS	NS	1,390	NR	NR	31,300	NR
Chromium, Hexavalent	1	110	NR	2.3 U	NR	NR	2.2 U
Chromium, Total	NS	NS	13.7	NR	NR	23.4	NR
Cobalt	NS	NS	6.4	NR	NR	8.2	NR
Copper	50	270	11.2	NR	NR	62.4	NR
Iron	NS	NS	18,100	NR	NR	19,100	NR
Lead	63	400	6.5	NR	NR	275	NR
Magnesium	NS	NS	2,740	NR	NR	8,450	NR
Manganese	1,600	2,000	234	NR	NR	301	NR
Mercury	0.18	0.81	NR	NR	1.3	NR	0.058
Nickel	30	310	11.9	NR	NR	17.3	NR
Potassium	NS	NS	751	NR	NR	2,050	NR
Selenium	3.9	180	0.51 J	NR	NR	0.6 J	NR
Silver	2	180	1.1 U	NR	NR	1.1 U	NR
Sodium	NS	NS	71.8 J	NR	NR	269	NR
Thallium	NS	NS	0.43 U	NR	NR	0.17 J	NR
Vanadium	NS	NS	24.3	NR	NR	26	NR
Zinc	109	10,000	29.9	NR	NR	277	NR

**Table 6**  
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AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor			RI-SB-05_8-10_20200601 460-209988-10 6/01/2020 mg/kg 10	RI-SB-06_0-2_20200601 460-210108-1 6/01/2020 mg/kg 1	RI-SB-06_0-2_20200601 460-210108-1 6/01/2020 mg/kg 10	RI-SB-06_8-10_20200601 460-210108-2 6/01/2020 mg/kg 1	RI-SB-06_8-10_20200601 460-210108-2 6/01/2020 mg/kg 10
Compound	NYSDEC UUSCO	NYSDEC RRSCO	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
Aluminum	NS	NS	11,500	NR	14,800	NR	11,300
Antimony	NS	NS	1.1 U	NR	1 U	NR	1.1 U
Arsenic	13	16	3.8	NR	8.9	NR	4.8
Barium	350	400	61.8	NR	238	NR	163
Beryllium	7.2	72	0.56	NR	0.44	NR	0.33 J
Cadmium	2.5	4.3	1.1 U	NR	1.3	NR	0.37 J
Calcium	NS	NS	3,430	NR	24,000	NR	25,500
Chromium, Hexavalent	1	110	NR	2.2 U	NR	2.3 U	NR
Chromium, Total	NS	NS	16.6	NR	22.3	NR	27.2
Cobalt	NS	NS	8.4	NR	14.5	NR	8.8
Copper	50	270	20.1	NR	74.4	NR	76.1
Iron	NS	NS	18,900	NR	40,800	NR	20,700
Lead	63	400	27.6	NR	64.1	NR	130
Magnesium	NS	NS	5,070	NR	16,800	NR	9,620
Manganese	1,600	2,000	340	NR	347	NR	305
Mercury	0.18	0.81	NR	0.058	NR	0.2	NR
Nickel	30	310	15.4	NR	29.1	NR	25
Potassium	NS	NS	1,050	NR	6,770	NR	3,350
Selenium	3.9	180	5.4 U	NR	1.7 J	NR	0.59 J
Silver	2	180	1.1 U	NR	1 U	NR	1.1 U
Sodium	NS	NS	105 J	NR	240	NR	337
Thallium	NS	NS	0.43 U	NR	0.53	NR	0.24 J
Vanadium	NS	NS	21.3	NR	66.6	NR	35.4
Zinc	109	10,000	61.1	NR	452	NR	222

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AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor			RI-SB-07_0-2_20200601 460-210108-3 6/01/2020 mg/kg 1	RI-SB-07_0-2_20200601 460-210108-3 6/01/2020 mg/kg 10	RI-SB-07_8-10_20200601 460-210108-4 6/01/2020 mg/kg 1	RI-SB-07_8-10_20200601 460-210108-4 6/01/2020 mg/kg 10	RI-SB-08_0-2_20200601 460-209988-11 6/01/2020 mg/kg 1
Compound	NYSDEC UUSCO	NYSDEC RRSCO	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
Aluminum	NS	NS	NR	12,600	NR	14,100	NR
Antimony	NS	NS	NR	1.1 U	NR	1.2 U	NR
Arsenic	13	16	NR	4.6	NR	4.7	NR
Barium	350	400	NR	105	NR	84.2	NR
Beryllium	7.2	72	NR	0.47	NR	0.55	NR
Cadmium	2.5	4.3	NR	1.1 U	NR	1.2 U	NR
Calcium	NS	NS	NR	18,300	NR	10,100	NR
Chromium, Hexavalent	1	110	2.3 U	NR	2.5 U	NR	2.3 U
Chromium, Total	NS	NS	NR	24	NR	23.4	NR
Cobalt	NS	NS	NR	9.7	NR	10.6	NR
Copper	50	270	NR	48.2	NR	147	NR
Iron	NS	NS	NR	21,400	NR	23,000	NR
Lead	63	400	NR	69.2	NR	48.4	NR
Magnesium	NS	NS	NR	9,880	NR	10,100	NR
Manganese	1,600	2,000	NR	405	NR	291	NR
Mercury	0.18	0.81	0.11	NR	0.045	NR	0.48
Nickel	30	310	NR	18.4	NR	19.4	NR
Potassium	NS	NS	NR	3,160	NR	1,950	NR
Selenium	3.9	180	NR	0.39 J	NR	0.37 J	NR
Silver	2	180	NR	1.1 U	NR	1.2 U	NR
Sodium	NS	NS	NR	390	NR	225	NR
Thallium	NS	NS	NR	0.24 J	NR	0.21 J	NR
Vanadium	NS	NS	NR	34.9	NR	36.6	NR
Zinc	109	10,000	NR	134	NR	94.8	NR

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AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor		RI-SB-08_0-2_20200601 460-209988-11 6/01/2020 mg/kg 10	RI-SB-08_0-2_20200601 460-209988-11 6/01/2020 mg/kg 50	RI-SB-08_6-8_20200601 460-209988-12 6/01/2020 mg/kg 1	RI-SB-08_6-8_20200601 460-209988-12 6/01/2020 mg/kg 10	RI-SB-X_6-8_20200601 460-209988-13 6/01/2020 mg/kg 1
Compound	NYSDEC UUSCO	NYSDEC RRSCO	CONC Q	CONC Q	CONC Q	CONC Q
Aluminum	NS	NS	7,580	NR	NR	15,100
Antimony	NS	NS	1 J	NR	NR	1.2 U
Arsenic	13	16	7.1	NR	NR	4.6
Barium	350	400	2,100	NR	NR	36.6
Beryllium	7.2	72	0.32 J	NR	NR	0.51
Cadmium	2.5	4.3	1.9	NR	NR	1.2 U
Calcium	NS	NS	44,100	NR	NR	1,300
Chromium, Hexavalent	1	110	NR	NR	2.5 U	NR
Chromium, Total	NS	NS	20.5	NR	NR	16.9
Cobalt	NS	NS	7.6	NR	NR	9.2
Copper	50	270	530	NR	NR	17.2
Iron	NS	NS	16,600	NR	NR	23,700
Lead	63	400	766	NR	NR	11.9
Magnesium	NS	NS	6,780	NR	NR	4,880
Manganese	1,600	2,000	314	NR	NR	355
Mercury	0.18	0.81	NR	NR	0.028	NR
Nickel	30	310	12	NR	NR	18.3
Potassium	NS	NS	1,100	NR	NR	811
Selenium	3.9	180	0.38 J	NR	NR	5.8 U
Silver	2	180	1.1 U	NR	NR	1.2 U
Sodium	NS	NS	510	NR	NR	86.5 J
Thallium	NS	NS	0.45 U	NR	NR	0.47 U
Vanadium	NS	NS	26.8	NR	NR	21
Zinc	109	10,000	NR	890	NR	52.2

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AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor			RI-SB-X_6-8_20200601 460-209988-13 6/01/2020 mg/kg 10	RI-FB-S-01_20200601 460-209988-14 6/01/2020 µg/L 1	RI-FB-S-01_20200601 460-209988-14 6/01/2020 µg/L 2
Compound	NYSDEC UUSCO	NYSDEC RRSCO	CONC Q	CONC Q	CONC Q
Aluminum	NS	NS	13,600	NR	40 U
Antimony	NS	NS	1.1 U	NR	2 U
Arsenic	13	16	4.4	NR	2 U
Barium	350	400	49.4	NR	4 U
Beryllium	7.2	72	0.53	NR	0.8 U
Cadmium	2.5	4.3	1.1 U	NR	2 U
Calcium	NS	NS	1,550	NR	200 U
Chromium, Hexavalent	1	110	NR	10 U	NR
Chromium, Total	NS	NS	18.5	NR	4 U
Cobalt	NS	NS	9.4	NR	4 U
Copper	50	270	19.2	NR	4 U
Iron	NS	NS	22,800	NR	120 U
Lead	63	400	13.3	NR	1.2 U
Magnesium	NS	NS	4,220	NR	200 U
Manganese	1,600	2,000	374	NR	8 U
Mercury	0.18	0.81	NR	0.2 U	NR
Nickel	30	310	17.2	NR	4 U
Potassium	NS	NS	1,110	NR	200 U
Selenium	3.9	180	5.7 U	NR	10 U
Silver	2	180	1.1 U	NR	2 U
Sodium	NS	NS	89.2 J	NR	200 U
Thallium	NS	NS	0.46 U	NR	0.8 U
Vanadium	NS	NS	22.1	NR	4 U
Zinc	109	10,000	47.5	NR	16 U

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		AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor	RI-SB-01_0-2_20200601 200-53822-1 6/01/2020 ppb 1	RI-SB-01_6-8_20200601 200-53822-2 6/01/2020 ppb 1	RI-SB-02_0-2_20200601 200-53822-3 6/01/2020 ppb 1	RI-SB-02_6-8_20200601 200-53822-4 6/01/2020 ppb 1
Compound	NYSDEC UUSCO Guidance Value	NYSDEC RRSCO Guidance Value	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	2.22 U	2.49 U	2.58 U	2.11 U
8:2 Fluorotelomer sulfonate	NS	NS	2.22 U	2.49 U	2.58 U	2.11 U
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.22 U	2.49 U	0.16 J	2.11 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.22 U	2.49 U	2.58 U	2.11 U
Perfluorobutanesulfonic acid	NS	NS	0.22 U	0.25 U	0.26 U	0.21 U
Perfluorobutanoic acid	NS	NS	0.55 U	0.62 U	0.64 U	0.53 U
Perfluorodecanesulfonic acid	NS	NS	0.22 U	0.25 U	0.26 U	0.21 U
Perfluorodecanoic acid	NS	NS	0.22 U	0.25 U	0.085 J	0.21 U
Perfluorododecanoic acid	NS	NS	0.22 U	0.25 U	0.036 J	0.21 U
Perfluoroheptanesulfonic acid	NS	NS	0.22 U	0.25 U	0.26 U	0.21 U
Perfluoroheptanoic acid	NS	NS	0.22 U	0.25 U	0.033 J	0.21 U
Perfluorohexanesulfonic acid	NS	NS	0.22 U	0.25 U	0.26 U	0.21 U
Perfluorohexanoic acid	NS	NS	0.22 U	0.25 U	0.26 U	0.21 U
Perfluorononanoic acid	NS	NS	0.22 U	0.25 U	0.31	0.21 U
Perfluorooctanesulfonic acid	0.88	44	0.11 J	0.25 U	1.11	0.22
Perfluorooctanoic acid	0.66	33	0.22 U	0.25 U	0.26 U	0.21 U
Perfluoropentanoic acid	NS	NS	0.046 J	0.25 U	0.26 U	0.21 U
Perfluorotetradecanoic acid	NS	NS	0.22 U	0.25 U	0.037 J	0.21 U
Perfluorotridecanoic acid	NS	NS	0.22 U	0.25 U	0.023 J	0.21 U
Perfluoroundecanoic acid	NS	NS	0.22 U	0.25 U	0.043 J	0.21 U
Perfluorooctanesulfonamide	NS	NS	0.22 U	0.25 U	0.26 U	0.21 U

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		AKRF Sample ID	RI-SB-03_0-2_20200601	RI-SB-03_8-10_20200601	RI-SB-04_0-2_20200601	RI-SB-04_6-8_20200601
		Laboratory Sample ID	200-53822-5	200-53822-6	200-53822-7	200-53822-8
		Date Sampled	6/01/2020	6/01/2020	6/01/2020	6/01/2020
		Unit	ppb	ppb	ppb	ppb
		Dilution Factor	1	1	1	1
Compound	NYSDEC UUSCO Guidance Value	NYSDEC RRSCO Guidance Value	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	2.35 U	2.19 U	2.18 U	2.27 U
8:2 Fluorotelomer sulfonate	NS	NS	2.35 U	2.19 U	2.18 U	2.27 U
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.35 U	2.19 U	0.049 J	2.27 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.35 U	2.19 U	2.18 U	2.27 U
Perfluorobutanesulfonic acid	NS	NS	0.23 U	0.22 U	0.22 U	0.23 U
Perfluorobutanoic acid	NS	NS	0.59 U	0.55 U	0.55 U	0.57 U
Perfluorodecanesulfonic acid	NS	NS	0.23 U	0.22 U	0.22 U	0.23 U
Perfluorodecanoic acid	NS	NS	0.23 U	0.22 U	0.12 J	0.024 J
Perfluorododecanoic acid	NS	NS	0.23 U	0.22 U	0.018 J	0.23 U
Perfluoroheptanesulfonic acid	NS	NS	0.23 U	0.22 U	0.22 U	0.23 U
Perfluoroheptanoic acid	NS	NS	0.23 U	0.22 U	0.22 U	0.23 U
Perfluorohexanesulfonic acid	NS	NS	0.23 U	0.22 U	0.22 U	0.23 U
Perfluorohexanoic acid	NS	NS	0.23 U	0.22 U	0.22 U	0.23 U
Perfluorononanoic acid	NS	NS	0.23 U	0.22 U	0.099 J	0.23 U
Perfluorooctanesulfonic acid	0.88	44	0.23 U	0.22 U	1.01	0.11 J
Perfluorooctanoic acid	0.66	33	0.23 U	0.22 U	0.22 U	0.23 U
Perfluoropentanoic acid	NS	NS	0.23 U	0.22 U	0.028 J	0.23 U
Perfluorotetradecanoic acid	NS	NS	0.23 U	0.22 U	0.024 J	0.23 U
Perfluorotridecanoic acid	NS	NS	0.23 U	0.22 U	0.22 U	0.23 U
Perfluoroundecanoic acid	NS	NS	0.23 U	0.22 U	0.055 J	0.037 J
Perfluorooctanesulfonamide	NS	NS	0.23 U	0.22 U	0.22 U	0.23 U

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		AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor	RI-SB-05_0-2_20200601 200-53822-9 6/01/2020 ppb 1	RI-SB-05_8-10_20200601 200-53822-10 6/01/2020 ppb 1	RI-SB-06_0-2_20200601 200-53853-1 6/01/2020 ppb 1	RI-SB-06_8-10_20200601 200-53853-2 6/01/2020 ppb 1
Compound	NYSDEC UUSCO Guidance Value	NYSDEC RRSCO Guidance Value	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	2.09 U	0.031 J	2.47 U	2.24 U
8:2 Fluorotelomer sulfonate	NS	NS	2.09 U	2.15 U	2.47 U	2.24 U
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.09 U	2.15 U	2.47 U	2.24 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.09 U	2.15 U	2.47 U	2.24 U
Perfluorobutanesulfonic acid	NS	NS	0.21 U	0.21 U	0.25 U	0.22 U
Perfluorobutanoic acid	NS	NS	0.52 U	0.54 U	0.62 U	0.56 U
Perfluorodecanesulfonic acid	NS	NS	0.21 U	0.21 U	0.25 U	0.22 U
Perfluorodecanoic acid	NS	NS	0.21 U	0.21 U	0.25 U	0.22 U
Perfluorododecanoic acid	NS	NS	0.21 U	0.21 U	0.25 U	0.22 U
Perfluoroheptanesulfonic acid	NS	NS	0.21 U	0.21 U	0.25 U	0.22 U
Perfluoroheptanoic acid	NS	NS	0.21 U	0.21 U	0.25 U	0.22 U
Perfluorohexanesulfonic acid	NS	NS	0.21 U	0.21 U	0.25 U	0.22 U
Perfluorohexanoic acid	NS	NS	0.21 U	0.21 U	0.25 U	0.22 U
Perfluorononanoic acid	NS	NS	0.21 U	0.032 J	0.25 U	0.22 U
Perfluorooctanesulfonic acid	0.88	44	0.23	0.21 U	0.25 U	0.1 J
Perfluorooctanoic acid	0.66	33	0.21 U	0.21 U	0.25 U	0.22 U
Perfluoropentanoic acid	NS	NS	0.21 U	0.21 U	0.12 J	0.22 U
Perfluorotetradecanoic acid	NS	NS	0.21 U	0.21 U	0.25 U	0.22 U
Perfluorotridecanoic acid	NS	NS	0.21 U	0.21 U	0.25 U	0.22 U
Perfluoroundecanoic acid	NS	NS	0.21 U	0.21 U	0.25 U	0.22 U
Perfluorooctanesulfonamide	NS	NS	0.21 U	0.21 U	0.25 U	0.22 U

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		AKRF Sample ID	RI-SB-07_0-2_20200601	RI-SB-07_8-10_20200601	RI-SB-08_0-2_20200601	RI-SB-08_6-8_20200601
		Laboratory Sample ID	200-53853-3	200-53853-4	200-53822-11	200-53822-12
		Date Sampled	6/01/2020	6/01/2020	6/01/2020	6/01/2020
		Unit	ppb	ppb	ppb	ppb
		Dilution Factor	1	1	1	1
Compound	NYSDEC UUSCO Guidance Value	NYSDEC RRSCO Guidance Value	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	0.026 J	2.48 U	2.11 U	2.29 U
8:2 Fluorotelomer sulfonate	NS	NS	2.27 U	2.48 U	2.11 U	2.29 U
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.27 U	2.48 U	0.043 J	2.29 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.27 U	2.48 U	2.11 U	2.29 U
Perfluorobutanesulfonic acid	NS	NS	0.23 U	0.25 U	0.21 U	0.23 U
Perfluorobutanoic acid	NS	NS	0.57 U	0.62 U	0.53 U	0.57 U
Perfluorodecanesulfonic acid	NS	NS	0.23 U	0.25 U	0.21 U	0.23 U
Perfluorodecanoic acid	NS	NS	0.23 U	0.25 U	0.066 J	0.03 J
Perfluorododecanoic acid	NS	NS	0.23 U	0.25 U	0.021 J	0.23 U
Perfluoroheptanesulfonic acid	NS	NS	0.23 U	0.25 U	0.21 U	0.23 U
Perfluoroheptanoic acid	NS	NS	0.23 U	0.25 U	0.032 J	0.037 J
Perfluorohexanesulfonic acid	NS	NS	0.23 U	0.25 U	0.21 U	0.23 U
Perfluorohexanoic acid	NS	NS	0.23 U	0.25 U	0.04 J	0.23 U
Perfluorononanoic acid	NS	NS	0.23 U	0.25 U	0.12 J	0.23 U
Perfluorooctanesulfonic acid	0.88	44	0.23 U	0.25 U	2.34	0.13 J
Perfluorooctanoic acid	0.66	33	0.23 U	0.25 U	0.21 U	0.23 U
Perfluoropentanoic acid	NS	NS	0.23 U	0.25 U	0.06 J	0.093 J
Perfluorotetradecanoic acid	NS	NS	0.23 U	0.25 U	0.021 J	0.23 U
Perfluorotridecanoic acid	NS	NS	0.23 U	0.25 U	0.21 U	0.23 U
Perfluoroundecanoic acid	NS	NS	0.23 U	0.25 U	0.027 J	0.23 U
Perfluorooctanesulfonamide	NS	NS	0.23 U	0.25 U	0.21 U	0.23 U

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		AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor	RI-SB-X_6-8_20200601 200-53822-13 6/01/2020 ppb 1	RI-FB-S-01_20200601 200-53822-14 6/01/2020 ppt 1
Compound	NYSDEC UUSCO Guidance Value	NYSDEC RRSCO Guidance Value	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	2.34 U	16.3 U
8:2 Fluorotelomer sulfonate	NS	NS	2.34 U	16.3 U
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.34 U	16.3 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.34 U	16.3 U
Perfluorobutanesulfonic acid	NS	NS	0.23 U	1.63 U
Perfluorobutanoic acid	NS	NS	0.59 U	1.63 U
Perfluorodecanesulfonic acid	NS	NS	0.23 U	1.63 U
Perfluorodecanoic acid	NS	NS	0.23 U	1.63 U
Perfluorododecanoic acid	NS	NS	0.23 U	1.63 U
Perfluoroheptanesulfonic acid	NS	NS	0.23 U	1.63 U
Perfluoroheptanoic acid	NS	NS	0.23 U	1.63 U
Perfluorohexanesulfonic acid	NS	NS	0.23 U	1.63 U
Perfluorohexanoic acid	NS	NS	0.23 U	1.63 U
Perfluorononanoic acid	NS	NS	0.23 U	1.63 U
Perfluorooctanesulfonic acid	0.88	44	0.23 U	1.63 UJ
Perfluorooctanoic acid	0.66	33	0.23 U	1.63 U
Perfluoropentanoic acid	NS	NS	0.23 U	1.63 U
Perfluorotetradecanoic acid	NS	NS	0.23 U	1.63 U
Perfluorotridecanoic acid	NS	NS	0.23 U	1.63 U
Perfluoroundecanoic acid	NS	NS	0.23 U	1.63 U
Perfluorooctanesulfonamide	NS	NS	0.23 U	8.14 UJ

**Table 8**  
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Groundwater Analytical Results for VOCs

Compound	AKRF Sample ID	RI-MW-01_20200622	RI-MW-02_20200615	RI-MW-03_20200615	RI-MW-X01
	Laboratory Sample ID	460-211592-1	460-211169-1	460-211169-2	460-21
	Date Sampled	6/22/2020	6/15/2020	6/15/2020	6/15/
	Unit	µg/L	µg/L	µg/L	µg
	Dilution Factor	1	1	1	1
	AWQSGV	CONC Q	CONC Q	CONC Q	CONC
1,1,1-Trichloroethane	5	1 U	1 U	1 U	1
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	5	1 U	1 U	1 U	1
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1
1,1-Dichloroethane	5	1 U	1 U	1 U	1
1,1-Dichloroethene	5	1 U	1 U	1 UJ	1
1,2,3-Trichlorobenzene	5	1 U	1 U	1 U	1
1,2,4-Trichlorobenzene	5	1 U	1 U	1 U	1
1,2-Dibromo-3-Chloropropane	0.04	1 U	1 U	1 U	1
1,2-Dibromoethane (Ethylene Dibromide)	0.0006	1 U	1 U	1 U	1
1,2-Dichlorobenzene	3	1 U	1 U	1 U	1
1,2-Dichloroethane	0.6	1 U	1 U	1 U	1
1,2-Dichloropropane	1	1 U	1 U	1 U	1
1,3-Dichlorobenzene	3	1 U	1 U	1 U	1
1,4-Dichlorobenzene	3	1 U	1 U	1 U	1
2-Hexanone	50	5 U	5 U	5 U	5
Acetone	50	14	5 U	5 U	5
Benzene	1	1 U	1 U	1 U	1
Bromochloromethane	5	1 U	1 U	1 U	1
Bromodichloromethane	50	1 U	1 U	1 U	1
Bromoform	50	1 U	1 U	1 U	1
Bromomethane	5	1 U	1 U	1 U	1
Carbon Disulfide	60	1 U	1 U	1 U	1
Carbon Tetrachloride	5	1 U	1 U	1 U	1
Chlorobenzene	5	1 U	1 U	1 U	1
Chloroethane	5	1 U	1 U	1 U	1
Chloroform	7	1 U	1 U	1 U	1
Chloromethane	5	1.4	1 U	1 U	1
Cis-1,2-Dichloroethylene	5	1 U	1 U	1 U	1
Cis-1,3-Dichloropropene	NS	1 U	1 U	1 U	1
Cyclohexane	NS	1 U	1 U	1 U	1
Dibromochloromethane	50	1 U	1 U	1 U	1
Dichlorodifluoromethane	5	1 U	1 U	1 U	1
Ethylbenzene	5	1 U	1 U	1 U	1
Isopropylbenzene (Cumene)	5	0.55 J	1 U	1 U	1
M,P-Xylenes	5	1 U	1 U	1 U	1
Methyl Acetate	NS	5 U	5 U	5 U	5
Methyl Ethyl Ketone (2-Butanone)	50	5 U	5 U	5 U	5
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	NS	5 U	5 U	5 U	5
Methylcyclohexane	NS	0.44 J	1 U	1 U	1
Methylene Chloride	5	1 U	1 U	1 U	1
O-Xylene (1,2-Dimethylbenzene)	5	1 U	1 U	1 U	1
Styrene	5	1 U	1 U	1 U	1
Tert-Butyl Methyl Ether	10	2.7	1 U	0.56 J	0.62
Tetrachloroethylene (PCE)	5	1 U	1 U	1 U	1
Toluene	5	1 U	1 U	1 U	1
Trans-1,2-Dichloroethene	5	1 U	1 U	1 U	1
Trans-1,3-Dichloropropene	NS	1 U	1 U	1 U	1
Trichloroethylene (TCE)	5	1 U	1 U	1 U	1
Trichlorofluoromethane	5	1 U	1 U	1 U	1
Vinyl Chloride	2	1 U	1 U	1 U	1

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Compound	AKRF Sample ID _20200615		RI-MW-04_20200615		RI-FB-GW-01_20200615		RI-TB-GW-01_20200615	
	Laboratory Sample ID 1169-4		460-211169-3		460-211169-5		460-211169-6	
	Date Sampled 2020		6/15/2020		6/15/2020		6/15/2020	
	Unit /L		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	Dilution Factor		1	1	1	1	1	1
	AWQSGV	Q	CONC	Q	CONC	Q	CONC	Q
1,1,1-Trichloroethane	5	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	5	U	1	U	1	U	1	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	5	U	1	U	1	U	1	U
1,1,2-Trichloroethane	1	U	1	U	1	U	1	U
1,1-Dichloroethane	5	U	1	U	1	U	1	U
1,1-Dichloroethene	5	U	1	U	1	U	1	U
1,2,3-Trichlorobenzene	5	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	5	U	1	U	1	U	1	U
1,2-Dibromo-3-Chloropropane	0.04	U	1	U	1	U	1	U
1,2-Dibromoethane (Ethylene Dibromide)	0.0006	U	1	U	1	U	1	U
1,2-Dichlorobenzene	3	U	1	U	1	U	1	U
1,2-Dichloroethane	0.6	U	1	U	1	U	1	U
1,2-Dichloropropane	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	3	U	1	U	1	U	1	U
1,4-Dichlorobenzene	3	U	1	U	1	U	1	U
2-Hexanone	50	U	5	U	5	U	5	U
Acetone	50	U	10	U	8	U	5	U
Benzene	1	U	1	U	1	U	1	U
Bromochloromethane	5	U	1	U	1	U	1	U
Bromodichloromethane	50	U	1	U	1	U	1	U
Bromoform	50	U	1	U	1	U	1	U
Bromomethane	5	U	1	U	1	U	1	U
Carbon Disulfide	60	U	1	U	1	U	1	U
Carbon Tetrachloride	5	U	1	U	1	U	1	U
Chlorobenzene	5	U	1	U	1	U	1	U
Chloroethane	5	U	1	U	1	U	1	U
Chloroform	7	U	1	U	0.34	J	1	U
Chloromethane	5	U	1	U	1	U	1	U
Cis-1,2-Dichloroethylene	5	U	1	U	1	U	1	U
Cis-1,3-Dichloropropene	NS	U	1	U	1	U	1	U
Cyclohexane	NS	U	1	U	1	U	1	U
Dibromochloromethane	50	U	1	U	1	U	1	U
Dichlorodifluoromethane	5	U	1	U	1	U	1	U
Ethylbenzene	5	U	1	U	1	U	1	U
Isopropylbenzene (Cumene)	5	U	1	U	1	U	1	U
M,P-Xylenes	5	U	1	U	1	U	1	U
Methyl Acetate	NS	U	5	U	5	U	5	U
Methyl Ethyl Ketone (2-Butanone)	50	U	5	U	5	U	5	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	NS	U	5	U	5	U	5	U
Methylcyclohexane	NS	U	1	U	1	U	1	U
Methylene Chloride	5	U	1	U	0.58	J	6.1	U
O-Xylene (1,2-Dimethylbenzene)	5	U	1	U	1	U	1	U
Styrene	5	U	1	U	1	U	1	U
Tert-Butyl Methyl Ether	10	J	1	U	1	U	1	U
Tetrachloroethylene (PCE)	5	U	1	U	1	U	1	U
Toluene	5	U	1	U	1	U	1	U
Trans-1,2-Dichloroethene	5	U	1	U	1	U	1	U
Trans-1,3-Dichloropropene	NS	U	1	U	1	U	1	U
Trichloroethylene (TCE)	5	U	1	U	1	U	1	U
Trichlorofluoromethane	5	U	1	U	1	U	1	U
Vinyl Chloride	2	U	1	U	1	U	1	U

**Table 9**  
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Groundwater Analytical Results for SVOCs

AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor	RI-MW-01_20200622 460-211592-1 6/22/2020 µg/L 1	RI-MW-02_20200615 460-211169-1 6/15/2020 µg/L 1	RI-MW-03_20200615 460-211169-2 6/15/2020 µg/L 1	RI-MW-X01 460-21 6/15/ µg 1	
Compound	AWQSGV	CONC Q	CONC Q	CONC Q	CONC
1,2,4,5-Tetrachlorobenzene	5	10 U	10 U	10 U	10
1,4-Dioxane (P-Dioxane)	0.35	0.2 U	0.2 U	0.066 J	0.2
2,3,4,6-Tetrachlorophenol	NS	10 U	10 U	10 U	10
2,4,5-Trichlorophenol	NS	10 U	10 U	10 U	10
2,4,6-Trichlorophenol	NS	10 U	10 U	10 U	10
2,4-Dichlorophenol	5	10 U	10 U	10 U	10
2,4-Dimethylphenol	50	10 U	10 U	10 U	10
2,4-Dinitrophenol	10	20 U	20 U	20 U	20
2,4-Dinitrotoluene	5	2 U	2 U	2 U	2
2,6-Dinitrotoluene	5	2 U	2 U	2 U	2
2-Chloronaphthalene	10	10 U	10 U	10 U	10
2-Chlorophenol	NS	10 U	10 U	10 U	10
2-Methylnaphthalene	NS	10 U	10 U	10 U	10
2-Methylphenol (O-Cresol)	NS	10 U	10 U	10 U	10
2-Nitroaniline	5	10 U	10 UJ	10 UJ	10
2-Nitrophenol	NS	10 U	10 U	10 U	10
3,3'-Dichlorobenzidine	5	10 U	10 U	10 U	10
3-Nitroaniline	5	10 U	10 U	10 U	10
4,6-Dinitro-2-Methylphenol	NS	20 U	20 U	20 U	20
4-Bromophenyl Phenyl Ether	NS	10 U	10 U	10 U	10
4-Chloro-3-Methylphenol	NS	10 U	10 U	10 U	10
4-Chloroaniline	5	10 U	10 U	10 U	10
4-Chlorophenyl Phenyl Ether	NS	10 U	10 U	10 U	10
4-Methylphenol (P-Cresol)	NS	10 U	10 U	10 U	10
4-Nitroaniline	5	10 U	10 U	10 U	10
4-Nitrophenol	NS	20 U	20 UJ	20 UJ	20
Acenaphthene	20	14	10 U	10 U	10
Acenaphthylene	NS	10 U	10 U	10 U	10
Acetophenone	NS	10 U	10 U	10 U	10
Anthracene	50	3.6 J	10 U	10 U	10
Atrazine	7.5	2 U	2 U	2 U	2
Benzaldehyde	NS	10 UJ	10 UJ	10 UJ	10
Benzo(a)Anthracene	0.002	3.5	1 U	1 U	1
Benzo(a)Pyrene	ND	2.5	1 U	1 U	1
Benzo(b)Fluoranthene	0.002	2.8	2 U	2 U	2
Benzo(g,h,i)Perylene	NS	1.4 J	10 U	10 U	10
Benzo(k)Fluoranthene	0.002	1.3	1 U	1 U	1
Benzyl Butyl Phthalate	50	10 U	10 UJ	10 UJ	10
Biphenyl (Diphenyl)	5	10 U	10 U	10 U	10
Bis(2-Chloroethoxy) Methane	5	10 U	10 U	10 U	10
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	1	1 U	1 U	1 U	1
Bis(2-Chloroisopropyl) Ether	5	10 U	10 UJ	10 UJ	10
Bis(2-Ethylhexyl) Phthalate	5	2 U	2 UJ	2 UJ	2
Caprolactam	NS	10 U	3.2 J	10 UJ	10
Carbazole	NS	10 U	10 U	10 U	10
Chrysene	0.002	2.7	2 U	2 U	2
Dibenz(a,h)Anthracene	NS	1 U	1 U	1 U	1
Dibenzofuran	NS	10 U	10 U	10 U	10
Diethyl Phthalate	50	10 U	10 U	10 U	10
Dimethyl Phthalate	50	10 U	10 U	10 U	10
Di-N-Butyl Phthalate	50	10 U	10 UJ	10 UJ	10
Di-N-Octylphthalate	50	10 UJ	10 UJ	10 UJ	10
Fluoranthene	50	11	10 U	10 U	10
Fluorene	50	6.6 J	10 U	10 U	10
Hexachlorobenzene	0.04	1 U	1 U	1 U	1
Hexachlorobutadiene	0.5	1 U	1 U	1 U	1
Hexachlorocyclopentadiene	5	10 U	10 U	10 U	10
Hexachloroethane	5	2 U	2 U	2 U	2
Indeno(1,2,3-c,d)Pyrene	0.002	1.4 J	2 U	2 U	2
Isophorone	50	10 U	10 UJ	10 UJ	10
Naphthalene	10	6.6	2 U	2 U	2
Nitrobenzene	0.4	1 U	1 U	1 U	1
N-Nitrosodi-N-Propylamine	NS	1 U	1 U	1 U	1
N-Nitrosodiphenylamine	50	10 U	10 U	10 U	10
Pentachlorophenol	NS	20 U	20 U	20 U	20
Phenanthrene	50	12	10 U	10 U	10
Phenol	1	10 U	10 U	10 U	10
Pyrene	50	8.5 J	10 U	10 U	10

Table 9  
 138 Bruckner Boulevard  
 Bronx, NY  
 Remedial Investigation  
 Groundwater Analytical Results for SVOCs

AKRF Sample ID _20200615		
Laboratory Sample ID 1169-4		
Date Sampled 2020		
Unit /L		
Dilution Factor		
Compound	AWQSGV	Q
1,2,4,5-Tetrachlorobenzene	5	U
1,4-Dioxane (P-Dioxane)	0.35	U
2,3,4,6-Tetrachlorophenol	NS	U
2,4,5-Trichlorophenol	NS	U
2,4,6-Trichlorophenol	NS	U
2,4-Dichlorophenol	5	U
2,4-Dimethylphenol	50	U
2,4-Dinitrophenol	10	U
2,4-Dinitrotoluene	5	U
2,6-Dinitrotoluene	5	U
2-Chloronaphthalene	10	U
2-Chlorophenol	NS	U
2-Methylnaphthalene	NS	U
2-Methylphenol (O-Cresol)	NS	U
2-Nitroaniline	5	UJ
2-Nitrophenol	NS	U
3,3'-Dichlorobenzidine	5	U
3-Nitroaniline	5	U
4,6-Dinitro-2-Methylphenol	NS	U
4-Bromophenyl Phenyl Ether	NS	U
4-Chloro-3-Methylphenol	NS	U
4-Chloroaniline	5	U
4-Chlorophenyl Phenyl Ether	NS	U
4-Methylphenol (P-Cresol)	NS	U
4-Nitroaniline	5	U
4-Nitrophenol	NS	UJ
Acenaphthene	20	U
Acenaphthylene	NS	U
Acetophenone	NS	U
Anthracene	50	U
Atrazine	7.5	U
Benzaldehyde	NS	UJ
Benzo(a)Anthracene	0.002	U
Benzo(a)Pyrene	ND	U
Benzo(b)Fluoranthene	0.002	U
Benzo(g,h,i)Perylene	NS	U
Benzo(k)Fluoranthene	0.002	U
Benzyl Butyl Phthalate	50	UJ
Biphenyl (Diphenyl)	5	U
Bis(2-Chloroethoxy) Methane	5	U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	1	U
Bis(2-Chloroisopropyl) Ether	5	UJ
Bis(2-Ethylhexyl) Phthalate	5	UJ
Caprolactam	NS	UJ
Carbazole	NS	U
Chrysene	0.002	U
Dibenz(a,h)Anthracene	NS	U
Dibenzofuran	NS	U
Diethyl Phthalate	50	U
Dimethyl Phthalate	50	U
Di-N-Butyl Phthalate	50	UJ
Di-N-Octylphthalate	50	UJ
Fluoranthene	50	U
Fluorene	50	U
Hexachlorobenzene	0.04	U
Hexachlorobutadiene	0.5	U
Hexachlorocyclopentadiene	5	U
Hexachloroethane	5	U
Indeno(1,2,3-c,d)Pyrene	0.002	U
Isophorone	50	UJ
Naphthalene	10	U
Nitrobenzene	0.4	U
N-Nitrosodi-N-Propylamine	NS	U
N-Nitrosodiphenylamine	50	U
Pentachlorophenol	NS	U
Phenanthrene	50	U
Phenol	1	U
Pyrene	50	U

Table 9  
138 Bruckner Boulevard  
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Remedial Investigation  
Groundwater Analytical Results for SVOCs

AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor	RI-MW-04_20200615	RI-MW-04_20200615	RI-FB-GW-01_20200615
	460-211169-3 6/15/2020 µg/L 1	460-211169-3 6/15/2020 µg/L 2	460-211169-5 6/15/2020 µg/L 1
Compound	AWQSGV	CONC Q	CONC Q
1,2,4,5-Tetrachlorobenzene	5	NR	20 U
1,4-Dioxane (P-Dioxane)	0.35	0.2 U	0.2 U
2,3,4,6-Tetrachlorophenol	NS	NR	20 U
2,4,5-Trichlorophenol	NS	NR	20 U
2,4,6-Trichlorophenol	NS	NR	20 U
2,4-Dichlorophenol	5	NR	20 U
2,4-Dimethylphenol	50	NR	20 U
2,4-Dinitrophenol	10	NR	40 U
2,4-Dinitrotoluene	5	NR	4 U
2,6-Dinitrotoluene	5	NR	4 U
2-Chloronaphthalene	10	NR	20 U
2-Chlorophenol	NS	NR	20 U
2-Methylnaphthalene	NS	NR	20 U
2-Methylphenol (O-Cresol)	NS	NR	20 U
2-Nitroaniline	5	NR	20 UJ
2-Nitrophenol	NS	NR	20 U
3,3'-Dichlorobenzidine	5	NR	20 U
3-Nitroaniline	5	NR	20 U
4,6-Dinitro-2-Methylphenol	NS	NR	40 U
4-Bromophenyl Phenyl Ether	NS	NR	20 U
4-Chloro-3-Methylphenol	NS	NR	20 U
4-Chloroaniline	5	NR	20 U
4-Chlorophenyl Phenyl Ether	NS	NR	20 U
4-Methylphenol (P-Cresol)	NS	NR	20 U
4-Nitroaniline	5	NR	20 U
4-Nitrophenol	NS	NR	40 UJ
Acenaphthene	20	NR	20 U
Acenaphthylene	NS	NR	20 U
Acetophenone	NS	NR	20 U
Anthracene	50	NR	20 U
Atrazine	7.5	NR	4 U
Benzaldehyde	NS	NR	20 UJ
Benzo(a)Anthracene	0.002	NR	2 U
Benzo(a)Pyrene	ND	NR	2 U
Benzo(b)Fluoranthene	0.002	NR	4 U
Benzo(g,h,i)Perylene	NS	NR	20 U
Benzo(k)Fluoranthene	0.002	NR	2 U
Benzyl Butyl Phthalate	50	NR	20 UJ
Biphenyl (Diphenyl)	5	NR	20 U
Bis(2-Chloroethoxy) Methane	5	NR	20 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	1	NR	2 U
Bis(2-Chloroisopropyl) Ether	5	NR	20 UJ
Bis(2-Ethylhexyl) Phthalate	5	NR	4 UJ
Caprolactam	NS	NR	74 J
Carbazole	NS	NR	20 U
Chrysene	0.002	NR	4 U
Dibenz(a,h)Anthracene	NS	NR	2 U
Dibenzofuran	NS	NR	20 U
Diethyl Phthalate	50	NR	20 U
Dimethyl Phthalate	50	NR	20 U
Di-N-Butyl Phthalate	50	NR	20 UJ
Di-N-Octylphthalate	50	NR	20 UJ
Fluoranthene	50	NR	20 U
Fluorene	50	NR	20 U
Hexachlorobenzene	0.04	NR	2 U
Hexachlorobutadiene	0.5	NR	2 U
Hexachlorocyclopentadiene	5	NR	20 U
Hexachloroethane	5	NR	4 U
Indeno(1,2,3-c,d)Pyrene	0.002	NR	4 U
Isophorone	50	NR	20 UJ
Naphthalene	10	NR	4 U
Nitrobenzene	0.4	NR	2 U
N-Nitrosodi-N-Propylamine	NS	NR	2 U
N-Nitrosodiphenylamine	50	NR	20 U
Pentachlorophenol	NS	NR	40 U
Phenanthrene	50	NR	20 U
Phenol	1	NR	20 U
Pyrene	50	NR	20 U

**Table 10**  
**138 Bruckner Boulevard**  
**Bronx, NY**  
 Remedial Investigation  
 Groundwater Analytical Results for Pesticides

AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor		RI-MW-01_20200622 460-211592-1 6/22/2020 µg/L 1	RI-MW-02_20200615 460-211169-1 6/15/2020 µg/L 1	RI-MW-03_20200615 460-211169-2 6/15/2020 µg/L 1	RI-MW-X01_20200615 460-211169-4 6/15/2020 µg/L 1	RI-MW-04_20200615 460-211169-3 6/15/2020 µg/L 1	RI-FB-GW-01_20200615 460-211169-5 6/15/2020 µg/L 1
Compound	AWQSGV	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
Aldrin	ND	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Alpha Bhc (Alpha Hexachlorocyclohexane)	0.01	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Alpha Endosulfan	NS	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Beta Bhc (Beta Hexachlorocyclohexane)	0.04	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Beta Endosulfan	NS	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Delta BHC (Delta Hexachlorocyclohexane)	0.04	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Dieldrin	0.004	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Endosulfan Sulfate	NS	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Endrin	ND	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Endrin Aldehyde	5	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Endrin Ketone	5	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Gamma Bhc (Lindane)	0.05	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Heptachlor	0.04	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Heptachlor Epoxide	0.03	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Methoxychlor	35	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
P,P'-DDD	0.3	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
P,P'-DDE	0.2	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
P,P'-DDT	0.2	0.067	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Toxaphene	0.06	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

**Table 11**  
**138 Bruckner Boulevard**  
**Bronx, NY**  
 Remedial Investigation  
 Groundwater Analytical Results for PCBs

AKRF Sample ID		RI-MW-01_20200622	RI-MW-02_20200615	RI-MW-03_20200615	RI-MW-X01_20200615	RI-MW-04_20200615	RI-FB-GW-01_20200615
Laboratory Sample ID		460-211592-1	460-211169-1	460-211169-2	460-211169-4	460-211169-3	460-211169-5
Date Sampled		6/22/2020	6/15/2020	6/15/2020	6/15/2020	6/15/2020	6/15/2020
Unit		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Dilution Factor		1	1	1	1	1	1
Compound	AWQSGV	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
PCB-1016 (Aroclor 1016)	NS	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
PCB-1221 (Aroclor 1221)	NS	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
PCB-1232 (Aroclor 1232)	NS	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
PCB-1242 (Aroclor 1242)	NS	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
PCB-1248 (Aroclor 1248)	NS	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
PCB-1254 (Aroclor 1254)	NS	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
PCB-1260 (Aroclor 1260)	NS	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
PCB-1262 (Aroclor 1262)	NS	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
PCB-1268 (Aroclor 1268)	NS	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
<b>Total PCBs</b>	<b>0.09</b>	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U

**Table 12**  
**138 Bruckner Boulevard**  
**Bronx, NY**  
Remedial Investigation  
Groundwater Analytical Results for Dissolved Metals

AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor		RI-MW-01_20200622 460-211592-1 6/22/2020 µg/L 1	RI-MW-01_20200622 460-211592-1 6/22/2020 µg/L 2	RI-MW-02_20200615 460-211169-1 6/15/2020 µg/L 1	RI-MW-02_20200615 460-211169-1 6/15/2020 µg/L 2	RI-MW-02_20200615 460-211169-1 6/15/2020 µg/L 5
Compound	AWQSGV	CONC Q				
Aluminum	NS	NR	40 U	NR	40 U	NR
Antimony	3	NR	2 U	NR	2 U	NR
Arsenic	25	NR	1.6 J	NR	2 U	NR
Barium	1,000	NR	248	NR	37.7	NR
Beryllium	3	NR	0.8 U	NR	0.8 U	NR
Cadmium	5	NR	2 U	NR	2 U	NR
Calcium	NS	NR	142,000	NR	NR	430,000
Chromium, Total	50	NR	4 U	NR	4 U	NR
Cobalt	NS	NR	4 U	NR	4 U	NR
Copper	200	NR	2.3 J	NR	4 U	NR
Iron	300	NR	597	NR	120 U	NR
Lead	25	NR	0.89 J	NR	1.2 U	NR
Magnesium	35,000	NR	33,400	NR	64,200	NR
Manganese	300	NR	1,260	NR	444	NR
Mercury	0.7	0.2 U	NR	0.2 U	NR	NR
Nickel	100	NR	6.8	NR	4 U	NR
Potassium	NS	NR	20,900	NR	8,770	NR
Selenium	10	NR	10 U	NR		25 U
Silver	50	NR	2 U	NR	2 U	NR
Sodium	20,000	NR	211,000	NR	24,800	NR
Thallium	0.5	NR	0.8 U	NR	0.8 U	NR
Vanadium	NS	NR	2.1 J	NR	4 U	NR
Zinc	2,000	NR	11.2 J	NR	16 U	NR

**Table 12**  
**138 Bruckner Boulevard**  
**Bronx, NY**  
Remedial Investigation  
Groundwater Analytical Results for Dissolved Metals

AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor		RI-MW-03_20200615 460-211169-2 6/15/2020 µg/L 1	RI-MW-03_20200615 460-211169-2 6/15/2020 µg/L 2	RI-MW-X01_20200615 460-211169-4 6/15/2020 µg/L 1	RI-MW-X01_20200615 460-211169-4 6/15/2020 µg/L 2	RI-MW-04_20200615 460-211169-3 6/15/2020 µg/L 1
Compound	AWQSGV	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
Aluminum	NS	NR	40 U	NR	40 U	NR
Antimony	3	NR	2 U	NR	2 U	NR
Arsenic	25	NR	2 U	NR	2 U	NR
Barium	1,000	NR	122	NR	124	NR
Beryllium	3	NR	0.8 U	NR	0.8 U	NR
Cadmium	5	NR	2 U	NR	2 U	NR
Calcium	NS	NR	82,000	NR	81,900	NR
Chromium, Total	50	NR	4 U	NR	4 U	NR
Cobalt	NS	NR	4 U	NR	4 U	NR
Copper	200	NR	4 U	NR	4 U	NR
Iron	300	NR	1,770	NR	1,670	NR
Lead	25	NR	1.2 U	NR	1.2 U	NR
Magnesium	35,000	NR	18,300	NR	18,300	NR
Manganese	300	NR	596	NR	596	NR
Mercury	0.7	0.2 U	NR	0.2 U	NR	0.2 U
Nickel	100	NR	12.7	NR	12.9	NR
Potassium	NS	NR	11,600	NR	11,500	NR
Selenium	10	NR	10 U	NR	10 U	NR
Silver	50	NR	2 U	NR	2 U	NR
Sodium	20,000	NR	133,000	NR	137,000	NR
Thallium	0.5	NR	0.8 U	NR	0.8 U	NR
Vanadium	NS	NR	4 U	NR	4 U	NR
Zinc	2,000	NR	16 U	NR	16 U	NR

**Table 12**  
**138 Bruckner Boulevard**  
**Bronx, NY**  
Remedial Investigation  
Groundwater Analytical Results for Dissolved Metals

AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor		RI-MW-04_20200615 460-211169-3 6/15/2020 µg/L 2	RI-FB-GW-01_20200615 460-211169-5 6/15/2020 µg/L 1	RI-FB-GW-01_20200615 460-211169-5 6/15/2020 µg/L 2
Compound	AWQSGV	CONC Q	CONC Q	CONC Q
Aluminum	NS	40 U	NR	40 U
Antimony	3	2 U	NR	2 U
Arsenic	25	0.84 J	NR	2 U
Barium	1,000	92.1	NR	4 U
Beryllium	3	0.8 U	NR	0.8 U
Cadmium	5	2 U	NR	2 U
Calcium	NS	119,000	NR	200 U
Chromium, Total	50	4 U	NR	4 U
Cobalt	NS	2.1 J	NR	4 U
Copper	200	4 U	NR	4 U
Iron	300	484	NR	120 U
Lead	25	1.2 U	NR	1.2 U
Magnesium	35,000	54,500	NR	200 U
Manganese	300	1,500	NR	8 U
Mercury	0.7	NR	0.2 U	NR
Nickel	100	4	NR	4 U
Potassium	NS	5,650	NR	200 U
Selenium	10	10 U	NR	10 U
Silver	50	2 U	NR	2 U
Sodium	20,000	26,300	NR	200 U
Thallium	0.5	0.8 U	NR	0.8 U
Vanadium	NS	4 U	NR	4 U
Zinc	2,000	16 U	NR	16 U

**Table 13**  
**138 Bruckner Boulevard**  
**Bronx, NY**  
Remedial Investigation  
Groundwater Analytical Results for Total Metals

AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor		RI-MW-01_20200622 460-211592-1 6/22/2020 µg/L 1	RI-MW-01_20200622 460-211592-1 6/22/2020 µg/L 2	RI-MW-02_20200615 460-211169-1 6/15/2020 µg/L 1	RI-MW-02_20200615 460-211169-1 6/15/2020 µg/L 2	RI-MW-02_20200615 460-211169-1 6/15/2020 µg/L 5
Compound	AWQSGV	CONC Q				
Aluminum	NS	NR	24.4 J	NR	1,510 JK	NR
Antimony	3	NR	2 U	NR	2 U	NR
Arsenic	25	NR	1.1 J	NR	2 U	NR
Barium	1,000	NR	207	NR	55.7 JK	NR
Beryllium	3	NR	0.8 U	NR	0.8 U	NR
Cadmium	5	NR	2 U	NR	2 U	NR
Calcium	NS	NR	124,000	NR	NR	380,000
Chromium, Total	50	NR	4 U	NR	6.8	NR
Cobalt	NS	NR	4 U	NR	3.5 J	NR
Copper	200	NR	2.8 J	NR	6.7	NR
Iron	300	NR	517	NR	2,550 JK	NR
Lead	25	NR	0.87 J	NR	15.6	NR
Magnesium	35,000	NR	29,400	NR	61,900	NR
Manganese	300	NR	1,090	NR	628	NR
Mercury	0.7	0.2 U	NR	0.099 J	NR	NR
Nickel	100	NR	6.4	NR	4.8	NR
Potassium	NS	NR	18,500	NR	8,470	NR
Selenium	10	NR	10 U	NR	10 U	NR
Silver	50	NR	2 U	NR	2 U	NR
Sodium	20,000	NR	188,000	NR	24,200	NR
Thallium	0.5	NR	0.8 U	NR	0.8 U	NR
Vanadium	NS	NR	1.9 J	NR	5.9	NR
Zinc	2,000	NR	14.4 J	NR	33.3	NR

**Table 13**  
**138 Bruckner Boulevard**  
**Bronx, NY**  
Remedial Investigation  
Groundwater Analytical Results for Total Metals

AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor		RI-MW-03_20200615 460-211169-2 6/15/2020 µg/L 1	RI-MW-03_20200615 460-211169-2 6/15/2020 µg/L 2	RI-MW-X01_20200615 460-211169-4 6/15/2020 µg/L 1	RI-MW-X01_20200615 460-211169-4 6/15/2020 µg/L 2	RI-MW-04_20200615 460-211169-3 6/15/2020 µg/L 1
Compound	AWQSGV	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
Aluminum	NS	NR	31.3 J	NR	28.4 J	NR
Antimony	3	NR	2 U	NR	2 U	NR
Arsenic	25	NR	2 U	NR	2 U	NR
Barium	1,000	NR	126	NR	134	NR
Beryllium	3	NR	0.8 U	NR	0.8 U	NR
Cadmium	5	NR	2 U	NR	2 U	NR
Calcium	NS	NR	86,300	NR	86,900	NR
Chromium, Total	50	NR	4 U	NR	4 U	NR
Cobalt	NS	NR	4 U	NR	4 U	NR
Copper	200	NR	4 U	NR	4 U	NR
Iron	300	NR	1,920	NR	1,990	NR
Lead	25	NR	1.2 U	NR	1.2 U	NR
Magnesium	35,000	NR	19,400	NR	20,100	NR
Manganese	300	NR	627	NR	649	NR
Mercury	0.7	0.2 U	NR	0.2 U	NR	0.2 U
Nickel	100	NR	17.2	NR	14.2	NR
Potassium	NS	NR	12,200	NR	12,400	NR
Selenium	10	NR	10 U	NR	10 U	NR
Silver	50	NR	2 U	NR	2 U	NR
Sodium	20,000	NR	143,000	NR	150,000	NR
Thallium	0.5	NR	0.8 U	NR	0.8 U	NR
Vanadium	NS	NR	1.1 J	NR	1.1 J	NR
Zinc	2,000	NR	16 U	NR	16 U	NR

**Table 13**  
**138 Bruckner Boulevard**  
**Bronx, NY**  
Remedial Investigation  
Groundwater Analytical Results for Total Metals

AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor		RI-MW-04_20200615 460-211169-3 6/15/2020 µg/L 2	RI-FB-GW-01_20200615 460-211169-5 6/15/2020 µg/L 1	RI-FB-GW-01_20200615 460-211169-5 6/15/2020 µg/L 2
Compound	AWQSGV	CONC Q	CONC Q	CONC Q
Aluminum	NS	1,410	NR	40 U
Antimony	3	2 U	NR	2 U
Arsenic	25	1.2 J	NR	2 U
Barium	1,000	115	NR	4 U
Beryllium	3	0.8 U	NR	0.8 U
Cadmium	5	2 U	NR	2 U
Calcium	NS	118,000	NR	200 U
Chromium, Total	50	4.8	NR	4 U
Cobalt	NS	4.6	NR	4 U
Copper	200	9.1	NR	4 U
Iron	300	3,380	NR	120 U
Lead	25	3.8	NR	1.2 U
Magnesium	35,000	53,200	NR	200 U
Manganese	300	1,600	NR	8 U
Mercury	0.7	NR	0.2 U	NR
Nickel	100	8	NR	4 U
Potassium	NS	5,750	NR	200 U
Selenium	10	10 U	NR	10 U
Silver	50	2 U	NR	2 U
Sodium	20,000	26,400	NR	200 U
Thallium	0.5	0.8 U	NR	0.8 U
Vanadium	NS	5.6	NR	4 U
Zinc	2,000	21.3	NR	16 U

**Table 14**  
**138 Bruckner Boulevard**  
**Bronx, NY**  
Remedial Investigation  
Groundwater Analytical Results for PFAS Compounds

AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor		RI-MW-01_20200622 200-54090-1 6/22/2020 ppt 1	RI-MW-02_20200615 200-53995-1 6/15/2020 ppt 1	RI-MW-03_20200615 200-53995-2 6/15/2020 ppt 1	RI-MW-X01_20200615 200-53995-4 6/15/2020 ppt 1
Compound	NYSDEC Draft Guidance Values	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	16.5 U	17 U	16.5 U	16.6 U
8:2 Fluorotelomer sulfonate	NS	16.5 U	17 U	16.5 U	16.6 U
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	16.5 U	17 U	16.5 U	16.6 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	16.5 U	17 U	16.5 U	16.6 U
Perfluorobutanesulfonic acid	NS	2.36	3.14	1.39 J	1.5 J
Perfluorobutanoic acid	NS	17.2	3.2 JK	1.9 JK	1.88 JK
Perfluorodecanesulfonic acid	NS	1.65 U	1.7 U	1.65 U	1.66 U
Perfluorodecanoic acid	NS	1.65 U	1.7 U	1.65 U	1.66 U
Perfluorododecanoic acid	NS	1.65 U	1.7 U	1.65 U	1.66 U
Perfluoroheptanesulfonic acid	NS	1.08 J	1.7 U	1.65 U	1.66 U
Perfluoroheptanoic acid	NS	2.38	2.5	1.1 J	1.01 J
Perfluorohexanesulfonic acid	NS	4.81	1.49 J	1.27 J	1.2 J
Perfluorohexanoic acid	NS	3.16	2.5	1.49 J	1.36 J
Perfluorononanoic acid	NS	1.52 J	4.55	0.4 J	0.25 J
Perfluorooctanesulfonic acid (PFOS)	2.7	70.4	66.6 J	20.4	20.2
Perfluorooctanoic acid (PFOA)	6.7	14.5	15	3.83	4.03
Perfluoropentanoic acid	NS	2.22	2.88	2.4	1.87
Perfluorotetradecanoic acid	NS	1.65 U	1.7 U	1.65 U	1.66 U
Perfluorotridecanoic acid	NS	1.65 U	1.7 U	1.65 U	1.66 U
Perfluoroundecanoic acid	NS	1.65 U	1.7 U	1.65 U	1.66 U
Perfluorooctanesulfonamide	NS	8.25 U	8.48 UJ	8.26 U	8.28 U

**Table 14**  
**138 Bruckner Boulevard**  
**Bronx, NY**  
Remedial Investigation  
Groundwater Analytical Results for PFAS Compounds

AKRF Sample ID Laboratory Sample ID Date Sampled Unit Dilution Factor		RI-MW-04_20200615 200-53995-3 6/15/2020 ppt 1	RI-FB-GW-01_20200615 200-53995-5 6/15/2020 ppt 1
Compound	NYSDEC Draft Guidance Values	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	16.2 U	16.8 U
8:2 Fluorotelomer sulfonate	NS	16.2 U	16.8 U
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	16.2 U	16.8 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	16.2 U	16.8 U
Perfluorobutanesulfonic acid	NS	3.51	1.68 U
Perfluorobutanoic acid	NS	5.32 JK	1.68 U
Perfluorodecanesulfonic acid	NS	1.62 U	1.68 U
Perfluorodecanoic acid	NS	0.75 J	1.68 U
Perfluorododecanoic acid	NS	1.62 U	1.68 U
Perfluoroheptanesulfonic acid	NS	1.62 U	1.68 U
Perfluoroheptanoic acid	NS	1.07 J	1.68 U
Perfluorohexanesulfonic acid	NS	3.52	1.68 U
Perfluorohexanoic acid	NS	1.62 U	1.68 U
Perfluorononanoic acid	NS	2.53	1.68 U
Perfluorooctanesulfonic acid (PFOS)	2.7	49.8	1.68 U
Perfluorooctanoic acid (PFOA)	6.7	7.05	1.68 U
Perfluoropentanoic acid	NS	2.79	1.68 U
Perfluorotetradecanoic acid	NS	1.62 U	1.68 U
Perfluorotridecanoic acid	NS	1.62 U	1.68 U
Perfluoroundecanoic acid	NS	1.62 U	1.68 U
Perfluorooctanesulfonamide	NS	8.12 U	8.39 U

Table 15  
138 Bruckner Boulevard  
Bronx, NY  
Remedial Investigation  
Soil Vapor, Indoor, and Ambient Air Analytical Results for VOCs

Sample ID	RI-SV-01_20200608	RI-IA-01_20200608	RI-SV-02_20200608	RI-SV-02_20200608	RI-SV-03_20200608
Lab Sample ID	200-53901-1	200-53901-2	200-53901-3	200-53901-3	200-53901-3
Date Sampled	6/08/2020	6/08/2020	6/08/2020	6/08/2020	6/08/2020
Unit	µg/m <sup>3</sup>				
Dilution Factor	1	1	1	10	1
Compound	CONC Q	CONC Q	CONC Q	CONC Q	CONC
1,1,1-Trichloroethane	1.1 U	1.1 U	0.35 J	NR	1.1
1,1,2,2-Tetrachloroethane	1.4 U	0.29 J	1.4 U	NR	1.4
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF)	1.5 U	0.73 J	1.5 U	NR	1.5
1,1,2-Trichloroethane	1.1 U	0.27 J	1.1 U	NR	1.1
1,1-Dichloroethane	0.81 U	0.81 U	0.81 U	NR	0.81
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	NR	0.2
1,2,4-Trichlorobenzene	3.7 UJ	3.7 U	3.7 UJ	NR	3.7
1,2,4-Trimethylbenzene	0.98 U	0.45 J	4.6	NR	5
1,2-Dibromoethane (Ethylene Dibromide)	1.5 U	1.5 U	1.5 U	NR	1.5
1,2-Dichlorobenzene	1.2 U	1.2 U	1.2 U	NR	1.2
1,2-Dichloroethane	0.81 U	0.81 U	0.81 U	NR	0.81
1,2-Dichloropropane	0.92 U	0.17 J	0.92 U	NR	0.92
1,2-Dichlorotetrafluoroethane	1.4 U	0.32 J	1.5 U	NR	1.4
1,3,5-Trimethylbenzene (Mesitylene)	0.98 U	0.33 J	1.7	NR	1.7
1,3-Butadiene	0.44 UJ	0.44 UJ	0.21 J	NR	0.44
1,3-Dichlorobenzene	1.2 U	1.2 U	6.1	NR	1.2
1,4-Dichlorobenzene	1.2 U	1.3	1.2 U	NR	1.2
2,2,4-Trimethylpentane	2.2	1.4	0.21 J	NR	0.93
2-Chlorotoluene	1 U	0.27 J	1 U	NR	1
2-Hexanone	2 U	2 U	23	NR	2.6
4-Ethyltoluene	0.98 U	0.27 J	1.3	NR	0.78
Acetone	14	17	NR	500 D	14
Allyl Chloride (3-Chloropropene)	1.6 U	1.6 U	1.6 U	NR	1.6
Benzene	0.43 J	0.54 J	0.3 J	NR	0.64
Benzyl Chloride	1 U	1 U	1 U	NR	1
Bromodichloromethane	1.3 U	0.27 J	1.3 U	NR	1.3
Bromoform	2.1 U	2.1 U	2.1 U	NR	2.1
Bromomethane	0.78 U	0.78 U	0.78 U	NR	0.78
Butane	2.5	5.4	15	NR	1.2
Carbon Disulfide	4.3	0.27 J	2.2	NR	4.7
Carbon Tetrachloride	0.36	0.57	0.15 J	NR	0.3
Chlorobenzene	0.92 U	0.92 U	0.92 U	NR	0.92
Chlorodifluoromethane	1.1 J	1.7 J	1.8 U	NR	1.8
Chloroethane	1.3 U	1.3 U	1.3 U	NR	1.3
Chloroform	0.98 U	1.4	2.2	NR	0.98
Chloromethane	0.96 J	0.95 J	0.44 J	NR	0.38
Cis-1,2-Dichloroethylene	0.2 U	0.2 U	0.2 U	NR	0.2
Cis-1,3-Dichloropropene	0.91 U	0.18 J	0.91 U	NR	0.91
Cyclohexane	0.16 J	0.72	0.69 U	NR	0.69
Cymene	1.1 U	0.37 J	1.5	NR	3.1
Dibromochloromethane	1.7 U	1.7 U	1.7 U	NR	1.7
Dichlorodifluoromethane	2.6	3.1	2.7	NR	1.9
Ethylbenzene	0.87 U	0.54 J	1.7	NR	1.2
Hexachlorobutadiene	2.1 U	0.9 J	2.1 U	NR	2.1
Isopropanol	2.9 J	5.3 J	4.1 J	NR	1.8
Isopropylbenzene (Cumene)	0.98 U	0.24 J	0.98 U	NR	0.98
M,P-Xylenes	2.2 U	2 J	7.8	NR	3.6
Methyl Ethyl Ketone (2-Butanone)	0.87 J	0.71 J	NR	180 D	2.2
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	0.38 J	2 U	4.2	NR	1.3
Methyl Methacrylate	2 U	0.21 J	2 U	NR	2
Methylene Chloride	1.7 U	1.4 J	1.7 U	NR	1.9
Naphthalene	2.6 U	1 J	2.6 U	NR	2.6
N-Butylbenzene	1.1 U	0.3 J	0.3 J	NR	0.38
N-Heptane	0.38 J	0.82 U	3.1	NR	1.4
N-Hexane	0.77	0.7 U	2.1	NR	0.7
N-Propylbenzene	0.98 U	0.22 J	1.1	NR	0.71
O-Xylene (1,2-Dimethylbenzene)	0.87 U	0.86 J	3	NR	2
Sec-Butylbenzene	1.1 U	0.26 J	0.26 J	NR	0.37
Styrene	0.85 U	0.38 J	0.28 J	NR	0.36
T-Butylbenzene	1.1 U	0.26 J	1.1 U	NR	1.1
Tert-Butyl Alcohol	0.24 J	0.47 J	13 J	NR	0.55
Tert-Butyl Methyl Ether	0.72 U	0.72 U	0.72 U	NR	0.72
Tetrachloroethylene (PCE)	1.4 U	0.4 J	36	NR	1.7
Tetrahydrofuran	15 U	15 U	15 U	NR	15
Toluene	1	2.1	3.5	NR	2.3
Trans-1,2-Dichloroethene	0.79 U	0.79 U	0.79 U	NR	0.79
Trans-1,3-Dichloropropene	0.91 U	0.91 U	0.91 U	NR	0.91
Trichloroethylene (TCE)	0.2 U	0.25	0.75	NR	0.2
Trichlorofluoromethane	1.2	1.9	3.2	NR	1.1
Vinyl Bromide	0.87 U	0.87 U	0.87 U	NR	0.87
Vinyl Chloride	0.2 U	0.2 U	0.2 U	NR	0.2

Table 15  
138 Bruckner Boulevard  
Bronx, NY  
Remedial Investigation  
Soil Vapor, Indoor, and Ambient Air Analytical Results for VOCs

Compound	Sample ID 20200608 Lab Sample ID 901-4 Date Sampled 2020 Unit m <sup>3</sup> Dilution Factor	RI-IA-03_20200608 200-53901-5 6/08/2020 µg/m <sup>3</sup> 1	RI-SV-04_20200608 200-53901-6 6/08/2020 µg/m <sup>3</sup> 1	RI-SV-04_20200608 200-53901-6 6/08/2020 µg/m <sup>3</sup> 10
Compound	Q	CONC Q	CONC Q	CONC Q
1,1,1-Trichloroethane	U	1.1 U	0.64 J	NR
1,1,2,2-Tetrachloroethane	U	1.4 U	1.4 U	NR
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF)	U	0.36 J	1.5 U	NR
1,1,2-Trichloroethane	U	1.1 U	1.1 U	NR
1,1-Dichloroethane	U	0.81 U	0.81 U	NR
1,1-Dichloroethene	U	0.2 U	0.2 U	NR
1,2,4-Trichlorobenzene	UJ	3.7 U	3.7 UJ	NR
1,2,4-Trimethylbenzene		0.98 U	4.7	NR
1,2-Dibromoethane (Ethylene Dibromide)	U	1.5 U	1.5 U	NR
1,2-Dichlorobenzene	U	1.2 U	1.2 U	NR
1,2-Dichloroethane	U	0.81 U	0.81 U	NR
1,2-Dichloropropane	U	0.92 U	0.92 U	NR
1,2-Dichlorotetrafluoroethane	U	1.4 U	1.4 U	NR
1,3,5-Trimethylbenzene (Mesitylene)		0.98 U	1.6	NR
1,3-Butadiene	UJ	0.44 UJ	0.44 UJ	NR
1,3-Dichlorobenzene	U	1.2 U	1.2 U	NR
1,4-Dichlorobenzene	U	1.2 U	1.2 U	NR
2,2,4-Trimethylpentane	U	0.24 J	0.32 J	NR
2-Chlorotoluene	U	1 U	1 U	NR
2-Hexanone		2 U	0.93 J	NR
4-Ethyltoluene	J	0.98 U	1.1	NR
Acetone		18	29	NR
Allyl Chloride (3-Chloropropene)	U	1.6 U	1.6 U	NR
Benzene	U	0.28 J	5.4	NR
Benzyl Chloride	U	1 U	1 U	NR
Bromodichloromethane	U	1.3 U	1.3 U	NR
Bromoform	U	2.1 U	2.1 U	NR
Bromomethane	U	0.78 U	0.78 U	NR
Butane	U	7.1	1.4	NR
Carbon Disulfide		1.6 U	13	NR
Carbon Tetrachloride		0.39	0.22 U	NR
Chlorobenzene	U	0.92 U	12	NR
Chlorodifluoromethane	U	1.7 J	2.1	NR
Chloroethane	U	1.3 U	1.3 U	NR
Chloroform	U	2.3	5.6	NR
Chloromethane	J	0.84 J	1 U	NR
Cis-1,2-Dichloroethylene	U	0.2 U	0.2 U	NR
Cis-1,3-Dichloropropene	U	0.91 U	0.91 U	NR
Cyclohexane	U	0.16 J	1.3	NR
Cymene		1.1 U	2.2	NR
Dibromochloromethane	U	1.7 U	1.7 U	NR
Dichlorodifluoromethane	J	3.9	NR	690 D
Ethylbenzene		0.87 U	140	NR
Hexachlorobutadiene	U	2.1 U	2.1 U	NR
Isopropanol	J	8.6 J	1.2 J	NR
Isopropylbenzene (Cumene)	U	0.98 U	11	NR
M,P-Xylenes		2.2 U	14	NR
Methyl Ethyl Ketone (2-Butanone)		1.7	5.1	NR
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	J	2 U	5.1	NR
Methyl Methacrylate	U	2 U	2 U	NR
Methylene Chloride		1.7 U	1.7 U	NR
Naphthalene	U	2.6 U	2.6 U	NR
N-Butylbenzene	J	1.1 U	0.32 J	NR
N-Heptane		0.82 U	2.2	NR
N-Hexane	U	0.7 U	0.74	NR
N-Propylbenzene	J	0.98 U	2.4	NR
O-Xylene (1,2-Dimethylbenzene)		0.87 U	6.9	NR
Sec-Butylbenzene	J	1.1 U	1.1 U	NR
Styrene	J	0.85 U	81	NR
T-Butylbenzene	U	1.1 U	1.1 U	NR
Tert-Butyl Alcohol	J	0.3 J	2.2 J	NR
Tert-Butyl Methyl Ether	U	0.72 U	0.72 U	NR
Tetrachloroethylene (PCE)	U	1.4 U	1.4 U	NR
Tetrahydrofuran	U	15 U	1.9 J	NR
Toluene		0.75 U	30	NR
Trans-1,2-Dichloroethene	U	0.79 U	0.79 U	NR
Trans-1,3-Dichloropropene	U	0.91 U	0.91 U	NR
Trichloroethylene (TCE)	U	0.24	0.3	NR
Trichlorofluoromethane		1.8	46	NR
Vinyl Bromide	U	0.87 U	0.87 U	NR
Vinyl Chloride	U	0.2 U	0.2 U	NR

Table 15  
138 Bruckner Boulevard  
Bronx, NY  
Remedial Investigation  
Soil Vapor, Indoor, and Ambient Air Analytical Results for VOCs

Sample ID Lab Sample ID Date Sampled Unit Dilution Factor	RI-IA-04_20200608 200-53901-7 6/08/2020 µg/m <sup>3</sup> 1	RI-SV-05_20200608 200-53901-8 6/08/2020 µg/m <sup>3</sup> 1	RI-SV-05_20200608 200-53901-8 6/08/2020 µg/m <sup>3</sup> 10	RI-AA-01_20200608 200-53901-9 6/08/2020 µg/m <sup>3</sup> 1
Compound	CONC Q	CONC Q	CONC Q	CONC Q
1,1,1-Trichloroethane	1.1 U	0.26 J	NR	1.1 U
1,1,2,2-Tetrachloroethane	1.4 U	1.4 U	NR	1.4 U
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF)	1.5 U	1.5 U	NR	0.38 J
1,1,2-Trichloroethane	1.1 U	1.1 U	NR	1.1 U
1,1-Dichloroethane	0.81 U	0.81 U	NR	0.81 U
1,1-Dichloroethene	0.2 U	0.2 U	NR	0.2 U
1,2,4-Trichlorobenzene	3.7 U	3.7 UJ	NR	3.7 U
1,2,4-Trimethylbenzene	0.76 J	4.2	NR	0.98 U
1,2-Dibromoethane (Ethylene Dibromide)	1.5 U	1.5 U	NR	1.5 U
1,2-Dichlorobenzene	1.2 U	1.2 U	NR	1.2 U
1,2-Dichloroethane	0.81 U	0.81 U	NR	0.81 U
1,2-Dichloropropane	0.92 U	0.92 U	NR	0.92 U
1,2-Dichlorotetrafluoroethane	1.4 U	2 U	NR	1.4 U
1,3,5-Trimethylbenzene (Mesitylene)	0.22 J	2.1	NR	0.98 U
1,3-Butadiene	0.44 UJ	0.13 J	NR	0.44 UJ
1,3-Dichlorobenzene	1.2 U	4	NR	1.2 U
1,4-Dichlorobenzene	1 J	1.2 U	NR	1.2 U
2,2,4-Trimethylpentane	1.3	0.7 J	NR	0.58 J
2-Chlorotoluene	1 U	1 U	NR	1 U
2-Hexanone	2 U	15	NR	2 U
4-Ethyltoluene	0.22 J	1	NR	0.98 U
Acetone	13	NR	370 D	7.2 J
Allyl Chloride (3-Chloropropene)	1.6 U	1.6 U	NR	1.6 U
Benzene	0.46 J	0.68	NR	0.24 J
Benzyl Chloride	1 U	1 U	NR	1 U
Bromodichloromethane	1.3 U	1.3 U	NR	1.3 U
Bromoform	2.1 U	2.1 U	NR	2.1 U
Bromomethane	0.78 U	0.78 U	NR	0.78 U
Butane	40	5.6	NR	1 J
Carbon Disulfide	1.6 U	1.4 J	NR	1.6 U
Carbon Tetrachloride	0.44	0.22 U	NR	0.34
Chlorobenzene	0.92 U	0.92 U	NR	0.92 U
Chlorodifluoromethane	3.1	0.85 J	NR	0.92 J
Chloroethane	1.3 U	1.3 U	NR	1.3 U
Chloroform	1.2	7.5	NR	0.98 U
Chloromethane	0.99 J	0.6 J	NR	0.78 J
Cis-1,2-Dichloroethylene	0.2 U	0.2 U	NR	0.2 U
Cis-1,3-Dichloropropene	0.91 U	0.91 U	NR	0.91 U
Cyclohexane	0.69 U	1.4	NR	0.69 U
Cymene	1.1 U	1.4	NR	1.1 U
Dibromochloromethane	1.7 U	1.7 U	NR	1.7 U
Dichlorodifluoromethane	19	3.5	NR	1.5 J
Ethylbenzene	0.46 J	1.6	NR	0.87 U
Hexachlorobutadiene	2.1 U	2.1 U	NR	2.1 U
Isopropanol	3.7 J	3.2 J	NR	1.2 J
Isopropylbenzene (Cumene)	0.98 U	0.46 J	NR	0.98 U
M,P-Xylenes	1.5 J	5	NR	2.2 U
Methyl Ethyl Ketone (2-Butanone)	3.4	110	NR	0.79 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	2 U	2.3	NR	2 U
Methyl Methacrylate	2 U	2 U	NR	2 U
Methylene Chloride	1.7 U	1.7 U	NR	1.7 U
Naphthalene	2.6 U	2.6 U	NR	2.6 U
N-Butylbenzene	1.1 U	0.25 J	NR	1.1 U
N-Heptane	0.41 J	4	NR	0.82 U
N-Hexane	0.7 U	2.9	NR	0.7 U
N-Propylbenzene	0.98 U	0.86 J	NR	0.98 U
O-Xylene (1,2-Dimethylbenzene)	0.48 J	2.7	NR	0.87 U
Sec-Butylbenzene	1.1 U	0.42 J	NR	1.1 U
Styrene	0.26 J	0.31 J	NR	0.85 U
T-Butylbenzene	1.1 U	1.1 U	NR	1.1 U
Tert-Butyl Alcohol	15 U	10 J	NR	15 U
Tert-Butyl Methyl Ether	0.72 U	0.72 U	NR	0.72 U
Tetrachloroethylene (PCE)	1.4 U	25	NR	1.4 U
Tetrahydrofuran	0.44 J	15 U	NR	15 U
Toluene	1.2	3	NR	0.6 J
Trans-1,2-Dichloroethene	0.79 U	0.79 U	NR	0.79 U
Trans-1,3-Dichloropropene	0.91 U	0.91 U	NR	0.91 U
Trichloroethylene (TCE)	0.2 U	0.2 U	NR	0.2 U
Trichlorofluoromethane	5.6	15	NR	1.3
Vinyl Bromide	0.87 U	0.87 U	NR	0.87 U
Vinyl Chloride	0.2 U	0.2 U	NR	0.2 U

**Tables 2-15**  
**138 Bruckner Boulevard**  
**Bronx, NY**  
Remedial Investigation  
Notes

**DEFINITIONS**

- D** : Indicates an identified compound in an analysis that has been diluted. This flag alerts the data user to any differences between the concentrations reported in the two analyses.
- J** : The concentration given is an estimated value.
- K** : Reported concentration value is proportional to dilution factor and may be exaggerated.
- L** : Sample result is estimated and biased low.
- ND** : The standard is a non-detectable concentration by the approved analytical method.
- NR** : Not reported.
- NS** : No standard.
- R** : Indicates the reported result is unusable. (Note: the analyte may or may not be present.)
- U** : The analyte was not detected at the indicated concentration.
- mg/kg** : milligrams per kilogram
- µg/L** : micrograms per liter
- µg/m<sup>3</sup>** : micrograms per cubic meter of air
- ppb** : parts per billion
- ppt** : parts per trillion

**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 Part 375 PFAS Guidance Values** : New York State Department of Environmental Conservation (NYSDEC) Sampling, Analysis and Assessment Of Per- AND Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs Issued June 2021.

**Exceedances of NYSDEC PFAS UUSCO Guidance Values are highlighted in bold font.**  
**Exceedances of NYSDEC PFAS RRSCO Guidance Values are highlighted in gray shading.**  
**Exceedances of NYSDEC PFAS Groundwater Screening Level are highlighted in bold italic font.**

- 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).

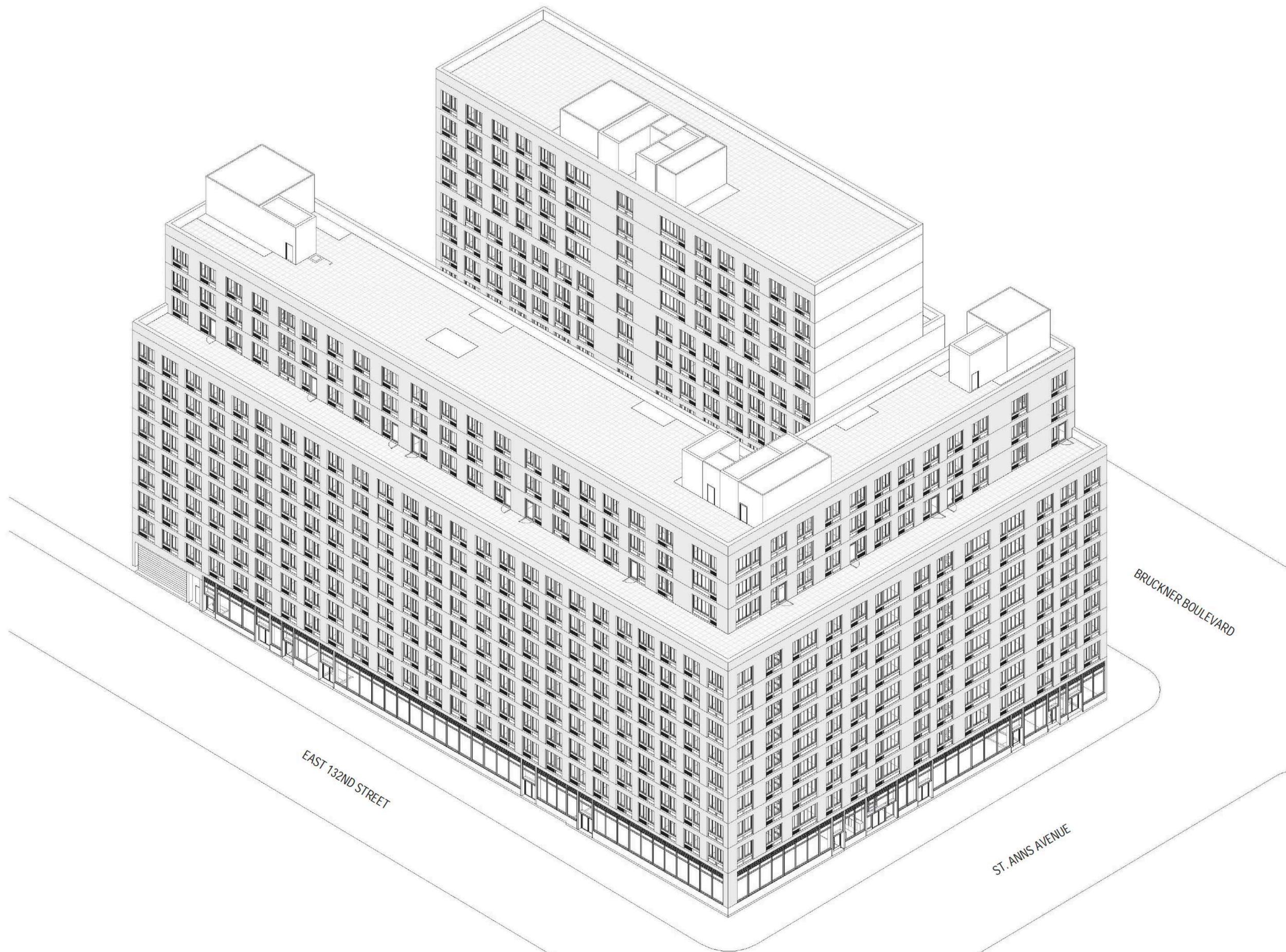
**Exceedances of NYSDEC Class GA AWQSGVs are highlighted in bold font.**

**DUPLICATES**

RI-SB-X\_6-8\_20200601 is a duplicate of RI-SB-08\_6-8\_20200601  
RI-MW-X01\_20200615 is a duplicate of RI-MW-03\_20200615

**Tables 2-15**  
**138 Bruckner Boulevard**  
**Bronx, NY**  
Remedial Investigation  
Notes

**APPENDIX A**  
**PROPOSED DEVELOPMENT PLAN**



EAST 132ND STREET

BRUCKNER BOULEVARD

ST. ANNS AVENUE

**APPENDIX B**  
**PREVIOUS ENVIRONMENTAL REPORTS**

**APPENDIX C**  
**GEOPHYSICAL INVESTIGATION REPORT**



## **GEOPHYSICAL INVESTIGATION REPORT**

PERFORMED AT:

**138 Bruckner Boulevard  
Bronx, NY 10454**

PREPARED FOR:

**Adrianna Bosco  
AKRF  
440 Park Avenue South, 7<sup>th</sup> Floor  
New York, NY 10016**

PREPARED BY:

**John Rango  
Geophysical Technician  
Enviroprobe Service, Inc.  
81 Marter Avenue  
Mount Laurel, NJ 08054  
Phone: (856) 858-8584  
Toll Free: (800) 596-7472**

**May 18, 2020**

## 1.0 INTRODUCTION

Enviroprobe Service, Inc. (Enviroprobe) is an environmental investigation services firm which provides monitoring well installation (HSA), Geoprobe (DPT) drilling services and Environmental & Engineering Geophysics (EEG) services to the environmental consulting and engineering community.

Enviroprobe conducted a subsurface geophysical investigation at the subject property within client-specified areas of concern. Due to conditions and objectives, the investigation utilized a GSSI UtilityScan cart-mounted ground penetrating radar (GPR) unit with a 350 MHz antenna, a Fisher TW-6 metallic locator, a Radiodetection multi-frequency transmitter, and a Radiodetection receiver.

Ground penetrating radar (commonly called GPR) is a geophysical method that has been developed over the past thirty years for shallow, high-resolution, subsurface investigations of the earth. GPR uses high frequency pulsed electromagnetic waves (generally 10 MHz to 2,000 MHz) to acquire subsurface information. An EM wave is propagated downward into the ground by a transmitting antenna. Where abrupt changes in electrical properties occur in the subsurface, a portion of the energy is reflected back to the surface. This reflected wave is detected by a receiver antenna and transmitted to a control unit for real time processing and display. The penetration depth of the GPR unit varies from several inches to tens of feet according to site-specific conditions. The penetration depth decreases with increased soil conductivity. The penetration depth is the greatest in ice, dry sands, and fine gravels. Clayey, highly saline or saturated soils, areas covered by concrete, foundry slag, or other highly conductive materials greatly reduce GPR penetration. GPR is a method that is commonly used for environmental, engineering, archaeological, and other shallow investigations.

The Fisher TW-6 metallic locator is designed to find pipes, cables and other metallic objects such as underground storage tanks (USTs). The TW-6 transmitter generates an electromagnetic field that induces electrical currents in the subsurface. These currents produce a secondary electromagnetic field that is measured by the TW-6 receiver. One surveyor can carry both the transmitter and receiver together to search for underground metallic objects, although the TW-6 response can also be affected by the electrical properties of non-metallic materials in the subsurface.

The Radiodetection (RD) transmitter and receiver are commonly used for pipe and cable locating. The multi-frequency transmitter can be directly connected, clamped, or used to induce a signal in a target line while the multi-frequency receiver is used to measure the signal from energized lines.

## 2.0 SCOPE OF WORK

On May 18, 2020, a geophysical technician from Enviroprobe Service Inc. was mobilized to the subject property to perform a geophysical investigation. The purpose of

the investigation was to detect possible USTs, designate underground conduits/utilities, and clear proposed boring locations inside and outside of an active bakery. The ground surface of the survey area consisted of concrete and asphalt surfaces.

### 3.0 SURVEY RESULTS

The utility survey was conducted using a cart-mounted GPR unit and a RD unit. The RD unit was used to trace common utilities from sources in and around the survey area. The RD receiver was also used in the passive mode to search for live underground electrical power cables and other utilities emitting 60Hz electromagnetic signals. When possible, the location of utilities was confirmed with the GPR. The GPR survey was also performed in a grid pattern in at least two orthogonal directions to search for evident and non-evident underground utilities. No utilities were delineated on site. There were a series of interior drain lines that could be properly detected. The owner pointed out their direction to the best of his ability. Additional utilities were verified on site. (See Figures 1 - 8)

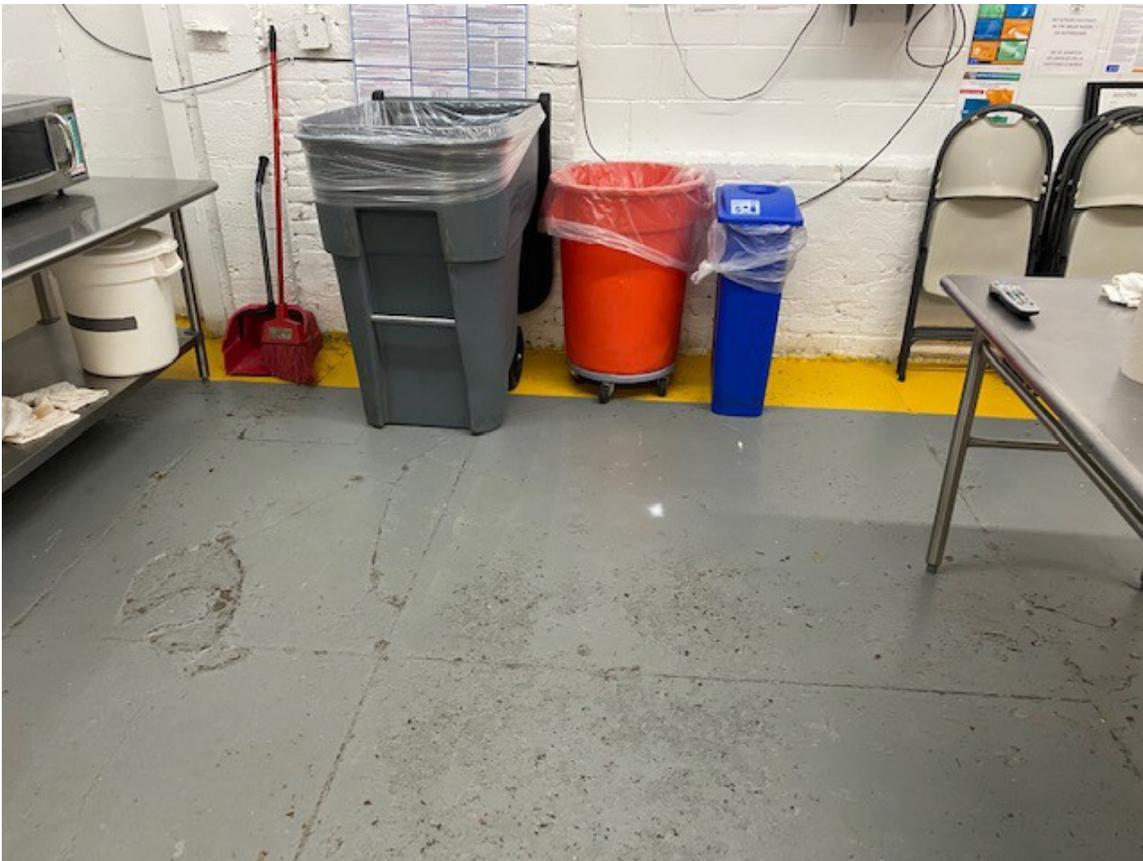


Figure 1: Proposed boring location.



Figure 2: Proposed boring location and floor drain.



Figure 3: Proposed boring location and floor drain.



Figure 4: Proposed boring location.



Figure 5: Proposed boring location.



Figure 6: Proposed boring location.



Figure 7: Proposed boring location.



Figure 8: Parking lot area highlighted in pink. \*(Not to scale)

The GPR and TW-6 were used in a grid pattern over all client specified areas of the site. Based on the results of the GPR and TW-6 surveys, no metallic anomalies were detected on site.

Client-selected proposed boring locations were investigated with the GPR, TW-6, and RD receiver. When possible, an area of approximately 10 ft by 10 ft surrounding each location was scanned. In some cases, obstructions prevented an investigation of the entire 10 ft by 10 ft area.

#### **4.0 LIMITATIONS**

Due to surface conditions and subsurface content, the GPR penetration depth was estimated as about 3 feet in the majority of the survey area. Additional limitation included linear walls, storage, areas, and parked vehicles.

Due to the dielectric properties of the subsurface, plastic polymer and fiberglass utilities may not have been detected.

The underground utility survey was conducted in compliance with the industry standard of care guidelines found in ASCE 38-02 (Level B).

#### **5.0 WARRANTIES**

The field observations and measurements reported herein are considered sufficient in detail and scope for this project. Enviroprobe Service, Inc. warrants that the findings and conclusions contained herein have been promulgated in accordance with generally accepted environmental engineering methods. There is a possibility that conditions may exist which could not be identified within the scope of this project and were not apparent during the site activities performed for this project.

Enviroprobe represents that the services were performed in a manner consistent with that level of care and skill ordinarily exercised by environmental consultants under similar circumstances. No other representations to Client, express or implied, and no warranty or guarantee is included or intended in this agreement, or in any report, document, or otherwise.

Enviroprobe Service, Inc. believes that the information provided in this report is reliable. However, Enviroprobe cannot warrant or guarantee that the information provided by others is complete or accurate. No other warranties or guarantees are implied or expressed.

GPR data is subject to signal anomalies and operator interpretation. The GPR data is intended to provide the locations of areas of concern requiring additional investigation or the approximate location of underground structures and utilities. Great care must be

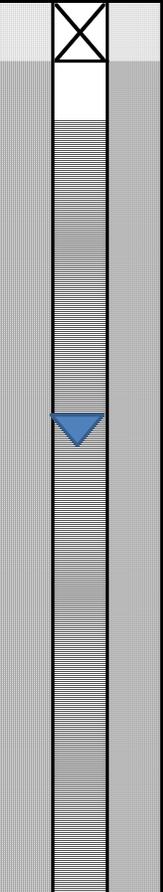
utilized when excavating and/or drilling around underground structures and utilities since GPR data can only be used for estimation purposes and GPR data is subject to misinterpretation. Enviroprobe can not guarantee that utilities, post-tension cables, and/or rebar will not be incurred during drilling, cutting, coring, or excavating activities.

This report was prepared pursuant to the contract Enviroprobe has with the Client. That contractual relationship included an exchange of information about the property that was unique and between Enviroprobe and its client and serves as the basis upon which this report was prepared. Because of the importance of the communication between Enviroprobe and its client, reliance or any use of this report by anyone other than the Client, for whom it was prepared, is prohibited and therefore not foreseeable to Enviroprobe.

Reliance or use by any such third party without explicit authorization in the report does not make said third party a third party beneficiary to Enviroprobe contract with the Client. Any such unauthorized reliance on or use of this report, including any of its information or conclusions, will be at the third party's risk. For the same reasons, no warranties or representations, expressed or implied in this report, are made to any such third party.

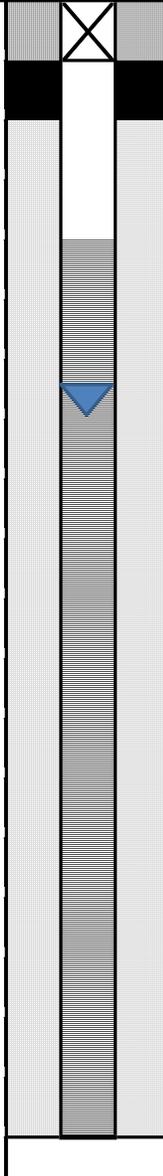
**APPENDIX D**

**SOIL BORING AND GROUNDWATER MONITORING WELL CONSTRUCTION LOGS**

SOIL BORING AND WELL INSTALLATION LOG		138 Bruckner Boulevard Bronx, NY  AKRF Project Number: 190253		Groundwater Monitoring Well ID:  Sheet 1 of 1		MW-01		Soil Boring ID:  SB-01		
 440 Park Avenue South, 7 <sup>th</sup> Floor New York, NY 10016		Drilling Method: Geoprobe DPP		Drilling						
		Sampling Method: 4' Macrocores		Start Time: 08:30				Finish Time: 09:45		
		Driller: Eastern		Date: 06/01/2020						
		Weather: 57 °F, Fair		Logged by: E. Venice, AKRF						
Depth (feet)	Well Construction	Surface Condition: Concrete Slab	Recovery (inches)	Soil Boring Log	Odor	Moisture	PID (ppm)	NAPL	Soil Samples Collected for Laboratory Analysis	
1		Flush-mounted well cover, locking j-plug, and concrete seal: grade to 1' below grade.	18	Brown SAND, some fine Gravel, trace Asphalt, Concrete (FILL).	None	Dry	ND	None	RI-SB-01_0-2_20200601	
2										
3		2" diameter PVC well casing: 0' to 2' below grade	39	Top 10": Brown SAND, some fine Gravel, trace Asphalt, Concrete (FILL).  Bottom 29": Gray SAND, some fine Silt.	Petroleum-like	Dry	90	None	RI-SB-01_6-8_20200601	
4										
5										
6		No. 2 morie sandpack filter: 1' to 15' below grade	48	Top 16": Gray SAND, some fine Silt.  Bottom 32": Brown SAND, some Silt, trace fine Gravel.	Petroleum-like	Wet	70	None		
7										
8		0.020-inch slotted PVC well screen: 2' to 15' below grade	48	Top 6": Brown SAND, some Silt, trace fine Gravel.  Bottom 42": Brown SAND, some Silt, trace fine Gravel.	Petroleum-like	Wet @ 8'	70	None		
9										
10										
11		End cap: 15' below grade	48	Top 6": Brown SAND, some Silt, trace fine Gravel.  Bottom 42": Brown SAND, some Silt, trace fine Gravel.	Petroleum-like	Wet	32	None		
12										
13										
14										
15										
16										
17										
18										
19										
20										
<b>Notes:</b> Groundwater Depth Indicator Groundwater measured at 7.53 feet below grade in RI-MW-01 on 06/22/2020. Groundwater monitoring well installed to 15 feet below grade.				Soil samples analyzed for VOCs, SVOCs, PCBs, pesticides, TAL metals, hexavalent chromium, PFAS, and 1,4-dioxane. Groundwater encountered at approximately 8 feet below grade during soil boring installation. End of soil boring at 16 feet below grade.						
PID = photoionization detector		NAPL = non-aqueous phase liquid		ppm = parts per million		ND = not detected				
Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.										

<b>SOIL BORING AND WELL INSTALLATION LOG</b>	138 Bruckner Boulevard Bronx, NY		<b>Groundwater Monitoring Well ID:</b>	<b>MW-02</b>	<b>Soil Boring ID:</b>	<b>SB-02</b>
	AKRF Project Number: 190253		Sheet 1 of 1			

 440 Park Avenue South, 7 <sup>th</sup> Floor New York, NY 10016	<b>Drilling Method:</b>	Geoprobe DPP	<b>Drilling</b>	
	<b>Sampling Method:</b>	5' Macrocores	<b>Start Time:</b> 09:10	<b>Finish Time:</b> 10:10
	<b>Driller:</b>	Eastern	<b>Date:</b> 06/01/2020	
	<b>Weather:</b>	57 °F, Fair		
	<b>Logged by:</b>	J. Sulich, AKRF		

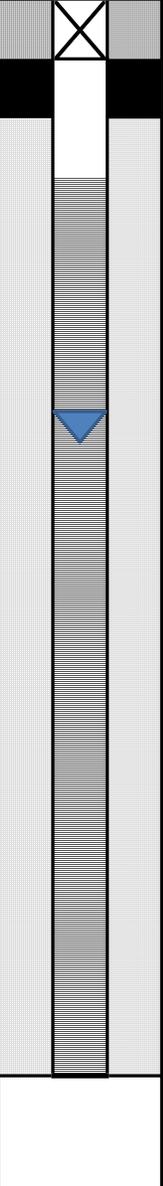
Depth (feet)	Well Construction	Surface Condition: Asphalt	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID (ppm)	NAPL	Soil Samples Collected for Laboratory Analysis		
1		Flush-mounted well cover, locking j-plug, and concrete seal: grade to 1' below grade.	36"	Top 7": Brown SAND, little Gravel, trace Brick, Silt (FILL).	None	Dry	ND	None	RI-SB-02_0-2_20200601		
2		Bentonite seal: 1' to 2' below grade		Bottom 29": Brown SAND, some Brick, trace Silt (FILL).	None	Dry	ND	None			
3		2" diameter PVC well casing: 0' to 4' below grade		No. 2 morie sandpack filter: 2' to 19' below grade	55"	Top 33": Brown SAND, trace PVC fragments (FILL).	None	Dry	ND	None	RI-SB-02_6-8_20200601
4						Bottom 22": Brown SAND, trace Gravel, Silt.	None	Wet @ 8'	ND	None	
5						0.020-inch slotted PVC well screen: 4' to 19' below grade	60"	Brown SAND, little Gravel, trace Silt	None	Wet	ND
6			59"	Brown SAND, trace Gravel, Silt.	None	Wet		ND	None		
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19		End cap: 19' below grade									
20											

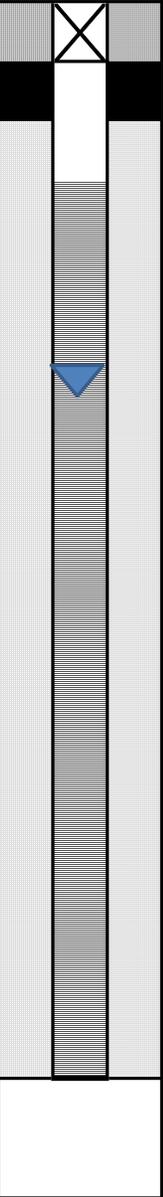
**Notes:** Groundwater Depth Indicator  
 Groundwater measured at 7.1 feet below grade in RI-MW-02 on 06/15/2020.  
 Groundwater monitoring well installed to 19 feet below grade.

Soil samples analyzed for VOCs, SVOCs, PCBs, pesticides, TAL metals, hexavalent chromium, PFAS, and 1,4-dioxane.  
 Groundwater encountered at approximately 8 feet below grade during soil boring installation.  
 End of soil boring at 20 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 AND WELL INSTALLATION LOG		138 Bruckner Boulevard Bronx, NY  AKRF Project Number: 190253		Groundwater Monitoring Well ID:  Sheet 1 of 1		MW-03		Soil Boring ID:  SB-03	
 440 Park Avenue South, 7 <sup>th</sup> Floor New York, NY 10016		Drilling Method: Geoprobe DPP		Drilling					
		Sampling Method: 4' Macrocores		Start Time: 11:30				Finish Time: 12:45	
		Driller: Eastern		Date: 06/01/2020					
		Weather: 57 °F, Fair		Logged by: E. Venice, AKRF					
Depth (feet)	Well Construction	Surface Condition: Brick/Concrete	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID (ppm)	NAPL	Soil Samples Collected for Laboratory Analysis
1		Flush-mounted well cover, locking j-plug, and concrete seal: grade to 1' below grade.	21	Top 9": BRICK AND CONCRETE (FILL).	None	Dry	ND	None	RI-SB-03_0-2_20200601
2		1" diameter PVC well casing: 0' to 3' below grade		Bottom 12": Black-brown SAND, some Brick, Concrete, trace fine Gravel (FILL).	None	Dry	ND	None	
3		Bentonite seal: 1' to 2' below grade	28	Top 5": SLOUGH FROM ABOVE (FILL).	None	Dry	ND	None	
4				Bottom 23": Brown SAND, some Brick, Concrete, trace fine Gravel (FILL).	Petroleum-like	Dry	ND	None	
5		No. 2 morie sandpack filter: 2' to 18' below grade	31	Top 4": Brown SAND, some Brick, Concrete, trace fine Gravel. (FILL)	None	Wet @ 10'	1	None	RI-SB-03_8-10_20200601
6				Bottom 27": Gray SAND, some Silt, trace fine Gravel.	None	Wet	0.7	None	
7		1-inch slotted PVC well screen: 3' to 18' below grade	48	Top 12": Gray SAND, some Silt, trace fine Gravel.	None	Wet	ND	None	
8				Bottom 36": Gray SAND, some Silt, Meadow Mat, trace fine Gravel.	None	Wet	ND	None	
9		No. 2 morie sandpack filter: 2' to 18' below grade	18	Gray SAND, some Silt, Meadow Mat, trace fine Gravel.	None	Wet	ND	None	
10									
11									
12									
13									
14									
15									
16									
17									
18		End cap: 18' below grade							
19									
20									
<b>Notes:</b> Groundwater Depth Indicator Groundwater measured at 7.5 feet below grade in RI-MW-03 on 06/15/2020. Groundwater monitoring well installed to 18 feet below grade.				Soil samples analyzed for VOCs, SVOCs, PCBs, pesticides, TAL metals, hexavalent chromium, PFAS, and 1,4-dioxane. Groundwater encountered at approximately 10 feet below grade during soil boring installation. End of soil boring at 20 feet below grade.					
PID = photoionization detector				NAPL = non-aqueous phase liquid		ppm = parts per million		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 AND WELL INSTALLATION LOG		138 Bruckner Boulevard Bronx, NY  AKRF Project Number: 190253		Groundwater Monitoring Well ID:  Sheet 1 of 1		MW-04		Soil Boring ID:  SB-04		
 440 Park Avenue South, 7 <sup>th</sup> Floor New York, NY 10016		Drilling Method: Geoprobe DPP		Drilling						
		Sampling Method: 5' Macrocores		Start Time: 10:00				Finish Time: 12:10		
		Driller: Eastern		Date: 06/01/2020						
		Weather: 57 °F, Fair		Logged by: J. Sulich, AKRF						
Depth (feet)	Well Construction	Surface Condition: Asphalt	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID (ppm)	NAPL	Soil Samples Collected for Laboratory Analysis	
1		Flush-mounted well cover, locking j-plug, and concrete seal: grade to 1' below grade.	35	Top 10": ASPHALT (FILL).	None	Dry	ND	None	RI-SB-04_0-2_20200601	
2		Bentonite seal: 1' to 2' below grade		Bottom 25": Brown SAND, some Gravel, little Brick, trace Silt (FILL).	None	Dry	ND	None		
3		2" diameter PVC well casing: 0' to 3' below grade	0.020-inch slotted PVC well screen: 3' to 18' below grade	40	Top 15": Brown SAND, trace Gravel, Silt.	None	Moist	ND	None	RI-SB-04_6-8_20200601
4					Middle 7": Brown SAND, trace Silt, Gravel.	None	Moist	9	None	
5					Bottom 18": Brown SAND, some Gravel, trace Silt.	None	Wet @ 8'	ND	None	
6					Brown SAND, some Crushed Rock, trace Silt.	None	Wet	ND	None	
7			No. 2 morie sandpack filter: 2' to 18' below grade	40						
8										
9										
10										
11			End cap: 18' below grade	60						
12										
13										
14										
15										
16										
17										
18										
19										
20										
<b>Notes:</b> Groundwater Depth Indicator Groundwater measured at 6.65 feet below grade in RI-MW-04 on 06/15/2020. Groundwater monitoring well installed to 18 feet below grade.				Soil samples analyzed for VOCs, SVOCs, PCBs, pesticides, TAL metals, hexavalent chromium, PFAS, and 1,4-dioxane. Groundwater encountered at approximately 8 feet below grade during soil boring installation. End of soil boring at 20 feet below grade.						
PID = photoionization detector		NAPL = non-aqueous phase liquid		ppm = parts per million		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		138 Bruckner Boulevard Bronx, NY AKRF Project Number: 190253		Soil Boring ID:		SB-05		
				Sheet 1 of 1				
 440 Park Avenue South, 7 <sup>th</sup> Floor New York, NY 10016		Drilling Method:	Geoprobe DPP	Drilling				
		Sampling Method:	4' Macrocores	Start Time: 13:45		Finish Time: 14:45		
		Driller:	Eastern	Date: 6/1/2020				
		Weather:	57° F, Fair					
		Logged By:	E.Venice, AKRF					
Depth (feet)	Recovery (inches)	Surface Condition: Brick/Concrete		Odor	Moisture	PID (ppm)	NAPL	Soil Samples Collected for Laboratory Analysis
1	24	Top 10": CONCRETE (FILL).		None	Dry	ND	None	RI-SB-05_0-2_20200601
2		Bottom 14": Brown SAND, some Brick, Concrete, little Asphalt, trace fine Gravel (FILL).		None	Dry	ND	None	
3								
4								
5	32	Top 6": SLOUGH FROM ABOVE (FILL).		None	Dry	ND	None	RI-SB-05_8-10_20200601
6		Middle 8": Brown SAND, some Brick, Concrete, little Asphalt, trace fine Gravel (FILL).		None	Dry	ND	None	
7		Bottom 18": Gray SAND, some Brick, Concrete, trace fine Gravel (FILL).		None	Dry	ND	None	
8								
9	21	Gray SAND, some Brick, Concrete, trace fine Gravel (FILL).		None	Wet at 10'	ND	None	
10								
11								
12								
13	20	Gray SAND, some Brick, Concrete, trace fine Gravel (FILL).		None	Wet	ND	None	
14								
15								
16								
17								
18								
19								
20								
<b>Notes: Soil sample analyzed for VOCs, SVOCs, PCBs, pesticides, TAL metals, hexavalent chromium, PFAS, and 1,4-dioxane. Groundwater encountered at approximately 10 feet below grade during soil boring installation. End of soil boring at 16 feet below grade.</b>								
<b>PID = photoionization detector      NAPL = non-aqueous phase liquid      ND = not detected</b>								
<i>Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.</i>								

SOIL BORING LOG		138 Bruckner Boulevard Bronx, NY AKRF Project Number: 190253		Soil Boring ID: Sheet 1 of 1		SB-06	
 440 Park Avenue South, 7 <sup>th</sup> Floor New York, NY 10016		Drilling Method:	Geoprobe DPP	Drilling			
		Sampling Method:	4' Macrocores	Start Time: 15:00		Finish Time: 16:00	
		Driller:	Eastern	Date: 6/1/2020			
		Weather:	57° F, Fair				
		Logged By:	E.Venice, AKRF				
Depth (feet)	Recovery (inches)	Surface Condition: Concrete	Odor	Moisture	PID (ppm)	NAPL	Soil Samples Collected for Laboratory Analysis
1	24	Top 6": CONCRETE (FILL).	None	Dry	ND	None	RI-SB-06_0-2_20200601
2		Bottom 18": Brown SAND, some Asphalt, Brick, trace fine Gravel (FILL).	None	Dry	ND	None	
3							
4							
5	32	Top 20": Brown SAND, some Asphalt, Brick, trace fine Gravel (FILL).	Petroleum-like	Dry	65	None	RI-SB-06_8-10_20200601
6		Bottom 12": Gray SAND, some fine Gravel.	Petroleum-like	Dry	61	None	
7							
8							
9	30	Top 15": Gray SAND, some fine Gravel.	Petroleum-like	Wet @ 10'	77	None	
10		Bottom 15": Gray SAND, some fine Gravel.	Petroleum-like	Wet	40	None	
11							
12							
13	28	Gray SAND, some fine Gravel.	None	Wet	10	None	
14							
15							
16							
17							
18							
19							
20							
<b>Notes: Soil sample analyzed for VOCs, SVOCs, PCBs, pesticides, TAL metals, hexavalent chromium, PFAS, and 1,4-dioxane. Groundwater encountered at approximately 10 feet below grade during soil boring installation. End of soil boring at 16 feet below grade.</b>							
<b>PID = photoionization detector    ppm = parts per million    NAPL = non-aqueous phase liquid    ND = not detected</b>							
<i>Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.</i>							

SOIL BORING LOG		138 Bruckner Boulevard Bronx, NY AKRF Project Number: 190253		Soil Boring ID: Sheet 1 of 1		SB-07		
 440 Park Avenue South, 7 <sup>th</sup> Floor New York, NY 10016		Drilling Method:	Geoprobe DPP	Drilling				
		Sampling Method:	4' Macrocores	Start Time: 16:15		Finish Time: 16:45		
		Driller:	Eastern	Date: 6/1/2020				
		Weather:	57° F, Fair					
		Logged By:	E.Venice, AKRF					
Depth (feet)	Recovery (inches)	Surface Condition: Brick/Concrete		Odor	Moisture	PID (ppm)	NAPL	Soil Samples Collected for Laboratory Analysis
1	26	Top 6": BRICK AND CONCRETE (FILL).		None	Dry	ND	None	RI-SB-07_0-2_20200601
2		Bottom 20": Brown SAND, some Brick, Concrete, trace fine Gravel (FILL).		None	Dry	ND	None	
3								
4								
5	34	Top 18": Brown SAND, some Brick, Concrete, trace fine Gravel (FILL).		None	Dry	ND	None	RI-SB-07_8-10_20200601
6		Bottom 16": Gray SAND, some fine Gravel, trace Silt.		None	Dry	ND	None	
7								
8								
9	32	Gray SAND, some fine Gravel, trace Silt.		None	Wet at 10'	ND	None	
10								
11								
12								
13	21	Gray SAND, some fine Gravel, trace Silt.		None	Wet	ND	None	
14								
15								
16								
17								
18								
19								
20								
<b>Notes: Soil sample analyzed for VOCs, SVOCs, PCBs, pesticides, TAL metals, hexavalent chromium, PFAS, and 1,4-dioxane. Groundwater encountered at approximately 10 feet below grade during soil boring installation. End of soil boring at 16 feet below grade.</b>								
<b>PID = photoionization detector    NAPL = non-aqueous phase liquid    ND = not detected</b>								
<i>Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.</i>								

SOIL BORING LOG		138 Bruckner Boulevard Bronx, NY AKRF Project Number: 190253		Soil Boring ID: Sheet 1 of 1		SB-08		
 440 Park Avenue South, 7 <sup>th</sup> Floor New York, NY 10016		Drilling Method:	Geoprobe DPP	Drilling				
		Sampling Method:	5' Macrocores	Start Time: 08:30		Finish Time: 08:50		
		Driller:	Eastern					
		Weather:	57° F, Fair	Date: 6/1/2020				
Logged By:	J. Sulich, AKRF							
Depth (feet)	Recovery (inches)	Surface Condition: Asphalt		Odor	Moisture	PID (ppm)	NAPL	Soil Samples Collected for Laboratory Analysis
1	34	Top 11": ASPHALT (FILL).		None	Dry	ND	None	RI-SB-08_0-2_20200601
2		Bottom 33": Brown SAND, some Brick, little Gravel, Crushed Rock, trace Silt (FILL).		None	Dry	ND	None	
3								
4								
5								
6	39	Top 6": Brown SAND, some Brick, little Gravel, trace Silt (FILL).		None	Dry	ND	None	RI-SB-08_6-8_20200601
7		Middle 18": Brown SAND, trace Silt, Gravel.		Petroleum-like	Wet @ 8'	150	None	
8								
9								
10		Bottom 15": Brown SAND, little Gravel, trace Silt.		None	Wet	15	None	
11	53	Brown SAND, little Gravel, trace Silt.		None	Wet	ND	None	
12								
13								
14								
15								
16								
17								
18								
19								
20								
<b>Notes: Soil sample analyzed for VOCs, SVOCs, PCBs, pesticides, TAL metals, hexavalent chromium, PFAS, and 1,4-dioxane. Groundwater encountered at approximately 8 feet below grade during soil boring installation. End of soil boring at 15 feet below grade.</b>								
<b>PID = photoionization detector    ppm = parts per million    NAPL = non-aqueous phase liquid    ND = not detected</b>								
<i>Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.</i>								

**APPENDIX E**  
**GROUNDWATER MONITORING WELL DEVELOPMENT LOGS**



# Well Development Log

<b>Job No:</b> 190253				<b>Client:</b> 138 Bruckner Owner LLC				<b>Well No:</b>  <b>RI-MW-02</b>	
<b>Project Location:</b> 138 Bruckner Boulevard, Bronx, NY				<b>Developed By:</b> J. Sulich, AKRF					
<b>Date:</b> 06/1/2020									
<b>LEL at surface:</b> N/A									
<b>PID at surface:</b> 0.8									
<b>Total Depth:</b> 18.92 ft. below top of casing		<b>Water Column (WC):</b> 12.04 feet				*= 0.163 * WC for 2" wells			
<b>Depth to Water:</b> 6.88 ft. below top of casing		<b>Well Volume*:</b> 1.96 gallons				*= 0.653 * WC for 4" wells			
<b>Depth to Product:</b> ND ft. below top of casing		<b>Volume Purged:</b> 6 gallons				*= 1.469 * WC for 6" wells			
<b>Depth to top of screen:</b> 3.92 ft. below top of casing		<b>Well Diam.:</b> 2 inches				Target maximum flow rate is 100 ml/min			
<b>Depth to bottom of screen:</b> 18.92 ft. below top of casing		<b>Purging Device (pump type):</b> Waterra Pump							
<b>Approx. Pump Intake:</b> 16 ft. below top of casing									
Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Comments (problems, odor, sheen)
15:15	6.88	505	15.1	2.3	1.75	7.44	-336.9	3000	
15:20	6.88	505	16.5	2.3	7.68	7.38	-111	4300	
15:25	6.88	505	17.4	2.29	9.86	7.39	-31.3	2600	
15:30	6.88	505	17.4	2.27	10.18	7.37	-46.4	1700	
15:35	6.88	505	17.2	2.28	10.92	7.27	-65	1400	
15:40	6.88	505	17.5	2.28	11.08	7.25	-66	1040	
15:45	6.88	505	17.5	2.28	11	7.27	-66	1000	
15:50	6.88	505	16.9	2.28	9.72	7.34	-70	1200	
15:55	6.88	505	15.4	2.27	9.96	7.41	-34.4	1500	
<b>Stabilization Criteria:</b>				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10 mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.



# Well Development Log

<b>Job No:</b> 190253				<b>Client:</b> 138 Bruckner Owner LLC				<b>Well No:</b>  <b>RI-MW-04</b>	
<b>Project Location:</b> 138 Bruckner Boulevard, Bronx, NY				<b>Developed By:</b> J. Sulich, AKRF					
<b>Date:</b> 06/1/2020									
<b>LEL at surface:</b>		N/A							
<b>PID at surface:</b>		3.20							
<b>Total Depth:</b> 17.55 ft. below top of casing				<b>Water Column (WC):</b> 10.92 feet				*= 0.163 * WC for 2" wells	
<b>Depth to Water:</b> 6.63 ft. below top of casing				<b>Well Volume*:</b> 1.78 gallons				*= 0.653 * WC for 4" wells	
<b>Depth to Product:</b> ND ft. below top of casing				<b>Volume Purged:</b> 7 gallons				*= 1.469 * WC for 6" wells	
<b>Depth to top of screen:</b> 2.55 ft. below top of casing				<b>Well Diam.:</b> 2 inches				Target maximum flow rate is 100 ml/min	
<b>Depth to bottom of screen:</b> 17.55 ft. below top of casing				<b>Purging Device (pump type):</b> Waterra Pump					
<b>Approx. Pump Intake:</b> 10 ft. below top of casing									
Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Comments (problems, odor, sheen)
16:15	6.63	757	16.4	9.08	1.35	7.83	-336.8	3000	
16:20	6.63	757	16.7	8.74	3.35	7.22	-173	2000	
16:25	6.63	757	17.3	10.53	6.5	7.17	-128	2800	
16:30	6.63	757	17.8	10.39	8.52	7.14	-99	1500	
16:35	6.63	757	17.9	10	8.21	7.09	-102	1000	
16:40	6.63	757	18.1	9.6	7.69	7.08	-104.3	500	
16:45	6.63	757	18.5	9.72	7.72	7.06	-93.5	100.83	
<b>Stabilization Criteria:</b>				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10 mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

**APPENDIX F**  
**GROUNDWATER MONITORING WELL ELEVATION SURVEY**

138 Bruckner Blvd  
Bronx, NY

Monitoring Well Locations

Fehringer Surveying  
Surveyed June 15, 2020

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>	<b>Latitude (Dec Deg)</b>	<b>Longitude (Dec Deg)</b>	<b>Description</b>
232142.573	1006157.167	12.927	N40.80383	W73.92087	MW1
232142.073	1006157.158	12.620	N40.80383	W73.92087	MW1 CASING
231933.000	1006298.420	10.199	N40.80325	W73.92036	MW2 CASING
231932.584	1006298.735	10.478	N40.80325	W73.92036	MW2
232061.151	1006160.116	13.657	N40.80360	W73.92086	MW3
232060.540	1006159.598	13.277	N40.80360	W73.92086	MW3 CASING
231990.061	1006316.006	10.379	N40.80341	W73.92030	MW4
231990.051	1006315.607	9.802	N40.80341	W73.92030	MW4 CASING

Projection: State Plane 83, NY Long Island Zone

Lat/Long: NAD83

**APPENDIX G**  
**GROUNDWATER SAMPLING LOGS**



# Well Sampling Log

<b>Job No:</b> 190253	<b>Client:</b> 138 Bruckner Owner LLC	<b>Well No:</b>  <b>RI-MW-01</b>
<b>Project Location:</b> 138 Bruckner Boulevard, Bronx, NY	<b>Sampled By:</b> E. Venice, AKRF	
<b>Date:</b> 06/22/2020	<b>Sampling Time:</b> 11:15	
<b>LEL at surface:</b> N/A		
<b>PID at surface:</b> ND		

<b>Total Depth:</b> 14.53 ft. below top of casing	<b>Water Column (WC):</b> 7 feet	*= 0.163 * WC for 2" wells
<b>Depth to Water:</b> 7.53 ft. below top of casing	<b>Well Volume*:</b> 1.14 gallons	*= 0.653 * WC for 4" wells
<b>Depth to Product:</b> ND ft. below top of casing	<b>Volume Purged:</b> 3 gallons	*= 1.469 * WC for 6" wells
<b>Depth to top of screen:</b> 1.53 ft. below top of casing	<b>Well Diam.:</b> 2 inches	Target maximum flow rate is 100 ml/min
<b>Depth to bottom of screen:</b> 14.53 ft. below top of casing	<b>Purging Device (pump type):</b> QED MP-50	
<b>Approx. Pump Intake:</b> 12.00 ft. below top of casing		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Comments (problems, odor, sheen)
9:10	7.53	100	18.80	2.27	4.85	7.07	-46.0	977	Turbidity greater than 50 NTUs after two hours of purging.
9:15	7.53	100	17.51	2.18	5.00	7.21	-41.0	748	
9:20	7.53	100	17.78	2.19	3.85	7.10	-30.0	955	
9:25	7.53	100	17.14	2.23	3.73	7.02	-31.0	775	
9:30	7.53	100	17.06	2.22	3.34	7.02	-33.0	773	
9:35	7.53	100	17.14	2.24	3.57	7.05	-37.0	724	
9:40	7.53	100	17.74	2.24	3.32	7.04	-33.0	641	
9:45	7.53	100	18.17	2.24	3.27	7.03	-31.0	582	
9:50	7.53	100	18.45	2.24	3.36	7.06	-37.0	604	
9:55	7.53	100	19.13	2.21	2.78	7.04	-32.0	550	
10:00	7.53	100	18.84	2.22	3.93	7.13	-29.0	521	
10:05	7.53	100	18.93	2.21	4.00	7.16	-28.0	467	
10:10	7.53	100	19.16	2.19	4.54	7.17	-23.0	465	
10:15	7.53	100	19.33	2.18	4.27	7.21	-16.0	410	
10:20	7.53	100	19.54	2.16	4.51	7.25	-11.0	400	

<b>Stabilization Criteria:</b>	+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10 mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.
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Groundwater samples analyzed for: VOCs, SVOCs, PCBs, pesticides, total and dissolved TAL metals, PFAS, and 1,4-dioxane.



# Well Sampling Log

<b>Job No:</b> 190253	<b>Client:</b> 138 Bruckner Owner LLC	<b>Well No:</b>  <b>RI-MW-01</b>
<b>Project Location:</b> 138 Bruckner Boulevard, Bronx, NY	<b>Sampled By:</b> E. Venice, AKRF	
<b>Date:</b> 06/22/2020	<b>Sampling Time:</b> 11:15	
<b>LEL at surface:</b> N/A		
<b>PID at surface:</b> ND		

<b>Total Depth:</b> 14.53 ft. below top of casing	<b>Water Column (WC):</b> 7 feet	*= 0.163 * WC for 2" wells
<b>Depth to Water:</b> 7.53 ft. below top of casing	<b>Well Volume*:</b> 1.14 gallons	*= 0.653 * WC for 4" wells
<b>Depth to Product:</b> ND ft. below top of casing	<b>Volume Purged:</b> 3 gallons	*= 1.469 * WC for 6" wells
<b>Depth to top of screen:</b> 1.53 ft. below top of casing	<b>Well Diam.:</b> 2 inches	Target maximum flow rate is 100 ml/min
<b>Depth to bottom of screen:</b> 14.53 ft. below top of casing	<b>Purging Device (pump type):</b> QED MP-50	
<b>Approx. Pump Intake:</b> 12.00 ft. below top of casing		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Comments (problems, odor, sheen)	
10:25	7.53	100	19.58	2.16	4.56	7.27	2.0	400	Turbidity greater than 50 NTUs after two hours of purging.	
10:30	7.53	100	19.74	2.16	4.55	7.28	12.0	334		
10:35	7.53	100	19.75	2.15	4.89	7.31	12.0	332		
10:40	7.53	100	20.25	2.13	3.72	7.31	29.0	334		
10:45	7.53	100	19.86	2.13	5.19	7.34	26.0	450		
10:50	7.53	100	19.76	2.12	5.05	7.33	24.0	404		
10:55	7.53	100	19.74	2.12	5.09	7.33	24.0	398		
11:00	7.53	100	19.78	2.11	5.10	7.32	23.0	376		
11:05	7.53	100	19.75	2.11	5.01	7.31	22.0	363		
11:10	7.53	100	19.79	2.11	4.99	7.31	22.0	364		
11:15	<b>SAMPLING</b>									
14:30	7.53	100	20.23	2.67	5.23	7.55	-12.0	465		

<b>Stabilization Criteria:</b>	+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10 mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.
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Groundwater samples analyzed for: VOCs, SVOCs, PCBs, pesticides, total and dissolved TAL metals, PFAS, and 1,4-dioxane.



# Well Sampling Log

<b>Job No:</b> 190253					<b>Client:</b> 138 Bruckner Owner LLC				<b>Well No:</b>  <b>RI-MW-02</b>
<b>Project Location:</b> 138 Bruckner Boulevard, Bronx, NY					<b>Sampled By:</b> A. Cardenas, AKRF				
<b>Date:</b> 06/15/2020					<b>Sampling Time:</b> 11:35				
<b>LEL at surface:</b> N/A									
<b>PID at surface:</b> 208 ppm									
<b>Total Depth:</b> 18.95 ft. below top of casing					<b>Water Column (WC):</b> 11.95 feet				*= 0.163 * WC for 2" wells
<b>Depth to Water:</b> 7 ft. below top of casing					<b>Well Volume*:</b> 1.95 gallons				*= 0.653 * WC for 4" wells
<b>Depth to Product:</b> ND ft. below top of casing					<b>Volume Purged:</b> 3 gallons				*= 1.469 * WC for 6" wells
<b>Depth to top of screen:</b> 4 ft. below top of casing					<b>Well Diam.:</b> 2 inches				Target maximum flow rate is 100 ml/min
<b>Depth to bottom of screen:</b> 18.95 ft. below top of casing					<b>Purging Device (pump type):</b> QED MP-50				
<b>Approx. Pump Intake:</b> 15 ft. below top of casing									
Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Comments (problems, odor, sheen)
9:30	7.15	100	19.99	2.14	0.00	8.33	63.0	702	Turbidity greater than 50 NTUs after two hours of purging.
9:40	7.15	100	18.11	2.16	0.00	7.56	68.0	750	
9:45	7.10	100	17.72	2.18	0.00	7.40	71.0	659	
9:50	7.10	100	17.51	2.19	0.00	7.30	73.0	549	
9:55	7.10	100	17.44	2.18	0.00	7.25	75.0	478	
10:00	7.10	100	17.27	2.20	0.00	7.23	77.0	442	
10:05	7.10	100	17.39	2.20	0.00	7.24	78.0	358	
10:10	7.10	100	17.42	2.20	0.00	7.23	79.0	307	
10:15	7.10	100	17.47	2.20	0.00	7.23	80.0	293	
10:20	7.10	100	17.56	2.20	0.00	7.25	81.0	246	
10:25	7.10	100	17.63	2.20	0.00	7.25	81.0	229	
10:30	7.10	100	17.72	2.20	0.00	7.26	81.0	213	
10:35	7.10	100	17.85	2.20	0.00	7.26	80.0	183	
10:40	7.10	100	17.86	2.21	0.00	7.27	77.0	180	
10:45	7.10	100	18.01	2.21	0.00	7.28	74.0	167	
<b>Stabilization Criteria:</b>				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10 mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Groundwater samples analyzed for: VOCs, SVOCs, PCBs, pesticides, total and dissolved TAL metals, PFAS, and 1,4-dioxane.



## Well Sampling Log

<b>Job No:</b> 190253	<b>Client:</b> 138 Bruckner Owner LLC	<b>Well No:</b>  <b>RI-MW-02</b>
<b>Project Location:</b> 138 Bruckner Boulevard, Bronx, NY	<b>Sampled By:</b> A. Cardenas, AKRF	
<b>Date:</b> 06/15/2020	<b>Sampling Time:</b> 11:35	
<b>LEL at surface:</b> N/A		
<b>PID at surface:</b> 208 ppm		

<b>Total Depth:</b> 18.95 ft. below top of casing	<b>Water Column (WC):</b> 11.95 feet	*= 0.163 * WC for 2" wells
<b>Depth to Water:</b> 7 ft. below top of casing	<b>Well Volume*:</b> 1.95 gallons	*= 0.653 * WC for 4" wells
<b>Depth to Product:</b> ND ft. below top of casing	<b>Volume Purged:</b> 3 gallons	*= 1.469 * WC for 6" wells
<b>Depth to top of screen:</b> 4 ft. below top of casing	<b>Well Diam.:</b> 2 inches	Target maximum flow rate is 100 ml/min
<b>Depth to bottom of screen:</b> 18.95 ft. below top of casing	<b>Purging Device (pump type):</b> QED MP-50	
<b>Approx. Pump Intake:</b> 15 ft. below top of casing		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Comments (problems, odor, sheen)
10:50	7.15	100	18.25	2.20	0.00	7.28	73.0	145	Turbidity greater than 50 NTUs after two hours of purging.
10:55	7.15	100	18.46	2.20	0.00	7.28	72.0	128	
11:00	7.10	100	18.64	2.20	0.00	7.28	70.0	125	
11:05	7.05	100	18.81	2.20	0.00	7.30	68.0	102	
11:10	7.05	100	18.74	2.20	0.00	7.30	70.0	102	
11:15	7.05	100	18.52	2.18	0.00	7.29	68.0	108	
11:20	7.05	100	18.56	2.18	0.00	7.28	68.0	106	
11:25	7.05	100	18.82	2.18	0.00	7.28	68.0	106	
11:30	7.05	100	18.87	2.18	0.00	7.29	68.0	84.7	
11:35	<b>SAMPLING</b>								
12:30	7.05	100	25.86	2.17	17.21	7.70	86.0	97.2	

<b>Stabilization Criteria:</b>	+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10 mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.
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Groundwater samples analyzed for: VOCs, SVOCs, PCBs, pesticides, total and dissolved TAL metals, PFAS, and 1,4-dioxane.



# Well Sampling Log

<b>Job No:</b> 190253	<b>Client:</b> 138 Bruckner Owner LLC	<b>Well No:</b>  <b>RI-MW-03</b>
<b>Project Location:</b> 138 Bruckner Boulevard, Bronx, NY	<b>Sampled By:</b> E. Venice, AKRF	
<b>Date:</b> 06/15/2020	<b>Sampling Time:</b> 12:15	
<b>LEL at surface:</b> N/A		
<b>PID at surface:</b> 5.2 ppm		

<b>Total Depth:</b> 17.1 ft. below top of casing	<b>Water Column (WC):</b> 9.6 feet	*= 0.163 * WC for 2" wells
<b>Depth to Water:</b> 7.5 ft. below top of casing	<b>Well Volume*:</b> 0.39 gallons	*= 0.653 * WC for 4" wells
<b>Depth to Product:</b> ND ft. below top of casing	<b>Volume Purged:</b> 1 gallons	*= 1.469 * WC for 6" wells
<b>Depth to top of screen:</b> 3 ft. below top of casing	<b>Well Diam.:</b> 1 inches	Target maximum flow rate is 100 ml/min
<b>Depth to bottom of screen:</b> 17.1 ft. below top of casing	<b>Purging Device (pump type):</b> QED MP-50	
<b>Approx. Pump Intake:</b> 12 ft. below top of casing		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Comments (problems, odor, sheen)
11:45	7.50	100	21.33	0.894	6.47	7.23	-103.0	683	RI-MW-X01_20200615 collected at RI-MW-03
11:50	7.50	100	21.33	0.877	7.04	7.24	-104.0	351	
11:55	7.50	100	21.42	0.869	7.00	7.20	-100.0	42.9	
12:00	7.50	100	21.41	0.871	6.70	7.17	-98.0	15.3	
12:05	7.50	100	21.42	0.873	6.46	7.16	-96.0	8.2	
12:10	7.50	100	21.44	0.874	6.25	7.14	-95.0	4.3	
12:15	<b>SAMPLING</b>								
12:45	7.50	100	21.41	0.879	6.53	7.17	-95.0	1.2	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.
<b>Stabilization Criteria:</b>				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10 mV	<50 NTU	

Groundwater samples analyzed for: VOCs, SVOCs, PCBs, pesticides, total and dissolved TAL metals, PFAS, and 1,4-dioxane.



# Well Sampling Log

<b>Job No:</b> 190253	<b>Client:</b> 138 Bruckner Owner LLC	<b>Well No:</b>  <b>RI-MW-04</b>
<b>Project Location:</b> 138 Bruckner Boulevard, Bronx, NY	<b>Sampled By:</b> A. Cardenas, AKRF	
<b>Date:</b> 06/15/2020	<b>Sampling Time:</b> 15:05	
<b>LEL at surface:</b> N/A		
<b>PID at surface:</b> 20.2 ppm		

<b>Total Depth:</b> 17.12 ft. below top of casing	<b>Water Column (WC):</b> 10.27 feet	*= 0.163 * WC for 2" wells
<b>Depth to Water:</b> 6.85 ft. below top of casing	<b>Well Volume*:</b> 1.67 gallons	*= 0.653 * WC for 4" wells
<b>Depth to Product:</b> ND ft. below top of casing	<b>Volume Purged:</b> 3.5 gallons	*= 1.469 * WC for 6" wells
<b>Depth to top of screen:</b> 3 ft. below top of casing	<b>Well Diam.:</b> 2 inches	Target maximum flow rate is 100 ml/min
<b>Depth to bottom of screen:</b> 17.12 ft. below top of casing	<b>Purging Device (pump type):</b> QED MP-50	
<b>Approx. Pump Intake:</b> 12 ft. below top of casing		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Comments (problems, odor, sheen)
13:25	6.85	100	22.78	0.883	0.00	8.60	-80.0	316	Sample collected at 15:05; water visibly clear, despite elevated turbidity readings on Horiba-U52.
13:30	6.90	100	23.18	0.88	0.00	7.89	-71.0	290	
13:35	6.90	100	22.80	0.884	0.00	7.54	-78.0	277	
13:40	6.90	100	22.67	0.884	0.00	7.46	-79.0	309	
13:45	6.95	100	22.10	0.885	0.00	7.42	-80.0	358	
13:50	6.95	100	22.02	0.883	0.00	7.40	-80.0	333	
13:55	6.95	100	21.84	0.882	0.00	7.38	-81.0	309	
14:00	6.95	100	21.63	0.881	0.00	7.37	-81.0	319	
14:05	7.00	100	21.64	0.881	0.00	7.36	-81.0	288	
14:10	7.00	100	21.50	0.881	0.00	7.36	-81.0	299	
14:15	7.00	100	21.20	0.886	0.00	7.37	-81.0	308	
14:20	7.00	100	19.21	0.883	0.00	7.31	-80.0	260	
14:25	7.00	100	20.46	0.863	0.00	7.31	-82.0	217	
14:30	7.00	100	21.40	0.865	0.00	7.32	-84.0	194	
14:35	7.00	100	22.88	0.869	0.00	7.32	-85.0	180	

<b>Stabilization Criteria:</b>	+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10 mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.
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Groundwater samples analyzed for: VOCs, SVOCs, PCBs, pesticides, total and dissolved TAL metals, PFAS, and 1,4-dioxane.



# Well Sampling Log

<b>Job No:</b> 190253				<b>Client:</b> 138 Bruckner Owner LLC				<b>Well No:</b>  <b>RI-MW-04</b>	
<b>Project Location:</b> 138 Bruckner Boulevard, Bronx, NY				<b>Sampled By:</b> A. Cardenas, AKRF					
<b>Date:</b> 06/15/2020				<b>Sampling Time:</b> 15:05					
<b>LEL at surface:</b> N/A									
<b>PID at surface:</b> 20.2 ppm									
<b>Total Depth:</b> 17.12 ft. below top of casing				<b>Water Column (WC):</b> 10.27 feet				*= 0.163 * WC for 2" wells	
<b>Depth to Water:</b> 6.85 ft. below top of casing				<b>Well Volume*:</b> 1.67 gallons				*= 0.653 * WC for 4" wells	
<b>Depth to Product:</b> ND ft. below top of casing				<b>Volume Purged:</b> 3.5 gallons				*= 1.469 * WC for 6" wells	
<b>Depth to top of screen:</b> 3 ft. below top of casing				<b>Well Diam.:</b> 2 inches				Target maximum flow rate is 100 ml/min	
<b>Depth to bottom of screen:</b> 17.12 ft. below top of casing				<b>Purging Device (pump type):</b> QED MP-50					
<b>Approx. Pump Intake:</b> 12 ft. below top of casing									
Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Comments (problems, odor, sheen)
14:40	6.80	100	23.39	0.871	0.00	7.32	-84.0	175	Sample at 15:05; water visibly clear, despite elevated turbidity readings on Horiba-U52.
14:45	6.80	100	24.68	0.874	0.00	7.31	-83.0	152	
14:50	6.80	100	25.17	0.874	0.00	7.31	-82.0	144	
14:55	6.80	100	25.47	0.876	0.00	7.31	-81.0	143	
15:00	6.80	100	25.73	0.875	0.00	7.31	-81.0	138	
15:05	<b>SAMPLING</b>								
15:15	6.95	100	26.81	0.883	0.00	7.33	-72.0	572	
<b>Stabilization Criteria:</b>				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10 mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.
Groundwater samples analyzed for: VOCs, SVOCs, PCBs, pesticides, total and dissolved TAL metals, PFAS, and 1,4-dioxane.									

**APPENDIX H**  
**SOIL VAPOR AND INDOOR AIR SAMPLING LOGS**



## Soil Vapor Sample Log

<b>AKRF Project No:</b>	190253	<b>Point Installed By:</b>	Eastern Environmental
<b>Project Location:</b>	138 Bruckner Boulevard	<b>Installation Method:</b>	1" Hammer Drill
<b>Client:</b>	138 Bruckner Owner LLC	<b>Sampled By:</b>	E. Venice
<b>Date:</b>	6/8/2020	<b>Weather:</b>	67°F; Sunny

### Sample Setup

<b>Vapor Point Depth:</b>	6	Inches	<b>Total Time of Purge:</b>	12 minutes
<b>Purging Pump:</b>	Gilair Plus		<b>Purge Volume:</b>	2 L
<b>Pump Flow Rate*:</b>	0.2	L/min	<b>Purged Vapor PID:</b>	2.5 ppm
			<b>Helium Concentration:</b>	0 %

### Sample Identification

<b>Soil Vapor Point ID:</b>	SV-01	<b>SUMMA® Canister ID:</b>	3394
<b>Flow Controller ID:</b>	4031	<b>Soil Vapor Sample ID:</b>	RI-SV-01_20200608

### Sample Collection

	Time	Vacuum (in/Hg)	Background PID	Notes
<b>Time Started:</b>	8:23	-30.0	ND	
<b>Time Halfway:</b>	12:23	-3.0	ND	
<b>Time Stopped:</b>	12:23	-3.0	ND	Vacuum low at halfway - canister shut off

<b>Notes:</b>	*Purge flow rate not to exceed 0.2 L/min.			
	ND = non-detect		ppm = parts per million	
	L/min = Liters per minute			
Soil vapor sample RI-SV-01 20200608 collected in a 6-L SUMMA® canister using a 8-hour flow controller.				



## Soil Vapor Sample Log

<b>AKRF Project No:</b>	190253	<b>Point Installed By:</b>	Eastern Environmental
<b>Project Location:</b>	138 Bruckner Boulevard	<b>Installation Method:</b>	Geoprobe DPP
<b>Client:</b>	138 Bruckner Owner LLC	<b>Sampled By:</b>	E. Venice
<b>Date:</b>	6/8/2020	<b>Weather:</b>	67°F; Sunny

### Sample Setup

<b>Vapor Point Depth:</b>	72	Inches	<b>Total Time of Purge:</b>	12 minutes
<b>Purging Pump:</b>	Gilair Plus		<b>Purge Volume:</b>	2 L
<b>Pump Flow Rate*:</b>	0.2	L/min	<b>Purged Vapor PID:</b>	1.4 ppm
			<b>Helium Concentration:</b>	0 %

### Sample Identification

<b>Soil Vapor Point ID:</b>	SV-02	<b>SUMMA® Canister ID:</b>	2670
<b>Flow Controller ID:</b>	2931	<b>Soil Vapor Sample ID:</b>	RI-SV-02_20200608

### Sample Collection

	Time	Vacuum (in/Hg)	Background PID	Notes
<b>Time Started:</b>	8:33	-30.0	ND	
<b>Time Halfway:</b>	12:33	-19.0	ND	
<b>Time Stopped:</b>	16:14	-6.0	ND	

<b>Notes:</b>	*Purge flow rate not to exceed 0.2 L/min.			
	ND = non-detect                      ppm = parts per million                      L/min = Liters per minute			
	Soil vapor sample RI-SV-02_20200608 collected in a 6-L SUMMA® canister using a 8-hour flow controller.			



## Soil Vapor Sample Log

<b>AKRF Project No:</b>	190253	<b>Point Installed By:</b>	Eastern Environmental
<b>Project Location:</b>	138 Bruckner Boulevard	<b>Installation Method:</b>	1 " Hammer Drill
<b>Client:</b>	138 Bruckner Owner LLC	<b>Sampled By:</b>	E. Venice
<b>Date:</b>	6/8/2020	<b>Weather:</b>	67°F; Sunny

### Sample Setup

<b>Vapor Point Depth:</b>	6	Inches	<b>Total Time of Purge:</b>	12 minutes
<b>Purging Pump:</b>	Gilair Plus		<b>Purge Volume:</b>	2 L
<b>Pump Flow Rate*:</b>	0.2	L/min	<b>Purged Vapor PID:</b>	4 ppm
			<b>Helium Concentration:</b>	0 %

### Sample Identification

<b>Soil Vapor Point ID:</b>	SV-03	<b>SUMMA® Canister ID:</b>	4070
<b>Flow Controller ID:</b>	6560	<b>Soil Vapor Sample ID:</b>	RI-SV-03_20200608

### Sample Collection

	Time	Vacuum (in/Hg)	Background PID	Notes
<b>Time Started:</b>	8:26	-25.0	ND	
<b>Time Halfway:</b>	12:26	-15.0	ND	
<b>Time Stopped:</b>	15:12	-6.0	ND	

<b>Notes:</b>	*Purge flow rate not to exceed 0.2 L/min.			
	ND = non-detect                      ppm = parts per million                      L/min = Liters per minute			
	Soil vapor sample RI-SV-03 20200608 collected in a 6-L SUMMA® canister using a 8-hour flow controller.			



## Soil Vapor Sample Log

<b>AKRF Project No:</b>	190253	<b>Point Installed By:</b>	Eastern Environmental
<b>Project Location:</b>	138 Bruckner Boulevard	<b>Installation Method:</b>	1" Hammer Drill
<b>Client:</b>	138 Bruckner Owner LLC	<b>Sampled By:</b>	E. Venice
<b>Date:</b>	6/8/2020	<b>Weather:</b>	67°F; Sunny

### Sample Setup

<b>Vapor Point Depth:</b>	6	Inches	<b>Total Time of Purge:</b>	12 minutes
<b>Purging Pump:</b>	Gilair Plus		<b>Purge Volume:</b>	2 L
<b>Pump Flow Rate*:</b>	0.2	L/min	<b>Purged Vapor PID:</b>	4.1 ppm
			<b>Helium Concentration:</b>	0 %

### Sample Identification

<b>Soil Vapor Point ID:</b>	SV-04	<b>SUMMA® Canister ID:</b>	3341
<b>Flow Controller ID:</b>	4027	<b>Soil Vapor Sample ID:</b>	RI-SV-04_20200608

### Sample Collection

	Time	Vacuum (in/Hg)	Background PID	Notes
<b>Time Started:</b>	8:28	-30.0	ND	
<b>Time Halfway:</b>	12:28	-22.0	ND	
<b>Time Stopped:</b>	16:28	-11.0	ND	

<b>Notes:</b>	*Purge flow rate not to exceed 0.2 L/min.
	ND = non-detect                      ppm = parts per million                      L/min = Liters per minute
	Soil vapor sample RI-SV-04_20200608 collected in a 6-L SUMMA® canister using a 8-hour flow controller.



## Soil Vapor Sample Log

<b>AKRF Project No:</b>	190253	<b>Point Installed By:</b>	Eastern Environmental
<b>Project Location:</b>	138 Bruckner Boulevard	<b>Installation Method:</b>	Geoprobe DPP
<b>Client:</b>	138 Bruckner Owner LLC	<b>Sampled By:</b>	E. Venice
<b>Date:</b>	6/8/2020	<b>Weather:</b>	67°F; Sunny

### Sample Setup

<b>Vapor Point Depth:</b>	72	Inches	<b>Total Time of Purge:</b>	12 minutes
<b>Purging Pump:</b>	Gilair Plus		<b>Purge Volume:</b>	2 L
<b>Pump Flow Rate*:</b>	0.2	L/min	<b>Purged Vapor PID:</b>	1.8 ppm
			<b>Helium Concentration:</b>	0 %

### Sample Identification

<b>Soil Vapor Point ID:</b>	SV-05	<b>SUMMA® Canister ID:</b>	3015
<b>Flow Controller ID:</b>	2768	<b>Soil Vapor Sample ID:</b>	RI-SV-05_20200608

### Sample Collection

	Time	Vacuum (in/Hg)	Background PID	Notes
<b>Time Started:</b>	8:34	-30.0	ND	
<b>Time Halfway:</b>	12:34	-19.0	ND	
<b>Time Stopped:</b>	15:47	-6.0	ND	

<b>Notes:</b>	*Purge flow rate not to exceed 0.2 L/min.			
	ND = non-detect                      ppm = parts per million                      L/min = Liters per minute			
	Soil vapor sample RI-SV-05_20200608 collected in a 6-L SUMMA® canister using a 8-hour flow controller.			



## Indoor Air Sample Log

<b>AKRF Project No:</b>	190253	<b>Client:</b>	138 Bruckner Owner LLC
<b>Project Location:</b>	138 Bruckner Boulevard	<b>Sampled By:</b>	E.Venice
<b>Date:</b>	6/8/2020		

### Sample Setup

### Sample Identification

<b>On-Site Location:</b>	Northwestern storage area	<b>SUMMA® Canister ID:</b>	3790
<b>Flow Controller ID:</b>	3856	<b>Ambient Air Sample ID:</b>	RI-IA-01_20200608

### Sample Collection

	Time	Vacuum (in/Hg)	Background PID	Potential VOC Sources/Notes
<b>Time Started:</b>	8:23	-26.0	ND	
<b>Time Halfway:</b>	12:23	-15.0	ND	
<b>Time Stopped:</b>	15:02	-6.0	ND	Low Vacuum - Shut Off

**Notes:**

ND = non-detect                      ppm = parts per million                      L/min = Liters per minute  
 Indoor air sample RI-IA-01\_20200608 collected in a 6-L SUMMA® canister using a 8-hour flow controller.



## Indoor Air Sample Log

<b>AKRF Project No:</b>	190253	<b>Client:</b>	138 Bruckner Owner LLC
<b>Project Location:</b>	138 Bruckner Boulevard	<b>Sampled By:</b>	E.Venice
<b>Date:</b>	6/8/2020		

### Sample Setup

### Sample Identification

<b>On-Site Location:</b>	Employee Break Room	<b>SUMMA® Canister ID:</b>	4265
<b>Flow Controller ID:</b>	3735	<b>Ambient Air Sample ID:</b>	RI-IA-03_20200608

### Sample Collection

Time		Vacuum (in/Hg)	Background PID	Potential VOC Sources/Notes
<b>Time Started:</b>	8:26	-30.0	ND	
<b>Time Halfway:</b>	12:26	-22.0	ND	
<b>Time Stopped:</b>	16:26	-10.0	ND	

**Notes:**

ND = non-detect                      ppm = parts per million                      L/min = Liters per minute  
 Indoor air sample RI-IA-03\_20200608 collected in a 6-L SUMMA® canister using a 8-hour flow controller.



## Indoor Air Sample Log

<b>AKRF Project No:</b>	190253	<b>Client:</b>	138 Bruckner Owner LLC
<b>Project Location:</b>	138 Bruckner Boulevard	<b>Sampled By:</b>	E.Venice
<b>Date:</b>	6/8/2020		

### Sample Setup

### Sample Identification

<b>On-Site Location:</b>	Central Warehouse	<b>SUMMA® Canister ID:</b>	3403
<b>Flow Controller ID:</b>	3249	<b>Ambient Air Sample ID:</b>	RI-IA-04_20200608

### Sample Collection

	Time	Vacuum (in/Hg)	Background PID	Potential VOC Sources/Notes
<b>Time Started:</b>	8:28	-30.0	ND	
<b>Time Halfway:</b>	12:28	-13.0	ND	
<b>Time Stopped:</b>	13:25	-6.0	ND	Low Vacuum - Shut Off

**Notes:**

ND = non-detect                      ppm = parts per million                      L/min = Liters per minute

Indoor air sample RI-IA-04\_20200608 collected in a 6-L SUMMA® canister using a 8-hour flow controller.



# Ambient Air Sample Log

<b>AKRF Project No:</b>	190253	<b>Client:</b>	138 Bruckner Owner LLC
<b>Project Location:</b>	138 Bruckner Boulevard	<b>Sampled By:</b>	E. Venice
<b>Date:</b>	6/8/2020	<b>Weather:</b>	67 °F; Sunny

### Sample Setup

### Sample Identification

<b>On-Site Location:</b>	Eastern Parking Lot	<b>SUMMA® Canister ID:</b>	6308
<b>Flow Controller ID:</b>	6082	<b>Ambient Air Sample ID:</b>	RI-AA-01_20200608

### Sample Collection

Time		Vacuum (in/Hg)	Background PID	Potential VOC Sources/Notes
<b>Time Started:</b>	8:35	-30.0	ND	
<b>Time Halfway:</b>	12:35	-21.0	ND	
<b>Time Stopped:</b>	16:35	-10.0	ND	

**Notes:** ND = non-detect                      ppm = parts per million                      L/min = Liters per minute  
 Ambient air sample RI-AA-01\_20200608 collected in a 6-L SUMMA® canister using a 8-hour flow controller.

**APPENDIX I**  
**LABORATORY DATA DELIVERABLES AND DATA USABILITY SUMMARY REPORTS (DUSRs)**

**APPENDIX J**  
**INVESTIGATION-DERIVED WASTE DISPOSAL MANIFESTS**

**NON-HAZARDOUS  
WASTE MANIFEST**

1. Generator ID Number

Not required

2. Page 1 of 1

3. Emergency Response Phone

631-608-8810

4. Waste Tracking Number

071620-2542

5. Generator's Name and Mailing Address

138 Bruckner Owner LLC  
316 West 116th Street, 4th Floor  
New York NY 10026

Generator's Site Address (if different than mailing address)

138 Bruckner Owner LLC  
138 Bruckner Boulevard  
Bronx NY 10454

Generator's Phone: 212 996-5100

6. Transporter 1 Company Name

Brackette Environmental, Inc.

U.S. EPA ID Number

NYR000081001

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

Green Water of New York  
3249 Richmond Terrace  
Staten Island NY 10303

U.S. EPA ID Number

Facility's Phone: 718 981-4800

NYD0000968545

9. Waste Shipping Name and Description

1. Non-RCRA, non-DOT waste, liquid

10. Containers

No.

Type

11. Total Quantity

12. Unit Wt./Vol.

001

DM

00055

G

13. Special Handling Instructions and Additional Information

Placed in container. Approval # 237-304

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offoror's Printed/Typed Name

Signature

Month Day Year

Heide Thompson as agent for generator

7 16 20

INT'L

15. International Shipments  Import to U.S.  Export from U.S.

Port of entry/exit:

Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

Signature

Month Day Year

OSCAR PARADO

7 16 20

Transporter 2 Printed/Typed Name

Signature

Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space

Quantity

Type

Residue

Partial Rejection

Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name

Signature

Month Day Year

Matthew Walling

7 27 20