# 380 4TH AVENUE
## KINGS COUNTY
## BROOKLYN, NEW YORK

# SITE MANAGEMENT PLAN

**NYSDEC BCP Number: C224358**
**AKRF Project Number: 210226**

**Prepared for:**

New York State Department of Environmental Conservation
Division of Environmental Remediation, Remedial Bureau B
625 Broadway, 12th Floor
Albany, New York 12233

**Prepared on behalf of:**

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New York, NY 10023

**Prepared by:**

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**Revisions to Final Approved Site Management Plan:**

| Revision No. | Date Submitted | Summary of Revision | NYSDEC Approval Date |
|---|---|---|---|
| | | | |
| | | | |

**DECEMBER 2024**

# CERTIFICATION STATEMENT

I, **Michelle Lapin**, certify that I am currently a New York State registered professional engineer and that this Site Management Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the Division of Environmental Remediation Technical Guidance for Site Investigation and Remediation (DER-10).


Michelle Lapin, NYS Professional Engineer #073934 _____ P.E.

12/20/2024 _____ DATE

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| Acronym | Definition |
|---|---|
| AKRF | AKRF, Inc. |
| AST | Aboveground Storage Tank |
| AWQSGVs | Ambient Water Quality Standards and Guidance Values |
| BCA | Brownfield Cleanup Agreement |
| BCP | Brownfield Cleanup Program |
| bgs | Below Ground Surface |
| BTEX | A group of VOCs comprising benzene, toluene, ethylbenzene, and xylenes |
| CAMP | Community Air Monitoring Plan |
| CFR | Code of Federal Regulations |
| COC | Certificate of Completion |
| CoC | Contaminants of Concern |
| CP | Commissioner's Policy |
| DD | Decision Document |
| DER | Division of Environmental Remediation |
| DOT | Department of Transportation |
| DPP | Direct-Push Probe |
| DUSR | Data Usability Summary Reports |
| EC | Engineering Control |
| ECL | Environmental Conservation Law |
| ELAP | Environmental Laboratory Approval Program |
| EPA | Environmental Protection Agency |
| ESA | Environmental Site Assessment |
| EWP | Excavation Work Plan |
| FER | Final Engineering Report |
| HASP | Health and Safety Plan |
| HREC | Historic Recognized Environmental Conditions |
| IC | Institutional Control |
| MEK | Methyl Ethyl Keytone |
| mg/kg | Milligrams per Kilogram |
| MS/MSD | Matric Spike/Matrix Spike Duplicate |
| NAVD88 | National American Vertical Datum of 1988 |
| NTU | Nephelometric Turbidity Unit |
| NY | New York |
| NYC | New York City |
| NYCDEP | New York City Department of Environmental Protection |
| NYCDOHMH | New York City Department of Health and Mental Hygiene |
| 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 |
| OER | Office of Environmental Remediation |
| PAH | Polycyclic Aromatic Hydrocarbon |
| PBS | Petroleum Bulk Storage |
| PCB | Polychlorinated Biphenyl |
| PCE | Tetrachloroethylene |
| PDI | Pre-Design Investigation |

| Acronym | Definition |
|---|---|
| AKRF | AKRF, Inc. |
| P.E. | Professional Engineer |
| PFAS | Per- and Polyfluoroalkyl Substances |
| PFOA | Perfluorooctanoic acid |
| PFOS | Perfluorooctanesulfonic acid |
| PGWSCO | Protection of Groundwater Soil Cleanup Objective |
| PID | Photoionization Detector |
| ppm | Parts per million |
| ppb | Parts per billion |
| ppt | Parts per trillion |
| PRR | Periodic Review Report |
| PVC | Polyvinyl Chloride |
| QAPP | Quality Assurance Project Plan |
| QA/QC | Quality Assurance/Quality Control |
| QEP | Qualified Environmental Professional |
| RAO | Remedial Action Objective |
| RAWP | Remedial Action Work Plan |
| REC | Recognized Environmental Condition |
| RI | Remedial Investigation |
| RIR | Remedial Investigation Report |
| RIWP | Remedial Investigation Work Plan |
| RRGV | Restricted Residential Guidance Value |
| RRSCO | Restricted Residential Soil Cleanup Objective |
| SCG | Standards, Criteria, Guidances |
| SCO | Soil Cleanup Objective |
| SMP | Site Management Plan |
| SVIE | Soil Vapor Intrusion Evaluation |
| SVIEWP | Soil Vapor Intrusion Evaluation Work Plan |
| SVOC | Semivolatile Organic Compound |
| TCE | Trichloroethylene |
| TCL | Target Compound List |
| UST | Underground Storage Tank |
| UUGV | Unrestricted Use Guidance Value |
| UUSCO | Unrestricted Use Soil Cleanup Objective |
| VEC | Vapor Encroachment Condition |
| VOC | Volatile Organic Compound |
| µg/L | Micrograms per Liter |
| $\mu g/m^3$ | Micrograms per Cubic Meter |

# EXECUTIVE SUMMARY

The following provides a brief summary of the controls implemented for the Site, as well as the inspections, monitoring, and reporting activities required by this Site Management Plan (SMP):

**In-Text Table 1**
**Site Management Plan Summary**

| | |
|---|---|
| **Site Identification:** | Site No. C224358<br>380 4th Avenue<br>Brooklyn, New York |
| **Institutional Controls (ICs):** | 1. The property may be used for restricted residential, commercial, and industrial uses only, as set forth in the Environmental Easement. |
| | 2. The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the New York State Department of Health or the New York City Department of Health and Mental Hygiene to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the New York State Department of Environmental Conservation (NYSDEC). |
| | 3. Groundwater and other environmental or public health monitoring must be performed as defined in the SMP. |
| | 4. Data and information pertinent to site management of the property must be reported at the frequency and in a manner defined in the SMP. |
| | 5. All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP. |
| | 6. Access to the site must be provided to agents, employees, or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement. |
| | 7. The potential for vapor intrusion must be evaluated for any buildings developed within the Site boundaries noted on Figure 2, and appropriate actions to address exposures must be implemented. |
| | 8. In-ground vegetable gardens and farming on the Site are prohibited. |
| | 9. All ECs must be inspected at a frequency and in a manner defined in the SMP. |
| **Engineering Controls:** | Groundwater Monitoring Wells: MW-01 through MW-03 |
| **Inspections:** | **Frequency:** |
| Site-Wide Inspection | Annually or in the event of an emergency |
| **Monitoring:** | **Frequency:** |
| Groundwater Monitoring | Quarterly for two consecutive quarters, continuation and frequency thereafter to be determined based on consultation with NYSDEC |
| **Evaluations:** | **Frequency:** |
| Soil Vapor Intrusion Evaluation | After building envelope is completed and operation of the heating, ventilation, and air conditioning system is started. |
| **Reporting:** | **Frequency:** |
| Quarterly Reports | Quarterly for two consecutive quarters, continuation and frequency thereafter to be determined based on consultation with NYSDEC. |
| Periodic Review Report | 16 months after receipt of Certificate of Completion; Annually thereafter |

Further descriptions of the above requirements are provided in detail in the subsequent sections of this SMP.

# 1.0 INTRODUCTION

## 1.1 General

This Site Management Plan (SMP) is a required element of the remedial program for the 380 4th Avenue site located in the Gowanus neighborhood of Brooklyn, New York (hereinafter referred to as the "Site"). The Site is currently enrolled in the New York State (NYS) Brownfield Cleanup Program (BCP), Site No. C224358, which is administered by the New York State Department of Environmental Conservation (NYSDEC).

380 4th Avenue Owner, LLC entered into a Brownfield Cleanup Agreement (BCA) with NYSDEC on October 19, 2022 as a Volunteer to remediate the Site. The BCA was amended on November 21, 2022 to reflect a transfer of title in the Site from 374 Fourth Avenue Realty, LLC to 380 4th Avenue Owner, LLC (hereinafter referred to as the "Volunteer"). A Site location map is provided as Figure 1. A Site Plan showing the boundaries of the Site is provided as Figure 2. The boundaries of the Site are more fully described in the metes and bounds Site description that is part of the Environmental Easement provided in Appendix A.

After completion of the remedial work, some contamination remains at this Site, which is hereafter referred to as "remaining contamination." Institutional Controls (ICs) and an Engineering Control (EC) have been incorporated into the Site remedy to control exposure to remaining contamination and ensure protection of public health and the environment. An Environmental Easement granted to NYSDEC, and recorded with the Office of the City Register of the City of New York, requires compliance with this SMP and all ICs and the EC placed on the Site.

This SMP was prepared to manage remaining contamination at the Site until the Environmental Easement is extinguished in accordance with Environmental Conservation Law (ECL) Article 71, Title 36. This plan has been approved by NYSDEC, and compliance with this plan is required by the grantor of the Environmental Easement and the grantor's successors and assigns. This SMP may only be revised with the approval of NYSDEC.

It is important to note that:

- This SMP details the Site-specific implementation procedures that are required by the Environmental Easement. Failure to properly implement the SMP is a violation of the Environmental Easement, which is grounds for revocation of the Certificate of Completion (COC).
- Failure to comply with this SMP is also a violation of ECL, 6 New York Codes, Rules, and Regulations (NYCRR) Part 375, and the BCA (Index # C224358-10-22; Site #C224358) for the Site, and thereby subject to applicable penalties.

All reports associated with the Site can be viewed by contacting NYSDEC or its successor agency managing environmental issues in NYS. A list of contacts for persons involved with the Site is provided in Appendix B of this SMP.

This SMP was prepared by AKRF Inc. (AKRF) on behalf of the Volunteer, in accordance with the requirements of NYSDEC's Division of Environmental Remediation "Technical Guidance for Site Investigation and Remediation" (DER-10), dated May 2010, and the guidelines provided by NYSDEC. This SMP addresses the means for implementing the ICs and the EC that are required by the Environmental Easement for the Site. The responsibilities of the Site Owner and Remedial Party are provided as Appendix C.

## 1.2 Revisions

Revisions to this plan will be proposed in writing to the NYSDEC's project manager. Revisions will be necessary upon, but not limited to, the following occurring: a post-remedial removal of contaminated sediment or soil, or other significant change to the site conditions. In accordance with the Environmental Easement for the site, the NYSDEC project manager will provide a notice of any approved changes to the SMP and append these notices to the SMP that is retained in its files.

## 1.3 Notifications

Notifications will be submitted by the property owner to NYSDEC, as needed, in accordance with NYSDEC's DER-10 for the following reasons:

- Written 60-day advance notice of any proposed changes in Site use that are required under the terms of BCA Index No. C224358-10-22, 6NYCRR Part 375, and/or ECL.
- 7-day advance notice of any field activity associated with the remedial program.
- Written 15-day advance notice of any proposed ground-intrusive activity pursuant to the Excavation Work Plan (EWP), provided as Appendix D. If the ground-intrusive activity qualifies as a change of use as defined in 6 NYCRR Part 375, the above mentioned 60-day advance notice is also required.
- Notice within 48 hours of any damage or defect to the EC that reduces or has the potential to reduce the effectiveness of the EC, and likewise, any action to be taken to mitigate the damage or defect.
- Notice within 48 hours of any non-routine maintenance activities.
- Verbal notice by noon of the following day of any emergency, such as a fire; flood; or earthquake that reduces or has the potential to reduce the effectiveness of the EC in place at the Site, with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action submitted to the NYSDEC within 45 days describing and documenting actions taken to restore the effectiveness of the EC.

Any change in the ownership of the Site or the responsibility for implementing this SMP will include the following notifications:

- At least 60 days prior to the change, NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser/Remedial Party has been provided with a copy of the BCA and all approved work plans and reports, including this SMP.
- Within 15 days after the transfer of all or part of the Site, the new owner's name, contact representative, and contact information will be confirmed in writing to NYSDEC.

In-Text Table 2 below includes contact information for the above notifications. The information on this table will be updated as necessary to provide accurate contact information. A full listing of Site-related contact information is provided in Appendix B.

**In-Text Table 2**
**Key Regulatory Contacts***

| Agency | Name, Role | Contact Information* |
|---|---|---|
| NYSDEC | Michael Sollecito, Project Manager | phone: (518) 402-2198 (office) email: michael.sollecito@dec.ny.gov |
| NYSDEC | David Gardner, Section Chief | phone: (518) 402- 9818 (office) email: david.gardner@dec.ny.gov |
| NYSDEC | Kelly Lewandowski, NYSDEC Site Control | phone: (518) 402-9569 email: kelly.lewandowski@dec.ny.gov |
| NYSDOH | Michele Dolan, Project Manager | phone: 518-402-7860 email: beei@health.ny.gov |

Notes:
NYSDOH – New York State Department of Health
*Contacts are subject to change and will be updated as necessary.

# 2.0 SUMMARY OF PREVIOUS REMEDIAL INVESTIGATIONS AND REMEDIAL ACTIONS

## 2.1 Site Location and Description

The Site is located on a 0.46-acre parcel in the Gowanus neighborhood of Brooklyn, New York, and is identified as Block 980, Lot 77 on the NYC Tax Map. The Site is currently zoned C4-4D commercial with a residential district equivalent of R8A, which is designated for commercial areas that are substantially residential in character. The Site previously consisted of a slab-on-grade, one-story structure that most recently operated as a taxi business prior to its demolition in March 2022.

The Site is bounded to the north by commercial buildings and a hotel with associated parking lots, followed by 3rd Street; to the south by a U-Haul facility parking lot, followed by 6th Street; to the east by 4th Avenue, followed by commercial and residential buildings; and to the west by a U-Haul facility and associated parking lots, followed by 3rd Avenue. The larger surrounding area is occupied by predominantly commercial and auto-related uses, with some residential uses to the east. A map showing the location of the Site is provided as Figure 1, with a more detailed view of the Site provided as Figure 2. The boundaries of the Site are more fully described in the metes and bounds Site description that is part of the Environmental Easement included in Appendix A.

The owner of the Site at the time of issuance of this SMP is:

| Company | Individual Name | Title | Contact Number* |
|---|---|---|---|
| 380 4th Avenue Owner, LLC | Site Owner Entity Contact – Kyle Cohen | Volunteer's Representative | 212-712-6197 (office) |

## 2.2 Physical Setting

### 2.2.1 Land Use

The Site is currently being developed with a new 17-story, mixed residential and commercial building, with one sub-grade level that will function as amenity space, utility rooms, and storage space. The footprint of the foundation encompasses the entire Site. The proposed structure includes 50 affordable units (25%) pursuant to Option 1 of the Mandatory Inclusionary Housing Program and Option A of the 421-a (16) Affordable Housing New York Program.

### 2.2.2 Geology

The Site elevation is approximately 22 feet above the North American Vertical Datum of 1988 (NAVD88) and is generally level. The stratigraphy of the Site consists of an uppermost layer of uncontrolled fill material (including sand, silt, wood, brick, metal fragments, cinders, and/or glass) extending to approximately 26 to 33 feet below ground surface (bgs) along the central and western portions of the Site, and to shallower depths between 10 and 20 feet bgs in the eastern portion of the Site along 4th Avenue. The fill layer is underlain by presumed clay, silt, sand, and organic matter (peat), to at least 35 feet bgs (terminal boring depth). Bedrock was not encountered during previous investigations at the Site.

### 2.2.3 Hydrogeology

Based on Site-specific groundwater measurements, the depth to groundwater beneath the Site is approximately 15 feet bgs; however, the Site may be susceptible to tidal influence from the Gowanus Canal. Based on the groundwater elevation data, the inferred direction of shallow groundwater flow at the Site is in a north-northwest direction towards the

Gowanus Canal. The groundwater flow direction can be affected by many factors including tidal influence, pumping at nearby construction sites, subsurface openings, or obstructions such as subway train tunnels, basements, the bedrock surface, underground utilities, and other factors.

## 2.3 Investigation and Remedial History

The following narrative provides a remedial history timeline and a brief summary of the available project records to document key investigative and remedial milestones for the Site. Full titles for each of the reports referenced below are provided in Section 7.0 – References.

*Phase I Environmental Site Assessment – 374 4th Avenue, Brooklyn, New York, Nelson Pope Voorhis, December 28, 2020*

Nelson Pope Voorhis conducted a Phase I Environmental Site Assessment (ESA) for the Site in December 2020. The Phase I ESA included a Site inspection, historical research, and a regulatory database review, and identified the following Recognized Environmental Condition (REC), Vapor Encroachment Condition (VEC), and Historic Recognized Environmental Conditions (HRECs):

*REC*

- The Site building utilized a network of trench drains for the collection of wash water and other fluids that discharged to an oil/water separator prior to ultimate discharge to the municipal sewer system.

*VEC*

- The proximity of spill incidents in the vicinity of the Site and the use of the Site building for the maintenance of taxi cabs were identified as potential VECs.

*HRECs*

- The Site was listed in the NYSDEC Petroleum Bulk Storage (PBS) database (ID No. 2-611328) with four 275-gallon aboveground storage tanks (ASTs) and one 2,500-gallon UST. The 275-gallon ASTs were utilized for the storage of motor oil, waste oil, and transmission fluid, and the 2,500-gallon underground storage tank (UST) was used to store heating oil. The 2,500-gallon UST was encased in concrete but was physically installed aboveground.

*Remedial Investigation Report – 374 4th Avenue, Brooklyn, NY, AKRF, October 2021*

AKRF conducted a Remedial Investigation (RI) at the Site in August 2021, which was conducted in accordance with a July 2021 Remedial Investigation Work Plan (RIWP) prepared by AKRF and approved by the New York City (NYC) Mayor's Office of Environmental Remediation (OER). On August 19, 2021, AKRF conducted a Site visit prior to performing the RI and observed a fill port in the sidewalk adjacent to the northeastern side of the building, which may have indicated the potential presence of a UST. The report noted that the suspected UST may have adversely affected the subsurface.

The RI included a geophysical survey; a visual inspection of the on-site trench drain and associated piping, using a pipe camera, to inspect the integrity of the drain/piping and confirm discharge to the on-site oil/water separator; the advancement of 10 soil borings across the Site and collection of 23 soil samples for chemical analysis to evaluate soil quality; the installation of three permanent groundwater monitoring wells with collection of three groundwater samples for chemical analysis to evaluate groundwater quality; and the installation of seven temporary soil vapor points with collection of seven soil vapor samples and one outdoor/ambient air sample for chemical analysis.

Soil borings were advanced across the Site using a direct-push probe (DPP). Soil cores were field screened using a photoionization detector (PID). At each boring location, one soil sample was collected from the upper 2 feet below existing pavement and a second deeper sample was collected

from 10 to 12 or 15 feet bgs. At three borings (SB-03, SB-04, and SB-08) a third sample was collected due to field evidence of suspected contamination (i.e., elevated PID readings and odors). Soil boring SB-08 had the highest PID reading of 112 parts per million (ppm). Groundwater was encountered between approximately 13 and 15 feet bgs. One groundwater sample was collected from each monitoring well for chemical analysis.

Soil beneath the Site consisted of fill material (comprising sand, silt, clay, gravel, brick, concrete, wood, and ash) to the terminus of each boring, between 15 and 25 feet bgs. Bedrock was not encountered during this RI.

Seven soil vapor points were installed across the Site. Five points (SV-01, SV-02, SV-05, SV-06, and SV-07) were installed to approximately 10 feet bgs beneath the existing building. Two points (SV-03 and SV-04) were installed at approximately 2 feet bgs beneath an exterior parking area along 4th Avenue.

Soil, groundwater, and soil vapor laboratory analytical results are summarized as follows:

*Soil*

- Five volatile organic compounds (VOCs) were detected at concentrations above NYSDEC Unrestricted Use Soil Cleanup Objectives (UUSCOs) in up to six samples: acetone [maximum 0.24 milligrams per kilogram (mg/kg)], benzene (maximum 0.27 mg/kg), methylene chloride (estimated 0.08 mg/kg), n-propylbenzene (maximum 5.0 mg/kg), and total xylenes (maximum 0.93 mg/kg); benzene, n-proplbenzene, and total xylenes were also detected above the Protection of Groundwater Soil Cleanup Objectives (PGWSCOs). No VOCs were detected above their respective Restricted Residential Soil Cleanup Objectives (RRSCOs).
- Eleven semivolatile organic compounds (SVOCs) were detected at concentrations exceeding their UUSCOs and/or RRSCOs in up to 11 samples: 4-methylphenol (maximum 2.2 mg/kg), benzo(a)anthracene (maximum 45 mg/kg), benzo(a)pyrene (maximum 42 mg/kg), benzo(b)fluoranthene (maximum 46 mg/kg), benzo(k)fluoranthene (maximum 15 mg/kg), chrysene (maximum 42 mg/kg), dibenzo(a,h)anthracene (maximum 5.0 mg/kg), dibenzofuran (maximum 8.2 mg/kg), indeno(1,2,3-c,d)pyrene (maximum 19 mg/kg), phenanthrene (maximum 130 mg/kg), and pyrene (maximum 110 mg/kg).
- Seven metals were detected at concentrations exceeding their UUSCOs and/or RRSCOs in up to 17 samples: arsenic (maximum 16.4 mg/kg), chromium (maximum 43.9 mg/kg), copper (maximum 102 mg/kg), lead (maximum 717 mg/kg), mercury (maximum 4.5 mg/kg), nickel (maximum 53.4 mg/kg), and zinc (maximum 881 mg/kg).
- Polychlorinated biphenyls (PCBs) and pesticides were not detected above laboratory detection limits in any of the samples analyzed.

*Groundwater*

- Three VOCs [benzene, methyl ethyl ketone (MEK), and toluene], were detected above their NYSDEC Class GA Ambient Water Quality Standards and Guidance Values (AWQSGVs). Benzene was detected in one sample (MW-03_20210819) at a concentration of 3.0 micrograms per liter (µg/L), above its AWQSGV of 1.0 µg/L. MEK was detected in one sample (MW-03_20210819) at a concentration of 200 µg/L, above its AWQSGV of 50 µg/L. Toluene was detected in two samples (MW-02_20210819 and MW-03_20210819) at concentrations of 310 and 670 µg/L, respectively, above its AWQSGV of 5.0 µg/L.
- Several SVOCs, including benzo(a)anthracene (2.6 µg/L), benzo(a)pyrene (3 µg/L), benzo(b)fluoranthene (3.6 µg/L), benzo(k)fluoranthene (1.3 µg/L), chrysene (2.5 µg/L), and indeno(1,2,3-c,d)pyrene (1.6 µg/L) were detected above their AWQSGVs in one sample (MW-01_20210820).

- Up to three metals (iron, magnesium, and sodium) were detected in both the unfiltered and filtered samples collected from the three monitoring wells. In the filtered (dissolved) samples, iron was detected at a concentration of 4,020 µg/L, above its AWQSGV of 300 µg/L; manganese was detected at concentrations of 308 and 1,090 µg/L, above its AWQSGV of 300 µg/L; and sodium ranged from 110,000 to 316,000 µg/L, above its AWQSGV of 20,000 µg/L.
- No PCBs or pesticides were detected above their respective AWQSGVs.
- Nine of the 21 per- and polyfluoroalkyl substances (PFAS) compounds were detected in the collected samples at concentrations ranging from 2.77 to 52.1 parts per trillion (ppt). Perfluorooctanesulfonic acid (PFOS) was detected below its NYSDEC PFAS Screening Level of 10 ppt in the samples analyzed; however, perfluorooctanoic acid (PFOA) was detected above its NYSDEC PFAS Screening Level of 10 ppt in each sample at concentrations ranging from 15.1 to 52.1 ppt. 1,4-Dioxane was detected in each sample at estimated concentrations ranging between 0.053 to 0.42 µg/L.

*Soil Vapor*

- The soil vapor sampling results identified up to 40 VOCs detected in one or more of the 7 soil vapor samples and one ambient air sample at concentrations ranging from 0.52 to 44,000 micrograms per cubic meter (µg/$m^3$) from a diluted analysis.
- Petroleum-related compounds, including benzene, toluene, ethylbenzene and xylenes (collectively referred to as BTEX), 1,2,4-trimethylbenzene, 2,2,4-trimethylpentane, n-hexane, n-heptane, n-butane, and cyclohexane, were detected at elevated concentrations in all seven soil vapor samples. Of these detections, cyclohexane and butane were detected at 40,000 and 44,000 µg/$m^3$, respectively in soil vapor sample SV-06_20210820 collected in the general proximity of the former 2,500-gallon UST encased in concrete in the southwestern corner of the Site. Chlorinated-related compounds, including carbon tetrachloride, methylene chloride, trichloroethylene (TCE), and tetrachloroethylene (PCE), were detected at concentrations up to 540 µg/$m^3$ (PCE in sample SV-07_20210820).

The contaminants of concern (CoCs) were determined to be VOCs, SVOCs, and metals in soil and groundwater, and VOCs in soil vapor.

*Remedial Investigation Report (RIR) – 380 4th Avenue, Brooklyn, NY, AKRF, April 2023*

After being accepted into the NYSDEC BCP, AKRF returned to the Site in January and February 2022 to conduct an RI, and in July 2022 to conduct a Pre-Design Investigation (PDI) to determine the horizontal and vertical extent of contamination at the Site. The scope of the investigation was conducted in in general accordance with the NYSDEC DER-10 document.

Field activities included the advancement of 25 soil borings with collection and analysis of 47 soil samples; the installation of four permanent groundwater monitoring wells (RI-MW-03 through RI-MW-06 and PDI-MW-07) with the collection and analysis of eight groundwater samples (which included the existing monitoring wells MW-01 through MW-03 and a second field-filter supplemental sample from MW-01); and the installation of four temporary soil vapor points with the collection and analysis of four soil vapor samples.

During the RI, PID readings were noted in soil borings RI-SB-18 and RI-SB-19 at depths up to approximately 10 feet bgs with a maximum PID reading of 192 ppm from RI-SB-19. Soil boring RI-SB-11 had elevated PID readings at depths up to approximately 5 feet bgs with a maximum PID reading of 33 ppm; however, no odors were observed. During the PDI, slight petroleum-like odors were noted in soil boring PDI-SB-20 at depths from approximately 5 to 15 feet and 20 to 25 bgs with PID readings up to 492 ppm at approximately 5 to 10 feet bgs. Soil borings PDI-SB-23 through PDI-SB-26 had petroleum-like odors at depths up to approximately 20 feet bgs with PID readings

up to 2,850 ppm. A slight petroleum-like sheen was observed from soil boring PDI-SB-24 at approximately 17 to 20 feet bgs. No evidence of free phase product was identified during the RI and PDI.

Based on the elevated PID readings, which were corroborated with the analytical data, NYSDEC Spill No. 2109963 was reported at the Site on February 24, 2022.

Soil results were compared to UUSCOs, RRSCOs, and PGWSCOs. PFOA and PFOS were compared to their Restricted Residential (RR) and Unrestricted Use (UU) Guidance Values.

- Six VOCs [acetone, benzene, ethylbenzene, MEK, n-propylbenzene, and total xylenes] were detected at concentrations ranging from 0.054 to 6.3 mg/kg, above their respective UUSCOs in 13 samples and 3 blind duplicate samples. No VOCs were detected above their respective RRSCOs. In addition, acetone, benzene, ethylbenzene, MEK, n-propylbenzene, and total xylenes were detected above their respective PGWSCOs. According to the associated Data Usability Summary Reports (DUSRs), acetone and MEK are common laboratory but were not detected in the corresponding laboratory blanks except for acetone in PDI samples.
- SVOCs consisting of polycyclic aromatic hydrocarbons (PAHs) [including 4-methylphenol (P-Cresol), benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene dibenzo(a,h)anthracene, dibenzofuran, indeno(1,2,3-cd)pyrene, and phenol] were detected at concentrations ranging up to 36 mg/kg, above their respective, UUSCOs, RRSCOs and/or PGWSCOs in up to 20 soil samples and 2 blind duplicate samples.
- Pesticides P,'-DDD and P,'-DDT were detected at concentrations of 0.0056 and 0.057 mg/kg, respectively, above their respective UUSCOs in one sample.
- No PCB were detected above laboratory detection limits.
- Eight metals (arsenic, cadmium, copper, lead, mercury, nickel, silver, and zinc) were detected at concentrations ranging up to 12,600 mg/kg, above their respective UUSCOs, RRSCOs and/or PGWSCOs in 31 samples and 3 blind duplicate samples.
- One PFAS compound (PFOA) was detected at concentrations of 0.75 parts per billion (ppb) in two samples above its UU Guidance Value of 0.66 ppb, but below its RR Guidance Value of 33 ppb. The compound 1,4-dioxane was not detected in any of the collected samples.

Groundwater results were compared to AWQSGVs for all compounds, except PFOS and PFOA, which were compared to their NYSDEC PFAS Screening Levels.

- Six VOCs [benzene, chloroform, isopropylbenzene (cumene) m,p-xylenes, n-propylbenzene and sec-butylbenzene] were detected at concentrations ranging from 2.8 to 54 µg/L, above their respective AWQSGVs in two samples. All other detections were below the AWQSGVs.
- SVOCs consisting of PAHs [including benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene] were detected at concentrations ranging from 0.8 to 0.98 µg/L, above their respective AWQSGVs in one sample. However, no dissolved PAHs were detected in groundwater in subsequent groundwater sampling during the PDI; therefore, the previous results were attributed to entrained sediment.
- PCBs and pesticides were not detected in any of the groundwater samples above laboratory detection limits.
- Seven metals (arsenic, iron, lead, magnesium, manganese, mercury, and sodium) were detected at concentrations ranging from 2.2 to 331,000 µg/L, above their respective AWQSGVs in all six total (unfiltered) samples and the one blind duplicate sample.

- Four metals (iron, magnesium, manganese, and sodium) were detected at concentrations ranging from 344 to 375,000 µg/L, above their respective AWQSGVs in all six dissolved (filtered) samples and the one blind duplicate sample.
- One PFAS compound, PFOA, was detected at concentrations ranging from 12.2 to 68.2 ppt in all six samples and the one blind duplicate sample above its respective PFAS Screening Levels of 10 ppt.

Soil vapor sample analytical results were:

- Petroleum-related and other VOCs, including BTEX, butane, cyclohexane, n-heptane, n-hexane, n-propylbenzene, tert butyl alcohol, 2,2,4-trimethylpentane, 2-hexanone, 4-ethyltoluene, 1,2,4-trimethylbenzene, 1,3-butadiene, 1,3,5-trimethylbenzene, and cymene were detected in the soil vapor samples at concentrations up to 44,000 µg/m$^3$ (butane in SV-06_2021082).
- TCE was detected in samples SV-01_2021082, SV-02_2021082, SV-05_2021082, RI-SV-10-20220126, RI-SV-11-20220126, and PDI-SV-13_20220719 at concentrations of 0.63 µg/m$^3$, 24 µg/m$^3$, 1.2 µg/m$^3$, 0.42 µg/m$^3$, 13 µg/m$^3$, and 4 µg/m$^3$ respectively, which has a New York State Department of Health (NYSDOH) Air Guidance Value (AGV) of 2 µg/m$^3$. PCE was detected in SV-01_2021082, SV-02_2021082, SV-03_2021082, SV-04_2021082, SV-05_2021082, SV-07_2021082, RI-SV-10-20220126, RI-SV-11-20220126, RI-SV-12-2022012, and PDI-SV-13_20220719 at concentrations of 1.1 µg/m$^3$, 350 µg/m$^3$, 8.3 µg/m$^3$, 83 µg/m$^3$, 0.88 µg/m$^3$, 540 µg/m$^3$, 3.8 µg/m$^3$, 340 µg/m$^3$, and 27 µg/m$^3$ respectively, which has a NYSDOH AGV of 30 µg/m$^3$.
- Several chlorofluorocarbon compounds (often used as refrigerants), such as chlorodifluoromethane, chloroform, chloromethane, dichlorodifluoromethane, and trichlorofluoromethane, were detected in the soil vapor samples at concentrations up to 99 µg/m$^3$ (chloroform in RI-SV-12-20220126).

*Interim Remedial Measures Workplan, 380 4th Avenue, Brooklyn, NY, AKRF, December 2022*

AKRF prepared an Interim Remedial Measures (IRM) Work Plan (IRMWP) in December 2022, which proposed the installation of soldier piles along the Site perimeter. This IRM was proposed to facilitate installation of lagging for the support of excavation (SOE) to enable remedial excavation of the contaminated soil/fill identified across the Site during previous investigations as part of the subsequent Remedial Action. The IRMWP stated that no off-site disposal of excavated materials or collection of soil, groundwater, and or soil vapor samples would occur during implementation of the IRMWP. IRMWP approval was issued by NYSDEC in January 2023.

*Remedial Action Work Plan, 380 4th Avenue, Brooklyn, NY, AKRF, April 2023*

AKRF prepared a Remedial Action Work Plan (RAWP) in April 2023, which outlined the remedial activities and cleanup objectives for the Site. The RAWP proposed the following:

1. Excavation of soil/fill exceeding RRSCOs to a minimum depth of 15 feet bgs across the Site, and hotspot areas to depths up to 20 feet bgs in the eastern portion of the Site and 25 feet bgs in the center of the Site due to petroleum contamination observed (odors, PID reading, and/or sheen) from borings advanced during previous investigations in accordance with NYSDEC Commissioner's Policy 51 (CP-51). Excavation of two additional deeper hotspots to 20 feet bgs to remove hazardous levels of lead, removing all soil that represents a source of contamination associated with the Site to achieve a Track 2 cleanup with a contingent Track 4 cleanup.
2. Removal and off-site disposal of any petroleum storage tanks, fill ports, and vents and any associated grossly contaminated soil, if encountered, in accordance with applicable regulations.

3. Implementation of a Community Air Monitoring Program (CAMP) during all intrusive Site activities with the potential of disturbing contaminated soil.
4. Installation of support of excavation necessary to enable excavation of contaminated soil/fill to achieve a Track 2 cleanup. These activities were to comply with applicable vibration monitoring, and associated studies and plans and any local and state-controlled inspections.
5. Screening for indications of contamination (by visual means, odors, and monitoring with a photoionization detector) during any intrusive Site work.
6. Appropriate off-site disposal of all materials removed from the Site in accordance with all federal, state, and local rules and regulations for handling, transport, and disposal. Waste disposal facilities were to be selected based on data collected to date and forthcoming waste classification sampling. Based on the requirements of the selected facilities, additional soil waste classification samples may be collected and analyzed as needed to obtain approval for soil disposal.
7. Installation and operation of a dewatering system, including treatment (as required), in accordance with a New York City Department of Environmental Protection (NYCDEP) discharge permit to the combined sewer system to enable the remedial excavation activities.
8. Collection and analysis of 49 soil endpoint samples (including base and sidewall samples) Site-wide to evaluate the performance of the remedy with respect to attainment of Track 2 – RRSCOs. However, since petroleum-related VOCs exceeding PGWSCOs were detected in soil boring PDI-SB-25 at the 8 to 10 ft bgs interval and no deeper samples were collected at this interval, confirmation endpoint samples would be collected in this area, additionally compared against PGWSCOs for petroleum-related VOCs, and the material at the base of the remedial excavation would be evaluated for any other signs of contamination (i.e., odor, staining, PID reading) to ensure that no source material exists below the remedial excavation depth.
9. Implementing a contingency plan for discovery of an unknown source of contamination or areas of concern that may require remediation.
10. Importation of clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) to replace excavated soil and establish the designed grades. On-site soil that did not exceed RRSCOs for any constituent may be used anywhere on-site to backfill the excavation areas or re-grade the Site.
11. Installation of a minimum 20-mil thick vapor barrier membrane beneath the new building slab and behind the subgrade foundation walls.
12. For any areas that did not achieve a Track 2 cleanup, a composite cover system would be constructed to achieve a Track 4 cleanup. The cover system would consist of a 14-inch-thick concrete building slab and associated sub-base to prevent human exposure to residual contaminated soil/fill remaining under the Site. Landscaped areas were not included in the proposed Site development; however, if the design was modified, any landscaped/non-impermeable covered areas would include a minimum two feet clean fill buffer with a demarcation barrier, with the upper 6 inches of any bare soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the Site, would meet the lower of the RRSCOs and PGWSCOs set forth in 6 NYCRR Part 375-6.7(d).
13. A soil vapor intrusion evaluation including confirmatory indoor air sampling will be conducted in the future on-site buildings, and if required, actions will be implemented prior to occupancy to address exposures related soil vapor intrusion. The soil vapor intrusion evaluation will include indoor air samples collected after the building envelope is completed and the heating, ventilation, and air conditioning system is started. A workplan will be provided for

review/comment to NYSDEC and NYSDOH and will include a written evaluation of the soil vapor intrusion exposure pathway, proposed indoor air sampling locations, and a schedule for conducting the sampling prior to occupancy.

14. Performance of remedial activities at the Site in accordance with this RAWP and the NYSDEC-issued Decision Document (DD). All deviations from this RAWP and/or the DD will be promptly reported to NYSDEC for approval and will be fully explained in the Final Engineering Report (FER).
15. Imposition of ICs in the form of an Environmental Easement and a Site-specific NYSDEC-approved SMP. The Environmental Easement will: (1) require the remedial parties/Site owners to complete and submit a periodic certification of ICs and the EC to NYSDEC in accordance with Part 375-1.8 (h)(3); (2) allow the use and development of the controlled property for restricted residential use as defined by Part 375-1.8(g), although land use is subject to local zoning laws; (3) restrict the use of groundwater as a source of potable or process water without necessary water quality treatment, as determined by NYSDOH; and (4) require compliance with a Site-specific, NYSDEC-approved SMP.
16. Publication of an SMP for long-term management of residual contamination as required by the Environmental Easement, including plans for: (1) ICs and ECs, (2) monitoring, (3) operation and maintenance, and (4) reporting.

RAWP approval and the NYSDEC DD were both issued in April 2023.

## 2.4 Remedial Action Objectives

The Remedial Action Objectives (RAOs) for the Site, as listed in the DD dated April 6, 2023, are as follows.

### 2.4.1 Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of, or exposure to, contaminants on air-borne soil particles or volatilizing from contaminated soil.

RAOs for Environmental Protection

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

### 2.4.2 Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

RAOs for Environmental Protection

- Remove the source of groundwater contamination.

### 2.4.3 Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

## 2.5 Remaining Contamination

### 2.5.1 Soil

Following completion of soil excavation and removal activities, endpoint soil sampling was conducted (a total of 64 samples were collected: EP-01 through EP-44; A4HAZ_N, A4HAZ_S, A4HAZ_E, A4HAZ_W, and A4HAZ_B; B1HAZ_N, B1HAZ_S, B1HAZ_E, B1HAZ_W, and B1HAZ_B; EP-10-N5, EP-10-S5, EP-10-E5, EP-10-W5, and EP-10_B; and EP-12-N10, EP-12-S15, EP-12-E5, EP-12-W10, and EP-12_B). Results of the soil endpoint samples indicate that soil remaining at the Site meets the RRSCOs and additionally PGWSCOs (for VOCs only), with the exception of the compounds listed in In-Text Tables 3 and 4 below:

**In-Text Table 3**
**Remaining Soil Exceeding UUSCOs, PGWSCOs, and/or RRSCOs**

| Analyte | Sample Identification | Sample Depth (feet bgs) | UUSCO (mg/kg) | PGWSCO (mg/kg | RRSCO (mg/kg) | Concentration (mg/kg) |
|---|---|---|---|---|---|---|
| Acetone* | EP-01_15_20231103 | 15 | 0.03 | 0.03 | 100 | **0.073 JK** |
| | EP-X1_15_20231103 | 15 | | | | **0.076 JK** |
| | EP-02_15_20231103 | 15 | | | | **0.07** |
| | EP-03_15_20231103 | 15 | | | | **0.084** |
| | EP-04_15_20231103 | 15 | | | | **0.093** |
| | EP-05_15_20231103 | 15 | | | | **0.15** |
| | EP-06_15_20231103 | 15 | | | | **0.18** |
| | EP-07_15_20231103 | 15 | | | | **0.065** |
| | EP-08_15_20231110 | 15 | | | | **0.092** |
| | EP-09_15_20231110 | 15 | | | | **0.11** |
| | EP-10_15_20231110 | 15 | | | | **0.059** |
| | EP-12_15_20231110 | 15 | | | | **0.077** |
| | EP-13_15_20231110 | 15 | | | | **0.068** |
| | EP-14_15_20231110 | 15 | | | | **0.06** |
| | EP-16_20_20231127 | 20 | | | | **0.21 J** |
| | EP-X2_20_20231127 | 20 | | | | **0.037 JL** |
| | EP-18_17.5_20231127 | 17.5 | | | | **0.065** |
| | EP-19_17.5_20231127 | 17.5 | | | | **0.078** |
| | EP-20_17.5_20231127 | 17.5 | | | | **0.049** |
| | EP-27_22.5_20231207 | 22.5 | | | | **0.05** |
| | EP-28_22.5_20231207 | 22.5 | | | | **0.036** |
| | EP-29_22.5_20231207 | 22.5 | | | | **0.079** |
| | EP-30_22.5_20231207 | 22.5 | | | | **0.077** |
| | EP-31_22.5_20231207 | 22.5 | | | | **0.044** |
| | EP-32_22.5_20231207 | 22.5 | | | | **0.094** |
| | EP-33_22.5_20231207 | 22.5 | | | | **0.031** |

| Analyte | Sample Identification | Sample Depth (feet bgs) | UUSCO (mg/kg) | PGWSCO (mg/kg | RRSCO (mg/kg) | Concentration (mg/kg) |
|---|---|---|---|---|---|---|
| Acetone* | EP-34_22.5_20231207 | 22.5 | 0.03 | 0.03 | 100 | **0.078** |
| | EP-X3_20231215 | 17.5 | | | | **0.034** |
| | EP-39_20_20231215 | 20 | | | | **0.076** |
| | EP-42_17.5_20231215 | 17.5 | | | | **0.031** |
| | EP-44_20_20231215 | 20 | | | | **0.032** |
| | B1HAZ_B_20_20230601 | 20 | | | | **0.051 JL** |

Notes:
J = The concentration given is an estimated value.
L = Sample result is estimated and biased low.
K = Reported concentration value is proportional to dilution factor and may be exaggerated
EP-X1_15_20231103 is a blind duplicate of sample EP-01_15_20231103
EP-X2_20_20231127 is a blind duplicate of sample EP-16_20_20231127
EP-X3_20231215 is a blind duplicate of sample EP-37_17.5_20231215
Exceedances of UUSCOs are highlighted in bold font.
Exceedances of PGWSCOs are highlighted and underlined.
*Since acetone is a common laboratory contaminant and was detected in both soil samples and field blank samples, these concentrations can be attributed to laboratory cross-contamination, and are not representative of Site subsurface conditions.

**In-Text Table 4**
**Remaining Soil Exceeding UUSCOs and/or RRSCOs**

| Analyte | Sample Identification | Sample Depth (feet bgs) | UUSCO (mg/kg) | RRSCO (mg/kg) | Concentration (mg/kg) |
|---|---|---|---|---|---|
| 4-Methylphenol | EP-01_15_20231103 | 15 | 7.5 | 100 | **0.77 J** |
| | EP-X1_15_20231103 | 15 | | | **2.5 J** |
| | EP-02_15_20231103 | 15 | | | **1.7** |
| | EP-03_15_20231103 | 15 | | | **4.7** |
| | EP-04_15_20231103 | 15 | | | **1.5** |
| | EP-05_15_20231103 | 15 | | | **1.3** |
| | EP-06_15_20231103 | 15 | | | **2.9** |
| | EP-07_15_20231103 | 15 | | | **3.6** |
| | EP-08_15_20231110 | 15 | | | **3.5** |
| | EP-09_15_20231110 | 15 | | | **0.77** |
| | EP-12_15_20231110 | 15 | | | **2.1** |
| | EP-13_15_20231110 | 15 | | | **2.5** |
| | EP-14_15_20231110 | 15 | | | **1.4** |
| | EP-17_15_20231127 | 15 | | | **1.1** |
| | EP-18_17.5_20231127 | 17.5 | | | **0.48** |
| | EP-19_17.5_20231127 | 17.5 | | | **2.0** |
| | EP-29_22.5_20231207 | 22.5 | | | **1.1** |
| | EP-30_22.5_20231207 | 22.5 | | | **3.1** |
| | EP-31_22.5_20231207 | 22.5 | | | **3.4** |
| | EP-32_22.5_20231207 | 22.5 | | | **1.8** |
| | EP-33_22.5_20231207 | 22.5 | | | **2.5** |
| | EP-34_22.5_20231207 | 22.5 | | | **1.1** |

| Analyte | Sample Identification | Sample Depth (feet bgs) | UUSCO (mg/kg) | RRSCO (mg/kg) | Concentration (mg/kg) |
|---|---|---|---|---|---|
| 4-Methylphenol | EP-35_25_20231207 | 25 | 7.5 | 100 | **1.0** |
| | EP-36_25_20231207 | 25 | | | **3.0** |
| | EP-37_17.5_20231215 | 17.5 | | | **1.0 J** |
| | EP-X3_20231215 | 17.5 | | | **1.0 JL** |
| | EP-38_17.5_20231215 | 17.5 | | | **1.5** |
| | EP-39_20_20231215 | 20 | | | **0.47** |
| | EP-42_17.5_20231215 | 17.5 | | | **0.34 J** |
| | EP-44_20_20231215 | 20 | | | **1.1** |
| | A4HAZ_X1_20230928 | 20 | | | **0.34 J** |
| | B1HAZ_B_20_20230601 | 20 | | | **0.96** |
| | B1HAZ_X1_20230601 | 20 | | | **1.8** |
| Benzo(a)anthracene | EP-01_15_20231103 | 15 | 1 | 1.4 | **1.8** |
| | EP-X1_15_20231103 | 15 | | | **1.3** |
| | EP-04_15_20231103 | 15 | | | **1.6** |
| | EP-06_15_20231103 | 15 | | | **1.1** |
| | EP-12_15_20231110 | 15 | | | **1.8** |
| | EP-17_15_20231127 | 15 | | | **7.8** |
| | EP-18_17.5_20231127 | 17.5 | | | **13 D** |
| | EP-19_17.5_20231127 | 17.5 | | | **2.4** |
| | EP-23_17.5_20231129 | 17.5 | | | **2.7** |
| | EP-28_22.5_20231207 | 22.5 | | | **1.6** |
| | EP-29_22.5_20231207 | 22.5 | | | **4.2** |
| | EP-30_22.5_20231207 | 22.5 | | | **1.2** |
| | EP-31_22.5_20231207 | 22.5 | | | **1.9** |
| | EP-32_22.5_20231207 | 22.5 | | | **2.0** |
| | EP-33_22.5_20231207 | 22.5 | | | **5.3** |
| | EP-34_22.5_20231207 | 22.5 | | | **5.4** |
| | EP-35_25_20231207 | 25 | | | **2.9** |
| | EP-36_25_20231207 | 25 | | | **1.4** |
| | EP-37_17.5_20231215 | 17.5 | | | **1.4 JL** |
| | EP-X3_20231215 | 17.5 | | | **4.6 JL** |
| | EP-38_17.5_20231215 | 17.5 | | | **2.4** |
| | EP-39_20_20231215 | 20 | | | **2.0** |
| | EP-42_17.5_20231215 | 17.5 | | | **1.4** |
| | EP-43_17.5_20231215 | 17.5 | | | **2.3** |
| | EP-44_20_20231215 | 20 | | | **1.2** |
| Benzo(a)pyrene | EP-01_15_20231103 | 15 | 1 | 1 | **1.9** |
| | EP-X1_15_20231103 | 15 | | | **1.3** |
| | EP-04_15_20231103 | 15 | | | **1.4** |
| | EP-06_15_20231103 | 15 | | | **1.1** |
| | EP-12_15_20231110 | 15 | | | **2.0** |
| | EP-17_15_20231127 | 15 | | | **8.5** |
| | EP-18_17.5_20231127 | 17.5 | | | **13 D** |
| | EP-19_17.5_20231127 | 17.5 | | | **2.8** |

| Analyte | Sample Identification | Sample Depth (feet bgs) | UUSCO (mg/kg) | RRSCO (mg/kg) | Concentration (mg/kg) |
|---|---|---|---|---|---|
| Benzo(a)pyrene | EP-23_17.5_20231129 | 17.5 | 1 | 1 | **2.6** |
| | EP-28_22.5_20231207 | 22.5 | | | **1.6** |
| | EP-29_22.5_20231207 | 22.5 | | | **6.0** |
| | EP-30_22.5_20231207 | 22.5 | | | **1.1** |
| | EP-31_22.5_20231207 | 22.5 | | | **2.1** |
| | EP-32_22.5_20231207 | 22.5 | | | **2.2** |
| | EP-33_22.5_20231207 | 22.5 | | | **5.7** |
| | EP-34_22.5_20231207 | 22.5 | | | **6.8** |
| | EP-35_25_20231207 | 25 | | | **3.6** |
| | EP-36_25_20231207 | 25 | | | **1.4** |
| | EP-37_17.5_20231215 | 17.5 | | | **1.6 J** |
| | EP-X3_20231215 | 17.5 | | | **5 J** |
| | EP-38_17.5_20231215 | 17.5 | | | **2.8** |
| | EP-39_20_20231215 | 20 | | | **2.0** |
| | EP-42_17.5_20231215 | 17.5 | | | **1.5** |
| | EP-43_17.5_20231215 | 17.5 | | | **2.6** |
| | EP-44_20_20231215 | 20 | | | **1.5** |
| Benzo(b)fluoranthene | EP-01_15_20231103 | 15 | 1 | 1.4 | **2.1** |
| | EP-X1_15_20231103 | 15 | | | **1.4** |
| | EP-04_15_20231103 | 15 | | | **1.6** |
| | EP-06_15_20231103 | 15 | | | **1.3** |
| | EP-07_15_20231103 | 15 | | | **1.1** |
| | EP-12_15_20231110 | 15 | | | **2.3** |
| | EP-13_15_20231110 | 15 | | | **1.1** |
| | EP-17_15_20231127 | 15 | | | **8.4** |
| | EP-18_17.5_20231127 | 17.5 | | | **13 D** |
| | EP-19_17.5_20231127 | 17.5 | | | **2.9** |
| | EP-23_17.5_20231129 | 17.5 | | | **2.8** |
| | EP-28_22.5_20231207 | 22.5 | | | **1.7** |
| | EP-29_22.5_20231207 | 22.5 | | | **6.3** |
| | EP-30_22.5_20231207 | 22.5 | | | **1.3** |
| | EP-31_22.5_20231207 | 22.5 | | | **2.3** |
| | EP-32_22.5_20231207 | 22.5 | | | **2.1** |
| | EP-33_22.5_20231207 | 22.5 | | | **5.3** |
| | EP-34_22.5_20231207 | 22.5 | | | **5.2** |
| | EP-35_25_20231207 | 25 | | | **3.2** |
| | EP-36_25_20231207 | 25 | | | **1.6** |
| | EP-37_17.5_20231215 | 17.5 | | | **1.9 JL** |
| | EP-X3_20231215 | 17.5 | | | **5.5 JL** |
| | EP-38_17.5_20231215 | 17.5 | | | **3.1** |
| | EP-39_20_20231215 | 20 | | | **2.1** |
| | EP-42_17.5_20231215 | 17.5 | | | **1.6** |
| | EP-43_17.5_20231215 | 17.5 | | | **2.6** |
| | EP-44_20_20231215 | 20 | | | **1.6** |

| Analyte | Sample Identification | Sample Depth (feet bgs) | UUSCO (mg/kg) | RRSCO (mg/kg) | Concentration (mg/kg) |
|---|---|---|---|---|---|
| Benzo(g,h,i)perylene | EP-01_15_20231103 | 15 | 0.64 | 4.9 | **1.0** |
| | EP-X1_15_20231103 | 15 | | | **0.66** |
| | EP-04_15_20231103 | 15 | | | **0.69** |
| | EP-12_15_20231110 | 15 | | | **1.2** |
| | EP-17_15_20231127 | 15 | | | **4.6** |
| | EP-18_17.5_20231127 | 17.5 | | | **7.9** |
| | EP-19_17.5_20231127 | 17.5 | | | **1.5** |
| | EP-23_17.5_20231129 | 17.5 | | | **1.1** |
| | EP-28_22.5_20231207 | 22.5 | | | **0.99** |
| | EP-29_22.5_20231207 | 22.5 | | | **3.0** |
| | EP-30_22.5_20231207 | 22.5 | | | **0.65** |
| | EP-31_22.5_20231207 | 22.5 | | | **0.99** |
| | EP-32_22.5_20231207 | 22.5 | | | **1.2** |
| | EP-33_22.5_20231207 | 22.5 | | | **2.5** |
| | EP-34_22.5_20231207 | 22.5 | | | **3.9** |
| | EP-35_25_20231207 | 25 | | | **2.0** |
| | EP-36_25_20231207 | 25 | | | **0.73** |
| | EP-37_17.5_20231215 | 17.5 | | | **1.2 JL** |
| | EP-X3_20231215 | 17.5 | | | **3.0 JL** |
| | EP-38_17.5_20231215 | 17.5 | | | **1.6** |
| | EP-39_20_20231215 | 20 | | | **1.1** |
| | EP-42_17.5_20231215 | 17.5 | | | **0.89** |
| | EP-43_17.5_20231215 | 17.5 | | | **1.4** |
| | EP-44_20_20231215 | 20 | | | **0.97** |
| Benzo(k)Fluoranthene | EP-01_15_20231103 | 15 | 0.8 | 4.9 | **0.85** |
| | EP-12_15_20231110 | 15 | | | **0.81** |
| | EP-17_15_20231127 | 15 | | | **3.1** |
| | EP-18_17.5_20231127 | 17.5 | | | **6.2** |
| | EP-19_17.5_20231127 | 17.5 | | | **1.2** |
| | EP-23_17.5_20231129 | 17.5 | | | **1.0** |
| | EP-29_22.5_20231207 | 22.5 | | | **2.3** |
| | EP-31_22.5_20231207 | 22.5 | | | **0.91** |
| | EP-32_22.5_20231207 | 22.5 | | | **0.85** |
| | EP-33_22.5_20231207 | 22.5 | | | **2.2** |
| | EP-34_22.5_20231207 | 22.5 | | | **2.0** |
| | EP-35_25_20231207 | 25 | | | **1.0** |
| | EP-X3_20231215 | 17.5 | | | **1.5 JL** |
| | EP-38_17.5_20231215 | 17.5 | | | **1.2** |
| | EP-39_20_20231215 | 20 | | | **0.91** |
| | EP-43_17.5_20231215 | 17.5 | | | **1.0** |
| Chrysene | EP-01_15_20231103 | 15 | 1 | 4.9 | **2.1** |
| | EP-X1_15_20231103 | 15 | | | **1.3** |
| | EP-04_15_20231103 | 15 | | | **1.5** |
| | EP-06_15_20231103 | 15 | | | **1.2** |

| Analyte | Sample Identification | Sample Depth (feet bgs) | UUSCO (mg/kg) | RRSCO (mg/kg) | Concentration (mg/kg) |
|---|---|---|---|---|---|
| Chrysene | EP-12_15_20231110 | 15 | 1 | 4.9 | **2.0** |
| | EP-13_15_20231110 | 15 | | | **1.1** |
| | EP-17_15_20231127 | 15 | | | **7.1** |
| | EP-18_17.5_20231127 | 17.5 | | | **12 D** |
| | EP-19_17.5_20231127 | 17.5 | | | **2.4** |
| | EP-23_17.5_20231129 | 17.5 | | | **2.5** |
| | EP-28_22.5_20231207 | 22.5 | | | **1.5** |
| | EP-29_22.5_20231207 | 22.5 | | | **4.3** |
| | EP-30_22.5_20231207 | 22.5 | | | **1.1** |
| | EP-31_22.5_20231207 | 22.5 | | | **2.1** |
| | EP-32_22.5_20231207 | 22.5 | | | **1.9** |
| | EP-33_22.5_20231207 | 22.5 | | | **4.8** |
| | EP-34_22.5_20231207 | 22.5 | | | **5.3** |
| | EP-35_25_20231207 | 25 | | | **2.9** |
| | EP-36_25_20231207 | 25 | | | **1.5** |
| | EP-37_17.5_20231215 | 17.5 | | | **1.5 JL** |
| | EP-X3_20231215 | 17.5 | | | **4.1 JL** |
| | EP-38_17.5_20231215 | 17.5 | | | **2.5** |
| | EP-39_20_20231215 | 20 | | | **1.9** |
| | EP-42_17.5_20231215 | 17.5 | | | **1.4** |
| | EP-43_17.5_20231215 | 17.5 | | | **2.3** |
| | EP-44_20_20231215 | 20 | | | **1.3** |
| Dibenz(a,h)anthracene | EP-17_15_20231127 | 15 | 0.33 | 0.33 | **0.9** |
| | EP-18_17.5_20231127 | 17.5 | | | **2.2** |
| | EP-19_17.5_20231127 | 17.5 | | | **0.41** |
| | EP-29_22.5_20231207 | 22.5 | | | **0.76** |
| | EP-33_22.5_20231207 | 22.5 | | | **0.49** |
| | EP-34_22.5_20231207 | 22.5 | | | **0.56** |
| | EP-X3_20231215 | 17.5 | | | **0.62 JL** |
| Dibenzofuran | EP-18_17.5_20231127 | 17.5 | 2.1 | 18 | **6.7** |
| Indeno(1,2,3-c,d)pyrene | EP-01_15_20231103 | 15 | 0.5 | 1.4 | **1.2** |
| | EP-X1_15_20231103 | 15 | | | **0.79** |
| | EP-02_15_20231103 | 15 | | | **0.59** |
| | EP-04_15_20231103 | 15 | | | **0.84** |
| | EP-05_15_20231103 | 15 | | | **0.51** |
| | EP-06_15_20231103 | 15 | | | **0.67** |
| | EP-07_15_20231103 | 15 | | | **0.57** |
| | EP-12_15_20231110 | 15 | | | **1.4** |
| | EP-13_15_20231110 | 15 | | | **0.7** |
| | EP-17_15_20231127 | 15 | | | **5.2** |
| | EP-18_17.5_20231127 | 17.5 | | | **9.4** |
| | EP-19_17.5_20231127 | 17.5 | | | **1.8** |
| | EP-23_17.5_20231129 | 17.5 | | | **1.3** |
| | EP-28_22.5_20231207 | 22.5 | | | **1.2** |

| Analyte | Sample Identification | Sample Depth (feet bgs) | UUSCO (mg/kg) | RRSCO (mg/kg) | Concentration (mg/kg) |
|---|---|---|---|---|---|
| Indeno(1,2,3-c,d)pyrene | EP-29_22.5_20231207 | 22.5 | 0.5 | 1.4 | **3.6** |
| | EP-30_22.5_20231207 | 22.5 | | | **0.79** |
| | EP-31_22.5_20231207 | 22.5 | | | **1.4** |
| | EP-32_22.5_20231207 | 22.5 | | | **1.4** |
| | EP-33_22.5_20231207 | 22.5 | | | **2.6** |
| | EP-34_22.5_20231207 | 22.5 | | | **3.5** |
| | EP-35_25_20231207 | 25 | | | **1.9** |
| | EP-36_25_20231207 | 25 | | | **0.88** |
| | EP-37_17.5_20231215 | 17.5 | | | **1.2** |
| | EP-X3_20231215 | 17.5 | | | **3.1** |
| | EP-38_17.5_20231215 | 17.5 | | | **1.9** |
| | EP-39_20_20231215 | 20 | | | **1.9** |
| | EP-42_17.5_20231215 | 17.5 | | | **1.1** |
| | EP-43_17.5_20231215 | 17.5 | | | **1.7** |
| | EP-44_20_20231215 | 20 | | | **1.2** |
| Naphthalene | EP-27_22.5_20231207 | 22.5 | 12 | 100 | **25 D** |
| | EP-33_22.5_20231207 | 22.5 | | | **45 D** |
| | EP-34_22.5_20231207 | 22.5 | | | **27** |
| | EP-35_25_20231207 | 25 | | | **150 D** |
| Phenanthrene | EP-X1_15_20231103 | 15 | 1.1 | 4.9 | **2.6 J** |
| | EP-02_15_20231103 | 15 | | | **1.3** |
| | EP-03_15_20231103 | 15 | | | **1.7** |
| | EP-04_15_20231103 | 15 | | | **3.2** |
| | EP-05_15_20231103 | 15 | | | **1.7** |
| | EP-06_15_20231103 | 15 | | | **3.1** |
| | EP-07_15_20231103 | 15 | | | **1.8** |
| | EP-12_15_20231110 | 15 | | | **5.1** |
| | EP-13_15_20231110 | 15 | | | **3.0** |
| | EP-14_15_20231110 | 15 | | | **1.2** |
| | EP-17_15_20231127 | 15 | | | **20 D** |
| | EP-18_17.5_20231127 | 17.5 | | | **48 D** |
| | EP-19_17.5_20231127 | 17.5 | | | **2.4** |
| | EP-23_17.5_20231129 | 17.5 | | | **6.8** |
| | EP-27_22.5_20231207 | 22.5 | | | **1.4** |
| | EP-28_22.5_20231207 | 22.5 | | | **3.8** |
| | EP-29_22.5_20231207 | 22.5 | | | **4.6** |
| | EP-30_22.5_20231207 | 22.5 | | | **3.7** |
| | EP-31_22.5_20231207 | 22.5 | | | **4.2** |
| | EP-32_22.5_20231207 | 22.5 | | | **3.9** |
| | EP-33_22.5_20231207 | 22.5 | | | **14 D** |
| | EP-34_22.5_20231207 | 22.5 | | | **18** |
| | EP-35_25_20231207 | 25 | | | **12 D** |
| | EP-36_25_20231207 | 25 | | | **3.3** |
| | EP-37_17.5_20231215 | 17.5 | | | **3.7 JL** |

| Analyte | Sample Identification | Sample Depth (feet bgs) | UUSCO (mg/kg) | RRSCO (mg/kg) | Concentration (mg/kg) |
|---|---|---|---|---|---|
| Phenanthrene | EP-X3_20231215 | 17.5 | 1.1 | 4.9 | **9.8 JL** |
| | EP-38_17.5_20231215 | 17.5 | | | **4.8** |
| | EP-39_20_20231215 | 20 | | | **4.3** |
| | EP-41_15_20231215 | 15 | | | **2.1** |
| | EP-42_17.5_20231215 | 17.5 | | | **2.5** |
| | EP-43_17.5_20231215 | 17.5 | | | **4.7** |
| | EP-44_20_20231215 | 20 | | | **2.3** |
| | A4HAZ_X1_20230928 | 20 | | | **1.3 J** |
| | B1HAZ_X1_20230601 | 20 | | | **1.3** |
| Phenol | EP-03_15_20231103 | 15 | 0.33 | 100 | **0.37 J** |
| | EP-05_15_20231103 | 15 | | | **0.54** |
| | EP-12_15_20231110 | 15 | | | **0.36 J** |
| | EP-13_15_20231110 | 15 | | | **0.44 J** |
| | EP-X3_20231215 | 17.5 | | | **1.2 JL** |
| | EP-44_20_20231215 | 20 | | | **0.37 J** |
| Arsenic | EP-08_15_20231110 | 15 | 13 | 16 | **18.3** |
| | EP-10_15_20231110 | 15 | | | **14** |
| | EP-19_17.5_20231127 | 17.5 | | | **16.4** |
| | EP-32_22.5_20231207 | 22.5 | | | **37** |
| Copper | EP-01_15_20231103 | 15 | 50 | 280 | **82** |
| | EP-X1_15_20231103 | 15 | | | **80** |
| | EP-02_15_20231103 | 15 | | | **110** |
| | EP-03_15_20231103 | 15 | | | **78.7** |
| | EP-04_15_20231103 | 15 | | | **102** |
| | EP-05_15_20231103 | 15 | | | **109** |
| | EP-06_15_20231103 | 15 | | | **437** |
| | EP-07_15_20231103 | 15 | | | **68.3** |
| | EP-08_15_20231110 | 15 | | | **63.4** |
| | EP-09_15_20231110 | 15 | | | **67.8** |
| | EP-10_15_20231110 | 15 | | | **99.2** |
| | EP-12_15_20231110 | 15 | | | **353** |
| | EP-13_15_20231110 | 15 | | | **89.7** |
| | EP-14_15_20231110 | 15 | | | **56.4** |
| | EP-17_15_20231127 | 15 | | | **96** |
| | EP-18_17.5_20231127 | 17.5 | | | **56.9** |
| | EP-19_17.5_20231127 | 17.5 | | | **73.4** |
| | EP-29_22.5_20231207 | 22.5 | | | **56.8** |
| | EP-31_22.5_20231207 | 22.5 | | | **73.8** |
| | EP-32_22.5_20231207 | 22.5 | | | **56.9** |
| | EP-33_22.5_20231207 | 22.5 | | | **69.1** |
| | EP-34_22.5_20231207 | 22.5 | | | **65.7** |
| | EP-35_25_20231207 | 25 | | | **55.4** |
| | EP-36_25_20231207 | 25 | | | **63.7** |
| | EP-37_17.5_20231215 | 17.5 | | | **168 J** |

| Analyte | Sample Identification | Sample Depth (feet bgs) | UUSCO (mg/kg) | RRSCO (mg/kg) | Concentration (mg/kg) |
|---|---|---|---|---|---|
| Copper | EP-X3_20231215 | 17.5 | 50 | 280 | **64.6 J** |
| | EP-38_17.5_20231215 | 17.5 | | | **57.3** |
| | EP-41_15_20231215 | 15 | | | **50.7** |
| | EP-43_17.5_20231215 | 17.5 | | | **80.5** |
| | EP-44_20_20231215 | 20 | | | **195** |
| | B1HAZ_B_20_20230601 | 20 | | | **109** |
| | B1HAZ_X1_20230601 | 20 | | | **97.7** |
| Cyanide | EP-08_15_20231110 | 15 | 2.3 | 13 | **5.4** |
| | EP-37_17.5_20231215 | 17.5 | | | **5.2 JL** |
| Lead | EP-01_15_20231103 | 15 | 63 | 400 | **4,100 J** |
| | EP-X1_15_20231103 | 15 | | | **893 J** |
| | EP-02_15_20231103 | 15 | | | **2,740** |
| | EP-03_15_20231103 | 15 | | | **431** |
| | EP-04_15_20231103 | 15 | | | **383** |
| | EP-05_15_20231103 | 15 | | | **360** |
| | EP-06_15_20231103 | 15 | | | **293** |
| | EP-07_15_20231103 | 15 | | | **491** |
| | EP-08_15_20231110 | 15 | | | **374** |
| | EP-09_15_20231110 | 15 | | | **197** |
| | EP-10_B_16_20231127 | 16 | | | **769** |
| | EP-10-E5_15_20231127 | 15 | | | **373** |
| | EP-10HAZ_X1_20231127 | 15 | | | **650** |
| | EP-10-N5_15_20231127 | 15 | | | **751** |
| | EP-10-S5_15_20231127 | 15 | | | **579** |
| | EP-10-W5_15_20231127 | 15 | | | **676** |
| | EP-11_15_20231110 | 15 | | | **83.4** |
| | EP-12_B_16_20231127 | 16 | | | **1,510** |
| | EP-12-E5_15_20231127 | 15 | | | **3,850** |
| | EP-12-N10_15_20231127 | 15 | | | **3,290** |
| | EP-12-S15_15_20231206 | 15 | | | **2,560** |
| | EP-12-W10_15_20231127 | 15 | | | **963** |
| | EP-13_15_20231110 | 15 | | | **526** |
| | EP-14_15_20231110 | 15 | | | **445** |
| | EP-17_15_20231127 | 15 | | | **768** |
| | EP-18_17.5_20231127 | 17.5 | | | **975** |
| | EP-19_17.5_20231127 | 17.5 | | | **954** |
| | EP-25_19.5_20231207 | 19.5 | | | **155** |
| | EP-26_17.5_20231207 | 17.5 | | | **72.4** |
| | EP-27_22.5_20231207 | 22.5 | | | **63.5** |
| | EP-28_22.5_20231207 | 22.5 | | | **69.4** |
| | EP-29_22.5_20231207 | 22.5 | | | **317** |
| | EP-30_22.5_20231207 | 22.5 | | | **90.7** |
| | EP-31_22.5_20231207 | 22.5 | | | **356** |
| | EP-32_22.5_20231207 | 22.5 | | | **453** |

| Analyte | Sample Identification | Sample Depth (feet bgs) | UUSCO (mg/kg) | RRSCO (mg/kg) | Concentration (mg/kg) |
|---|---|---|---|---|---|
| Lead | EP-33_22.5_20231207 | 22.5 | 63 | 400 | **524** |
| | EP-34_22.5_20231207 | 22.5 | | | **375** |
| | EP-35_25_20231207 | 25 | | | **364** |
| | EP-36_25_20231207 | 25 | | | **430** |
| | EP-37_17.5_20231215 | 17.5 | | | **1,310** |
| | EP-X3_20231215 | 17.5 | | | **521 J** |
| | EP-38_17.5_20231215 | 17.5 | | | **463** |
| | EP-39_20_20231215 | 20 | | | **264** |
| | EP-41_15_20231215 | 15 | | | **196** |
| | EP-43_17.5_20231215 | 17.5 | | | **508** |
| | EP-44_20_20231215 | 20 | | | **397** |
| | A4HAZ_B_20_20230928 | 20 | | | **216 J** |
| | A4HAZ_X1_20230928 | 20 | | | **183 J** |
| | A4HAZ_E_15_20230928 | 15 | | | **336** |
| | A4HAZ_N_15_20230928 | 15 | | | **531** |
| | A4HAZ_S_15_20230928 | 15 | | | **376** |
| | A4HAZ_W_15_20230928 | 15 | | | **438** |
| | B1HAZ_B_20_20230601 | 20 | | | **415** |
| | B1HAZ_X1_20230601 | 20 | | | **381** |
| | B1HAZ_E_15_20230601 | 15 | | | **476** |
| | B1HAZ_N_15_20230601 | 15 | | | **485** |
| | B1HAZ_S_15_20230601 | 15 | | | **378** |
| | B1HAZ_W_15_20230601 | 15 | | | **319** |
| Mercury | EP-01_15_20231103 | 15 | 0.18 | 0.26 | **1.1 J** |
| | EP-X1_15_20231103 | 15 | | | **3.0 J** |
| | EP-02_15_20231103 | 15 | | | **3.4** |
| | EP-03_15_20231103 | 15 | | | **0.73** |
| | EP-04_15_20231103 | 15 | | | **2.0** |
| | EP-05_15_20231103 | 15 | | | **2.1** |
| | EP-06_15_20231103 | 15 | | | **1.5** |
| | EP-07_15_20231103 | 15 | | | **1.7** |
| | EP-08_15_20231110 | 15 | | | **4.6** |
| | EP-09_15_20231110 | 15 | | | **0.89** |
| | EP-10_15_20231110 | 15 | | | **0.89** |
| | EP-12_15_20231110 | 15 | | | **2.5** |
| | EP-13_15_20231110 | 15 | | | **3.4** |
| | EP-14_15_20231110 | 15 | | | **1.5** |
| | EP-16_20_20231127 | 20 | | | **0.36 JK** |
| | EP-17_15_20231127 | 15 | | | **1.4** |
| | EP-18_17.5_20231127 | 17.5 | | | **6.0** |
| | EP-19_17.5_20231127 | 17.5 | | | **6.1** |
| | EP-23_17.5_20231129 | 17.5 | | | **0.47** |
| | EP-25_19.5_20231207 | 19.5 | | | **0.36** |
| | EP-26_17.5_20231207 | 17.2 | | | **0.26** |

| Analyte | Sample Identification | Sample Depth (feet bgs) | UUSCO (mg/kg) | RRSCO (mg/kg) | Concentration (mg/kg) |
|---|---|---|---|---|---|
| Mercury | EP-27_22.5_20231207 | 22.5 | 0.18 | 0.26 | **0.38** |
| | EP-28_22.5_20231207 | 22.5 | | | **4.0** |
| | EP-29_22.5_20231207 | 22.5 | | | **2.1** |
| | EP-30_22.5_20231207 | 22.5 | | | **0.54** |
| | EP-31_22.5_20231207 | 22.5 | | | **1.2** |
| | EP-32_22.5_20231207 | 22.5 | | | **8.4** |
| | EP-33_22.5_20231207 | 22.5 | | | **5.6** |
| | EP-34_22.5_20231207 | 22.5 | | | **63.3** |
| | EP-35_25_20231207 | 25 | | | **2.0** |
| | EP-36_25_20231207 | 25 | | | **3.2** |
| | EP-37_17.5_20231215 | 17.5 | | | **3.9** |
| | EP-X3_20231215 | 17.5 | | | **5.1** |
| | EP-38_17.5_20231215 | 17.5 | | | **3.2** |
| | EP-39_20_20231215 | 20 | | | **2.9** |
| | EP-40_17.5_20231215 | 17.5 | | | **0.43** |
| | EP-41_15_20231215 | 15 | | | **1.2** |
| | EP-42_17.5_20231215 | 17.5 | | | **0.39** |
| | EP-43_17.5_20231215 | 17.5 | | | **1.4** |
| | EP-44_20_20231215 | 20 | | | **2.4** |
| | A4HAZ_B_20_20230928 | 20 | | | **0.21 JL** |
| | A4HAZ_X1_20230928 | 20 | | | **0.47 JL** |
| | B1HAZ_B_20_20230601 | 20 | | | **3.3** |
| | B1HAZ_X1_20230601 | 20 | | | **2.5** |
| Nickel | EP-20_17.5_20231127 | 17.5 | 30 | 210 | **30.6** |
| Selenium | EP-08_15_20231110 | 15 | 4 | 110 | **19.4** |
| Silver | EP-12_15_20231110 | 15 | 2 | 110 | **4.9** |
| Zinc | EP-01_15_20231103 | 15 | 109 | 6,600 | **332** |
| | EP-X1_15_20231103 | 15 | | | **241** |
| | EP-02_15_20231103 | 15 | | | **167** |
| | EP-03_15_20231103 | 15 | | | **115** |
| | EP-04_15_20231103 | 15 | | | **139** |
| | EP-05_15_20231103 | 15 | | | **195** |
| | EP-06_15_20231103 | 15 | | | **116** |
| | EP-07_15_20231103 | 15 | | | **138** |
| | EP-08_15_20231110 | 15 | | | **164** |
| | EP-10_15_20231110 | 15 | | | **264** |
| | EP-12_15_20231110 | 15 | | | **288** |
| | EP-13_15_20231110 | 15 | | | **138** |
| | EP-17_15_20231127 | 15 | | | **152 J** |
| | EP-18_17.5_20231127 | 17.5 | | | **231 J** |
| | EP-19_17.5_20231127 | 17.5 | | | **391 J** |
| | EP-31_22.5_20231207 | 22.5 | | | **174** |
| | EP-32_22.5_20231207 | 22.5 | | | **153** |
| | EP-33_22.5_20231207 | 22.5 | | | **154** |

| Analyte | Sample Identification | Sample Depth (feet bgs) | UUSCO (mg/kg) | RRSCO (mg/kg) | Concentration (mg/kg) |
|---|---|---|---|---|---|
| Zinc | EP-34_22.5_20231207 | 22.5 | 109 | 6,600 | **149** |
| | EP-35_25_20231207 | 25 | | | **121** |
| | EP-36_25_20231207 | 25 | | | **212** |
| | EP-37_17.5_20231215 | 17.5 | | | **241 JK** |
| | EP-X3_20231215 | 17.5 | | | **129** |
| | EP-38_17.5_20231215 | 17.5 | | | **179** |
| | EP-43_17.5_20231215 | 17.5 | | | **129** |
| | EP-44_20_20231215 | 20 | | | **169** |
| | B1HAZ_B_20_20230601 | 20 | | | **177 JL** |
| | B1HAZ_X1_20230601 | 20 | | | **150 JL** |

Notes:
J = The concentration given is an estimated value.
L = Sample result is estimated and biased low.
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.
K = Reported concentration value is proportional to dilution factor and may be exaggerated
EP-X1_15_20231103 is a blind duplicate of sample EP-01_15_20231103
EP-X2_20_20231127 is a blind duplicate of sample EP-16_20_20231127
EP-X3_20231215 is a blind duplicate of sample EP-37_17.5_20231215
EP-10HAZ_X1_20231127 is a blind duplicate of sample EP-10-E5_15_20231127
A4HAZ_X1_20230928 is a blind duplicate of sample B1HAZ_B_20_20230601
B1HAZ_X1_20230601 is a blind duplicate of sample B1HAZ_B_20_20230601
Exceedances of UUSCOs are highlighted in bold font.
Exceedances of RRSCOs are highlighted in gray shading.

The compounds listed above were detected in soil below 15 feet below grade and, therefore, meet the Track 2 cleanup. No soil contamination remains in place above 15 feet below grade. It should be noted that select endpoint samples were additionally analyzed for Toxicity Characteristic Leaching Procedure (TCLP) lead for any samples where total lead concentrations exceeded 1,000 mg/kg, as directed by NYSDEC in email correspondence dated November 20, 2023.

The endpoint sample analytical results are included in Attached Tables 1 through 7. The endpoint sample locations and exceedances compared against the UUSCOs, RRSCOS, and/or PGWSCOs are shown on Figures 3A and 3B.

### 2.5.2 Groundwater

Groundwater quality was characterized during previous investigations described in Section 2.3 prior to entering the BCP and during the RI conducted as part of the BCP. The groundwater beneath the Site was found to have concentrations above the AWQSGVs; however, source material at the Site has been removed as part of the remedial excavation. Any remaining VOCs in groundwater will be monitored as detailed in Section 4.0. Groundwater use at the Site is subject to the ICs documented within the Environmental Easement.

### 2.5.3 Soil Vapor

Soil vapor quality was characterized during previous investigations prior to entering the BCP and during the RI conducted as part of the BCP. As required by NYSDOH in the

approved RAWP, a Soil Vapor Intrusion Evaluation (SVIE) including confirmatory indoor air sampling will be conducted in the future on-site building, and if required, to address exposures related soil vapor intrusion, mitigation measures will be implemented prior to occupancy. The SVIE will include indoor air samples collected after the building envelope is completed and the heating, ventilation, and air conditioning system is started. An SVIE will be conducted as detailed in Section 5.2.

# 3.0 INSTITUTIONAL AND ENGINEERING CONTROL PLAN

## 3.1 General

Since remaining contamination exists at the Site, ICs and an EC are required to protect human health and the environment. This IC/EC Plan describes the procedures for the implementation and management of all ICs and the EC at the Site. The IC/EC Plan is one component of the SMP and is subject to revision by the NYSDEC.

This plan provides:

- A description of all ICs and the EC on the Site;
- The basic implementation and intended role of each IC and EC;
- A description of the key components of the ICs set forth in the Environmental Easement;
- A description of the controls to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of ICs and the EC, such as the implementation of the EWP (as provided in Appendix D) for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the Site; and
- Any other provisions necessary to identify or establish methods for implementing the ICs and the EC required by the Site remedy, as determined by NYSDEC.

## 3.2 Institutional Controls

A series of ICs is required by NYSDEC's April 2022 DD to: (1) implement, maintain, and monitor the EC; (2) prevent future exposure to remaining contamination; and (3) limit the use and development of the Site to restricted residential, commercial, or industrial uses only. Adherence to these ICs on the Site is required by the Environmental Easement and will be implemented under this SMP. ICs identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement. The IC boundaries are shown on Figure 2. These ICs are:

- The property may be used for restricted residential, commercial, and industrial uses only, as set forth in the Environmental Easement;
- The EC must be operated and maintained as specified in the SMP;
- The EC must be inspected at a frequency and in a manner defined in the SMP;
- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the New York City Department of Health and Mental Hygiene (NYCDOHMH) to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;
- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP;
- Data and information pertinent to Site Management of the property must be reported at the frequency and in a manner defined in the SMP;
- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP;
- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this SMP;
- Access to the Site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement;
- The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries noted on Figure 2, and appropriate actions to address exposures must be implemented; and
- In-ground vegetable gardens and farming on the Site are prohibited.

## 3.3 Engineering Controls

### 3.3.1 Monitoring Wells Associated with Monitored Natural Attenuation

Groundwater monitoring activities to confirm if contamination is not emanating from the Site will continue until residual groundwater concentrations are found to be consistently below ambient water quality standards for Site source compounds only (i.e., petroleum-related VOCs), the Site SCGs, or have become asymptotic at an acceptable level over an extended period. In the event that monitoring data indicates that monitoring may no longer be required, a proposal to discontinue the monitoring will be submitted by the remedial party. Monitoring will continue until permission to discontinue is granted in writing by the NYSDEC project manager. If groundwater contaminant levels become asymptotic at a level that is not acceptable to the NYSDEC, additional measures will be evaluated in consultation with NYSDEC.

Groundwater monitoring well installation and groundwater monitoring and sampling activities are described further in Section 4.2 - Post-Remediation Media Monitoring and Sampling.

## 3.4 Site-Wide Inspection

Site-wide inspections will be performed at a minimum of once per year. These periodic inspections must be conducted when the ground surface is visible (i.e., no snow cover). Site-wide inspections will be performed by a qualified environmental professional (QEP) as defined in 6 NYCRR Part 375, a professional engineer (P.E.) who is licensed and registered in NYS, or a qualified person who directly reports to a P.E. who is licensed and registered in NYS. Modification to the frequency or duration of the inspections will require approval from NYSDEC. Site-wide inspections will also be performed after all severe weather conditions that may affect the remaining contamination at the Site. A comprehensive Site-wide inspection will be conducted and documented according to the SMP schedule, regardless of the frequency of the Periodic Review Report (PRR).

During an inspection, an inspection form will be completed as provided in Appendix E – Site Management Forms. The inspection will determine and document the following:

- Compliance with all ICs and the EC, including Site usage;
- General Site conditions at the time of the inspection;
- The Site management activities being conducted, including, where appropriate, confirmation sampling and a health and safety inspection;
- If these controls continue to be protective of human health and the environment;

- Compliance with requirements of this SMP and the Environmental Easement; and
- Confirmation that Site records are complete and up to date.

Reporting requirements are outlined in Section 6.0 of this SMP.

Inspections will also be performed in the event of an emergency. An inspection of the Site will be conducted by a QEP within 5 days of the event to verify the effectiveness of the ICs and the EC implemented at the Site, as determined by the NYSDEC project manager. Written confirmation must be provided to the NYSDEC project manager within 7 days of the event that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.

# 4.0 MONITORING AND SAMPLING PLAN

## 4.1 General

This Monitoring and Sampling Plan describes the measures for evaluating the overall performance and effectiveness of the remedy. This Monitoring and Sampling Plan may only be revised with the approval of the NYSDEC project manager. Details regarding the sampling procedures, data quality usability objectives, analytical methods, etc. for all samples collected as part of site management for the Site are included in the Quality Assurance Project Plan (QAPP), provided in Appendix F.

This Monitoring and Sampling Plan describes the methods to be used for:

- Sampling and analysis of all appropriate media [e.g., groundwater and indoor air (to evaluate vapor intrusion)];
- Assessing compliance with applicable NYSDEC standards, criteria, and guidance (SCGs), particularly groundwater standards and Part 375 SCOs for soil; and
- Evaluating Site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment.

To adequately address these issues, this Monitoring and Sampling Plan provides information on:

- Sampling locations, protocol, and frequency;
- Information on all designed monitoring systems;
- Analytical sampling program requirements; and
- Annual inspection and periodic certification.

Reporting requirements are provided in Section 6.0 of this SMP.

## 4.2 Post-Remediation Media Monitoring and Sampling

Post-remediation groundwater samples will be collected from the monitoring wells on a routine basis. Sampling locations required analytical parameters, a schedule, and additional details are provided in the sections below. Modification to the frequency or sampling requirements will require NYSDEC approval.

All work will be completed in accordance with the QAPP (Appendix F), the Health and Safety Plan (HASP) provided as Appendix G, and the Community Air Monitoring Plan (CAMP) provided as Appendix H.

### 4.2.1 Monitoring Well Installation and Survey

A network of monitoring wells, as shown on Figure 4, will be installed to evaluate the performance of the remedy. In-Text Table 5 summarizes each well's purpose, and proposed location, depth, diameter, and screened interval.

**In-Text Table 5**
**Monitoring Well Construction Details**

| Monitoring Well ID | Well Location | Well Diameter (inches) | Depth to Top of Screen (ft bgs) | Depth to Bottom of Screen (ft bgs) |
|---|---|---|---|---|
| MW-01 | Upgradient | 2 | 10 | 20 |
| MW-02 | Sidegradient | 2 | 10 | 20 |
| MW-03 | Downgradient | 2 | 10 | 20 |

The monitoring wells will be installed using a Geoprobe® direct-push drill rig (fitted with Hollow Stem Augers) at the proposed locations. The wells will be constructed with 10 feet of 2-inch diameter 0.002-inch slotted polyvinyl chloride (PVC) well screen straddling the groundwater interface, with approximately 5 feet of screen above groundwater and 5 feet above groundwater, which is expected to be encountered at approximately 15 feet bgs, and a 2-inch diameter solid PVC riser installed to grade. A No. 2 Morie sand pack will be installed from the base of the well to approximately 2 feet above the well screen. The annular space around the solid well riser, above the sand pack, will be sealed with approximately 2 feet of bentonite, followed by a non-shrinking grout/cement mixture to approximately one foot below grade. Each of the wells will be finished with a locking j-plug and flush-mounted well cover with a concrete pad. Well construction logs will be prepared and included as an appendix to the first applicable quarterly report, required under this SMP.

Following installation, each groundwater monitoring well will be developed via pumping and surging to remove any accumulated fines and establish a hydraulic connection with the surrounding aquifer. Development will continue until the water quality parameters stabilize (within 10%) for three successive readings, and the water has a turbidity of less than 50 nephelometric turbidity units (NTUs) for three successive readings. Development water will require containerization in properly labeled, Department of Transportation (DOT)-approved 55-gallon drums for future off-site disposal at a permitted facility. Well development details will be noted on groundwater development logs, included as an appendix to the first applicable quarterly report. Development water will be containerized in 55-gallon drums for future off-site disposal at a permitted facility. The wells will be sampled at least two weeks following their development, as required by NYSDEC.

Once installed, the monitoring wells will be surveyed by a NYS-licensed surveyor to determine their accurate location and elevation. Two elevation measurements will be taken at each well location: the at-grade elevation, and the elevation of the top of PVC riser (north side at marking). The elevation datum will be based on NAVD88, while the horizontal datum on the New York State Plane Coordinates Long Island Zone.

### 4.2.2 Groundwater Sampling

The Remedial Party will measure depth to the water table for each monitoring well in the network before sampling. Groundwater monitoring will be performed on a quarterly basis for two consecutive quarters (minimum two sampling rounds), with one sample collected from each of the three groundwater monitoring wells (MW-01, MW-02, and MW-03). Continuation and frequency of sampling following two consecutive quarters will be determined based on the laboratory analytical results and in consultation with NYSDEC. Modification to the frequency or sampling requirements will require approval from NYSDEC. Deliverables for the groundwater monitoring program are specified below and in Section 6.0.

The samples will be collected using United States Environmental Protection Agency (EPA) low flow techniques and then submitted to a NYSDOH Environmental Laboratory Approval Program (ELAP)-certified laboratory for analysis of Target Compound List (TCL) VOCs using Category B deliverables, as summarized in In-Text Table 6 below. One blind duplicate, one field blank, one trip blank, and one matrix spike/matrix spike duplicate (MS/MSD) sample will be collected for quality assurance/quality control (QA/QC) purposes for each round of sampling. The groundwater data will be reviewed by a third-party validator and a DUSR will be prepared to document the usability and validity of the

data. All purged groundwater will be containerized in 55-gallon drums for future off-site disposal at a permitted facility.

**In-Text Table 6**
**Groundwater Sampling Requirements and Schedule**

| Sampling Location | Analytical Parameters | Reporting Limit (µg/L) | Schedule |
|---|---|---|---|
| MW-01 | TCL VOCs (EPA Method 624) | AWQSGVs | Quarterly |
| MW-02 | TCL VOCs (EPA Method 624) | AWQSGVs | Quarterly |
| MW-03 | TCL VOCs (EPA Method 624) | AWQSGVs | Quarterly |

Notes:
µg/L = micrograms per Liter
AWQSGVs = Ambient Water Quality Standards and Guidance Values

The groundwater analytical results will be reported to NYSDEC in quarterly reports, which will include a summary of the ongoing laboratory analytical results, a comparison to the baseline groundwater analytical results, and recommendations for additional groundwater treatment, if necessary.

Additional quarterly groundwater sampling events may be required beyond the initial two events. If required, the frequency thereafter will be determined based on consultation with NYSDEC.

### 4.2.3 Monitoring and Sampling Protocol

All sampling activities will be recorded in a field book and the associated sampling logs provided in Appendix E. Other observations (e.g., groundwater monitoring well integrity, etc.) will also be noted on the sampling log.

Prior to collecting the samples, but after removing the well cap, each well will be screened for the presence of VOCs using a PID. The depth to groundwater will then be measured in the wells using an electronic oil/water interface probe attached to a measuring tape accurate to 0.01 foot; this will also be used to gauge potential measurable product on the surface of the water table. The water level data, well diameter, and depth to bottom will be used to calculate the volume of water in each well, and any separate-phase product will be documented, if present. The wells that do not contain separate-phase product will then be purged using low-flow purging techniques.

Groundwater samples will be collected using dedicated polyethylene tubing and placed directly into laboratory-supplied sample bottles. The samples will be analyzed by a NYSDOH ELAP-certified laboratory with NYSDEC Category B deliverables. For wells that contain separate-phase product (not anticipated), a sample of the product will be collected and analyzed for flashpoint. All non-dedicated sampling equipment (e.g., submersible pumps and oil/water interface probes) will be decontaminated between sampling locations using the following procedure:

1. Scrub equipment with a bristle brush using a tap water/Simple Green® or Alconox® solution.
2. Rinse with tap water.
3. Scrub again with a bristle brush using a tap water/Simple Green® or Alconox® solution.
4. Rinse with tap water.

5. Rinse with distilled water.
6. Air-dry the equipment.

### 4.2.4 Monitoring Well Repairs and Decommissioning

If biofouling or silt accumulation occurs in the on-site monitoring wells, the wells will be physically agitated/surged and redeveloped. Additionally, if an event renders the wells unusable, the monitoring wells will be properly decommissioned and replaced. Repair and/or replacement of wells in the monitoring well network will be performed based on assessments of structural integrity and overall performance.

NYSDEC will be notified prior to any repair or decommissioning of any monitoring well for the purpose of replacement, and the repair or decommissioning and replacement process will be documented in the subsequent PRR. Well decommissioning without replacement will be done only with the prior approval of NYSDEC. Well abandonment will be performed in accordance with NYSDEC's guidance entitled CP-43: Groundwater Monitoring Well Decommissioning Procedures. Monitoring wells that are decommissioned because they have been rendered unusable will be replaced in kind in the nearest available location, unless otherwise approved by NYSDEC.

The sampling frequency may only be modified with the approval of NYSDEC. This SMP will be modified to reflect changes in sampling plans approved by NYSDEC. Deliverables for the groundwater monitoring program are specified in Section 6.0.

# 5.0 PERIODIC ASSESSMENTS/EVALUATIONS

## 5.1 Climate Change Vulnerability Assessment

Increases in both the severity and frequency of storms/weather events, an increase in sea level elevations along with accompanying flooding impacts, shifting precipitation patterns, and wide temperature fluctuation, resulting from global climactic change and instability, have the potential to significantly impact the protectiveness of a given site. Vulnerability assessments provide information so that the site is prepared for the impacts of the increasing frequency and intensity of severe storms/weather events and associated flooding.

This section provides a summary of vulnerability assessments that will be conducted for the Site during periodic assessments, and briefly summarizes the vulnerability of the Site to severe storms/weather events and associated flooding.

- Flood Plain: The Site is not located within a flood plain.
- Site Drainage and Storm Water Management: Stormwater at the Site and the surrounding area flows to the NYC combined sewer system.
- Erosion: As the Site is covered with a building, erosion is not anticipated to be an issue of concern.
- High Wind: All permanent building components are secured against high winds. In the event that high winds are forecast for the Site, proper precautions will be taken to secure or shelter any Site components that are not protected against high winds.
- Electricity: Electricity to the buildings is supplied via newly installed underground vaults and conduits and is not expected to be affected by severe weather events.
- Spill/Contaminant Release: Storage of large amounts of fuel oil or other chemicals at the Site is not expected. Nominal amounts of cleaning chemicals are likely to be stored throughout the Site but are not expected to be affected by severe weather conditions.

## 5.2 Soil Vapor Intrusion Evaluation

As required by the RAWP, an SVIE consisting of confirmatory indoor air sampling will be conducted in the future on-site building. The SVIE will include indoor air samples collected after the building envelope is completed and the heating, ventilation, and air conditioning (HVAC) system is operating. The indoor air sampling will be conducted in accordance with the October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York (with updates), and the data will be evaluated to determine if actions are necessary to address potential exposure to soil vapor intrusion. Upon completion of the evaluation, if an action is required, any actions taken or to be taken must be reflected in an updated SMP.

A workplan for the proposed SVIE (SVIEWP), which includes a written evaluation of the soil vapor intrusion exposure pathway, proposed indoor air sampling locations, and a schedule for conducting the sampling prior to occupancy, will be submitted under separate cover for NYSDEC review and approval after the building envelope is completed and the HVAC system is operating.

All work will be completed in accordance with the QAPP (Appendix F) and the Health and Safety Plan (HASP) provided as Appendix G.

# 6.0 REPORTING REQUIREMENTS

## 6.1 Site Management Reports

All Site management inspection events and monitoring events will be recorded on the appropriate site management forms included in Appendix E. These forms are subject to NYSDEC project manager revision. All site management inspection, maintenance, and monitoring events will be conducted by a QEP as defined in 6 NYCRR Part 375, a P.E. who is licensed and registered in NYS, or a qualified person who directly reports to a P.E. who is licensed and registered in NYS.

All applicable inspection forms and other records, including media sampling data generated for the Site during the reporting period, will be provided in electronic format to the NYSDEC project manager in accordance with the requirements of In-Text Table 7 and summarized in the PRR.

**In-Text Table 7**
**Monitoring/Inspection Report Deliverables**

| Task/Report | Reporting Frequency* |
|---|---|
| Groundwater Monitoring Report with Figures and Attachments (Inspections and Associated Sampling Events) | Quarterly for two consecutive quarters, continuation and frequency thereafter to be determined based on consultation with NYSDEC. |
| PRR (Inclusive of all monitoring and sampling events) | 16 months after receipt of COC; Annually thereafter. |

* The frequency of events will be conducted as specified until otherwise modified by NYSDEC.

All interim monitoring/inspections reports will include, at a minimum:

- Date of event or reporting period;
- Name, company, and position of person(s) conducting monitoring/inspection activities;
- Description of the activities performed;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet);
- Type of samples collected (e.g., groundwater, sub-slab vapor, indoor air, outdoor air);
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation);
- Sampling results in comparison to appropriate standards/criteria;
- A figure illustrating sample type and sampling locations;
- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (to be submitted electronically in the NYSDEC-identified format);
- Any observations, conclusions, or recommendations; and
- A determination as to whether contaminant conditions have changed since the last reporting event.

Data will be reported in digital format as determined by the NYSDEC. Currently, data is to be supplied electronically and submitted to the NYSDEC EQuIS™ database in accordance with the requirements found at this link: http://www.dec.ny.gov/chemical/62440.html.

## 6.2 Periodic Review Report

Following issuance of the COC, the first PRR will be submitted to NYSDEC in May 2026 for the first 16-month reporting period (December 2024 through April 2025). Subsequent PRRs shall be submitted annually to NYSDEC and will consist only of the certification, as specified in Section 6.2.1, except in the event where there have been changes to the Site or data gathered during the certifying period. Given such an event, the submittal of a comprehensive PRR will be necessary, as specified below.

In the event that the Site is subdivided into separate parcels with different ownership, a single PRR will be prepared that addresses the Site described in Appendix A – Environmental Easement. The report will be prepared in accordance with NYSDEC's DER-10 and submitted within 30 days of the end of each certification period. Media sampling results (if any) will also be incorporated into the PRR. The report will include:

- Identification, assessment and certification of all ICs and the EC required by the remedy for the Site.
- Results of the required annual site inspections and severe condition inspections, if applicable.
- Description of any change of use, import of materials, or excavation that occurred during the certifying period, if applicable.
- All applicable site management forms and other records generated for the Site during the reporting period in the NYSDEC-approved electronic format, if not previously submitted.
- Identification of any wastes generated during the reporting period, along with waste characterization data, manifests, and disposal documentation, if applicable.
- A summary of any monitoring data and/or information generated during the reporting period, with comments and conclusions.
- Data summary tables and graphical representations of contaminants of concern by media (groundwater, etc.), which include a listing of all compounds analyzed, along with the applicable standards, with all exceedances highlighted. These tables and figures will include a presentation of past data as part of an evaluation of contaminant concentration trends, including but not limited to:
  - Trend monitoring graphs that present groundwater contaminant levels from before the start of the remedy implementation to the most current sampling data;
  - Trend monitoring graphs depicting system influent analytical data on a per event and cumulative basis;
  - A current plume map with remaining groundwater contamination; and
  - A groundwater elevation contour map for each gauging event.
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted in digital format as determined by the NYSDEC. Currently, data is supplied electronically and submitted to the NYSDEC EQuIS™ database in accordance with the requirements found at this link: http://www.dec.ny.gov/chemical/62440.html.
- A Site evaluation, which includes the following:
  - The compliance of the remedy with the requirements of the Site-specific RAWP and DD;

- Any new conclusions or observations regarding Site contamination based on inspections or data generated by the Monitoring and Sampling Plan for the media being monitored;
- Recommendations regarding any necessary changes to the remedy and/or Monitoring and Sampling Plan;
- An update to the climate change vulnerability assessment if Site or external conditions have changed since the previous assessment, and recommendations to address vulnerabilities;
- An evaluation of trends in contaminant levels in the affected media to determine whether the remedy continues to be effective in achieving remedial goals as specified by the RAWP and DD; and
- The overall performance and effectiveness of the remedy.

### 6.2.1 Certification of Institutional Controls

Within 30 days after the end of each certifying period, as determined by NYSDEC, the following certification will be provided to NYSDEC:

*"For each institutional control identified for the Site, I certify that all of the following statements are true:*

- *The institutional control employed at this Site is unchanged from the date the control was put in place, or last approved by NYSDEC;*
- *Nothing has occurred that would impair the ability of the control to protect the public health and environment;*
- *Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;*
- *Access to the Site will continue to be provided to the NYSDEC to evaluate the remedy, including access to evaluate the continued maintenance of this control;*
- *If a financial assurance mechanism is required under the oversight document for the Site, the mechanism remains valid and sufficient for the intended purpose under the document;*
- *Use of the Site is compliant with the Environmental Easement; and*
- *The information presented in this report is accurate and complete.*

*I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name], of [business address], am certifying as [Owner or Owner's Designated Site Representative] (and if the Site consists of multiple properties): [and I have been authorized and designated by all Site owners to sign this certification] for the Site.*

*I certify that the New York State Education Department has granted a Certificate of Authorization to provide Professional Engineering services to the firm that prepared this Periodic Review Report.*

The PRR will be submitted, in electronic format, to the NYSDEC project manager and the NYSDOH project manager. The PRR may need to be submitted in hard-copy format, as requested by the NYSDEC project manager.

### 6.3 Corrective Measures Work Plan

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an IC or EC, a Corrective Measures Work Plan will be submitted to NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the Corrective Measures Work Plan until it has been approved by NYSDEC. Upon completion of the Corrective Measure, a signed certification form must be submitted to NYSDEC.

# 7.0 REFERENCES

1. 6 NYCRR Part 375, Environmental Remediation Programs, December 14, 2006.
2. NYSDEC, DER-10 – "Technical Guidance for Site Investigation and Remediation".
3. NYSDEC, 1998. Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations Division of Water Technical and Operational Guidance Series 1.1.1. June 1998 (April 2000 addendum).
4. NYSDOH Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York dated October 2006 ("NYSDOH Vapor Intrusion Guidance Document"), updated May 2017 and February 2024.
5. Nelson Pope Voorhis, Phase I Environmental Site Assessment, 374 4th Avenue, Brooklyn, NY, December 28, 2020.
6. AKRF, Inc., Remedial Investigation Report, 374 4th Avenue, Brooklyn, NY, October 2021.
7. AKRF, Inc., Brownfield Cleanup Program Application – 380 4th Avenue, Brooklyn, New York, May 2, 2022.
8. AKRF, Inc., Brownfield Cleanup Agreement – BCP Site No. C224358, 380 4th Avenue, Brooklyn, New York, October 22, 2022.
9. AKRF, Inc., Waste Characterization Report, 380 4th Avenue, Brooklyn, NY, August 10, 2022.
10. AKRF, Inc., Remedial Investigation Report, 380 4th Avenue, Brooklyn, NY, March 2023.
11. AKRF, Inc., Remedial Action Work Plan, 380 4th Avenue, Brooklyn, NY, April 2023.
12. NYSDEC, Decision Document – BCP Site No. C2243582, 380 4th Avenue, Brooklyn, NY, April 2023.

**ATTACHED TABLES**

**Table 1**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Volatile Organic Compounds*

| | | | | AKRF Sample ID | EP-01_15_20231103 | EP-X1_15_20231103 | EP-02_15_20231103 | EP-03_15_20231103 |
|---|---|---|---|---|---|---|---|---|
| | | | | Laboratory Sample ID | 460-291818-1 | 460-291818-8 | 460-291818-2 | 460-291818-3 |
| | | | | Date Sampled | 11/03/2023 | 11/03/2023 | 11/03/2023 | 11/03/2023 |
| | | | | Dilution Factor | 1 | 1 | 1 | 1 |
| | | | | Unit | mg/kg | mg/kg | mg/kg | mg/kg |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | **NYSDEC PGWSCO** | | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,1,1-Trichloroethane | 0.68 | 100 | 0.68 | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| 1,1,2,2-Tetrachloroethane | NS | NS | NS | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF) | NS | NS | NS | | 0.0016 U | 0.0013 U | 0.0016 U | 0.0016 U |
| 1,1,2-Trichloroethane | NS | NS | NS | | 0.0016 UJ | 0.0013 UJ | 0.0016 UJ | 0.0016 UJ |
| 1,1-Dichloroethane | 0.27 | 47 | 0.27 | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| 1,1-Dichloroethene | 0.24 | 0.98 | 0.33 | | 0.0016 U | 0.0013 U | 0.0016 U | 0.0016 U |
| 1,2,3-Trichlorobenzene | NS | NS | NS | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| 1,2,4-Trichlorobenzene | NS | NS | NS | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| 1,2,4-Trimethylbenzene | 0.51 | 0.52 | 5.9 | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| 1,2-Dibromo-3-Chloropropane | NS | NS | NS | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| 1,2-Dibromoethane (Ethylene Dibromide) | NS | NS | NS | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| 1,2-Dichlorobenzene | 1.1 | 100 | 1.1 | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| 1,2-Dichloroethane | 0.02 | 5.8 | 0.02 | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| 1,2-Dichloropropane | NS | NS | NS | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| 1,3,5-Trimethylbenzene (Mesitylene) | 0.51 | 0.52 | 3.1 | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| 1,3-Dichlorobenzene | 2.4 | 38 | 2.6 | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| 1,4-Dichlorobenzene | 1.8 | 24 | 1.8 | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| 2-Hexanone | NS | NS | NS | | 0.008 U | 0.0067 U | 0.0081 U | 0.0081 U |
| Acetone | **0.03** | 100 | 0.03 | | **0.073 JK** | **0.076 JK** | **0.07** | **0.084** |
| Benzene | 0.06 | 3.7 | 0.06 | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| Bromochloromethane | NS | NS | NS | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| Bromodichloromethane | NS | NS | NS | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| Bromoform | NS | NS | NS | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| Bromomethane | NS | NS | NS | | 0.0032 U | 0.0027 U | 0.0032 U | 0.0032 U |
| Carbon Disulfide | NS | NS | NS | | 0.00099 JL | 0.00062 JL | 0.0011 J | 0.0016 U |
| Carbon Tetrachloride | 0.76 | 7.1 | 0.76 | | 0.0016 U | 0.0013 U | 0.0016 U | 0.0016 U |
| Chlorobenzene | 1.1 | 100 | 1.1 | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| Chloroethane | NS | NS | NS | | 0.0016 U | 0.0013 U | 0.0016 U | 0.0016 U |
| Chloroform | 0.37 | 24 | 0.37 | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| Chloromethane | NS | NS | NS | | 0.0016 U | 0.0013 U | 0.0016 U | 0.0016 U |
| Cis-1,2-Dichloroethylene | 0.19 | 41 | 0.19 | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| Cis-1,3-Dichloropropene | NS | NS | NS | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| Cyclohexane | NS | NS | NS | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| Dibromochloromethane | NS | NS | NS | | 0.0016 U | 0.0013 U | 0.0016 U | 0.0016 U |
| Dichlorodifluoromethane | NS | NS | NS | | 0.0016 U | 0.0013 U | 0.0016 U | 0.0016 U |
| Ethylbenzene | 1 | 76 | 1 | | 0.0016 UJ | 0.0009 JL | 0.0009 J | 0.0016 U |
| Isopropylbenzene (Cumene) | NS | NS | NS | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| M,P-Xylenes | NS | NS | NS | | 0.00058 JL | 0.0041 JL | 0.0026 | 0.001 J |
| Methyl Acetate | NS | NS | NS | | 0.008 U | 0.0067 U | 0.0081 U | 0.0081 U |
| Methyl Ethyl Ketone (2-Butanone) | 0.1 | 100 | 0.1 | | 0.008 UJ | 0.01 J | 0.01 | 0.0081 U |
| Methyl Isobutyl Ketone (4-Methyl-2-Pentanone) | NS | NS | NS | | 0.008 U | 0.0067 U | 0.0081 U | 0.0081 U |
| Methylcyclohexane | NS | NS | NS | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| Methylene Chloride | 0.05 | 81 | 0.05 | | 0.0032 U | 0.0027 U | 0.0032 U | 0.0032 U |
| N-Butylbenzene | 18 | 100 | 18 | | 0.0016 UJ | 0.0013 U | 0.0016 U | 0.0016 U |
| N-Propylbenzene | 5 | 100 | 5 | | 0.0016 UJ | 0.0013 U | 0.0016 U | 0.0016 U |
| O-Xylene (1,2-Dimethylbenzene) | NS | NS | NS | | 0.0016 UJ | 0.0029 JL | 0.0014 J | 0.00051 J |
| Sec-Butylbenzene | 25 | 100 | 25 | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| Styrene | NS | NS | NS | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| T-Butylbenzene | 11 | 100 | 11 | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| Tert-Butyl Methyl Ether | 0.1 | 100 | 0.1 | | 0.0016 U | 0.0013 U | 0.0016 U | 0.0016 U |
| Tetrachloroethylene (PCE) | 1.3 | 18 | 1.3 | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| Toluene | 0.7 | 100 | 0.7 | | 0.0016 UJ | 0.0013 UJ | 0.00039 J | 0.0016 U |
| Trans-1,2-Dichloroethene | 0.19 | 100 | 0.19 | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| Trans-1,3-Dichloropropene | NS | NS | NS | | 0.0016 UJ | 0.0013 UJ | 0.0016 U | 0.0016 U |
| Trichloroethylene (TCE) | 0.47 | 6.4 | 0.47 | | 0.0016 UJ | 0.0013 UJ | 0.0016 UJ | 0.0016 UJ |
| Trichlorofluoromethane | NS | NS | NS | | 0.0016 U | 0.0013 U | 0.0016 U | 0.0016 U |
| Vinyl Chloride | 0.02 | 0.48 | 0.03 | | 0.0016 U | 0.0013 U | 0.0016 U | 0.0016 U |
| Xylenes, Total | 0.26 | 100 | 1.2 | | 0.00058 JL | 0.007 JL | 0.004 | 0.0015 J |

**Table 1**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Volatile Organic Compounds*

| | | | | **AKRF Sample ID** | EP-04_15_20231103 | EP-05_15_20231103 | EP-06_15_20231103 | EP-07_15_20231103 |
|---|---|---|---|---|---|---|---|---|
| | | | | **Laboratory Sample ID** | 460-291818-4 | 460-291818-5 | 460-291818-6 | 460-291818-7 |
| | | | | **Date Sampled** | 11/03/2023 | 11/03/2023 | 11/03/2023 | 11/03/2023 |
| | | | | **Dilution Factor** | 1 | 1 | 1 | 1 |
| | | | | **Unit** | mg/kg | mg/kg | mg/kg | mg/kg |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | **NYSDEC PGWSCO** | | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,1,1-Trichloroethane | 0.68 | 100 | 0.68 | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| 1,1,2,2-Tetrachloroethane | NS | NS | NS | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF) | NS | NS | NS | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| 1,1,2-Trichloroethane | NS | NS | NS | | 0.002 UJ | 0.0015 UJ | 0.002 UJ | 0.0015 UJ |
| 1,1-Dichloroethane | 0.27 | 47 | 0.27 | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| 1,1-Dichloroethene | 0.24 | 0.98 | 0.33 | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| 1,2,3-Trichlorobenzene | NS | NS | NS | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| 1,2,4-Trichlorobenzene | NS | NS | NS | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| 1,2,4-Trimethylbenzene | 0.51 | 0.52 | 5.9 | | 0.002 U | 0.00046 J | 0.002 U | 0.0015 U |
| 1,2-Dibromo-3-Chloropropane | NS | NS | NS | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| 1,2-Dibromoethane (Ethylene Dibromide) | NS | NS | NS | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| 1,2-Dichlorobenzene | 1.1 | 100 | 1.1 | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| 1,2-Dichloroethane | 0.02 | 5.8 | 0.02 | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| 1,2-Dichloropropane | NS | NS | NS | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| 1,3,5-Trimethylbenzene (Mesitylene) | 0.51 | 0.52 | 3.1 | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| 1,3-Dichlorobenzene | 2.4 | 38 | 2.6 | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| 1,4-Dichlorobenzene | 1.8 | 24 | 1.8 | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| 2-Hexanone | NS | NS | NS | | 0.0099 U | 0.0075 U | 0.01 U | 0.0074 U |
| Acetone | **0.03** | 100 | 0.03 | | **0.093** | **0.15** | **0.18** | **0.065** |
| Benzene | 0.06 | 3.7 | 0.06 | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| Bromochloromethane | NS | NS | NS | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| Bromodichloromethane | NS | NS | NS | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| Bromoform | NS | NS | NS | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| Bromomethane | NS | NS | NS | | 0.004 U | 0.003 U | 0.0041 U | 0.0029 U |
| Carbon Disulfide | NS | NS | NS | | 0.00083 J | 0.00095 J | 0.0013 J | 0.0015 U |
| Carbon Tetrachloride | 0.76 | 7.1 | 0.76 | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| Chlorobenzene | 1.1 | 100 | 1.1 | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| Chloroethane | NS | NS | NS | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| Chloroform | 0.37 | 24 | 0.37 | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| Chloromethane | NS | NS | NS | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| Cis-1,2-Dichloroethylene | 0.19 | 41 | 0.19 | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| Cis-1,3-Dichloropropene | NS | NS | NS | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| Cyclohexane | NS | NS | NS | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| Dibromochloromethane | NS | NS | NS | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| Dichlorodifluoromethane | NS | NS | NS | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| Ethylbenzene | 1 | 76 | 1 | | 0.0004 J | 0.0015 U | 0.0015 J | 0.0015 U |
| Isopropylbenzene (Cumene) | NS | NS | NS | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| M,P-Xylenes | NS | NS | NS | | 0.0033 | 0.00066 J | 0.013 | 0.0015 U |
| Methyl Acetate | NS | NS | NS | | 0.0099 U | 0.0075 U | 0.01 U | 0.0074 U |
| Methyl Ethyl Ketone (2-Butanone) | 0.1 | 100 | 0.1 | | 0.021 | 0.039 | 0.017 | 0.019 |
| Methyl Isobutyl Ketone (4-Methyl-2-Pentanone) | NS | NS | NS | | 0.0099 U | 0.0075 U | 0.01 U | 0.0074 U |
| Methylcyclohexane | NS | NS | NS | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| Methylene Chloride | 0.05 | 81 | 0.05 | | 0.004 U | 0.003 U | 0.0041 U | 0.0029 U |
| N-Butylbenzene | 18 | 100 | 18 | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| N-Propylbenzene | 5 | 100 | 5 | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| O-Xylene (1,2-Dimethylbenzene) | NS | NS | NS | | 0.0016 J | 0.00043 J | 0.0079 | 0.0015 U |
| Sec-Butylbenzene | 25 | 100 | 25 | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| Styrene | NS | NS | NS | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| T-Butylbenzene | 11 | 100 | 11 | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| Tert-Butyl Methyl Ether | 0.1 | 100 | 0.1 | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| Tetrachloroethylene (PCE) | 1.3 | 18 | 1.3 | | 0.002 U | 0.00085 J | 0.002 U | 0.0015 U |
| Toluene | 0.7 | 100 | 0.7 | | 0.002 U | 0.00044 J | 0.002 U | 0.0015 U |
| Trans-1,2-Dichloroethene | 0.19 | 100 | 0.19 | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| Trans-1,3-Dichloropropene | NS | NS | NS | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| Trichloroethylene (TCE) | 0.47 | 6.4 | 0.47 | | 0.002 UJ | 0.0015 UJ | 0.002 UJ | 0.0015 UJ |
| Trichlorofluoromethane | NS | NS | NS | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| Vinyl Chloride | 0.02 | 0.48 | 0.03 | | 0.002 U | 0.0015 U | 0.002 U | 0.0015 U |
| Xylenes, Total | 0.26 | 100 | 1.2 | | 0.0049 | 0.0011 J | 0.021 | 0.0029 U |

**Table 1**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Volatile Organic Compounds*

| | | | | **AKRF Sample ID** | EP-08_15_20231110 | EP-09_15_20231110 | EP-10_15_20231110 | EP-11_15_20231110 |
|---|---|---|---|---|---|---|---|---|
| | | | | **Laboratory Sample ID** | 460-292402-1 | 460-292402-2 | 460-292402-3 | 460-292402-4 |
| | | | | **Date Sampled** | 11/10/2023 | 11/10/2023 | 11/10/2023 | 11/10/2023 |
| | | | | **Dilution Factor** | 1 | 1 | 1 | 1 |
| | | | | **Unit** | mg/kg | mg/kg | mg/kg | mg/kg |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | **NYSDEC PGWSCO** | | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,1,1-Trichloroethane | 0.68 | 100 | 0.68 | | 0.0017 UJ | 0.0014 UJ | 0.0012 UJ | 0.00094 UJ |
| 1,1,2,2-Tetrachloroethane | NS | NS | NS | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF) | NS | NS | NS | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| 1,1,2-Trichloroethane | NS | NS | NS | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| 1,1-Dichloroethane | 0.27 | 47 | 0.27 | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| 1,1-Dichloroethene | 0.24 | 0.98 | 0.33 | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00035 J |
| 1,2,3-Trichlorobenzene | NS | NS | NS | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| 1,2,4-Trichlorobenzene | NS | NS | NS | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| 1,2,4-Trimethylbenzene | 0.51 | 0.52 | 5.9 | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| 1,2-Dibromo-3-Chloropropane | NS | NS | NS | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| 1,2-Dibromoethane (Ethylene Dibromide) | NS | NS | NS | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| 1,2-Dichlorobenzene | 1.1 | 100 | 1.1 | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| 1,2-Dichloroethane | 0.02 | 5.8 | 0.02 | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| 1,2-Dichloropropane | NS | NS | NS | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| 1,3,5-Trimethylbenzene (Mesitylene) | 0.51 | 0.52 | 3.1 | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| 1,3-Dichlorobenzene | 2.4 | 38 | 2.6 | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| 1,4-Dichlorobenzene | 1.8 | 24 | 1.8 | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| 2-Hexanone | NS | NS | NS | | 0.0085 U | 0.0071 U | 0.0062 U | 0.0047 U |
| Acetone | **0.03** | 100 | 0.03 | | **0.092** | **0.11** | **0.059** | 0.02 |
| Benzene | 0.06 | 3.7 | 0.06 | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| Bromochloromethane | NS | NS | NS | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| Bromodichloromethane | NS | NS | NS | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| Bromoform | NS | NS | NS | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| Bromomethane | NS | NS | NS | | 0.0034 U | 0.0028 U | 0.0025 U | 0.0019 U |
| Carbon Disulfide | NS | NS | NS | | 0.0017 U | 0.00077 J | 0.0012 U | 0.00094 U |
| Carbon Tetrachloride | 0.76 | 7.1 | 0.76 | | 0.0017 UJ | 0.0014 UJ | 0.0012 UJ | 0.00094 UJ |
| Chlorobenzene | 1.1 | 100 | 1.1 | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| Chloroethane | NS | NS | NS | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| Chloroform | 0.37 | 24 | 0.37 | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| Chloromethane | NS | NS | NS | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| Cis-1,2-Dichloroethylene | 0.19 | 41 | 0.19 | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| Cis-1,3-Dichloropropene | NS | NS | NS | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| Cyclohexane | NS | NS | NS | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| Dibromochloromethane | NS | NS | NS | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| Dichlorodifluoromethane | NS | NS | NS | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| Ethylbenzene | 1 | 76 | 1 | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| Isopropylbenzene (Cumene) | NS | NS | NS | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| M,P-Xylenes | NS | NS | NS | | 0.0017 U | 0.0011 J | 0.0012 U | 0.00094 U |
| Methyl Acetate | NS | NS | NS | | 0.0085 U | 0.0071 U | 0.0062 U | 0.0047 U |
| Methyl Ethyl Ketone (2-Butanone) | 0.1 | 100 | 0.1 | | 0.031 | 0.027 | 0.015 | 0.0047 U |
| Methyl Isobutyl Ketone (4-Methyl-2-Pentanone) | NS | NS | NS | | 0.0085 U | 0.0071 U | 0.0062 U | 0.0047 U |
| Methylcyclohexane | NS | NS | NS | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| Methylene Chloride | 0.05 | 81 | 0.05 | | 0.0034 U | 0.0028 U | 0.0025 U | 0.0019 U |
| N-Butylbenzene | 18 | 100 | 18 | | 0.0017 UJ | 0.0014 UJ | 0.0012 UJ | 0.00094 UJ |
| N-Propylbenzene | 5 | 100 | 5 | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| O-Xylene (1,2-Dimethylbenzene) | NS | NS | NS | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| Sec-Butylbenzene | 25 | 100 | 25 | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| Styrene | NS | NS | NS | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| T-Butylbenzene | 11 | 100 | 11 | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| Tert-Butyl Methyl Ether | 0.1 | 100 | 0.1 | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| Tetrachloroethylene (PCE) | 1.3 | 18 | 1.3 | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| Toluene | 0.7 | 100 | 0.7 | | 0.00052 J | 0.0014 U | 0.0012 U | 0.00094 U |
| Trans-1,2-Dichloroethene | 0.19 | 100 | 0.19 | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| Trans-1,3-Dichloropropene | NS | NS | NS | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| Trichloroethylene (TCE) | 0.47 | 6.4 | 0.47 | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| Trichlorofluoromethane | NS | NS | NS | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| Vinyl Chloride | 0.02 | 0.48 | 0.03 | | 0.0017 U | 0.0014 U | 0.0012 U | 0.00094 U |
| Xylenes, Total | 0.26 | 100 | 1.2 | | 0.0034 U | 0.0011 J | 0.0025 U | 0.0019 U |

**Table 1**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Volatile Organic Compounds*

| | | | | **AKRF Sample ID** | EP-12_15_20231110 | EP-13_15_20231110 | EP-14_15_20231110 | EP-15_15_20231110 |
|---|---|---|---|---|---|---|---|---|
| | | | | **Laboratory Sample ID** | 460-292402-5 | 460-292402-6 | 460-292402-7 | 460-292402-8 |
| | | | | **Date Sampled** | 11/10/2023 | 11/10/2023 | 11/10/2023 | 11/10/2023 |
| | | | | **Dilution Factor** | 1 | 1 | 1 | 1 |
| | | | | **Unit** | mg/kg | mg/kg | mg/kg | mg/kg |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | **NYSDEC PGWSCO** | | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,1,1-Trichloroethane | 0.68 | 100 | 0.68 | | 0.0014 UJ | 0.0019 UJ | 0.0012 UJ | |
| 1,1,2,2-Tetrachloroethane | NS | NS | NS | | 0.0014 U | 0.0019 U | 0.0012 U | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF) | NS | NS | NS | | 0.0014 U | 0.0019 U | 0.0012 U | |
| 1,1,2-Trichloroethane | NS | NS | NS | | 0.0014 U | 0.0019 U | 0.0012 U | |
| 1,1-Dichloroethane | 0.27 | 47 | 0.27 | | 0.0014 U | 0.0019 U | 0.0012 U | |
| 1,1-Dichloroethene | 0.24 | 0.98 | 0.33 | | 0.0014 U | 0.00071 J | 0.0012 U | |
| 1,2,3-Trichlorobenzene | NS | NS | NS | | 0.0014 U | 0.0019 U | 0.0012 U | |
| 1,2,4-Trichlorobenzene | NS | NS | NS | | 0.0014 U | 0.0019 U | 0.0012 U | |
| 1,2,4-Trimethylbenzene | 0.51 | 0.52 | 5.9 | | 0.0014 U | 0.0019 U | 0.0012 U | |
| 1,2-Dibromo-3-Chloropropane | NS | NS | NS | | 0.0014 U | 0.0019 U | 0.0012 U | |
| 1,2-Dibromoethane (Ethylene Dibromide) | NS | NS | NS | | 0.0014 U | 0.0019 U | 0.0012 U | |
| 1,2-Dichlorobenzene | 1.1 | 100 | 1.1 | | 0.0014 U | 0.0019 U | 0.0012 U | |
| 1,2-Dichloroethane | 0.02 | 5.8 | 0.02 | | 0.0014 U | 0.0019 U | 0.0012 U | |
| 1,2-Dichloropropane | NS | NS | NS | | 0.0014 U | 0.0019 U | 0.0012 U | |
| 1,3,5-Trimethylbenzene (Mesitylene) | 0.51 | 0.52 | 3.1 | | 0.0014 U | 0.0019 U | 0.0012 U | |
| 1,3-Dichlorobenzene | 2.4 | 38 | 2.6 | | 0.0014 U | 0.0019 U | 0.0012 U | |
| 1,4-Dichlorobenzene | 1.8 | 24 | 1.8 | | 0.0014 U | 0.0019 U | 0.0012 U | |
| 2-Hexanone | NS | NS | NS | | 0.0072 U | 0.0096 U | 0.0062 U | |
| Acetone | **0.03** | 100 | 0.03 | | **0.077** | **0.068** | **0.06** | |
| Benzene | 0.06 | 3.7 | 0.06 | | 0.0014 U | 0.0019 U | 0.0012 U | |
| Bromochloromethane | NS | NS | NS | | 0.0014 U | 0.0019 U | 0.0012 U | |
| Bromodichloromethane | NS | NS | NS | | 0.0014 U | 0.0019 U | 0.0012 U | |
| Bromoform | NS | NS | NS | | 0.0014 U | 0.0019 U | 0.0012 U | |
| Bromomethane | NS | NS | NS | | 0.0029 U | 0.0039 U | 0.0025 U | |
| Carbon Disulfide | NS | NS | NS | | 0.0014 U | 0.0025 | 0.0012 U | ***over-excavated*** |
| Carbon Tetrachloride | 0.76 | 7.1 | 0.76 | | 0.0014 UJ | 0.0019 UJ | 0.0012 UJ | *(sample was over-excavated* |
| Chlorobenzene | 1.1 | 100 | 1.1 | | 0.0014 U | 0.0019 U | 0.0012 U | *when petroleum hotspot was* |
| Chloroethane | NS | NS | NS | | 0.0014 U | 0.0019 U | 0.0012 U | *expanded, beyond its* |
| Chloroform | 0.37 | 24 | 0.37 | | 0.0014 U | 0.0019 U | 0.0012 U | *proposed extents in the* |
| Chloromethane | NS | NS | NS | | 0.0014 U | 0.0019 U | 0.0012 U | *RAWP, based on olfacotry* |
| Cis-1,2-Dichloroethylene | 0.19 | 41 | 0.19 | | 0.0014 U | 0.0019 U | 0.0012 U | *observations and elevated PID* |
| Cis-1,3-Dichloropropene | NS | NS | NS | | 0.0014 U | 0.0019 U | 0.0012 U | *readings; and not due to* |
| Cyclohexane | NS | NS | NS | | 0.0071 | 0.0019 U | 0.00076 J | *exceedances of applicable* |
| Dibromochloromethane | NS | NS | NS | | 0.0014 U | 0.0019 U | 0.0012 U | *SCOs)* |
| Dichlorodifluoromethane | NS | NS | NS | | 0.0014 U | 0.0019 U | 0.0012 U | |
| Ethylbenzene | 1 | 76 | 1 | | 0.0014 U | 0.0019 U | 0.00037 J | |
| Isopropylbenzene (Cumene) | NS | NS | NS | | 0.0014 U | 0.0019 U | 0.00083 J | |
| M,P-Xylenes | NS | NS | NS | | 0.0014 U | 0.0019 U | 0.0024 | |
| Methyl Acetate | NS | NS | NS | | 0.0072 U | 0.0096 U | 0.0062 U | |
| Methyl Ethyl Ketone (2-Butanone) | 0.1 | 100 | 0.1 | | 0.026 | 0.033 | 0.013 | |
| Methyl Isobutyl Ketone (4-Methyl-2-Pentanone) | NS | NS | NS | | 0.0072 U | 0.0096 U | 0.0062 U | |
| Methylcyclohexane | NS | NS | NS | | 0.0097 | 0.0019 U | 0.0012 U | |
| Methylene Chloride | 0.05 | 81 | 0.05 | | 0.0029 U | 0.0039 U | 0.0015 J | |
| N-Butylbenzene | 18 | 100 | 18 | | 0.0014 UJ | 0.0019 UJ | 0.0012 UJ | |
| N-Propylbenzene | 5 | 100 | 5 | | 0.0014 U | 0.0019 U | 0.0012 U | |
| O-Xylene (1,2-Dimethylbenzene) | NS | NS | NS | | 0.0014 U | 0.0019 U | 0.0012 | |
| Sec-Butylbenzene | 25 | 100 | 25 | | 0.0014 U | 0.0019 U | 0.00084 J | |
| Styrene | NS | NS | NS | | 0.0014 U | 0.0019 U | 0.0012 U | |
| T-Butylbenzene | 11 | 100 | 11 | | 0.0014 U | 0.0019 U | 0.0012 U | |
| Tert-Butyl Methyl Ether | 0.1 | 100 | 0.1 | | 0.0014 U | 0.0019 U | 0.0012 U | |
| Tetrachloroethylene (PCE) | 1.3 | 18 | 1.3 | | 0.0014 U | 0.0019 U | 0.0012 U | |
| Toluene | 0.7 | 100 | 0.7 | | 0.0014 U | 0.0019 U | 0.0012 U | |
| Trans-1,2-Dichloroethene | 0.19 | 100 | 0.19 | | 0.0014 U | 0.0019 U | 0.0012 U | |
| Trans-1,3-Dichloropropene | NS | NS | NS | | 0.0014 U | 0.0019 U | 0.0012 U | |
| Trichloroethylene (TCE) | 0.47 | 6.4 | 0.47 | | 0.0014 U | 0.0019 U | 0.0012 U | |
| Trichlorofluoromethane | NS | NS | NS | | 0.0014 U | 0.0019 U | 0.0012 U | |
| Vinyl Chloride | 0.02 | 0.48 | 0.03 | | 0.0014 U | 0.0019 U | 0.0012 U | |
| Xylenes, Total | 0.26 | 100 | 1.2 | | 0.0029 U | 0.0039 U | 0.0036 | |

**Table 1**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Volatile Organic Compounds*

| | | | | **AKRF Sample ID** | EP-16_20_20231127 | EP-X2_20_20231127 | EP-17_15_20231127 | EP-18_17.5_20231127 |
|---|---|---|---|---|---|---|---|---|
| | | | | **Laboratory Sample ID** | 460-293316-1 | 460-293316-8 | 460-293316-2 | 460-293316-3 |
| | | | | **Date Sampled** | 11/27/2023 | 11/27/2023 | 11/27/2023 | 11/27/2023 |
| | | | | **Dilution Factor** | 1 | 1 | 1 | 1 |
| | | | | **Unit** | mg/kg | mg/kg | mg/kg | mg/kg |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | **NYSDEC PGWSCO** | | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,1,1-Trichloroethane | 0.68 | 100 | 0.68 | | 0.0015 UJ | 0.0012 UJ | 0.0015 U | 0.0019 U |
| 1,1,2,2-Tetrachloroethane | NS | NS | NS | | 0.0015 U | 0.0012 U | 0.0015 U | 0.0019 U |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF) | NS | NS | NS | | 0.0015 UJ | 0.0012 UJ | 0.0015 U | 0.0019 U |
| 1,1,2-Trichloroethane | NS | NS | NS | | 0.0015 UJ | 0.0012 UJ | 0.0015 U | 0.0019 U |
| 1,1-Dichloroethane | 0.27 | 47 | 0.27 | | 0.0015 UJ | 0.0012 UJ | 0.0015 U | 0.0019 U |
| 1,1-Dichloroethene | 0.24 | 0.98 | 0.33 | | 0.0015 U | 0.0012 U | 0.0015 U | 0.0019 U |
| 1,2,3-Trichlorobenzene | NS | NS | NS | | 0.0015 UJ | 0.0012 UJ | 0.0015 U | 0.0019 U |
| 1,2,4-Trichlorobenzene | NS | NS | NS | | 0.0015 UJ | 0.0012 UJ | 0.0015 U | 0.0019 U |
| 1,2,4-Trimethylbenzene | 0.51 | 0.52 | 5.9 | | 0.0015 UJ | 0.00053 JL | 0.0015 U | 0.0063 |
| 1,2-Dibromo-3-Chloropropane | NS | NS | NS | | 0.0015 UJ | 0.0012 UJ | 0.0015 U | 0.0019 U |
| 1,2-Dibromoethane (Ethylene Dibromide) | NS | NS | NS | | 0.0015 U | 0.0012 U | 0.0015 U | 0.0019 U |
| 1,2-Dichlorobenzene | 1.1 | 100 | 1.1 | | 0.0015 UJ | 0.0012 UJ | 0.0015 U | 0.0019 U |
| 1,2-Dichloroethane | 0.02 | 5.8 | 0.02 | | 0.0015 UJ | 0.0012 UJ | 0.0015 U | 0.0019 U |
| 1,2-Dichloropropane | NS | NS | NS | | 0.0015 UJ | 0.0012 UJ | 0.0015 U | 0.0019 U |
| 1,3,5-Trimethylbenzene (Mesitylene) | 0.51 | 0.52 | 3.1 | | 0.0015 UJ | 0.00054 JL | 0.0015 U | 0.0042 |
| 1,3-Dichlorobenzene | 2.4 | 38 | 2.6 | | 0.0015 UJ | 0.0012 UJ | 0.0015 U | 0.0019 U |
| 1,4-Dichlorobenzene | 1.8 | 24 | 1.8 | | 0.0015 UJ | 0.0012 UJ | 0.0015 U | 0.0019 U |
| 2-Hexanone | NS | NS | NS | | 0.0073 UJ | 0.006 UJ | 0.0076 U | 0.0097 U |
| Acetone | **0.03** | 100 | 0.03 | | **0.21 J** | **0.037 JL** | 0.011 U | **0.065** |
| Benzene | 0.06 | 3.7 | 0.06 | | 0.00073 JL | 0.00091 JL | 0.0015 U | 0.0022 |
| Bromochloromethane | NS | NS | NS | | 0.0015 UJ | 0.0012 UJ | 0.0015 U | 0.0019 U |
| Bromodichloromethane | NS | NS | NS | | 0.0015 U | 0.0012 U | 0.0015 U | 0.0019 U |
| Bromoform | NS | NS | NS | | 0.0015 UJ | 0.0012 UJ | 0.0015 U | 0.0019 U |
| Bromomethane | NS | NS | NS | | 0.0029 U | 0.0024 U | 0.0031 U | 0.0039 U |
| Carbon Disulfide | NS | NS | NS | | 0.0012 J | 0.00068 J | 0.0024 | 0.0051 |
| Carbon Tetrachloride | 0.76 | 7.1 | 0.76 | | 0.0015 U | 0.0012 U | 0.0015 U | 0.0019 U |
| Chlorobenzene | 1.1 | 100 | 1.1 | | 0.0015 UJ | 0.0012 UJ | 0.0015 U | 0.0019 U |
| Chloroethane | NS | NS | NS | | 0.0015 U | 0.0012 U | 0.0015 U | 0.0019 U |
| Chloroform | 0.37 | 24 | 0.37 | | 0.0015 UJ | 0.0012 UJ | 0.0015 U | 0.0019 U |
| Chloromethane | NS | NS | NS | | 0.0015 U | 0.0012 U | 0.0015 U | 0.0019 U |
| Cis-1,2-Dichloroethylene | 0.19 | 41 | 0.19 | | 0.0015 UJ | 0.0012 UJ | 0.0015 U | 0.0019 U |
| Cis-1,3-Dichloropropene | NS | NS | NS | | 0.0015 UJ | 0.0012 UJ | 0.0015 U | 0.0019 U |
| Cyclohexane | NS | NS | NS | | 0.0081 JL | 0.0049 JL | 0.00069 J | 0.0086 |
| Dibromochloromethane | NS | NS | NS | | 0.0015 U | 0.0012 U | 0.0015 U | 0.0019 U |
| Dichlorodifluoromethane | NS | NS | NS | | 0.0015 U | 0.0012 U | 0.0015 U | 0.0019 U |
| Ethylbenzene | 1 | 76 | 1 | | 0.0014 JL | 0.0012 UJ | 0.0015 U | 0.0023 |
| Isopropylbenzene (Cumene) | NS | NS | NS | | 0.00053 JL | 0.00051 JL | 0.0015 U | 0.0019 U |
| M,P-Xylenes | NS | NS | NS | | 0.0063 JL | 0.00095 JL | 0.0015 U | 0.0087 |
| Methyl Acetate | NS | NS | NS | | 0.0073 U | 0.006 U | 0.0076 U | 0.0097 U |
| Methyl Ethyl Ketone (2-Butanone) | 0.1 | 100 | 0.1 | | 0.016 | 0.011 | 0.0076 U | 0.0057 J |
| Methyl Isobutyl Ketone (4-Methyl-2-Pentanone) | NS | NS | NS | | 0.0073 UJ | 0.006 UJ | 0.0076 U | 0.0097 U |
| Methylcyclohexane | NS | NS | NS | | 0.016 JL | 0.019 JL | 0.0027 | 0.032 |
| Methylene Chloride | 0.05 | 81 | 0.05 | | 0.0029 U | 0.0024 U | 0.0031 U | 0.0039 U |
| N-Butylbenzene | 18 | 100 | 18 | | 0.0015 UJ | 0.0012 UJ | 0.0015 U | 0.0019 U |
| N-Propylbenzene | 5 | 100 | 5 | | 0.00027 JL | 0.0012 UJ | 0.0015 U | 0.0019 U |
| O-Xylene (1,2-Dimethylbenzene) | NS | NS | NS | | 0.0025 JL | 0.00046 JL | 0.0004 J | 0.0063 |
| Sec-Butylbenzene | 25 | 100 | 25 | | 0.0015 UJ | 0.0012 UJ | 0.0015 U | 0.0019 U |
| Styrene | NS | NS | NS | | 0.0015 UJ | 0.0012 UJ | 0.0015 U | 0.0019 U |
| T-Butylbenzene | 11 | 100 | 11 | | 0.0015 UJ | 0.0012 UJ | 0.0015 U | 0.0019 U |
| Tert-Butyl Methyl Ether | 0.1 | 100 | 0.1 | | 0.0015 UJ | 0.0012 UJ | 0.0015 U | 0.0019 U |
| Tetrachloroethylene (PCE) | 1.3 | 18 | 1.3 | | 0.0015 U | 0.00078 J | 0.0015 U | 0.0019 U |
| Toluene | 0.7 | 100 | 0.7 | | 0.00085 JL | 0.00029 JL | 0.0015 U | 0.0017 J |
| Trans-1,2-Dichloroethene | 0.19 | 100 | 0.19 | | 0.0015 UJ | 0.0012 UJ | 0.0015 U | 0.0019 U |
| Trans-1,3-Dichloropropene | NS | NS | NS | | 0.0015 UJ | 0.0012 UJ | 0.0015 U | 0.0019 U |
| Trichloroethylene (TCE) | 0.47 | 6.4 | 0.47 | | 0.0015 UJ | 0.0012 UJ | 0.0015 U | 0.0019 U |
| Trichlorofluoromethane | NS | NS | NS | | 0.0015 U | 0.0012 U | 0.0015 U | 0.0019 U |
| Vinyl Chloride | 0.02 | 0.48 | 0.03 | | 0.0015 U | 0.0012 U | 0.0015 U | 0.0019 U |
| Xylenes, Total | 0.26 | 100 | 1.2 | | 0.0088 JL | 0.0014 JL | 0.00078 J | 0.015 |

**Table 1**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Volatile Organic Compounds*

| | | | | **AKRF Sample ID** | EP-19_17.5_20231127 | EP-20_17.5_20231127 | EP-21_20_20231129 | EP-21_20_20231129 |
|---|---|---|---|---|---|---|---|---|
| | | | | **Laboratory Sample ID** | 460-293316-4 | 460-293316-5 | 460-293467-1 | 460-293467-1 |
| | | | | **Date Sampled** | 11/27/2023 | 11/27/2023 | 11/29/2023 | 11/29/2023 |
| | | | | **Dilution Factor** | 1 | 1 | 1 | 50 |
| | | | | **Unit** | mg/kg | mg/kg | mg/kg | mg/kg |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | **NYSDEC PGWSCO** | | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,1,1-Trichloroethane | 0.68 | 100 | 0.68 | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| 1,1,2,2-Tetrachloroethane | NS | NS | NS | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF) | NS | NS | NS | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| 1,1,2-Trichloroethane | NS | NS | NS | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| 1,1-Dichloroethane | 0.27 | 47 | 0.27 | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| 1,1-Dichloroethene | 0.24 | 0.98 | 0.33 | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| 1,2,3-Trichlorobenzene | NS | NS | NS | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| 1,2,4-Trichlorobenzene | NS | NS | NS | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| 1,2,4-Trimethylbenzene | 0.51 | 0.52 | 5.9 | | 0.0017 U | 0.00095 U | 0.002 | NR |
| 1,2-Dibromo-3-Chloropropane | NS | NS | NS | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| 1,2-Dibromoethane (Ethylene Dibromide) | NS | NS | NS | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| 1,2-Dichlorobenzene | 1.1 | 100 | 1.1 | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| 1,2-Dichloroethane | 0.02 | 5.8 | 0.02 | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| 1,2-Dichloropropane | NS | NS | NS | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| 1,3,5-Trimethylbenzene (Mesitylene) | 0.51 | 0.52 | 3.1 | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| 1,3-Dichlorobenzene | 2.4 | 38 | 2.6 | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| 1,4-Dichlorobenzene | 1.8 | 24 | 1.8 | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| 2-Hexanone | NS | NS | NS | | 0.0087 U | 0.0047 U | 0.0071 U | NR |
| Acetone | **0.03** | 100 | 0.03 | | **0.078** | **0.049** | 0.0085 U | NR |
| Benzene | 0.06 | 3.7 | 0.06 | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| Bromochloromethane | NS | NS | NS | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| Bromodichloromethane | NS | NS | NS | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| Bromoform | NS | NS | NS | | 0.0017 U | 0.00095 U | 0.0014 UJ | NR |
| Bromomethane | NS | NS | NS | | 0.0035 U | 0.0019 U | 0.0028 U | NR |
| Carbon Disulfide | NS | NS | NS | | 0.001 J | 0.0018 | 0.0014 U | NR |
| Carbon Tetrachloride | 0.76 | 7.1 | 0.76 | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| Chlorobenzene | 1.1 | 100 | 1.1 | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| Chloroethane | NS | NS | NS | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| Chloroform | 0.37 | 24 | 0.37 | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| Chloromethane | NS | NS | NS | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| Cis-1,2-Dichloroethylene | 0.19 | 41 | 0.19 | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| Cis-1,3-Dichloropropene | NS | NS | NS | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| Cyclohexane | NS | NS | NS | | 0.0011 J | 0.00042 J | 0.32 | NR |
| Dibromochloromethane | NS | NS | NS | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| Dichlorodifluoromethane | NS | NS | NS | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| Ethylbenzene | 1 | 76 | 1 | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| Isopropylbenzene (Cumene) | NS | NS | NS | | 0.0017 U | 0.00095 U | 0.095 JK | NR |
| M,P-Xylenes | NS | NS | NS | | 0.0017 U | 0.00095 U | 0.0022 JK | NR |
| Methyl Acetate | NS | NS | NS | | 0.0087 U | 0.0047 U | 0.0071 U | NR |
| Methyl Ethyl Ketone (2-Butanone) | 0.1 | 100 | 0.1 | | 0.017 | 0.0073 | 0.0071 U | NR |
| Methyl Isobutyl Ketone (4-Methyl-2-Pentanone) | NS | NS | NS | | 0.0087 U | 0.0047 U | 0.0071 U | NR |
| Methylcyclohexane | NS | NS | NS | | 0.0037 | 0.00085 J | NR | 6.3 D |
| Methylene Chloride | 0.05 | 81 | 0.05 | | 0.0035 U | 0.0019 U | 0.0028 U | NR |
| N-Butylbenzene | 18 | 100 | 18 | | 0.0017 U | 0.00095 U | 0.14 | NR |
| N-Propylbenzene | 5 | 100 | 5 | | 0.0017 U | 0.00095 U | 0.094 | NR |
| O-Xylene (1,2-Dimethylbenzene) | NS | NS | NS | | 0.0017 U | 0.00095 U | 0.0011 JK | NR |
| Sec-Butylbenzene | 25 | 100 | 25 | | 0.0017 U | 0.00095 U | 0.13 | NR |
| Styrene | NS | NS | NS | | 0.0017 U | 0.00095 U | 0.0014 UJ | NR |
| T-Butylbenzene | 11 | 100 | 11 | | 0.0017 U | 0.00095 U | 0.018 | NR |
| Tert-Butyl Methyl Ether | 0.1 | 100 | 0.1 | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| Tetrachloroethylene (PCE) | 1.3 | 18 | 1.3 | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| Toluene | 0.7 | 100 | 0.7 | | 0.0017 U | 0.00095 U | 0.00077 JK | NR |
| Trans-1,2-Dichloroethene | 0.19 | 100 | 0.19 | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| Trans-1,3-Dichloropropene | NS | NS | NS | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| Trichloroethylene (TCE) | 0.47 | 6.4 | 0.47 | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| Trichlorofluoromethane | NS | NS | NS | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| Vinyl Chloride | 0.02 | 0.48 | 0.03 | | 0.0017 U | 0.00095 U | 0.0014 U | NR |
| Xylenes, Total | 0.26 | 100 | 1.2 | | 0.00073 J | 0.0019 U | 0.0034 JK | NR |

**Table 1**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Volatile Organic Compounds*

| | | | | AKRF Sample ID | EP-22_17.5_20231129 | EP-23_17.5_20231129 | EP-24_20_20231129 | EP-25_19.5_20231207 |
|---|---|---|---|---|---|---|---|---|
| | | | | Laboratory Sample ID | 460-293467-2 | 460-293467-3 | 460-293467-4 | 460-294189-1 |
| | | | | Date Sampled | 11/29/2023 | 11/29/2023 | 11/29/2023 | 12/07/2023 |
| | | | | Dilution Factor | 1 | 1 | 1 | 1 |
| | | | | Unit | mg/kg | mg/kg | mg/kg | mg/kg |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | **NYSDEC PGWSCO** | | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,1,1-Trichloroethane | 0.68 | 100 | 0.68 | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| 1,1,2,2-Tetrachloroethane | NS | NS | NS | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF) | NS | NS | NS | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| 1,1,2-Trichloroethane | NS | NS | NS | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| 1,1-Dichloroethane | 0.27 | 47 | 0.27 | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| 1,1-Dichloroethene | 0.24 | 0.98 | 0.33 | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| 1,2,3-Trichlorobenzene | NS | NS | NS | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| 1,2,4-Trichlorobenzene | NS | NS | NS | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| 1,2,4-Trimethylbenzene | 0.51 | 0.52 | 5.9 | | 0.0011 U | 0.0019 | 0.00092 U | 0.0019 U |
| 1,2-Dibromo-3-Chloropropane | NS | NS | NS | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| 1,2-Dibromoethane (Ethylene Dibromide) | NS | NS | NS | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| 1,2-Dichlorobenzene | 1.1 | 100 | 1.1 | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| 1,2-Dichloroethane | 0.02 | 5.8 | 0.02 | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| 1,2-Dichloropropane | NS | NS | NS | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| 1,3,5-Trimethylbenzene (Mesitylene) | 0.51 | 0.52 | 3.1 | | 0.0011 U | 0.00083 J | 0.00092 U | 0.0019 U |
| 1,3-Dichlorobenzene | 2.4 | 38 | 2.6 | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| 1,4-Dichlorobenzene | 1.8 | 24 | 1.8 | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| 2-Hexanone | NS | NS | NS | | 0.0056 U | 0.0049 U | 0.0046 U | 0.0094 U |
| Acetone | **0.03** | 100 | 0.03 | | 0.026 | 0.029 | 0.013 | 0.011 U |
| Benzene | 0.06 | 3.7 | 0.06 | | 0.0011 U | 0.00099 U | 0.0049 | 0.0019 U |
| Bromochloromethane | NS | NS | NS | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 UJ |
| Bromodichloromethane | NS | NS | NS | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| Bromoform | NS | NS | NS | | 0.0011 UJ | 0.00099 UJ | 0.00092 UJ | 0.0019 U |
| Bromomethane | NS | NS | NS | | 0.0023 U | 0.002 U | 0.0018 U | 0.0037 U |
| Carbon Disulfide | NS | NS | NS | | 0.0011 U | 0.00036 J | 0.00092 U | 0.0012 J |
| Carbon Tetrachloride | 0.76 | 7.1 | 0.76 | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| Chlorobenzene | 1.1 | 100 | 1.1 | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| Chloroethane | NS | NS | NS | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| Chloroform | 0.37 | 24 | 0.37 | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| Chloromethane | NS | NS | NS | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| Cis-1,2-Dichloroethylene | 0.19 | 41 | 0.19 | | 0.0011 U | 0.00099 U | 0.00092 U | 0.00083 J |
| Cis-1,3-Dichloropropene | NS | NS | NS | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| Cyclohexane | NS | NS | NS | | 0.0019 | 0.0015 | 0.012 | 0.0019 U |
| Dibromochloromethane | NS | NS | NS | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| Dichlorodifluoromethane | NS | NS | NS | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| Ethylbenzene | 1 | 76 | 1 | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| Isopropylbenzene (Cumene) | NS | NS | NS | | 0.0011 U | 0.0047 | 0.005 | 0.0019 U |
| M,P-Xylenes | NS | NS | NS | | 0.0002 J | 0.00074 J | 0.00041 J | 0.0019 U |
| Methyl Acetate | NS | NS | NS | | 0.0056 U | 0.0049 U | 0.0046 U | 0.0094 U |
| Methyl Ethyl Ketone (2-Butanone) | 0.1 | 100 | 0.1 | | 0.0056 U | 0.0059 | 0.0027 J | 0.0094 U |
| Methyl Isobutyl Ketone (4-Methyl-2-Pentanone) | NS | NS | NS | | 0.0056 U | 0.0049 U | 0.0046 U | 0.0094 U |
| Methylcyclohexane | NS | NS | NS | | 0.011 | 0.021 | 0.027 | 0.0011 J |
| Methylene Chloride | 0.05 | 81 | 0.05 | | 0.0023 U | 0.002 U | 0.0018 U | 0.0037 U |
| N-Butylbenzene | 18 | 100 | 18 | | 0.0011 U | 0.024 | 0.0015 | 0.0019 U |
| N-Propylbenzene | 5 | 100 | 5 | | 0.0011 U | 0.0027 | 0.0054 | 0.0019 U |
| O-Xylene (1,2-Dimethylbenzene) | NS | NS | NS | | 0.0009 J | 0.001 | 0.00036 J | 0.0019 U |
| Sec-Butylbenzene | 25 | 100 | 25 | | 0.0011 U | 0.023 | 0.0016 | 0.0019 U |
| Styrene | NS | NS | NS | | 0.0011 UJ | 0.00099 UJ | 0.00092 UJ | 0.0019 U |
| T-Butylbenzene | 11 | 100 | 11 | | 0.00047 J | 0.0071 | 0.00092 U | 0.0019 U |
| Tert-Butyl Methyl Ether | 0.1 | 100 | 0.1 | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| Tetrachloroethylene (PCE) | 1.3 | 18 | 1.3 | | 0.0011 U | 0.00037 J | 0.00092 U | 0.0009 J |
| Toluene | 0.7 | 100 | 0.7 | | 0.0011 U | 0.00099 U | 0.00053 J | 0.00047 J |
| Trans-1,2-Dichloroethene | 0.19 | 100 | 0.19 | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| Trans-1,3-Dichloropropene | NS | NS | NS | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| Trichloroethylene (TCE) | 0.47 | 6.4 | 0.47 | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| Trichlorofluoromethane | NS | NS | NS | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| Vinyl Chloride | 0.02 | 0.48 | 0.03 | | 0.0011 U | 0.00099 U | 0.00092 U | 0.0019 U |
| Xylenes, Total | 0.26 | 100 | 1.2 | | 0.0011 J | 0.0018 J | 0.00076 J | 0.0037 U |

**Table 1**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Volatile Organic Compounds*

| | | | | AKRF Sample ID | EP-26_17.5_20231207 | EP-27_22.5_20231207 | EP-28_22.5_20231207 | EP-29_22.5_20231207 |
|---|---|---|---|---|---|---|---|---|
| | | | | Laboratory Sample ID | 460-294189-2 | 460-294189-3 | 460-294189-4 | 460-294189-5 |
| | | | | Date Sampled | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 |
| | | | | Dilution Factor | 1 | 1 | 1 | 1 |
| | | | | Unit | mg/kg | mg/kg | mg/kg | mg/kg |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | **NYSDEC PGWSCO** | | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,1,1-Trichloroethane | 0.68 | 100 | 0.68 | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| 1,1,2,2-Tetrachloroethane | NS | NS | NS | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF) | NS | NS | NS | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| 1,1,2-Trichloroethane | NS | NS | NS | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| 1,1-Dichloroethane | 0.27 | 47 | 0.27 | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| 1,1-Dichloroethene | 0.24 | 0.98 | 0.33 | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| 1,2,3-Trichlorobenzene | NS | NS | NS | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| 1,2,4-Trichlorobenzene | NS | NS | NS | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| 1,2,4-Trimethylbenzene | 0.51 | 0.52 | 5.9 | | 0.0015 U | 0.0073 | 0.0034 | 0.0021 U |
| 1,2-Dibromo-3-Chloropropane | NS | NS | NS | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| 1,2-Dibromoethane (Ethylene Dibromide) | NS | NS | NS | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| 1,2-Dichlorobenzene | 1.1 | 100 | 1.1 | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| 1,2-Dichloroethane | 0.02 | 5.8 | 0.02 | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| 1,2-Dichloropropane | NS | NS | NS | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| 1,3,5-Trimethylbenzene (Mesitylene) | 0.51 | 0.52 | 3.1 | | 0.0015 U | 0.0015 U | 0.0031 | 0.0021 U |
| 1,3-Dichlorobenzene | 2.4 | 38 | 2.6 | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| 1,4-Dichlorobenzene | 1.8 | 24 | 1.8 | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| 2-Hexanone | NS | NS | NS | | 0.0076 U | 0.0077 U | 0.0058 U | 0.01 U |
| Acetone | **0.03** | 100 | 0.03 | | 0.012 | **0.05** | **0.036** | **0.079** |
| Benzene | 0.06 | 3.7 | 0.06 | | 0.0015 U | 0.00047 J | 0.0014 | 0.0021 U |
| Bromochloromethane | NS | NS | NS | | 0.0015 UJ | 0.0015 UJ | 0.0012 UJ | 0.0021 UJ |
| Bromodichloromethane | NS | NS | NS | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| Bromoform | NS | NS | NS | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| Bromomethane | NS | NS | NS | | 0.003 U | 0.0031 U | 0.0023 U | 0.0042 U |
| Carbon Disulfide | NS | NS | NS | | 0.00042 J | 0.0044 | 0.00072 J | 0.0037 |
| Carbon Tetrachloride | 0.76 | 7.1 | 0.76 | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| Chlorobenzene | 1.1 | 100 | 1.1 | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| Chloroethane | NS | NS | NS | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| Chloroform | 0.37 | 24 | 0.37 | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| Chloromethane | NS | NS | NS | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| Cis-1,2-Dichloroethylene | 0.19 | 41 | 0.19 | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| Cis-1,3-Dichloropropene | NS | NS | NS | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| Cyclohexane | NS | NS | NS | | 0.0015 U | 0.0015 U | 0.058 | 0.00054 J |
| Dibromochloromethane | NS | NS | NS | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| Dichlorodifluoromethane | NS | NS | NS | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| Ethylbenzene | 1 | 76 | 1 | | 0.0015 U | 0.0013 J | 0.0012 U | 0.0021 U |
| Isopropylbenzene (Cumene) | NS | NS | NS | | 0.0015 U | 0.0076 | 0.0072 JK | 0.00072 J |
| M,P-Xylenes | NS | NS | NS | | 0.0015 U | 0.0015 | 0.0039 JK | 0.0021 U |
| Methyl Acetate | NS | NS | NS | | 0.0076 U | 0.0077 U | 0.0058 U | 0.01 U |
| Methyl Ethyl Ketone (2-Butanone) | 0.1 | 100 | 0.1 | | 0.0076 U | 0.0097 | 0.0058 U | 0.01 U |
| Methyl Isobutyl Ketone (4-Methyl-2-Pentanone) | NS | NS | NS | | 0.0076 U | 0.0077 U | 0.0058 U | 0.01 U |
| Methylcyclohexane | NS | NS | NS | | 0.0027 | 0.024 | 0.44 | 0.0078 |
| Methylene Chloride | 0.05 | 81 | 0.05 | | 0.003 U | 0.0031 U | 0.0023 U | 0.003 J |
| N-Butylbenzene | 18 | 100 | 18 | | 0.0015 U | 0.017 | 0.0012 U | 0.0021 U |
| N-Propylbenzene | 5 | 100 | 5 | | 0.0015 U | 0.017 | 0.0045 | 0.0021 U |
| O-Xylene (1,2-Dimethylbenzene) | NS | NS | NS | | 0.0015 U | 0.002 | 0.0022 JK | 0.0021 U |
| Sec-Butylbenzene | 25 | 100 | 25 | | 0.0015 U | 0.013 | 0.008 | 0.0012 J |
| Styrene | NS | NS | NS | | 0.0015 U | 0.0074 | 0.0012 U | 0.0021 U |
| T-Butylbenzene | 11 | 100 | 11 | | 0.00056 J | 0.0017 | 0.0042 | 0.0012 J |
| Tert-Butyl Methyl Ether | 0.1 | 100 | 0.1 | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| Tetrachloroethylene (PCE) | 1.3 | 18 | 1.3 | | 0.0015 U | 0.0015 U | 0.00044 JK | 0.0021 U |
| Toluene | 0.7 | 100 | 0.7 | | 0.0015 U | 0.00059 J | 0.00053 JK | 0.0021 U |
| Trans-1,2-Dichloroethene | 0.19 | 100 | 0.19 | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| Trans-1,3-Dichloropropene | NS | NS | NS | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| Trichloroethylene (TCE) | 0.47 | 6.4 | 0.47 | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| Trichlorofluoromethane | NS | NS | NS | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| Vinyl Chloride | 0.02 | 0.48 | 0.03 | | 0.0015 U | 0.0015 U | 0.0012 U | 0.0021 U |
| Xylenes, Total | 0.26 | 100 | 1.2 | | 0.003 U | 0.0035 | 0.0061 JK | 0.0042 U |

**Table 1**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Volatile Organic Compounds*

| | | | | **AKRF Sample ID** | EP-30_22.5_20231207 | EP-31_22.5_20231207 | EP-32_22.5_20231207 | EP-33_22.5_20231207 |
|---|---|---|---|---|---|---|---|---|
| | | | | **Laboratory Sample ID** | 460-294189-6 | 460-294189-7 | 460-294189-8 | 460-294189-9 |
| | | | | **Date Sampled** | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 |
| | | | | **Dilution Factor** | 1 | 1 | 1 | 1 |
| | | | | **Unit** | mg/kg | mg/kg | mg/kg | mg/kg |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | **NYSDEC PGWSCO** | | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,1,1-Trichloroethane | 0.68 | 100 | 0.68 | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| 1,1,2,2-Tetrachloroethane | NS | NS | NS | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF) | NS | NS | NS | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| 1,1,2-Trichloroethane | NS | NS | NS | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| 1,1-Dichloroethane | 0.27 | 47 | 0.27 | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| 1,1-Dichloroethene | 0.24 | 0.98 | 0.33 | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| 1,2,3-Trichlorobenzene | NS | NS | NS | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| 1,2,4-Trichlorobenzene | NS | NS | NS | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| 1,2,4-Trimethylbenzene | 0.51 | 0.52 | 5.9 | | 0.0016 U | 0.0017 J | 0.0008 J | 0.0016 U |
| 1,2-Dibromo-3-Chloropropane | NS | NS | NS | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| 1,2-Dibromoethane (Ethylene Dibromide) | NS | NS | NS | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| 1,2-Dichlorobenzene | 1.1 | 100 | 1.1 | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| 1,2-Dichloroethane | 0.02 | 5.8 | 0.02 | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| 1,2-Dichloropropane | NS | NS | NS | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| 1,3,5-Trimethylbenzene (Mesitylene) | 0.51 | 0.52 | 3.1 | | 0.0016 U | 0.0014 J | 0.00088 J | 0.00058 J |
| 1,3-Dichlorobenzene | 2.4 | 38 | 2.6 | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| 1,4-Dichlorobenzene | 1.8 | 24 | 1.8 | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| 2-Hexanone | NS | NS | NS | | 0.0078 U | 0.0094 U | 0.0095 U | 0.0081 U |
| Acetone | **0.03** | 100 | 0.03 | | **0.077** | **0.044** | **0.091** | **0.031** |
| Benzene | 0.06 | 3.7 | 0.06 | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| Bromochloromethane | NS | NS | NS | | 0.0016 UJ | 0.0019 UJ | 0.0019 UJ | 0.0016 UJ |
| Bromodichloromethane | NS | NS | NS | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| Bromoform | NS | NS | NS | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| Bromomethane | NS | NS | NS | | 0.0031 U | 0.0037 U | 0.0038 U | 0.0032 U |
| Carbon Disulfide | NS | NS | NS | | 0.001 J | 0.0017 J | 0.0017 J | 0.00082 J |
| Carbon Tetrachloride | 0.76 | 7.1 | 0.76 | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| Chlorobenzene | 1.1 | 100 | 1.1 | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| Chloroethane | NS | NS | NS | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| Chloroform | 0.37 | 24 | 0.37 | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| Chloromethane | NS | NS | NS | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| Cis-1,2-Dichloroethylene | 0.19 | 41 | 0.19 | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| Cis-1,3-Dichloropropene | NS | NS | NS | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| Cyclohexane | NS | NS | NS | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| Dibromochloromethane | NS | NS | NS | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| Dichlorodifluoromethane | NS | NS | NS | | 0.0016 U | 0.00063 J | 0.0019 U | 0.0016 U |
| Ethylbenzene | 1 | 76 | 1 | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| Isopropylbenzene (Cumene) | NS | NS | NS | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| M,P-Xylenes | NS | NS | NS | | 0.0016 U | 0.00036 J | 0.0019 U | 0.0016 U |
| Methyl Acetate | NS | NS | NS | | 0.0078 U | 0.0094 U | 0.0095 U | 0.0081 U |
| Methyl Ethyl Ketone (2-Butanone) | 0.1 | 100 | 0.1 | | 0.01 | 0.0094 U | 0.0095 U | 0.0081 U |
| Methyl Isobutyl Ketone (4-Methyl-2-Pentanone) | NS | NS | NS | | 0.0078 U | 0.0094 U | 0.0095 U | 0.0081 U |
| Methylcyclohexane | NS | NS | NS | | 0.0016 U | 0.002 | 0.0019 U | 0.0073 |
| Methylene Chloride | 0.05 | 81 | 0.05 | | 0.0031 U | 0.0037 U | 0.0028 J | 0.0023 J |
| N-Butylbenzene | 18 | 100 | 18 | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| N-Propylbenzene | 5 | 100 | 5 | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| O-Xylene (1,2-Dimethylbenzene) | NS | NS | NS | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| Sec-Butylbenzene | 25 | 100 | 25 | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| Styrene | NS | NS | NS | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| T-Butylbenzene | 11 | 100 | 11 | | 0.0016 U | 0.0019 U | 0.0019 U | 0.00095 J |
| Tert-Butyl Methyl Ether | 0.1 | 100 | 0.1 | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| Tetrachloroethylene (PCE) | 1.3 | 18 | 1.3 | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| Toluene | 0.7 | 100 | 0.7 | | 0.00045 J | 0.00068 J | 0.0019 U | 0.0016 U |
| Trans-1,2-Dichloroethene | 0.19 | 100 | 0.19 | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| Trans-1,3-Dichloropropene | NS | NS | NS | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| Trichloroethylene (TCE) | 0.47 | 6.4 | 0.47 | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| Trichlorofluoromethane | NS | NS | NS | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| Vinyl Chloride | 0.02 | 0.48 | 0.03 | | 0.0016 U | 0.0019 U | 0.0019 U | 0.0016 U |
| Xylenes, Total | 0.26 | 100 | 1.2 | | 0.0031 U | 0.00036 J | 0.0038 U | 0.0032 U |

**Table 1**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Volatile Organic Compounds*

| | | | | AKRF Sample ID | EP-34_22.5_20231207 | EP-35_25_20231207 | EP-35_27_20231214 | EP-36_25_20231207 |
|---|---|---|---|---|---|---|---|---|
| | | | | Laboratory Sample ID | 460-294189-10 | 460-294189-11 | 460-294648-1 | 460-294189-12 |
| | | | | Date Sampled | 12/07/2023 | 12/07/2023 | 12/14/2023 | 12/07/2023 |
| | | | | Dilution Factor | 1 | 50 | 1 | 1 |
| | | | | Unit | mg/kg | mg/kg | mg/kg | mg/kg |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | **NYSDEC PGWSCO** | | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,1,1-Trichloroethane | 0.68 | 100 | 0.68 | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| 1,1,2,2-Tetrachloroethane | NS | NS | NS | | 0.0017 U | 0.15 U | NR | 0.0013 UJ |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF) | NS | NS | NS | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| 1,1,2-Trichloroethane | NS | NS | NS | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| 1,1-Dichloroethane | 0.27 | 47 | 0.27 | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| 1,1-Dichloroethene | 0.24 | 0.98 | 0.33 | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| 1,2,3-Trichlorobenzene | NS | NS | NS | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| 1,2,4-Trichlorobenzene | NS | NS | NS | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| 1,2,4-Trimethylbenzene | 0.51 | 0.52 | 5.9 | | 0.00089 J | 0.22 | NR | 0.0013 U |
| 1,2-Dibromo-3-Chloropropane | NS | NS | NS | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| 1,2-Dibromoethane (Ethylene Dibromide) | NS | NS | NS | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| 1,2-Dichlorobenzene | 1.1 | 100 | 1.1 | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| 1,2-Dichloroethane | 0.02 | 5.8 | 0.02 | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| 1,2-Dichloropropane | NS | NS | NS | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| 1,3,5-Trimethylbenzene (Mesitylene) | 0.51 | 0.52 | 3.1 | | 0.0017 U | 0.053 J | NR | 0.0013 U |
| 1,3-Dichlorobenzene | 2.4 | 38 | 2.6 | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| 1,4-Dichlorobenzene | 1.8 | 24 | 1.8 | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| 2-Hexanone | NS | NS | NS | | 0.0083 U | 0.74 U | NR | 0.0063 U |
| Acetone | **0.03** | 100 | 0.03 | | **0.078** | 0.74 U | NR | 0.015 |
| Benzene | 0.06 | 3.7 | 0.06 | | 0.0046 | ***over-excavated*** | 0.0017 U | 0.0013 U |
| Bromochloromethane | NS | NS | NS | | 0.0017 UJ | 0.15 U | NR | 0.0013 UJ |
| Bromodichloromethane | NS | NS | NS | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| Bromoform | NS | NS | NS | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| Bromomethane | NS | NS | NS | | 0.0033 U | 0.15 UJ | NR | 0.0025 U |
| Carbon Disulfide | NS | NS | NS | | 0.0035 | 0.15 U | NR | 0.0013 U |
| Carbon Tetrachloride | 0.76 | 7.1 | 0.76 | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| Chlorobenzene | 1.1 | 100 | 1.1 | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| Chloroethane | NS | NS | NS | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| Chloroform | 0.37 | 24 | 0.37 | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| Chloromethane | NS | NS | NS | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| Cis-1,2-Dichloroethylene | 0.19 | 41 | 0.19 | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| Cis-1,3-Dichloropropene | NS | NS | NS | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| Cyclohexane | NS | NS | NS | | 0.0017 U | 0.089 J | NR | 0.0012 J |
| Dibromochloromethane | NS | NS | NS | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| Dichlorodifluoromethane | NS | NS | NS | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| Ethylbenzene | 1 | 76 | 1 | | 0.0018 | 0.14 J | NR | 0.0013 U |
| Isopropylbenzene (Cumene) | NS | NS | NS | | 0.00079 J | 0.14 J | NR | 0.0013 U |
| M,P-Xylenes | NS | NS | NS | | 0.0017 U | 0.14 J | NR | 0.0013 U |
| Methyl Acetate | NS | NS | NS | | 0.0083 U | 0.74 U | NR | 0.0063 U |
| Methyl Ethyl Ketone (2-Butanone) | 0.1 | 100 | 0.1 | | 0.0083 U | 0.74 U | NR | 0.0063 U |
| Methyl Isobutyl Ketone (4-Methyl-2-Pentanone) | NS | NS | NS | | 0.0083 U | 0.74 U | NR | 0.0063 U |
| Methylcyclohexane | NS | NS | NS | | 0.0024 | 0.79 | NR | 0.0032 |
| Methylene Chloride | 0.05 | 81 | 0.05 | | 0.002 J | 0.15 U | NR | 0.0025 U |
| N-Butylbenzene | 18 | 100 | 18 | | 0.0017 U | 0.21 | NR | 0.0013 UJ |
| N-Propylbenzene | 5 | 100 | 5 | | 0.00072 J | 0.18 | NR | 0.0013 UJ |
| O-Xylene (1,2-Dimethylbenzene) | NS | NS | NS | | 0.0017 U | 0.052 J | NR | 0.0013 U |
| Sec-Butylbenzene | 25 | 100 | 25 | | 0.0017 U | 0.15 | NR | 0.0013 U |
| Styrene | NS | NS | NS | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| T-Butylbenzene | 11 | 100 | 11 | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| Tert-Butyl Methyl Ether | 0.1 | 100 | 0.1 | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| Tetrachloroethylene (PCE) | 1.3 | 18 | 1.3 | | 0.0017 U | 0.074 J | NR | 0.0013 U |
| Toluene | 0.7 | 100 | 0.7 | | 0.0017 U | 0.16 | NR | 0.0013 U |
| Trans-1,2-Dichloroethene | 0.19 | 100 | 0.19 | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| Trans-1,3-Dichloropropene | NS | NS | NS | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| Trichloroethylene (TCE) | 0.47 | 6.4 | 0.47 | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| Trichlorofluoromethane | NS | NS | NS | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| Vinyl Chloride | 0.02 | 0.48 | 0.03 | | 0.0017 U | 0.15 U | NR | 0.0013 U |
| Xylenes, Total | 0.26 | 100 | 1.2 | | 0.0033 U | 0.19 J | NR | 0.0025 U |

**Table 1**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Volatile Organic Compounds*

| | | | | AKRF Sample ID | EP-37_17.5_20231215 | EP-X3_20231215 | EP-38_17.5_20231215 | EP-39_20_20231215 |
|---|---|---|---|---|---|---|---|---|
| | | | | Laboratory Sample ID | 460-294775-1 | 460-294775-9 | 460-294775-2 | 460-294775-3 |
| | | | | Date Sampled | 12/15/2023 | 12/15/2023 | 12/15/2023 | 12/15/2023 |
| | | | | Dilution Factor | 1 | 1 | 1 | 1 |
| | | | | Unit | mg/kg | mg/kg | mg/kg | mg/kg |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | **NYSDEC PGWSCO** | | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,1,1-Trichloroethane | 0.68 | 100 | 0.68 | | 0.0017 U | 0.0019 U | 0.0011 U | 0.0013 U |
| 1,1,2,2-Tetrachloroethane | NS | NS | NS | | 0.0017 UJ | 0.0019 UJ | 0.0011 U | 0.0013 U |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF) | NS | NS | NS | | 0.0017 UJ | 0.0019 UJ | 0.0011 U | 0.0013 U |
| 1,1,2-Trichloroethane | NS | NS | NS | | 0.0017 UJ | 0.0019 UJ | 0.0011 U | 0.0013 U |
| 1,1-Dichloroethane | 0.27 | 47 | 0.27 | | 0.0017 U | 0.0019 U | 0.0011 U | 0.0013 U |
| 1,1-Dichloroethene | 0.24 | 0.98 | 0.33 | | 0.0017 U | 0.0019 U | 0.0011 U | 0.0013 U |
| 1,2,3-Trichlorobenzene | NS | NS | NS | | 0.0017 UJ | 0.0019 UJ | 0.0011 U | 0.0013 U |
| 1,2,4-Trichlorobenzene | NS | NS | NS | | 0.0017 UJ | 0.0019 UJ | 0.0011 U | 0.0013 U |
| 1,2,4-Trimethylbenzene | 0.51 | 0.52 | 5.9 | | 0.0017 UJ | 0.001 JL | 0.0011 U | 0.0029 |
| 1,2-Dibromo-3-Chloropropane | NS | NS | NS | | 0.0017 U | 0.0019 U | 0.0011 U | 0.0013 U |
| 1,2-Dibromoethane (Ethylene Dibromide) | NS | NS | NS | | 0.0017 UJ | 0.0019 UJ | 0.0011 U | 0.0013 U |
| 1,2-Dichlorobenzene | 1.1 | 100 | 1.1 | | 0.0017 UJ | 0.0019 UJ | 0.0011 U | 0.0013 U |
| 1,2-Dichloroethane | 0.02 | 5.8 | 0.02 | | 0.0017 U | 0.0019 U | 0.0011 U | 0.0013 U |
| 1,2-Dichloropropane | NS | NS | NS | | 0.0017 U | 0.0019 U | 0.0011 U | 0.0013 U |
| 1,3,5-Trimethylbenzene (Mesitylene) | 0.51 | 0.52 | 3.1 | | 0.0017 UJ | 0.002 JL | 0.0011 U | 0.00043 J |
| 1,3-Dichlorobenzene | 2.4 | 38 | 2.6 | | 0.0017 UJ | 0.0019 UJ | 0.0011 U | 0.0013 U |
| 1,4-Dichlorobenzene | 1.8 | 24 | 1.8 | | 0.0017 UJ | 0.0019 UJ | 0.0011 U | 0.0013 U |
| 2-Hexanone | NS | NS | NS | | 0.0087 U | 0.0095 U | 0.0056 U | 0.0067 U |
| Acetone | **0.03** | 100 | 0.03 | | 0.027 | **0.034** | 0.026 | **0.076** |
| Benzene | 0.06 | 3.7 | 0.06 | | 0.0017 U | 0.0019 U | 0.0011 U | 0.0013 U |
| Bromochloromethane | NS | NS | NS | | 0.0017 U | 0.0019 U | 0.0011 U | 0.0013 U |
| Bromodichloromethane | NS | NS | NS | | 0.0017 U | 0.0019 U | 0.0011 U | 0.0013 U |
| Bromoform | NS | NS | NS | | 0.0017 U | 0.0019 U | 0.0011 U | 0.0013 U |
| Bromomethane | NS | NS | NS | | 0.0035 U | 0.0038 U | 0.0022 U | 0.0027 U |
| Carbon Disulfide | NS | NS | NS | | 0.0017 UJ | 0.00088 JL | 0.0011 U | 0.0016 |
| Carbon Tetrachloride | 0.76 | 7.1 | 0.76 | | 0.0017 U | 0.0019 U | 0.0011 U | 0.0013 U |
| Chlorobenzene | 1.1 | 100 | 1.1 | | 0.0017 UJ | 0.0019 UJ | 0.0011 U | 0.0013 U |
| Chloroethane | NS | NS | NS | | 0.0017 U | 0.0019 U | 0.0011 U | 0.0013 U |
| Chloroform | 0.37 | 24 | 0.37 | | 0.0017 U | 0.0019 U | 0.0011 U | 0.0013 U |
| Chloromethane | NS | NS | NS | | 0.0017 U | 0.0019 U | 0.0011 U | 0.0013 U |
| Cis-1,2-Dichloroethylene | 0.19 | 41 | 0.19 | | 0.0017 UJ | 0.0019 UJ | 0.0011 U | 0.0013 U |
| Cis-1,3-Dichloropropene | NS | NS | NS | | 0.0017 UJ | 0.0019 UJ | 0.0011 U | 0.0013 U |
| Cyclohexane | NS | NS | NS | | 0.0017 UJ | 0.0014 JL | 0.0011 U | 0.00033 J |
| Dibromochloromethane | NS | NS | NS | | 0.0017 U | 0.0019 U | 0.0011 U | 0.0013 U |
| Dichlorodifluoromethane | NS | NS | NS | | 0.0017 U | 0.0019 U | 0.0011 U | 0.0013 U |
| Ethylbenzene | 1 | 76 | 1 | | 0.0017 UJ | 0.0019 UJ | 0.0011 U | 0.00033 J |
| Isopropylbenzene (Cumene) | NS | NS | NS | | 0.0017 UJ | 0.00056 JL | 0.0011 U | 0.0016 |
| M,P-Xylenes | NS | NS | NS | | 0.0017 UJ | 0.0019 UJ | 0.0011 U | 0.00059 J |
| Methyl Acetate | NS | NS | NS | | 0.0087 UJ | 0.0095 UJ | 0.0056 U | 0.0067 U |
| Methyl Ethyl Ketone (2-Butanone) | 0.1 | 100 | 0.1 | | 0.0087 U | 0.0095 U | 0.0056 U | 0.015 |
| Methyl Isobutyl Ketone (4-Methyl-2-Pentanone) | NS | NS | NS | | 0.0087 U | 0.0095 U | 0.0056 U | 0.0067 U |
| Methylcyclohexane | NS | NS | NS | | 0.001 JL | 0.017 JL | 0.00066 J | 0.0042 |
| Methylene Chloride | 0.05 | 81 | 0.05 | | 0.0035 U | 0.0038 U | 0.0022 U | 0.0027 U |
| N-Butylbenzene | 18 | 100 | 18 | | 0.0017 UJ | 0.0019 UJ | 0.0011 U | 0.001 J |
| N-Propylbenzene | 5 | 100 | 5 | | 0.0017 UJ | 0.00066 JL | 0.0011 U | 0.0017 |
| O-Xylene (1,2-Dimethylbenzene) | NS | NS | NS | | 0.0017 UJ | 0.0019 UJ | 0.0011 U | 0.00035 J |
| Sec-Butylbenzene | 25 | 100 | 25 | | 0.0017 UJ | 0.00075 JL | 0.0011 U | 0.0014 |
| Styrene | NS | NS | NS | | 0.0017 UJ | 0.0019 UJ | 0.0011 U | 0.0013 U |
| T-Butylbenzene | 11 | 100 | 11 | | 0.0017 UJ | 0.00078 JL | 0.0011 U | 0.0013 U |
| Tert-Butyl Methyl Ether | 0.1 | 100 | 0.1 | | 0.0017 U | 0.0019 U | 0.0011 U | 0.0013 U |
| Tetrachloroethylene (PCE) | 1.3 | 18 | 1.3 | | 0.0017 UJ | 0.0028 JL | 0.0011 U | 0.002 |
| Toluene | 0.7 | 100 | 0.7 | | 0.0017 UJ | 0.0019 UJ | 0.0011 U | 0.0013 U |
| Trans-1,2-Dichloroethene | 0.19 | 100 | 0.19 | | 0.0017 UJ | 0.0019 UJ | 0.0011 U | 0.0013 U |
| Trans-1,3-Dichloropropene | NS | NS | NS | | 0.0017 UJ | 0.0019 UJ | 0.0011 U | 0.0013 U |
| Trichloroethylene (TCE) | 0.47 | 6.4 | 0.47 | | 0.0017 U | 0.0019 U | 0.0011 U | 0.0013 U |
| Trichlorofluoromethane | NS | NS | NS | | 0.0017 U | 0.0019 U | 0.0011 U | 0.0013 U |
| Vinyl Chloride | 0.02 | 0.48 | 0.03 | | 0.0017 U | 0.0019 U | 0.0011 U | 0.0013 U |
| Xylenes, Total | 0.26 | 100 | 1.2 | | 0.0035 UJ | 0.0038 UJ | 0.0022 U | 0.00094 J |

**Table 1**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Volatile Organic Compounds*

| | | | | AKRF Sample ID | EP-40_17.5_20231215 | EP-41_15_20231215 | EP-42_17.5_20231215 | EP-43_17.5_20231215 |
|---|---|---|---|---|---|---|---|---|
| | | | | Laboratory Sample ID | 460-294775-4 | 460-294775-5 | 460-294775-6 | 460-294775-7 |
| | | | | Date Sampled | 12/15/2023 | 12/15/2023 | 12/15/2023 | 12/15/2023 |
| | | | | Dilution Factor | 1 | 1 | 1 | 1 |
| | | | | Unit | mg/kg | mg/kg | mg/kg | mg/kg |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | **NYSDEC PGWSCO** | | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,1,1-Trichloroethane | 0.68 | 100 | 0.68 | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| 1,1,2,2-Tetrachloroethane | NS | NS | NS | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF) | NS | NS | NS | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| 1,1,2-Trichloroethane | NS | NS | NS | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| 1,1-Dichloroethane | 0.27 | 47 | 0.27 | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| 1,1-Dichloroethene | 0.24 | 0.98 | 0.33 | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| 1,2,3-Trichlorobenzene | NS | NS | NS | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| 1,2,4-Trichlorobenzene | NS | NS | NS | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| 1,2,4-Trimethylbenzene | 0.51 | 0.52 | 5.9 | | 0.0011 U | 0.0029 | 0.0013 U | 0.0016 |
| 1,2-Dibromo-3-Chloropropane | NS | NS | NS | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| 1,2-Dibromoethane (Ethylene Dibromide) | NS | NS | NS | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| 1,2-Dichlorobenzene | 1.1 | 100 | 1.1 | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| 1,2-Dichloroethane | 0.02 | 5.8 | 0.02 | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| 1,2-Dichloropropane | NS | NS | NS | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| 1,3,5-Trimethylbenzene (Mesitylene) | 0.51 | 0.52 | 3.1 | | 0.0011 U | 0.00089 J | 0.0013 U | 0.00086 J |
| 1,3-Dichlorobenzene | 2.4 | 38 | 2.6 | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| 1,4-Dichlorobenzene | 1.8 | 24 | 1.8 | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| 2-Hexanone | NS | NS | NS | | 0.0054 U | 0.0063 U | 0.0063 U | 0.0058 U |
| Acetone | **0.03** | 100 | 0.03 | | 0.0093 | 0.026 | **0.031** | 0.021 |
| Benzene | 0.06 | 3.7 | 0.06 | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| Bromochloromethane | NS | NS | NS | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| Bromodichloromethane | NS | NS | NS | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| Bromoform | NS | NS | NS | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| Bromomethane | NS | NS | NS | | 0.0022 U | 0.0025 U | 0.0025 U | 0.0023 U |
| Carbon Disulfide | NS | NS | NS | | 0.00034 J | 0.0016 | 0.00039 J | 0.00043 J |
| Carbon Tetrachloride | 0.76 | 7.1 | 0.76 | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| Chlorobenzene | 1.1 | 100 | 1.1 | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| Chloroethane | NS | NS | NS | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| Chloroform | 0.37 | 24 | 0.37 | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| Chloromethane | NS | NS | NS | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| Cis-1,2-Dichloroethylene | 0.19 | 41 | 0.19 | | 0.0011 U | 0.0026 | 0.0013 U | 0.00042 J |
| Cis-1,3-Dichloropropene | NS | NS | NS | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| Cyclohexane | NS | NS | NS | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0013 |
| Dibromochloromethane | NS | NS | NS | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| Dichlorodifluoromethane | NS | NS | NS | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| Ethylbenzene | 1 | 76 | 1 | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| Isopropylbenzene (Cumene) | NS | NS | NS | | 0.0011 U | 0.00045 J | 0.00076 J | 0.0034 |
| M,P-Xylenes | NS | NS | NS | | 0.0011 U | 0.00051 J | 0.0013 U | 0.00045 J |
| Methyl Acetate | NS | NS | NS | | 0.0054 U | 0.0063 U | 0.0063 U | 0.0058 U |
| Methyl Ethyl Ketone (2-Butanone) | 0.1 | 100 | 0.1 | | 0.0054 U | 0.0063 U | 0.0063 U | 0.0058 U |
| Methyl Isobutyl Ketone (4-Methyl-2-Pentanone) | NS | NS | NS | | 0.0054 U | 0.0063 U | 0.0063 U | 0.0058 U |
| Methylcyclohexane | NS | NS | NS | | 0.0011 U | 0.00079 J | 0.007 | 0.02 |
| Methylene Chloride | 0.05 | 81 | 0.05 | | 0.0022 U | 0.0025 U | 0.0025 U | 0.0023 U |
| N-Butylbenzene | 18 | 100 | 18 | | 0.0011 U | 0.0013 U | 0.0032 | 0.0053 |
| N-Propylbenzene | 5 | 100 | 5 | | 0.0011 U | 0.00055 J | 0.0012 J | 0.0046 |
| O-Xylene (1,2-Dimethylbenzene) | NS | NS | NS | | 0.0011 U | 0.00044 J | 0.0013 U | 0.00045 J |
| Sec-Butylbenzene | 25 | 100 | 25 | | 0.0011 U | 0.00092 J | 0.0026 | 0.0049 |
| Styrene | NS | NS | NS | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| T-Butylbenzene | 11 | 100 | 11 | | 0.0011 U | 0.0013 U | 0.00091 J | 0.0011 J |
| Tert-Butyl Methyl Ether | 0.1 | 100 | 0.1 | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| Tetrachloroethylene (PCE) | 1.3 | 18 | 1.3 | | 0.0011 U | 0.018 | 0.00079 J | 0.0062 |
| Toluene | 0.7 | 100 | 0.7 | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| Trans-1,2-Dichloroethene | 0.19 | 100 | 0.19 | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| Trans-1,3-Dichloropropene | NS | NS | NS | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| Trichloroethylene (TCE) | 0.47 | 6.4 | 0.47 | | 0.0011 U | 0.002 | 0.0013 U | 0.00041 J |
| Trichlorofluoromethane | NS | NS | NS | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| Vinyl Chloride | 0.02 | 0.48 | 0.03 | | 0.0011 U | 0.0013 U | 0.0013 U | 0.0012 U |
| Xylenes, Total | 0.26 | 100 | 1.2 | | 0.0022 U | 0.00095 J | 0.0025 U | 0.0009 J |

**Table 1**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Volatile Organic Compounds*

| | | | | **AKRF Sample ID** | EP-44_20_20231215 | A4HAZ_B_20_20230928 | A4HAZ_X1_20230928 | B1HAZ_B_20_20230601 |
|---|---|---|---|---|---|---|---|---|
| | | | | **Laboratory Sample ID** | 460-294775-8 | 460-289204-1 | 460-289204-2 | 460-281384-5 |
| | | | | **Date Sampled** | 12/15/2023 | 9/28/2023 | 9/28/2023 | 6/01/2023 |
| | | | | **Dilution Factor** | 1 | mg/kg | mg/kg | mg/kg |
| | | | | **Unit** | mg/kg | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | **NYSDEC PGWSCO** | | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,1,1-Trichloroethane | 0.68 | 100 | 0.68 | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 U |
| 1,1,2,2-Tetrachloroethane | NS | NS | NS | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 U |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF) | NS | NS | NS | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 UJ |
| 1,1,2-Trichloroethane | NS | NS | NS | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 U |
| 1,1-Dichloroethane | 0.27 | 47 | 0.27 | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 UJ |
| 1,1-Dichloroethene | 0.24 | 0.98 | 0.33 | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 UJ |
| 1,2,3-Trichlorobenzene | NS | NS | NS | | 0.002 U | 0.0012 UJ | 0.0012 UJ | 0.0019 U |
| 1,2,4-Trichlorobenzene | NS | NS | NS | | 0.002 U | 0.0012 UJ | 0.0012 UJ | 0.0019 UJ |
| 1,2,4-Trimethylbenzene | 0.51 | 0.52 | 5.9 | | 0.00057 J | 0.0012 U | 0.0012 U | 0.0019 U |
| 1,2-Dibromo-3-Chloropropane | NS | NS | NS | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 U |
| 1,2-Dibromoethane (Ethylene Dibromide) | NS | NS | NS | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 U |
| 1,2-Dichlorobenzene | 1.1 | 100 | 1.1 | | 0.002 U | 0.0012 UJ | 0.0012 UJ | 0.0019 U |
| 1,2-Dichloroethane | 0.02 | 5.8 | 0.02 | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 U |
| 1,2-Dichloropropane | NS | NS | NS | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 UJ |
| 1,3,5-Trimethylbenzene (Mesitylene) | 0.51 | 0.52 | 3.1 | | 0.002 U | 0.0012 UJ | 0.0012 UJ | 0.0019 UJ |
| 1,3-Dichlorobenzene | 2.4 | 38 | 2.6 | | 0.002 U | 0.0012 UJ | 0.0012 UJ | 0.0019 U |
| 1,4-Dichlorobenzene | 1.8 | 24 | 1.8 | | 0.002 U | 0.0012 UJ | 0.0012 UJ | 0.0019 U |
| 2-Hexanone | NS | NS | NS | | 0.01 U | 0.0059 U | 0.006 U | 0.0093 U |
| Acetone | **0.03** | 100 | 0.03 | | **0.032** | 0.0091 | 0.0098 | **0.051 JL** |
| Benzene | 0.06 | 3.7 | 0.06 | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 UJ |
| Bromochloromethane | NS | NS | NS | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 U |
| Bromodichloromethane | NS | NS | NS | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 U |
| Bromoform | NS | NS | NS | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 U |
| Bromomethane | NS | NS | NS | | 0.004 U | 0.0024 U | 0.0024 U | 0.0037 U |
| Carbon Disulfide | NS | NS | NS | | 0.00073 J | 0.0012 U | 0.0012 U | 0.0019 UJ |
| Carbon Tetrachloride | 0.76 | 7.1 | 0.76 | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 U |
| Chlorobenzene | 1.1 | 100 | 1.1 | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 U |
| Chloroethane | NS | NS | NS | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 U |
| Chloroform | 0.37 | 24 | 0.37 | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 U |
| Chloromethane | NS | NS | NS | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 U |
| Cis-1,2-Dichloroethylene | 0.19 | 41 | 0.19 | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 U |
| Cis-1,3-Dichloropropene | NS | NS | NS | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 UJ |
| Cyclohexane | NS | NS | NS | | 0.0084 | 0.0012 U | 0.0012 U | 0.0019 U |
| Dibromochloromethane | NS | NS | NS | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 U |
| Dichlorodifluoromethane | NS | NS | NS | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 U |
| Ethylbenzene | 1 | 76 | 1 | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 U |
| Isopropylbenzene (Cumene) | NS | NS | NS | | 0.00098 J | 0.0012 UJ | 0.0012 UJ | 0.0019 U |
| M,P-Xylenes | NS | NS | NS | | 0.00035 J | 0.0012 U | 0.0012 U | 0.0019 U |
| Methyl Acetate | NS | NS | NS | | 0.01 U | 0.0059 U | 0.006 U | 0.0093 U |
| Methyl Ethyl Ketone (2-Butanone) | 0.1 | 100 | 0.1 | | 0.01 U | 0.0059 U | 0.006 U | 0.037 JK |
| Methyl Isobutyl Ketone (4-Methyl-2-Pentanone) | NS | NS | NS | | 0.01 U | 0.0059 U | 0.006 U | 0.0093 U |
| Methylcyclohexane | NS | NS | NS | | 0.068 | 0.0012 UJ | 0.0012 UJ | 0.0019 U |
| Methylene Chloride | 0.05 | 81 | 0.05 | | 0.004 U | 0.0024 U | 0.0024 U | 0.0037 U |
| N-Butylbenzene | 18 | 100 | 18 | | 0.002 U | 0.0012 UJ | 0.0012 UJ | 0.0019 U |
| N-Propylbenzene | 5 | 100 | 5 | | 0.00095 J | 0.0012 UJ | 0.0012 UJ | 0.0019 UJ |
| O-Xylene (1,2-Dimethylbenzene) | NS | NS | NS | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 U |
| Sec-Butylbenzene | 25 | 100 | 25 | | 0.0017 J | 0.0012 UJ | 0.0012 UJ | 0.0019 U |
| Styrene | NS | NS | NS | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 U |
| T-Butylbenzene | 11 | 100 | 11 | | 0.00091 J | 0.0012 UJ | 0.0012 UJ | 0.0019 U |
| Tert-Butyl Methyl Ether | 0.1 | 100 | 0.1 | | 0.002 U | 0.00062 J | 0.00089 J | 0.0019 UJ |
| Tetrachloroethylene (PCE) | 1.3 | 18 | 1.3 | | 0.0034 | 0.0012 U | 0.0012 U | 0.0019 U |
| Toluene | 0.7 | 100 | 0.7 | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 UJ |
| Trans-1,2-Dichloroethene | 0.19 | 100 | 0.19 | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 U |
| Trans-1,3-Dichloropropene | NS | NS | NS | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 UJ |
| Trichloroethylene (TCE) | 0.47 | 6.4 | 0.47 | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 U |
| Trichlorofluoromethane | NS | NS | NS | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 U |
| Vinyl Chloride | 0.02 | 0.48 | 0.03 | | 0.002 U | 0.0012 U | 0.0012 U | 0.0019 UJ |
| Xylenes, Total | 0.26 | 100 | 1.2 | | 0.00035 J | 0.0024 U | 0.0024 U | 0.0037 U |

**Table 1**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Volatile Organic Compounds*

| | | | | **AKRF Sample ID** | B1HAZ_X1_20230601 | FB_20230928 | FB_20231103 | FB_20231127 |
|---|---|---|---|---|---|---|---|---|
| | | | | **Laboratory Sample ID** | 460-281384-8 | 460-289204-3 | 460-291818-9 | 460-293316-6 |
| | | | | **Date Sampled** | 6/01/2023 | 9/28/2023 | 11/03/2023 | 11/27/2023 |
| | | | | **Dilution Factor** | mg/kg | 1 | 1 | 1 |
| | | | | **Unit** | 1 | µg/L | µg/L | µg/L |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | **NYSDEC PGWSCO** | | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,1,1-Trichloroethane | 0.68 | 100 | 0.68 | | 0.0015 U | 1 U | 1 U | 1 U |
| 1,1,2,2-Tetrachloroethane | NS | NS | NS | | 0.0015 U | 1 U | 1 U | 1 U |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF) | NS | NS | NS | | 0.0015 UJ | 1 U | 1 U | 1 U |
| 1,1,2-Trichloroethane | NS | NS | NS | | 0.0015 U | 1 U | 1 U | 1 U |
| 1,1-Dichloroethane | 0.27 | 47 | 0.27 | | 0.0015 UJ | 1 U | 1 U | 1 U |
| 1,1-Dichloroethene | 0.24 | 0.98 | 0.33 | | 0.0015 UJ | 1 U | 1 UJ | 1 U |
| 1,2,3-Trichlorobenzene | NS | NS | NS | | 0.0015 U | 1 U | 1 U | 1 U |
| 1,2,4-Trichlorobenzene | NS | NS | NS | | 0.0015 UJ | 1 U | 1 U | 1 U |
| 1,2,4-Trimethylbenzene | 0.51 | 0.52 | 5.9 | | 0.0015 U | 1 U | 1 U | 1 U |
| 1,2-Dibromo-3-Chloropropane | NS | NS | NS | | 0.0015 U | 1 U | 1 U | 1 U |
| 1,2-Dibromoethane (Ethylene Dibromide) | NS | NS | NS | | 0.0015 U | 1 U | 1 U | 1 U |
| 1,2-Dichlorobenzene | 1.1 | 100 | 1.1 | | 0.0015 U | 1 U | 1 U | 1 U |
| 1,2-Dichloroethane | 0.02 | 5.8 | 0.02 | | 0.0015 U | 1 U | 1 U | 1 U |
| 1,2-Dichloropropane | NS | NS | NS | | 0.0015 UJ | 1 U | 1 U | 1 U |
| 1,3,5-Trimethylbenzene (Mesitylene) | 0.51 | 0.52 | 3.1 | | 0.0015 UJ | 1 U | 1 U | 1 U |
| 1,3-Dichlorobenzene | 2.4 | 38 | 2.6 | | 0.0015 U | 1 U | 1 U | 1 U |
| 1,4-Dichlorobenzene | 1.8 | 24 | 1.8 | | 0.0015 U | 1 U | 1 U | 1 U |
| 2-Hexanone | NS | NS | NS | | 0.0074 U | 5 U | 5 U | 5 U |
| Acetone | **0.03** | 100 | 0.03 | | 0.019 JL | 5 U | 6.6 | 5 U |
| Benzene | 0.06 | 3.7 | 0.06 | | 0.0015 UJ | 1 U | 1 U | 1 U |
| Bromochloromethane | NS | NS | NS | | 0.0015 U | 1 U | 1 U | 1 U |
| Bromodichloromethane | NS | NS | NS | | 0.0015 U | 1 U | 1 U | 1 U |
| Bromoform | NS | NS | NS | | 0.0015 U | 1 U | 1 U | 1 U |
| Bromomethane | NS | NS | NS | | 0.003 U | 1 U | 1 U | 1 U |
| Carbon Disulfide | NS | NS | NS | | 0.0015 UJ | 1 UJ | 1 UJ | 1 U |
| Carbon Tetrachloride | 0.76 | 7.1 | 0.76 | | 0.0015 U | 1 U | 1 U | 1 U |
| Chlorobenzene | 1.1 | 100 | 1.1 | | 0.0015 U | 1 U | 1 U | 1 U |
| Chloroethane | NS | NS | NS | | 0.0015 U | 1 U | 1 U | 1 U |
| Chloroform | 0.37 | 24 | 0.37 | | 0.0015 U | 1 U | 1 U | 1 U |
| Chloromethane | NS | NS | NS | | 0.0015 U | 1 U | 1 U | 1 U |
| Cis-1,2-Dichloroethylene | 0.19 | 41 | 0.19 | | 0.0015 U | 1 U | 1 U | 1 U |
| Cis-1,3-Dichloropropene | NS | NS | NS | | 0.0015 UJ | 1 U | 1 U | 1 U |
| Cyclohexane | NS | NS | NS | | 0.0015 U | 1 U | 1 U | 1 U |
| Dibromochloromethane | NS | NS | NS | | 0.0015 U | 1 U | 1 U | 1 U |
| Dichlorodifluoromethane | NS | NS | NS | | 0.0015 U | 1 U | 1 U | 1 U |
| Ethylbenzene | 1 | 76 | 1 | | 0.0015 U | 1 U | 1 U | 1 U |
| Isopropylbenzene (Cumene) | NS | NS | NS | | 0.0015 U | 1 U | 1 U | 1 U |
| M,P-Xylenes | NS | NS | NS | | 0.0015 U | 1 U | 1 U | 0.3 J |
| Methyl Acetate | NS | NS | NS | | 0.0074 UJ | 5 U | 5 U | 5 U |
| Methyl Ethyl Ketone (2-Butanone) | 0.1 | 100 | 0.1 | | 0.0074 UJ | 5 U | 5 U | 5 U |
| Methyl Isobutyl Ketone (4-Methyl-2-Pentanone) | NS | NS | NS | | 0.0074 U | 5 U | 5 U | 5 U |
| Methylcyclohexane | NS | NS | NS | | 0.0015 U | 1 U | 1 U | 1 U |
| Methylene Chloride | 0.05 | 81 | 0.05 | | 0.003 U | 1 U | 1 U | 0.37 J |
| N-Butylbenzene | 18 | 100 | 18 | | 0.0015 U | 1 U | 1 U | 1 U |
| N-Propylbenzene | 5 | 100 | 5 | | 0.0015 UJ | 1 U | 1 U | 1 U |
| O-Xylene (1,2-Dimethylbenzene) | NS | NS | NS | | 0.0015 U | 1 U | 1 U | 1 U |
| Sec-Butylbenzene | 25 | 100 | 25 | | 0.0015 U | 1 U | 1 U | 1 U |
| Styrene | NS | NS | NS | | 0.0015 U | 1 U | 1 U | 1 U |
| T-Butylbenzene | 11 | 100 | 11 | | 0.0015 U | 1 U | 1 U | 1 U |
| Tert-Butyl Methyl Ether | 0.1 | 100 | 0.1 | | 0.0015 U | 1 U | 1 U | 1 U |
| Tetrachloroethylene (PCE) | 1.3 | 18 | 1.3 | | 0.0015 U | 1 U | 1 U | 1 U |
| Toluene | 0.7 | 100 | 0.7 | | 0.0015 UJ | 1 U | 1 U | 1 U |
| Trans-1,2-Dichloroethene | 0.19 | 100 | 0.19 | | 0.0015 U | 1 U | 1 UJ | 1 U |
| Trans-1,3-Dichloropropene | NS | NS | NS | | 0.0015 UJ | 1 U | 1 U | 1 U |
| Trichloroethylene (TCE) | 0.47 | 6.4 | 0.47 | | 0.0015 U | 1 U | 1 U | 1 U |
| Trichlorofluoromethane | NS | NS | NS | | 0.0015 U | 1 U | 1 U | 1 U |
| Vinyl Chloride | 0.02 | 0.48 | 0.03 | | 0.0015 UJ | 1 U | 1 U | 1 U |
| Xylenes, Total | 0.26 | 100 | 1.2 | | 0.003 U | 2 U | 2 U | 2 U |

**Table 1**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Volatile Organic Compounds*

| | | | | **AKRF Sample ID** | FB_20231215 | FB-S_20230601 | FB_20230928 | FB-S_20230601 |
|---|---|---|---|---|---|---|---|---|
| | | | | **Laboratory Sample ID** | 460-294775-10 | 460-281384-6 | 460-289204-3 | 460-281384-6 |
| | | | | **Date Sampled** | 12/15/2023 | 6/01/2023 | 9/28/2023 | 6/01/2023 |
| | | | | **Dilution Factor** | 1 | 1 | µg/L | µg/L |
| | | | | **Unit** | µg/L | µg/L | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | **NYSDEC PGWSCO** | | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,1,1-Trichloroethane | 0.68 | 100 | 0.68 | | 1 U | 1 U | 1 U | 1 U |
| 1,1,2,2-Tetrachloroethane | NS | NS | NS | | 1 U | 1 U | 1 U | 1 U |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF) | NS | NS | NS | | 1 U | 1 U | 1 U | 1 U |
| 1,1,2-Trichloroethane | NS | NS | NS | | 1 U | 1 U | 1 U | 1 U |
| 1,1-Dichloroethane | 0.27 | 47 | 0.27 | | 1 U | 1 U | 1 U | 1 U |
| 1,1-Dichloroethene | 0.24 | 0.98 | 0.33 | | 1 U | 1 U | 1 U | 1 U |
| 1,2,3-Trichlorobenzene | NS | NS | NS | | 1 U | 1 U | 1 U | 1 U |
| 1,2,4-Trichlorobenzene | NS | NS | NS | | 1 U | 1 U | 1 U | 1 U |
| 1,2,4-Trimethylbenzene | 0.51 | 0.52 | 5.9 | | 1 U | 1 U | 1 U | 1 U |
| 1,2-Dibromo-3-Chloropropane | NS | NS | NS | | 1 U | 1 U | 1 U | 1 U |
| 1,2-Dibromoethane (Ethylene Dibromide) | NS | NS | NS | | 1 U | 1 U | 1 U | 1 U |
| 1,2-Dichlorobenzene | 1.1 | 100 | 1.1 | | 1 U | 1 U | 1 U | 1 U |
| 1,2-Dichloroethane | 0.02 | 5.8 | 0.02 | | 1 U | 1 U | 1 U | 1 U |
| 1,2-Dichloropropane | NS | NS | NS | | 1 U | 1 U | 1 U | 1 U |
| 1,3,5-Trimethylbenzene (Mesitylene) | 0.51 | 0.52 | 3.1 | | 1 U | 1 U | 1 U | 1 U |
| 1,3-Dichlorobenzene | 2.4 | 38 | 2.6 | | 1 U | 1 U | 1 U | 1 U |
| 1,4-Dichlorobenzene | 1.8 | 24 | 1.8 | | 1 U | 1 U | 1 U | 1 U |
| 2-Hexanone | NS | NS | NS | | 5 U | 5 U | 5 U | 5 U |
| Acetone | **0.03** | 100 | 0.03 | | 5 U | 5 U | 5 U | 5 U |
| Benzene | 0.06 | 3.7 | 0.06 | | 1 U | 1 U | 1 U | 1 U |
| Bromochloromethane | NS | NS | NS | | 1 U | 1 U | 1 U | 1 U |
| Bromodichloromethane | NS | NS | NS | | 1 U | 1 U | 1 U | 1 U |
| Bromoform | NS | NS | NS | | 1 U | 1 U | 1 U | 1 U |
| Bromomethane | NS | NS | NS | | 1 UJ | 1 U | 1 U | 1 U |
| Carbon Disulfide | NS | NS | NS | | 1 U | 1 U | 1 UJ | 1 U |
| Carbon Tetrachloride | 0.76 | 7.1 | 0.76 | | 1 U | 1 U | 1 U | 1 U |
| Chlorobenzene | 1.1 | 100 | 1.1 | | 1 U | 1 U | 1 U | 1 U |
| Chloroethane | NS | NS | NS | | 1 U | 1 U | 1 U | 1 U |
| Chloroform | 0.37 | 24 | 0.37 | | 1 U | 1 U | 1 U | 1 U |
| Chloromethane | NS | NS | NS | | 1 U | 1 U | 1 U | 1 U |
| Cis-1,2-Dichloroethylene | 0.19 | 41 | 0.19 | | 1 U | 1 U | 1 U | 1 U |
| Cis-1,3-Dichloropropene | NS | NS | NS | | 1 U | 1 U | 1 U | 1 U |
| Cyclohexane | NS | NS | NS | | 1 U | 1 U | 1 U | 1 U |
| Dibromochloromethane | NS | NS | NS | | 1 U | 1 U | 1 U | 1 U |
| Dichlorodifluoromethane | NS | NS | NS | | 1 UJ | 1 U | 1 U | 1 U |
| Ethylbenzene | 1 | 76 | 1 | | 1 U | 1 U | 1 U | 1 U |
| Isopropylbenzene (Cumene) | NS | NS | NS | | 1 U | 1 U | 1 U | 1 U |
| M,P-Xylenes | NS | NS | NS | | 1 U | 1 U | 1 U | 1 U |
| Methyl Acetate | NS | NS | NS | | 5 U | 5 U | 5 U | 5 U |
| Methyl Ethyl Ketone (2-Butanone) | 0.1 | 100 | 0.1 | | 5 U | 5 U | 5 U | 5 U |
| Methyl Isobutyl Ketone (4-Methyl-2-Pentanone) | NS | NS | NS | | 5 U | 5 U | 5 U | 5 U |
| Methylcyclohexane | NS | NS | NS | | 1 U | 1 U | 1 U | 1 U |
| Methylene Chloride | 0.05 | 81 | 0.05 | | 0.46 J | 1 U | 1 U | 1 U |
| N-Butylbenzene | 18 | 100 | 18 | | 1 U | 1 U | 1 U | 1 U |
| N-Propylbenzene | 5 | 100 | 5 | | 1 U | 1 U | 1 U | 1 U |
| O-Xylene (1,2-Dimethylbenzene) | NS | NS | NS | | 1 U | 1 U | 1 U | 1 U |
| Sec-Butylbenzene | 25 | 100 | 25 | | 1 U | 1 U | 1 U | 1 U |
| Styrene | NS | NS | NS | | 1 U | 1 U | 1 U | 1 U |
| T-Butylbenzene | 11 | 100 | 11 | | 1 U | 1 U | 1 U | 1 U |
| Tert-Butyl Methyl Ether | 0.1 | 100 | 0.1 | | 1 U | 1 U | 1 U | 1 U |
| Tetrachloroethylene (PCE) | 1.3 | 18 | 1.3 | | 1 U | 1 U | 1 U | 1 U |
| Toluene | 0.7 | 100 | 0.7 | | 1 U | 1 U | 1 U | 1 U |
| Trans-1,2-Dichloroethene | 0.19 | 100 | 0.19 | | 1 U | 1 U | 1 U | 1 U |
| Trans-1,3-Dichloropropene | NS | NS | NS | | 1 U | 1 U | 1 U | 1 U |
| Trichloroethylene (TCE) | 0.47 | 6.4 | 0.47 | | 1 U | 1 U | 1 U | 1 U |
| Trichlorofluoromethane | NS | NS | NS | | 1 U | 1 U | 1 U | 1 U |
| Vinyl Chloride | 0.02 | 0.48 | 0.03 | | 1 U | 1 U | 1 U | 1 U |
| Xylenes, Total | 0.26 | 100 | 1.2 | | 2 U | 2 U | 2 U | 2 U |

**Table 1**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Volatile Organic Compounds*

| | | | AKRF Sample ID | TB_20230928 | TB_20231103 | TB_20231127 | TB_20231215 |
|---|---|---|---|---|---|---|---|
| | | | Laboratory Sample ID | 460-289204-4 | 460-291818-10 | 460-293316-7 | 460-294775-11 |
| | | | Date Sampled | 9/28/2023 | 11/03/2023 | 11/27/2023 | 12/15/2023 |
| | | | Dilution Factor | 1 | 1 | 1 | 1 |
| | | | Unit | µg/L | µg/L | µg/L | µg/L |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | **NYSDEC PGWSCO** | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,1,1-Trichloroethane | 0.68 | 100 | 0.68 | 1 U | 1 U | 1 U | 1 U |
| 1,1,2,2-Tetrachloroethane | NS | NS | NS | 1 U | 1 U | 1 U | 1 U |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF) | NS | NS | NS | 1 U | 1 U | 1 U | 1 U |
| 1,1,2-Trichloroethane | NS | NS | NS | 1 U | 1 U | 1 U | 1 U |
| 1,1-Dichloroethane | 0.27 | 47 | 0.27 | 1 U | 1 U | 1 U | 1 U |
| 1,1-Dichloroethene | 0.24 | 0.98 | 0.33 | 1 U | 1 UJ | 1 U | 1 U |
| 1,2,3-Trichlorobenzene | NS | NS | NS | 1 U | 1 U | 1 U | 1 U |
| 1,2,4-Trichlorobenzene | NS | NS | NS | 1 U | 1 U | 1 U | 1 U |
| 1,2,4-Trimethylbenzene | 0.51 | 0.52 | 5.9 | 1 U | 1 U | 1 U | 1 U |
| 1,2-Dibromo-3-Chloropropane | NS | NS | NS | 1 U | 1 U | 1 U | 1 U |
| 1,2-Dibromoethane (Ethylene Dibromide) | NS | NS | NS | 1 U | 1 U | 1 U | 1 U |
| 1,2-Dichlorobenzene | 1.1 | 100 | 1.1 | 1 U | 1 U | 1 U | 1 U |
| 1,2-Dichloroethane | 0.02 | 5.8 | 0.02 | 1 U | 1 U | 1 U | 1 U |
| 1,2-Dichloropropane | NS | NS | NS | 1 U | 1 U | 1 U | 1 U |
| 1,3,5-Trimethylbenzene (Mesitylene) | 0.51 | 0.52 | 3.1 | 1 U | 1 U | 1 U | 1 U |
| 1,3-Dichlorobenzene | 2.4 | 38 | 2.6 | 1 U | 1 U | 1 U | 1 U |
| 1,4-Dichlorobenzene | 1.8 | 24 | 1.8 | 1 U | 1 U | 1 U | 1 U |
| 2-Hexanone | NS | NS | NS | 5 U | 5 U | 5 U | 5 U |
| Acetone | **0.03** | 100 | 0.03 | 5 U | 5 U | 5 U | 5 U |
| Benzene | 0.06 | 3.7 | 0.06 | 1 U | 1 U | 1 U | 1 U |
| Bromochloromethane | NS | NS | NS | 1 U | 1 U | 1 U | 1 U |
| Bromodichloromethane | NS | NS | NS | 1 U | 1 U | 1 U | 1 U |
| Bromoform | NS | NS | NS | 1 U | 1 U | 1 U | 1 U |
| Bromomethane | NS | NS | NS | 1 U | 1 U | 1 U | 1 UJ |
| Carbon Disulfide | NS | NS | NS | 1 UJ | 1 UJ | 1 U | 1 U |
| Carbon Tetrachloride | 0.76 | 7.1 | 0.76 | 1 U | 1 U | 1 U | 1 U |
| Chlorobenzene | 1.1 | 100 | 1.1 | 1 U | 1 U | 1 U | 1 U |
| Chloroethane | NS | NS | NS | 1 U | 1 U | 1 U | 1 U |
| Chloroform | 0.37 | 24 | 0.37 | 1 U | 1 U | 1 U | 1 U |
| Chloromethane | NS | NS | NS | 1 U | 1 U | 0.53 J | 1 U |
| Cis-1,2-Dichloroethylene | 0.19 | 41 | 0.19 | 1 U | 1 U | 1 U | 1 U |
| Cis-1,3-Dichloropropene | NS | NS | NS | 1 U | 1 U | 1 U | 1 U |
| Cyclohexane | NS | NS | NS | 1 U | 1 U | 1 U | 1 U |
| Dibromochloromethane | NS | NS | NS | 1 U | 1 U | 1 U | 1 U |
| Dichlorodifluoromethane | NS | NS | NS | 1 U | 1 U | 1 U | 1 UJ |
| Ethylbenzene | 1 | 76 | 1 | 1 U | 1 U | 1 U | 1 U |
| Isopropylbenzene (Cumene) | NS | NS | NS | 1 U | 1 U | 1 U | 1 U |
| M,P-Xylenes | NS | NS | NS | 1 U | 1 U | 0.33 J | 1 U |
| Methyl Acetate | NS | NS | NS | 5 U | 5 U | 5 U | 5 U |
| Methyl Ethyl Ketone (2-Butanone) | 0.1 | 100 | 0.1 | 5 U | 5 U | 5 U | 5 U |
| Methyl Isobutyl Ketone (4-Methyl-2-Pentanone) | NS | NS | NS | 5 U | 5 U | 5 U | 5 U |
| Methylcyclohexane | NS | NS | NS | 1 U | 1 U | 1 U | 1 U |
| Methylene Chloride | 0.05 | 81 | 0.05 | 1 U | 1 U | 1 U | 1 U |
| N-Butylbenzene | 18 | 100 | 18 | 1 U | 1 U | 1 U | 1 U |
| N-Propylbenzene | 5 | 100 | 5 | 1 U | 1 U | 1 U | 1 U |
| O-Xylene (1,2-Dimethylbenzene) | NS | NS | NS | 1 U | 1 U | 1 U | 1 U |
| Sec-Butylbenzene | 25 | 100 | 25 | 1 U | 1 U | 1 U | 1 U |
| Styrene | NS | NS | NS | 1 U | 1 U | 1 U | 1 U |
| T-Butylbenzene | 11 | 100 | 11 | 1 U | 1 U | 1 U | 1 U |
| Tert-Butyl Methyl Ether | 0.1 | 100 | 0.1 | 1 U | 1 U | 1 U | 1 U |
| Tetrachloroethylene (PCE) | 1.3 | 18 | 1.3 | 1 U | 1 U | 1 U | 1 U |
| Toluene | 0.7 | 100 | 0.7 | 1 U | 1 U | 1 U | 1 U |
| Trans-1,2-Dichloroethene | 0.19 | 100 | 0.19 | 1 U | 1 UJ | 1 U | 1 U |
| Trans-1,3-Dichloropropene | NS | NS | NS | 1 U | 1 U | 1 U | 1 U |
| Trichloroethylene (TCE) | 0.47 | 6.4 | 0.47 | 1 U | 1 U | 1 U | 1 U |
| Trichlorofluoromethane | NS | NS | NS | 1 U | 1 U | 1 U | 1 U |
| Vinyl Chloride | 0.02 | 0.48 | 0.03 | 1 U | 1 U | 1 U | 1 U |
| Xylenes, Total | 0.26 | 100 | 1.2 | 2 U | 2 U | 2 U | 2 U |

**Table 1**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Volatile Organic Compounds*

| | | | | AKRF Sample ID | TB-S_20230601 | TB_20230928 | TB-S_20230601 |
|---|---|---|---|---|---|---|---|
| | | | | Laboratory Sample ID | 460-281384-7 | 460-289204-4 | 460-281384-7 |
| | | | | Date Sampled | 6/01/2023 | 9/28/2023 | 6/01/2023 |
| | | | | Dilution Factor | 1 | µg/L | µg/L |
| | | | | Unit | µg/L | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | **NYSDEC PGWSCO** | | CONC Q | CONC Q | CONC Q |
| 1,1,1-Trichloroethane | 0.68 | 100 | 0.68 | | 1 U | 1 U | 1 U |
| 1,1,2,2-Tetrachloroethane | NS | NS | NS | | 1 U | 1 U | 1 U |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF) | NS | NS | NS | | 1 U | 1 U | 1 U |
| 1,1,2-Trichloroethane | NS | NS | NS | | 1 U | 1 U | 1 U |
| 1,1-Dichloroethane | 0.27 | 47 | 0.27 | | 1 U | 1 U | 1 U |
| 1,1-Dichloroethene | 0.24 | 0.98 | 0.33 | | 1 U | 1 U | 1 U |
| 1,2,3-Trichlorobenzene | NS | NS | NS | | 1 U | 1 U | 1 U |
| 1,2,4-Trichlorobenzene | NS | NS | NS | | 1 U | 1 U | 1 U |
| 1,2,4-Trimethylbenzene | 0.51 | 0.52 | 5.9 | | 1 U | 1 U | 1 U |
| 1,2-Dibromo-3-Chloropropane | NS | NS | NS | | 1 U | 1 U | 1 U |
| 1,2-Dibromoethane (Ethylene Dibromide) | NS | NS | NS | | 1 U | 1 U | 1 U |
| 1,2-Dichlorobenzene | 1.1 | 100 | 1.1 | | 1 U | 1 U | 1 U |
| 1,2-Dichloroethane | 0.02 | 5.8 | 0.02 | | 1 U | 1 U | 1 U |
| 1,2-Dichloropropane | NS | NS | NS | | 1 U | 1 U | 1 U |
| 1,3,5-Trimethylbenzene (Mesitylene) | 0.51 | 0.52 | 3.1 | | 1 U | 1 U | 1 U |
| 1,3-Dichlorobenzene | 2.4 | 38 | 2.6 | | 1 U | 1 U | 1 U |
| 1,4-Dichlorobenzene | 1.8 | 24 | 1.8 | | 1 U | 1 U | 1 U |
| 2-Hexanone | NS | NS | NS | | 5 U | 5 U | 5 U |
| Acetone | **0.03** | 100 | 0.03 | | 5 U | 5 U | 5 U |
| Benzene | 0.06 | 3.7 | 0.06 | | 1 U | 1 U | 1 U |
| Bromochloromethane | NS | NS | NS | | 1 U | 1 U | 1 U |
| Bromodichloromethane | NS | NS | NS | | 1 U | 1 U | 1 U |
| Bromoform | NS | NS | NS | | 1 U | 1 U | 1 U |
| Bromomethane | NS | NS | NS | | 1 U | 1 U | 1 U |
| Carbon Disulfide | NS | NS | NS | | 1 U | 1 UJ | 1 U |
| Carbon Tetrachloride | 0.76 | 7.1 | 0.76 | | 1 U | 1 U | 1 U |
| Chlorobenzene | 1.1 | 100 | 1.1 | | 1 U | 1 U | 1 U |
| Chloroethane | NS | NS | NS | | 1 U | 1 U | 1 U |
| Chloroform | 0.37 | 24 | 0.37 | | 1 U | 1 U | 1 U |
| Chloromethane | NS | NS | NS | | 1 U | 1 U | 1 U |
| Cis-1,2-Dichloroethylene | 0.19 | 41 | 0.19 | | 1 U | 1 U | 1 U |
| Cis-1,3-Dichloropropene | NS | NS | NS | | 1 U | 1 U | 1 U |
| Cyclohexane | NS | NS | NS | | 1 U | 1 U | 1 U |
| Dibromochloromethane | NS | NS | NS | | 1 U | 1 U | 1 U |
| Dichlorodifluoromethane | NS | NS | NS | | 1 U | 1 U | 1 U |
| Ethylbenzene | 1 | 76 | 1 | | 1 U | 1 U | 1 U |
| Isopropylbenzene (Cumene) | NS | NS | NS | | 1 U | 1 U | 1 U |
| M,P-Xylenes | NS | NS | NS | | 1 U | 1 U | 1 U |
| Methyl Acetate | NS | NS | NS | | 5 U | 5 U | 5 U |
| Methyl Ethyl Ketone (2-Butanone) | 0.1 | 100 | 0.1 | | 5 U | 5 U | 5 U |
| Methyl Isobutyl Ketone (4-Methyl-2-Pentanone) | NS | NS | NS | | 5 U | 5 U | 5 U |
| Methylcyclohexane | NS | NS | NS | | 1 U | 1 U | 1 U |
| Methylene Chloride | 0.05 | 81 | 0.05 | | 1 U | 1 U | 1 U |
| N-Butylbenzene | 18 | 100 | 18 | | 1 U | 1 U | 1 U |
| N-Propylbenzene | 5 | 100 | 5 | | 1 U | 1 U | 1 U |
| O-Xylene (1,2-Dimethylbenzene) | NS | NS | NS | | 1 U | 1 U | 1 U |
| Sec-Butylbenzene | 25 | 100 | 25 | | 1 U | 1 U | 1 U |
| Styrene | NS | NS | NS | | 1 U | 1 U | 1 U |
| T-Butylbenzene | 11 | 100 | 11 | | 1 U | 1 U | 1 U |
| Tert-Butyl Methyl Ether | 0.1 | 100 | 0.1 | | 1 U | 1 U | 1 U |
| Tetrachloroethylene (PCE) | 1.3 | 18 | 1.3 | | 1 U | 1 U | 1 U |
| Toluene | 0.7 | 100 | 0.7 | | 1 U | 1 U | 1 U |
| Trans-1,2-Dichloroethene | 0.19 | 100 | 0.19 | | 1 U | 1 U | 1 U |
| Trans-1,3-Dichloropropene | NS | NS | NS | | 1 U | 1 U | 1 U |
| Trichloroethylene (TCE) | 0.47 | 6.4 | 0.47 | | 1 U | 1 U | 1 U |
| Trichlorofluoromethane | NS | NS | NS | | 1 U | 1 U | 1 U |
| Vinyl Chloride | 0.02 | 0.48 | 0.03 | | 1 U | 1 U | 1 U |
| Xylenes, Total | 0.26 | 100 | 1.2 | | 2 U | 2 U | 2 U |

**Table 2**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Semivolatile Organic Compounds*

| | | AKRF Sample ID | EP-01_15_20231103 | EP-X1_15_20231103 | EP-02_15_20231103 | EP-03_15_20231103 | EP-04_15_20231103 | EP-05_15_20231103 |
|---|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-291818-1 | 460-291818-8 | 460-291818-2 | 460-291818-3 | 460-291818-4 | 460-291818-5 |
| | | Date Sampled | 11/03/2023 | 11/03/2023 | 11/03/2023 | 11/03/2023 | 11/03/2023 | 11/03/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 1 | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,2,4,5-Tetrachlorobenzene | NS | NS | 0.43 U | 0.42 U | 0.45 U | 0.42 U | 0.44 U | 0.4 U |
| 1,4-Dioxane (P-Dioxane) | 0.1 | 5.7 | 0.043 U | 0.042 U | 0.045 U | 0.042 U | 0.044 U | 0.04 U |
| 2,3,4,6-Tetrachlorophenol | NS | NS | 0.43 U | 0.42 U | 0.45 U | 0.42 U | 0.44 U | 0.4 U |
| 2,4,5-Trichlorophenol | NS | NS | 0.43 U | 0.42 U | 0.45 U | 0.42 U | 0.44 U | 0.4 U |
| 2,4,6-Trichlorophenol | NS | NS | 0.17 U | 0.17 U | 0.18 U | 0.17 U | 0.18 U | 0.16 U |
| 2,4-Dichlorophenol | NS | NS | 0.17 U | 0.17 U | 0.18 U | 0.17 U | 0.18 U | 0.16 U |
| 2,4-Dimethylphenol | NS | NS | 0.43 U | 0.42 U | 0.45 U | 0.42 U | 0.44 U | 0.4 U |
| 2,4-Dinitrophenol | NS | NS | 0.35 U | 0.34 U | 0.36 U | 0.34 U | 0.35 U | 0.32 U |
| 2,4-Dinitrotoluene | NS | NS | 0.088 U | 0.086 U | 0.091 U | 0.085 U | 0.089 U | 0.082 U |
| 2,6-Dinitrotoluene | NS | NS | 0.088 U | 0.086 U | 0.091 U | 0.085 U | 0.089 U | 0.082 U |
| 2-Chloronaphthalene | NS | NS | 0.43 U | 0.42 U | 0.45 U | 0.42 U | 0.44 U | 0.4 U |
| 2-Chlorophenol | NS | NS | 0.43 U | 0.42 U | 0.45 U | 0.42 U | 0.44 U | 0.4 U |
| 2-Methylnaphthalene | NS | NS | 0.071 J | 0.21 J | 0.1 J | 0.12 J | 0.17 J | 0.14 J |
| 2-Methylphenol (O-Cresol) | 0.33 | 100 | 0.43 U | 0.42 U | 0.45 U | 0.42 U | 0.44 U | 0.4 U |
| 2-Nitroaniline | NS | NS | 0.43 U | 0.42 U | 0.45 U | 0.42 U | 0.44 U | 0.4 U |
| 2-Nitrophenol | NS | NS | 0.43 U | 0.42 U | 0.45 U | 0.42 U | 0.44 U | 0.4 U |
| 3- And 4- Methylphenol (Total) | NS | NS | 0.77 J | 2.5 J | 1.7 | 4.7 | 1.5 | 1.3 |
| 3,3'-Dichlorobenzidine | NS | NS | 0.17 U | 0.17 U | 0.18 U | 0.17 U | 0.18 U | 0.16 U |
| 3-Nitroaniline | NS | NS | 0.43 U | 0.42 U | 0.45 U | 0.42 U | 0.44 U | 0.4 U |
| 4,6-Dinitro-2-Methylphenol | NS | NS | 0.35 U | 0.34 U | 0.36 U | 0.34 U | 0.35 U | 0.32 U |
| 4-Bromophenyl Phenyl Ether | NS | NS | 0.43 U | 0.42 U | 0.45 U | 0.42 U | 0.44 U | 0.4 U |
| 4-Chloro-3-Methylphenol | NS | NS | 0.43 U | 0.42 U | 0.45 U | 0.42 U | 0.44 U | 0.4 U |
| 4-Chloroaniline | NS | NS | 0.43 U | 0.42 U | 0.45 U | 0.42 U | 0.44 U | 0.4 U |
| 4-Chlorophenyl Phenyl Ether | NS | NS | 0.43 U | 0.42 U | 0.45 U | 0.42 U | 0.44 U | 0.4 U |
| 4-Methylphenol (P-Cresol) | **0.33** | 100 | **0.77 J** | **2.5 J** | **1.7** | **4.7** | **1.5** | **1.3** |
| 4-Nitroaniline | NS | NS | 0.43 U | 0.42 U | 0.45 U | 0.42 U | 0.44 U | 0.4 U |
| 4-Nitrophenol | NS | NS | 0.88 U | 0.86 U | 0.91 U | 0.85 U | 0.89 U | 0.82 U |
| Acenaphthene | 20 | 100 | 0.14 J | 0.3 J | 0.2 J | 0.22 J | 0.47 | 0.22 J |
| Acenaphthylene | 100 | 100 | 0.026 J | 0.13 J | 0.034 J | 0.061 J | 0.11 J | 0.1 J |
| Acetophenone | NS | NS | 0.43 U | 0.078 J | 0.064 J | 0.42 U | 0.039 J | 0.4 U |
| Anthracene | 100 | 100 | 0.33 J | 0.68 | 0.29 J | 0.35 J | 0.7 | 0.39 J |
| Atrazine | NS | NS | 0.17 U | 0.17 U | 0.18 U | 0.17 U | 0.18 U | 0.16 U |
| Benzaldehyde | NS | NS | 0.43 UJ | 0.42 UJ | 0.45 UJ | 0.42 UJ | 0.44 UJ | 0.4 UJ |
| Benzo(a)Anthracene | **1** | 1.4 | **1.8** | **1.3** | 0.8 | 0.61 | **1.6** | 0.77 |
| Benzo(a)Pyrene | **1** | 1 | **1.9** | **1.3** | 0.88 | 0.59 | **1.4** | 0.81 |
| Benzo(b)Fluoranthene | **1** | 1.4 | **2.1** | **1.4** | 0.95 | 0.7 | **1.6** | 0.9 |
| Benzo(g,h,i)Perylene | **0.64** | 4.9 | **1** | **0.66** | 0.52 | 0.34 J | **0.69** | 0.45 |
| Benzo(k)Fluoranthene | **0.8** | 4.9 | **0.85** | 0.52 | 0.36 | 0.26 | 0.59 | 0.31 |
| Benzyl Butyl Phthalate | NS | NS | 0.43 U | 0.42 U | 0.45 U | 0.42 U | 0.44 U | 0.4 U |
| Biphenyl (Diphenyl) | NS | NS | 0.023 J | 0.063 J | 0.029 J | 0.039 J | 0.051 J | 0.042 J |
| Bis(2-Chloroethoxy) Methane | NS | NS | 0.43 U | 0.42 U | 0.45 U | 0.42 U | 0.44 U | 0.4 U |
| Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether) | NS | NS | 0.043 U | 0.042 U | 0.045 U | 0.042 U | 0.044 U | 0.04 U |
| Bis(2-Chloroisopropyl) Ether | NS | NS | 0.43 U | 0.42 U | 0.45 U | 0.42 U | 0.44 U | 0.4 U |
| Bis(2-Ethylhexyl) Phthalate | NS | NS | 0.43 U | 0.42 U | 0.45 U | 0.42 U | 0.098 J | 0.04 J |
| Caprolactam | NS | NS | 0.43 UJ | 0.42 UJ | 0.45 UJ | 0.42 UJ | 0.44 UJ | 0.4 UJ |
| Carbazole | NS | NS | 0.12 J | 0.19 J | 0.15 J | 0.14 J | 0.3 J | 0.13 J |
| Chrysene | **1** | 4.9 | **2.1** | **1.3** | 0.82 | 0.69 | **1.5** | 0.81 |
| Dibenz(a,h)Anthracene | **0.33** | 0.33 | 0.26 | 0.18 | 0.11 | 0.094 | 0.21 | 0.12 |
| Dibenzofuran | **2.1** | 18 | 0.087 J | 0.26 J | 0.12 J | 0.13 J | 0.26 J | 0.16 J |
| Diethyl Phthalate | NS | NS | 0.43 U | 0.42 U | 0.45 U | 0.42 U | 0.44 U | 0.4 U |
| Dimethyl Phthalate | NS | NS | 0.43 U | 0.42 U | 0.45 U | 0.42 U | 0.44 U | 0.4 U |
| Di-N-Butyl Phthalate | NS | NS | 0.43 U | 0.42 U | 0.45 U | 0.42 U | 0.44 U | 0.4 U |
| Di-N-Octylphthalate | NS | NS | 0.43 U | 0.42 U | 0.45 U | 0.42 U | 0.44 U | 0.4 U |
| Fluoranthene | 85 | 100 | 3.5 | 3.1 | 1.9 | 1.8 | 3.6 | 1.9 |
| Fluorene | 30 | 100 | 0.17 J | 0.4 J | 0.2 J | 0.23 J | 0.47 | 0.23 J |
| Hexachlorobenzene | 0.33 | 0.33 | 0.043 U | 0.042 U | 0.045 U | 0.042 U | 0.044 U | 0.04 U |
| Hexachlorobutadiene | NS | NS | 0.088 U | 0.086 U | 0.091 U | 0.085 U | 0.089 U | 0.082 U |
| Hexachlorocyclopentadiene | NS | NS | 0.43 R | 0.42 R | 0.45 R | 0.42 R | 0.44 R | 0.4 R |
| Hexachloroethane | NS | NS | 0.043 U | 0.042 U | 0.045 U | 0.042 U | 0.044 U | 0.04 U |
| Indeno(1,2,3-c,d)Pyrene | **0.5** | 1.4 | **1.2** | **0.79** | **0.59** | 0.39 | **0.84** | **0.51** |
| Isophorone | NS | NS | 0.17 U | 0.17 U | 0.18 U | 0.17 U | 0.18 U | 0.16 U |
| Naphthalene | **12** | 100 | 0.28 J | 0.68 J | 0.57 | 0.41 J | 0.51 | 0.76 |
| Nitrobenzene | 0.08 | 1.8 | 0.043 U | 0.042 U | 0.045 U | 0.042 U | 0.044 U | 0.04 U |
| N-Nitrosodi-N-Propylamine | NS | NS | 0.043 U | 0.042 U | 0.045 U | 0.042 U | 0.044 U | 0.04 U |
| N-Nitrosodiphenylamine | NS | NS | 0.43 U | 0.42 U | 0.45 U | 0.42 U | 0.44 U | 0.4 U |
| Pentachlorophenol | 0.8 | 1.3 | 0.35 U | 0.34 U | 0.36 U | 0.34 U | 0.35 U | 0.32 U |
| Phenanthrene | **1.1** | 4.9 | 1.1 J | **2.6 J** | **1.3** | **1.7** | **3.2** | **1.7** |
| Phenol | **0.33** | 100 | 0.43 U | 0.42 U | 0.23 J | **0.37 J** | 0.44 U | **0.54** |
| Pyrene | 64 | 100 | 3 | 2.6 | 1.6 | 1.4 | 3 | 1.7 |

**Table 2**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Semivolatile Organic Compounds*

| | | AKRF Sample ID | EP-06_15_20231103 | EP-07_15_20231103 | EP-08_15_20231110 | EP-09_15_20231110 | EP-10_15_20231110 | EP-11_15_20231110 |
|---|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-291818-6 | 460-291818-7 | 460-292402-1 | 460-292402-2 | 460-292402-3 | 460-292402-4 |
| | | Date Sampled | 11/03/2023 | 11/03/2023 | 11/10/2023 | 11/10/2023 | 11/10/2023 | 11/10/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 1 | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,2,4,5-Tetrachlorobenzene | NS | NS | 0.46 U | 0.43 U | 0.5 U | 0.46 U | 0.4 U | 0.38 U |
| 1,4-Dioxane (P-Dioxane) | 0.1 | 5.7 | 0.046 U | 0.043 U | 0.05 U | 0.046 U | 0.04 U | 0.038 U |
| 2,3,4,6-Tetrachlorophenol | NS | NS | 0.46 U | 0.43 U | 0.5 U | 0.46 U | 0.4 U | 0.38 U |
| 2,4,5-Trichlorophenol | NS | NS | 0.46 U | 0.43 U | 0.5 U | 0.46 U | 0.4 U | 0.38 U |
| 2,4,6-Trichlorophenol | NS | NS | 0.19 U | 0.17 U | 0.2 U | 0.19 U | 0.16 U | 0.15 U |
| 2,4-Dichlorophenol | NS | NS | 0.19 U | 0.17 U | 0.2 U | 0.19 U | 0.16 U | 0.15 U |
| 2,4-Dimethylphenol | NS | NS | 0.46 U | 0.43 U | 0.5 U | 0.46 U | 0.4 U | 0.38 U |
| 2,4-Dinitrophenol | NS | NS | 0.37 U | 0.34 U | 0.41 U | 0.37 U | 0.32 U | 0.3 U |
| 2,4-Dinitrotoluene | NS | NS | 0.094 U | 0.087 U | 0.1 U | 0.094 U | 0.081 U | 0.076 U |
| 2,6-Dinitrotoluene | NS | NS | 0.094 U | 0.087 U | 0.1 U | 0.094 U | 0.081 U | 0.076 U |
| 2-Chloronaphthalene | NS | NS | 0.46 U | 0.43 U | 0.5 U | 0.46 U | 0.4 U | 0.38 U |
| 2-Chlorophenol | NS | NS | 0.46 U | 0.43 U | 0.5 U | 0.46 U | 0.4 U | 0.38 U |
| 2-Methylnaphthalene | NS | NS | 0.28 J | 0.13 J | 0.15 J | 0.057 J | 0.031 J | 0.38 U |
| 2-Methylphenol (O-Cresol) | 0.33 | 100 | 0.46 U | 0.43 U | 0.023 J | 0.46 U | 0.4 U | 0.38 U |
| 2-Nitroaniline | NS | NS | 0.46 U | 0.43 U | 0.5 U | 0.46 U | 0.4 U | 0.38 U |
| 2-Nitrophenol | NS | NS | 0.46 U | 0.43 U | 0.5 U | 0.46 U | 0.4 U | 0.38 U |
| 3- And 4- Methylphenol (Total) | NS | NS | 2.9 | 3.6 | 3.5 | 0.77 | 0.066 J | 0.38 U |
| 3,3'-Dichlorobenzidine | NS | NS | 0.19 U | 0.17 U | 0.2 U | 0.19 U | 0.16 U | 0.15 U |
| 3-Nitroaniline | NS | NS | 0.46 U | 0.43 U | 0.5 U | 0.46 U | 0.4 U | 0.38 U |
| 4,6-Dinitro-2-Methylphenol | NS | NS | 0.37 U | 0.34 U | 0.41 U | 0.37 U | 0.32 U | 0.3 U |
| 4-Bromophenyl Phenyl Ether | NS | NS | 0.46 U | 0.43 U | 0.5 U | 0.46 U | 0.4 U | 0.38 U |
| 4-Chloro-3-Methylphenol | NS | NS | 0.46 U | 0.43 U | 0.5 U | 0.46 U | 0.4 U | 0.38 U |
| 4-Chloroaniline | NS | NS | 0.46 U | 0.43 U | 0.5 U | 0.46 U | 0.4 U | 0.38 U |
| 4-Chlorophenyl Phenyl Ether | NS | NS | 0.46 U | 0.43 U | 0.5 U | 0.46 U | 0.4 U | 0.38 U |
| 4-Methylphenol (P-Cresol) | **0.33** | 100 | **2.9** | **3.6** | **3.5** | **0.77** | 0.066 J | 0.38 U |
| 4-Nitroaniline | NS | NS | 0.46 U | 0.43 U | 0.5 U | 0.46 U | 0.4 U | 0.38 U |
| 4-Nitrophenol | NS | NS | 0.94 U | 0.87 U | 1 U | 0.94 U | 0.81 U | 0.76 U |
| Acenaphthene | 20 | 100 | 0.48 | 0.27 J | 0.15 J | 0.13 J | 0.066 J | 0.38 U |
| Acenaphthylene | 100 | 100 | 0.069 J | 0.057 J | 0.062 J | 0.013 J | 0.017 J | 0.38 U |
| Acetophenone | NS | NS | 0.46 U | 0.43 U | 0.5 U | 0.46 U | 0.4 U | 0.38 U |
| Anthracene | 100 | 100 | 0.57 | 0.41 J | 0.19 J | 0.11 J | 0.12 J | 0.021 J |
| Atrazine | NS | NS | 0.19 U | 0.17 U | 0.2 U | 0.19 U | 0.16 U | 0.15 U |
| Benzaldehyde | NS | NS | 0.08 J | 0.43 UJ | 0.5 UJ | 0.46 UJ | 0.4 UJ | 0.38 UJ |
| Benzo(a)Anthracene | **1** | 1.4 | **1.1** | 0.97 | 0.52 | 0.21 | 0.32 | 0.14 |
| Benzo(a)Pyrene | **1** | 1 | **1.1** | 0.94 | 0.51 | 0.23 | 0.34 | 0.13 |
| Benzo(b)Fluoranthene | **1** | 1.4 | **1.3** | **1.1** | 0.53 | 0.27 | 0.36 | 0.11 |
| Benzo(g,h,i)Perylene | **0.64** | 4.9 | 0.57 | 0.49 | 0.29 J | 0.15 J | 0.2 J | 0.076 J |
| Benzo(k)Fluoranthene | **0.8** | 4.9 | 0.45 | 0.42 | 0.25 | 0.086 | 0.16 | 0.037 J |
| Benzyl Butyl Phthalate | NS | NS | 0.46 U | 0.43 U | 0.5 U | 0.46 U | 0.4 U | 0.38 U |
| Biphenyl (Diphenyl) | NS | NS | 0.073 J | 0.042 J | 0.042 J | 0.019 J | 0.4 U | 0.38 U |
| Bis(2-Chloroethoxy) Methane | NS | NS | 0.46 U | 0.43 U | 0.5 U | 0.46 U | 0.4 U | 0.38 U |
| Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether) | NS | NS | 0.046 U | 0.043 U | 0.05 U | 0.046 U | 0.04 U | 0.038 U |
| Bis(2-Chloroisopropyl) Ether | NS | NS | 0.46 U | 0.43 U | 0.5 U | 0.46 U | 0.4 U | 0.38 U |
| Bis(2-Ethylhexyl) Phthalate | NS | NS | 0.46 U | 0.43 U | 0.5 U | 0.46 U | 0.4 U | 0.38 U |
| Caprolactam | NS | NS | 0.46 UJ | 0.43 UJ | 0.5 U | 0.46 U | 0.4 U | 0.38 U |
| Carbazole | NS | NS | 0.32 J | 0.15 J | 0.055 J | 0.042 J | 0.03 J | 0.38 U |
| Chrysene | **1** | 4.9 | **1.2** | 0.98 | 0.56 | 0.25 J | 0.34 J | 0.17 J |
| Dibenz(a,h)Anthracene | **0.33** | 0.33 | 0.16 | 0.14 | 0.097 | 0.053 | 0.068 | 0.035 J |
| Dibenzofuran | **2.1** | 18 | 0.28 J | 0.16 J | 0.067 J | 0.062 J | 0.036 J | 0.38 U |
| Diethyl Phthalate | NS | NS | 0.46 U | 0.43 U | 0.5 U | 0.46 U | 0.4 U | 0.38 U |
| Dimethyl Phthalate | NS | NS | 0.46 U | 0.43 U | 0.5 U | 0.46 U | 0.4 U | 0.38 U |
| Di-N-Butyl Phthalate | NS | NS | 0.46 U | 0.43 U | 0.5 U | 0.46 U | 0.4 U | 0.38 U |
| Di-N-Octylphthalate | NS | NS | 0.46 U | 0.43 U | 0.5 U | 0.46 U | 0.4 U | 0.38 U |
| Fluoranthene | 85 | 100 | 3 | 2.3 | 0.97 | 0.6 | 0.66 | 0.14 J |
| Fluorene | 30 | 100 | 0.5 | 0.26 J | 0.13 J | 0.095 J | 0.054 J | 0.38 U |
| Hexachlorobenzene | 0.33 | 0.33 | 0.046 U | 0.043 U | 0.05 U | 0.046 U | 0.04 U | 0.038 U |
| Hexachlorobutadiene | NS | NS | 0.094 U | 0.087 U | 0.1 U | 0.094 U | 0.081 U | 0.076 U |
| Hexachlorocyclopentadiene | NS | NS | 0.46 R | 0.43 R | 0.5 U | 0.46 U | 0.4 U | 0.38 U |
| Hexachloroethane | NS | NS | 0.046 U | 0.043 U | 0.05 U | 0.046 U | 0.04 U | 0.038 U |
| Indeno(1,2,3-c,d)Pyrene | **0.5** | 1.4 | **0.67** | **0.57** | 0.38 | 0.19 | 0.28 | 0.095 |
| Isophorone | NS | NS | 0.19 U | 0.17 U | 0.2 U | 0.19 U | 0.16 U | 0.15 U |
| Naphthalene | **12** | 100 | 2.9 | 0.51 | 0.46 J | 0.23 J | 0.087 J | 0.0065 J |
| Nitrobenzene | 0.08 | 1.8 | 0.046 U | 0.043 U | 0.05 U | 0.046 U | 0.04 U | 0.038 U |
| N-Nitrosodi-N-Propylamine | NS | NS | 0.046 U | 0.043 U | 0.05 U | 0.046 U | 0.04 U | 0.038 U |
| N-Nitrosodiphenylamine | NS | NS | 0.46 U | 0.43 U | 0.5 U | 0.46 U | 0.4 U | 0.38 U |
| Pentachlorophenol | 0.8 | 1.3 | 0.37 U | 0.34 U | 0.41 U | 0.37 U | 0.32 U | 0.3 U |
| Phenanthrene | **1.1** | 4.9 | **3.1** | **1.8** | 0.67 | 0.6 | 0.47 | 0.069 J |
| Phenol | **0.33** | 100 | 0.46 U | 0.43 U | 0.26 J | 0.093 J | 0.4 U | 0.38 U |
| Pyrene | 64 | 100 | 2.4 | 1.9 | 0.89 | 0.52 | 0.61 | 0.24 J |

**Table 2**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Semivolatile Organic Compounds*

| | | AKRF Sample ID | EP-12_15_20231110 | EP-13_15_20231110 | EP-14_15_20231110 | EP-15_15_20231110 | EP-16_20_20231127 | EP-X2_20_20231127 |
|---|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-292402-5 | 460-292402-6 | 460-292402-7 | 460-292402-8 | 460-293316-1 | 460-293316-8 |
| | | Date Sampled | 11/10/2023 | 11/10/2023 | 11/10/2023 | 11/10/2023 | 11/27/2023 | 11/27/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 1 | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,2,4,5-Tetrachlorobenzene | NS | NS | 0.46 U | 0.51 U | 0.41 U | | 0.4 UJ | 0.39 UJ |
| 1,4-Dioxane (P-Dioxane) | 0.1 | 5.7 | 0.046 U | 0.051 U | 0.041 U | | 0.04 U | 0.039 U |
| 2,3,4,6-Tetrachlorophenol | NS | NS | 0.46 U | 0.51 U | 0.41 U | | 0.4 UJ | 0.39 UJ |
| 2,4,5-Trichlorophenol | NS | NS | 0.46 U | 0.51 U | 0.41 U | | 0.4 UJ | 0.39 UJ |
| 2,4,6-Trichlorophenol | NS | NS | 0.19 U | 0.21 U | 0.16 U | | 0.16 UJ | 0.16 UJ |
| 2,4-Dichlorophenol | NS | NS | 0.19 U | 0.21 U | 0.16 U | | 0.16 UJ | 0.16 UJ |
| 2,4-Dimethylphenol | NS | NS | 0.069 J | 0.51 U | 0.41 U | | 0.4 UJ | 0.39 UJ |
| 2,4-Dinitrophenol | NS | NS | 0.37 U | 0.41 U | 0.33 U | | 0.32 U | 0.32 U |
| 2,4-Dinitrotoluene | NS | NS | 0.094 U | 0.1 U | 0.082 U | | 0.082 UJ | 0.08 UJ |
| 2,6-Dinitrotoluene | NS | NS | 0.094 U | 0.1 U | 0.082 U | | 0.082 UJ | 0.08 UJ |
| 2-Chloronaphthalene | NS | NS | 0.46 U | 0.51 U | 0.41 U | | 0.4 UJ | 0.39 UJ |
| 2-Chlorophenol | NS | NS | 0.46 U | 0.51 U | 0.41 U | | 0.4 UJ | 0.39 UJ |
| 2-Methylnaphthalene | NS | NS | 0.32 J | 0.24 J | 0.086 J | | 0.012 JL | 0.39 UJ |
| 2-Methylphenol (O-Cresol) | 0.33 | 100 | 0.086 J | 0.032 J | 0.41 U | | 0.4 U | 0.39 U |
| 2-Nitroaniline | NS | NS | 0.46 U | 0.51 U | 0.41 U | | 0.4 U | 0.39 U |
| 2-Nitrophenol | NS | NS | 0.46 U | 0.51 U | 0.41 U | | 0.4 UJ | 0.39 UJ |
| 3- And 4- Methylphenol (Total) | NS | NS | 2.1 | 2.5 | 1.4 | | 0.4 U | 0.39 U |
| 3,3'-Dichlorobenzidine | NS | NS | 0.19 U | 0.21 U | 0.16 U | | 0.16 U | 0.16 U |
| 3-Nitroaniline | NS | NS | 0.46 U | 0.51 U | 0.41 U | | 0.4 U | 0.39 U |
| 4,6-Dinitro-2-Methylphenol | NS | NS | 0.37 U | 0.41 U | 0.33 U | | 0.32 U | 0.32 U |
| 4-Bromophenyl Phenyl Ether | NS | NS | 0.46 U | 0.51 U | 0.41 U | | 0.4 UJ | 0.39 UJ |
| 4-Chloro-3-Methylphenol | NS | NS | 0.46 U | 0.51 U | 0.41 U | | 0.4 UJ | 0.39 UJ |
| 4-Chloroaniline | NS | NS | 0.46 U | 0.51 U | 0.41 U | | 0.4 R | 0.39 R |
| 4-Chlorophenyl Phenyl Ether | NS | NS | 0.46 U | 0.51 U | 0.41 U | | 0.4 UJ | 0.39 UJ |
| 4-Methylphenol (P-Cresol) | **0.33** | 100 | **2.1** | **2.5** | **1.4** | | 0.4 U | 0.39 U |
| 4-Nitroaniline | NS | NS | 0.46 U | 0.51 U | 0.41 U | | 0.4 U | 0.39 U |
| 4-Nitrophenol | NS | NS | 0.94 U | 1 U | 0.82 U | | 0.82 U | 0.8 U |
| Acenaphthene | 20 | 100 | 0.63 | 0.45 J | 0.32 J | | 0.03 J | 0.045 J |
| Acenaphthylene | 100 | 100 | 0.078 J | 0.042 J | 0.045 J | | 0.4 UJ | 0.39 UJ |
| Acetophenone | NS | NS | 0.46 U | 0.51 U | 0.41 U | | 0.4 U | 0.39 U |
| Anthracene | 100 | 100 | 0.84 | 0.6 | 0.32 J | ***over-excavated*** | 0.039 JL | 0.054 JL |
| Atrazine | NS | NS | 0.19 U | 0.21 U | 0.16 U | *(sample was over-excavated* | 0.16 U | 0.16 U |
| Benzaldehyde | NS | NS | 0.12 J | 0.51 UJ | 0.41 UJ | *when petroleum hotspot was* | 0.4 UJ | 0.39 UJ |
| Benzo(a)Anthracene | **1** | 1.4 | **1.8** | 0.87 | 0.63 | *expanded, beyond its* | 0.082 JL | 0.11 JL |
| Benzo(a)Pyrene | **1** | 1 | **2** | 0.89 | 0.69 | *proposed extents in the* | 0.072 JL | 0.12 JL |
| Benzo(b)Fluoranthene | **1** | 1.4 | **2.3** | **1.1** | 0.67 | *RAWP, based on olfactory* | 0.085 JL | 0.12 JL |
| Benzo(g,h,i)Perylene | **0.64** | 4.9 | **1.2** | 0.56 | 0.33 J | *observations and elevated PID* | 0.034 JL | 0.064 JL |
| Benzo(k)Fluoranthene | **0.8** | 4.9 | **0.81** | 0.33 | 0.3 | *readings; and not due to* | 0.036 JL | 0.06 JL |
| Benzyl Butyl Phthalate | NS | NS | 0.46 U | 0.51 U | 0.41 U | *exceedances of applicable* | 0.4 UJ | 0.39 UJ |
| Biphenyl (Diphenyl) | NS | NS | 0.11 J | 0.066 J | 0.023 J | *SCOs)* | 0.4 UJ | 0.39 UJ |
| Bis(2-Chloroethoxy) Methane | NS | NS | 0.46 U | 0.51 U | 0.41 U | | 0.4 UJ | 0.39 UJ |
| Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether) | NS | NS | 0.046 U | 0.051 U | 0.041 U | | 0.04 U | 0.039 U |
| Bis(2-Chloroisopropyl) Ether | NS | NS | 0.46 U | 0.51 U | 0.41 U | | 0.4 UJ | 0.39 UJ |
| Bis(2-Ethylhexyl) Phthalate | NS | NS | 0.46 U | 0.51 U | 0.41 U | | 0.4 UJ | 0.39 UJ |
| Caprolactam | NS | NS | 0.46 U | 0.51 U | 0.41 U | | 0.4 U | 0.39 U |
| Carbazole | NS | NS | 0.45 J | 0.32 J | 0.062 J | | 0.4 U | 0.018 J |
| Chrysene | **1** | 4.9 | **2** | **1.1** | 0.64 | | 0.083 JL | 0.11 JL |
| Dibenz(a,h)Anthracene | **0.33** | 0.33 | 0.26 | 0.15 | 0.074 | | 0.04 UJ | 0.039 UJ |
| Dibenzofuran | **2.1** | 18 | 0.46 | 0.28 J | 0.084 J | | 0.4 UJ | 0.02 JL |
| Diethyl Phthalate | NS | NS | 0.46 U | 0.51 U | 0.41 U | | 0.4 UJ | 0.39 U |
| Dimethyl Phthalate | NS | NS | 0.46 U | 0.51 U | 0.41 U | | 0.4 UJ | 0.39 UJ |
| Di-N-Butyl Phthalate | NS | NS | 0.46 U | 0.51 U | 0.41 U | | 0.024 JL | 0.059 JL |
| Di-N-Octylphthalate | NS | NS | 0.46 U | 0.51 U | 0.41 U | | 0.4 U | 0.39 U |
| Fluoranthene | 85 | 100 | 5.2 | 2.5 | 1.4 | | 0.22 JL | 0.27 JL |
| Fluorene | 30 | 100 | 0.62 | 0.47 J | 0.22 J | | 0.024 J | 0.034 JL |
| Hexachlorobenzene | 0.33 | 0.33 | 0.046 U | 0.051 U | 0.041 U | | 0.04 UJ | 0.039 UJ |
| Hexachlorobutadiene | NS | NS | 0.094 U | 0.1 U | 0.082 U | | 0.082 UJ | 0.08 UJ |
| Hexachlorocyclopentadiene | NS | NS | 0.46 U | 0.51 U | 0.41 U | | 0.4 U | 0.39 U |
| Hexachloroethane | NS | NS | 0.046 U | 0.051 U | 0.041 U | | 0.04 U | 0.039 U |
| Indeno(1,2,3-c,d)Pyrene | **0.5** | 1.4 | **1.4** | **0.7** | 0.44 | | 0.035 J | 0.07 |
| Isophorone | NS | NS | 0.19 U | 0.21 U | 0.16 U | | 0.16 U | 0.16 U |
| Naphthalene | **12** | 100 | 3.2 | 0.75 | 0.29 J | | 0.035 J | 0.04 J |
| Nitrobenzene | 0.08 | 1.8 | 0.046 U | 0.051 U | 0.041 U | | 0.04 UJ | 0.039 UJ |
| N-Nitrosodi-N-Propylamine | NS | NS | 0.046 U | 0.051 U | 0.041 U | | 0.04 U | 0.039 U |
| N-Nitrosodiphenylamine | NS | NS | 0.46 U | 0.51 U | 0.41 U | | 0.4 UJ | 0.39 UJ |
| Pentachlorophenol | 0.8 | 1.3 | 0.37 U | 0.41 U | 0.33 U | | 0.32 U | 0.32 U |
| Phenanthrene | **1.1** | 4.9 | **5.1** | **3** | **1.2** | | 0.19 JL | 0.25 JL |
| Phenol | **0.33** | 100 | **0.36 J** | **0.44 J** | 0.047 J | | 0.4 U | 0.39 U |
| Pyrene | 64 | 100 | 4.3 | 2.2 | 1.4 | | 0.2 JL | 0.26 JL |

**Table 2**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Semivolatile Organic Compounds*

| | | AKRF Sample ID | EP-17_15_20231127 | EP-17_15_20231127 | EP-18_17.5_20231127 | EP-18_17.5_20231127 | EP-19_17.5_20231127 | EP-20_17.5_20231127 |
|---|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-293316-2 | 460-293316-2 | 460-293316-3 | 460-293316-3 | 460-293316-4 | 460-293316-5 |
| | | Date Sampled | 11/27/2023 | 11/27/2023 | 11/27/2023 | 11/27/2023 | 11/27/2023 | 11/27/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 2 | 1 | 5 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,2,4,5-Tetrachlorobenzene | NS | NS | 0.46 U | NR | 0.46 U | NR | 0.48 U | 0.38 U |
| 1,4-Dioxane (P-Dioxane) | 0.1 | 5.7 | 0.046 U | NR | 0.046 U | NR | 0.048 U | 0.038 U |
| 2,3,4,6-Tetrachlorophenol | NS | NS | 0.46 U | NR | 0.46 U | NR | 0.48 U | 0.38 U |
| 2,4,5-Trichlorophenol | NS | NS | 0.46 U | NR | 0.46 U | NR | 0.48 U | 0.38 U |
| 2,4,6-Trichlorophenol | NS | NS | 0.18 U | NR | 0.18 U | NR | 0.19 U | 0.15 U |
| 2,4-Dichlorophenol | NS | NS | 0.18 U | NR | 0.18 U | NR | 0.19 U | 0.15 U |
| 2,4-Dimethylphenol | NS | NS | 0.46 U | NR | 0.46 U | NR | 0.48 U | 0.38 U |
| 2,4-Dinitrophenol | NS | NS | 0.37 U | NR | 0.37 U | NR | 0.39 U | 0.3 U |
| 2,4-Dinitrotoluene | NS | NS | 0.093 U | NR | 0.093 U | NR | 0.098 U | 0.076 U |
| 2,6-Dinitrotoluene | NS | NS | 0.093 U | NR | 0.093 U | NR | 0.098 U | 0.076 U |
| 2-Chloronaphthalene | NS | NS | 0.46 U | NR | 0.46 U | NR | 0.48 U | 0.38 U |
| 2-Chlorophenol | NS | NS | 0.46 U | NR | 0.46 U | NR | 0.48 U | 0.38 U |
| 2-Methylnaphthalene | NS | NS | 0.77 | NR | 2.1 | NR | 0.13 J | 0.38 U |
| 2-Methylphenol (O-Cresol) | 0.33 | 100 | 0.46 U | NR | 0.46 U | NR | 0.48 U | 0.38 U |
| 2-Nitroaniline | NS | NS | 0.46 U | NR | 0.46 U | NR | 0.48 U | 0.38 U |
| 2-Nitrophenol | NS | NS | 0.46 U | NR | 0.46 U | NR | 0.48 U | 0.38 U |
| 3- And 4- Methylphenol (Total) | NS | NS | 1.1 | NR | 0.48 | NR | 2 | 0.38 U |
| 3,3'-Dichlorobenzidine | NS | NS | 0.18 U | NR | 0.18 U | NR | 0.19 U | 0.15 U |
| 3-Nitroaniline | NS | NS | 0.46 U | NR | 0.46 U | NR | 0.48 U | 0.38 U |
| 4,6-Dinitro-2-Methylphenol | NS | NS | 0.37 U | NR | 0.37 U | NR | 0.39 U | 0.3 U |
| 4-Bromophenyl Phenyl Ether | NS | NS | 0.46 U | NR | 0.46 U | NR | 0.48 U | 0.38 U |
| 4-Chloro-3-Methylphenol | NS | NS | 0.46 U | NR | 0.46 U | NR | 0.48 U | 0.38 U |
| 4-Chloroaniline | NS | NS | 0.46 R | NR | 0.46 R | NR | 0.48 R | 0.38 R |
| 4-Chlorophenyl Phenyl Ether | NS | NS | 0.46 U | NR | 0.46 U | NR | 0.48 U | 0.38 U |
| 4-Methylphenol (P-Cresol) | **0.33** | 100 | **1.1** | NR | **0.48** | NR | **2** | 0.38 U |
| 4-Nitroaniline | NS | NS | 0.46 U | NR | 0.46 U | NR | 0.48 U | 0.38 U |
| 4-Nitrophenol | NS | NS | 0.93 U | NR | 0.93 U | NR | 0.98 U | 0.76 U |
| Acenaphthene | 20 | 100 | 6.2 | NR | 9 | NR | 0.51 | 0.38 U |
| Acenaphthylene | 100 | 100 | 0.29 J | NR | 0.34 J | NR | 0.019 J | 0.38 U |
| Acetophenone | NS | NS | 0.46 U | NR | 0.46 U | NR | 0.48 U | 0.38 U |
| Anthracene | 100 | 100 | 6.1 | NR | NR | 12 D | 0.63 | 0.38 U |
| Atrazine | NS | NS | 0.18 U | NR | 0.18 U | NR | 0.19 U | 0.15 U |
| Benzaldehyde | NS | NS | 0.46 UJ | NR | 0.46 UJ | NR | 0.48 UJ | 0.38 UJ |
| Benzo(a)Anthracene | **1** | 1.4 | **7.8** | NR | NR | **13 D** | **2.4** | 0.038 U |
| Benzo(a)Pyrene | **1** | 1 | **8.5** | NR | NR | **13 D** | **2.8** | 0.038 U |
| Benzo(b)Fluoranthene | **1** | 1.4 | **8.4** | NR | NR | **13 D** | **2.9** | 0.013 J |
| Benzo(g,h,i)Perylene | **0.64** | 4.9 | **4.6** | NR | **7.9** | NR | **1.5** | 0.38 U |
| Benzo(k)Fluoranthene | **0.8** | 4.9 | **3.1** | NR | **6.2** | NR | **1.2** | 0.038 U |
| Benzyl Butyl Phthalate | NS | NS | 0.46 U | NR | 0.46 U | NR | 0.48 U | 0.38 U |
| Biphenyl (Diphenyl) | NS | NS | 0.18 J | NR | 1 | NR | 0.038 J | 0.38 U |
| Bis(2-Chloroethoxy) Methane | NS | NS | 0.46 U | NR | 0.46 U | NR | 0.48 U | 0.38 U |
| Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether) | NS | NS | 0.046 U | NR | 0.046 U | NR | 0.048 U | 0.038 U |
| Bis(2-Chloroisopropyl) Ether | NS | NS | 0.46 UJ | NR | 0.46 UJ | NR | 0.48 UJ | 0.38 UJ |
| Bis(2-Ethylhexyl) Phthalate | NS | NS | 0.46 U | NR | 0.46 U | NR | 0.48 U | 0.38 U |
| Caprolactam | NS | NS | 0.46 U | NR | 0.46 U | NR | 0.48 U | 0.38 U |
| Carbazole | NS | NS | 0.98 | NR | 4.6 | NR | 0.19 J | 0.38 U |
| Chrysene | **1** | 4.9 | **7.1** | NR | NR | **12 D** | **2.4** | 0.38 U |
| Dibenz(a,h)Anthracene | **0.33** | 0.33 | **0.9** | NR | **2.2** | NR | **0.41** | 0.038 U |
| Dibenzofuran | **2.1** | 18 | 0.89 | NR | **6.7** | NR | 0.17 J | 0.38 U |
| Diethyl Phthalate | NS | NS | 0.46 U | NR | 0.46 U | NR | 0.48 U | 0.38 U |
| Dimethyl Phthalate | NS | NS | 0.46 U | NR | 0.46 U | NR | 0.48 U | 0.38 U |
| Di-N-Butyl Phthalate | NS | NS | 0.46 U | NR | 0.46 U | NR | 0.057 J | 0.38 U |
| Di-N-Octylphthalate | NS | NS | 0.46 U | NR | 0.46 U | NR | 0.48 U | 0.38 U |
| Fluoranthene | 85 | 100 | NR | 19 D | NR | 35 D | 4.7 | 0.017 J |
| Fluorene | 30 | 100 | 3.8 | NR | 9.2 | NR | 0.29 J | 0.38 U |
| Hexachlorobenzene | 0.33 | 0.33 | 0.046 U | NR | 0.046 U | NR | 0.048 U | 0.038 U |
| Hexachlorobutadiene | NS | NS | 0.093 U | NR | 0.093 U | NR | 0.098 U | 0.076 U |
| Hexachlorocyclopentadiene | NS | NS | 0.46 U | NR | 0.46 U | NR | 0.48 U | 0.38 U |
| Hexachloroethane | NS | NS | 0.046 U | NR | 0.046 U | NR | 0.048 U | 0.038 U |
| Indeno(1,2,3-c,d)Pyrene | **0.5** | 1.4 | **5.2** | NR | **9.4** | NR | **1.8** | 0.038 U |
| Isophorone | NS | NS | 0.18 U | NR | 0.18 U | NR | 0.19 U | 0.15 U |
| Naphthalene | **12** | 100 | 2.2 | NR | 4.2 | NR | 0.75 | 0.38 U |
| Nitrobenzene | 0.08 | 1.8 | 0.046 U | NR | 0.046 U | NR | 0.048 U | 0.038 U |
| N-Nitrosodi-N-Propylamine | NS | NS | 0.046 U | NR | 0.046 U | NR | 0.048 U | 0.038 U |
| N-Nitrosodiphenylamine | NS | NS | 0.46 U | NR | 0.46 U | NR | 0.48 U | 0.38 U |
| Pentachlorophenol | 0.8 | 1.3 | 0.37 U | NR | 0.37 U | NR | 0.39 U | 0.3 U |
| Phenanthrene | **1.1** | 4.9 | NR | **20 D** | NR | **48 D** | **2.4** | 0.38 U |
| Phenol | **0.33** | 100 | 0.46 U | NR | 0.46 U | NR | 0.48 U | 0.38 U |
| Pyrene | 64 | 100 | NR | 19 D | NR | 30 D | 5.2 | 0.017 J |

**Table 2**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Semivolatile Organic Compounds*

| | | AKRF Sample ID | EP-21_20_20231129 | EP-22_17.5_20231129 | EP-23_17.5_20231129 | EP-24_20_20231129 | EP-25_19.5_20231207 | EP-26_17.5_20231207 |
|---|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-293467-1 | 460-293467-2 | 460-293467-3 | 460-293467-4 | 460-294189-1 | 460-294189-2 |
| | | Date Sampled | 11/29/2023 | 11/29/2023 | 11/29/2023 | 11/29/2023 | 12/07/2023 | 12/07/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 1 | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,2,4,5-Tetrachlorobenzene | NS | NS | 0.41 U | 0.38 U | 0.34 U | 0.36 U | 0.35 U | 0.37 U |
| 1,4-Dioxane (P-Dioxane) | 0.1 | 5.7 | 0.041 U | 0.038 U | 0.034 U | 0.036 U | 0.035 U | 0.037 U |
| 2,3,4,6-Tetrachlorophenol | NS | NS | 0.41 U | 0.38 U | 0.34 U | 0.36 U | 0.35 U | 0.37 U |
| 2,4,5-Trichlorophenol | NS | NS | 0.41 UJ | 0.38 UJ | 0.34 UJ | 0.36 UJ | 0.35 U | 0.37 U |
| 2,4,6-Trichlorophenol | NS | NS | 0.16 U | 0.15 U | 0.14 U | 0.15 U | 0.14 U | 0.15 U |
| 2,4-Dichlorophenol | NS | NS | 0.16 U | 0.15 U | 0.14 U | 0.15 U | 0.14 U | 0.15 U |
| 2,4-Dimethylphenol | NS | NS | 0.41 UJ | 0.38 UJ | 0.34 UJ | 0.36 UJ | 0.35 U | 0.37 U |
| 2,4-Dinitrophenol | NS | NS | 0.33 U | 0.3 U | 0.28 U | 0.29 U | 0.28 U | 0.3 U |
| 2,4-Dinitrotoluene | NS | NS | 0.082 U | 0.077 U | 0.07 U | 0.074 U | 0.072 U | 0.075 U |
| 2,6-Dinitrotoluene | NS | NS | 0.082 U | 0.077 U | 0.07 U | 0.074 U | 0.072 U | 0.075 U |
| 2-Chloronaphthalene | NS | NS | 0.41 U | 0.38 U | 0.34 U | 0.36 U | 0.35 U | 0.37 U |
| 2-Chlorophenol | NS | NS | 0.41 U | 0.38 U | 0.34 U | 0.36 U | 0.35 U | 0.37 U |
| 2-Methylnaphthalene | NS | NS | 0.13 J | 0.38 U | 0.63 | 0.36 U | 0.08 J | 0.076 J |
| 2-Methylphenol (O-Cresol) | 0.33 | 100 | 0.41 U | 0.38 U | 0.34 U | 0.36 U | 0.35 U | 0.37 U |
| 2-Nitroaniline | NS | NS | 0.41 U | 0.38 U | 0.34 U | 0.36 U | 0.35 U | 0.37 U |
| 2-Nitrophenol | NS | NS | 0.41 U | 0.38 U | 0.34 U | 0.36 U | 0.35 U | 0.37 U |
| 3- And 4- Methylphenol (Total) | NS | NS | 0.41 U | 0.38 U | 0.15 J | 0.36 U | 0.042 J | 0.37 U |
| 3,3'-Dichlorobenzidine | NS | NS | 0.16 U | 0.15 U | 0.14 U | 0.15 U | 0.14 U | 0.15 U |
| 3-Nitroaniline | NS | NS | 0.41 UJ | 0.38 UJ | 0.34 UJ | 0.36 UJ | 0.35 U | 0.37 U |
| 4,6-Dinitro-2-Methylphenol | NS | NS | 0.33 U | 0.3 U | 0.28 U | 0.29 U | 0.28 U | 0.3 U |
| 4-Bromophenyl Phenyl Ether | NS | NS | 0.41 U | 0.38 U | 0.34 U | 0.36 U | 0.35 U | 0.37 U |
| 4-Chloro-3-Methylphenol | NS | NS | 0.41 U | 0.38 U | 0.34 U | 0.36 U | 0.35 U | 0.37 U |
| 4-Chloroaniline | NS | NS | 0.41 U | 0.38 U | 0.34 U | 0.36 U | 0.35 U | 0.37 U |
| 4-Chlorophenyl Phenyl Ether | NS | NS | 0.41 U | 0.38 U | 0.34 U | 0.36 U | 0.35 U | 0.37 U |
| 4-Methylphenol (P-Cresol) | **0.33** | 100 | 0.41 U | 0.38 U | 0.15 J | 0.36 U | 0.042 J | 0.37 U |
| 4-Nitroaniline | NS | NS | 0.41 U | 0.38 U | 0.34 U | 0.36 U | 0.35 U | 0.37 U |
| 4-Nitrophenol | NS | NS | 0.82 U | 0.77 U | 0.7 U | 0.74 U | 0.72 U | 0.75 U |
| Acenaphthene | 20 | 100 | 0.013 J | 0.38 U | 0.52 | 0.36 U | 0.088 J | 0.02 J |
| Acenaphthylene | 100 | 100 | 0.41 U | 0.38 U | 0.02 J | 0.36 U | 0.019 J | 0.37 U |
| Acetophenone | NS | NS | 0.41 U | 0.38 U | 0.34 U | 0.36 U | 0.35 U | 0.37 U |
| Anthracene | 100 | 100 | 0.02 J | 0.38 U | 2.2 | 0.36 U | 0.17 J | 0.048 J |
| Atrazine | NS | NS | 0.16 U | 0.15 U | 0.14 U | 0.15 U | 0.14 U | 0.15 U |
| Benzaldehyde | NS | NS | 0.41 UJ | 0.38 UJ | 0.34 UJ | 0.36 UJ | 0.35 UJ | 0.37 UJ |
| Benzo(a)Anthracene | **1** | 1.4 | 0.035 J | 0.038 U | **2.7** | 0.036 U | 0.23 | 0.092 |
| Benzo(a)Pyrene | **1** | 1 | 0.019 J | 0.038 U | **2.6** | 0.036 U | 0.25 | 0.058 |
| Benzo(b)Fluoranthene | **1** | 1.4 | 0.027 J | 0.038 U | **2.8** | 0.036 U | 0.26 | 0.065 |
| Benzo(g,h,i)Perylene | **0.64** | 4.9 | 0.013 J | 0.38 U | **1.1** | 0.36 U | 0.16 J | 0.024 J |
| Benzo(k)Fluoranthene | **0.8** | 4.9 | 0.012 J | 0.038 U | **1** | 0.036 U | 0.12 | 0.023 J |
| Benzyl Butyl Phthalate | NS | NS | 0.41 U | 0.38 U | 0.34 U | 0.36 U | 0.35 U | 0.37 U |
| Biphenyl (Diphenyl) | NS | NS | 0.41 U | 0.38 U | 0.046 J | 0.36 U | 0.35 U | 0.37 U |
| Bis(2-Chloroethoxy) Methane | NS | NS | 0.41 U | 0.38 U | 0.34 U | 0.36 U | 0.35 U | 0.37 U |
| Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether) | NS | NS | 0.041 U | 0.038 U | 0.034 U | 0.036 U | 0.035 U | 0.037 U |
| Bis(2-Chloroisopropyl) Ether | NS | NS | 0.41 UJ | 0.38 UJ | 0.34 UJ | 0.36 UJ | 0.35 U | 0.37 U |
| Bis(2-Ethylhexyl) Phthalate | NS | NS | 0.41 U | 0.38 U | 0.34 U | 0.36 U | 0.066 J | 0.37 U |
| Caprolactam | NS | NS | 0.41 U | 0.38 U | 0.34 U | 0.36 U | 0.35 U | 0.37 U |
| Carbazole | NS | NS | 0.41 U | 0.38 U | 0.42 | 0.36 U | 0.022 J | 0.37 U |
| Chrysene | **1** | 4.9 | 0.024 J | 0.38 U | **2.5** | 0.36 U | 0.26 J | 0.1 J |
| Dibenz(a,h)Anthracene | **0.33** | 0.33 | 0.041 U | 0.038 U | 0.33 | 0.036 U | 0.057 | 0.037 U |
| Dibenzofuran | **2.1** | 18 | 0.41 U | 0.38 U | 0.38 | 0.36 U | 0.062 J | 0.019 J |
| Diethyl Phthalate | NS | NS | 0.41 U | 0.38 U | 0.34 U | 0.36 U | 0.35 U | 0.37 U |
| Dimethyl Phthalate | NS | NS | 0.41 U | 0.38 U | 0.34 U | 0.36 U | 0.35 U | 0.37 U |
| Di-N-Butyl Phthalate | NS | NS | 0.069 J | 0.38 U | 0.099 J | 0.36 U | 0.35 U | 0.37 U |
| Di-N-Octylphthalate | NS | NS | 0.41 U | 0.38 U | 0.34 U | 0.36 U | 0.35 U | 0.37 U |
| Fluoranthene | 85 | 100 | 0.067 J | 0.38 U | 6.4 | 0.36 U | 0.7 | 0.23 J |
| Fluorene | 30 | 100 | 0.41 U | 0.38 U | 0.72 | 0.36 U | 0.1 J | 0.029 J |
| Hexachlorobenzene | 0.33 | 0.33 | 0.041 U | 0.038 U | 0.034 U | 0.036 U | 0.035 U | 0.037 U |
| Hexachlorobutadiene | NS | NS | 0.082 UJ | 0.077 UJ | 0.07 UJ | 0.074 UJ | 0.072 U | 0.075 U |
| Hexachlorocyclopentadiene | NS | NS | 0.41 UJ | 0.38 UJ | 0.34 UJ | 0.36 UJ | 0.35 UJ | 0.37 U |
| Hexachloroethane | NS | NS | 0.041 U | 0.038 U | 0.034 U | 0.036 U | 0.035 U | 0.037 U |
| Indeno(1,2,3-c,d)Pyrene | **0.5** | 1.4 | 0.041 U | 0.038 U | **1.3** | 0.036 U | 0.21 | 0.063 |
| Isophorone | NS | NS | 0.16 U | 0.15 U | 0.14 U | 0.15 U | 0.14 U | 0.15 UJ |
| Naphthalene | **12** | 100 | 0.41 U | 0.38 U | 0.23 J | 0.36 U | 0.16 J | 0.37 U |
| Nitrobenzene | 0.08 | 1.8 | 0.041 U | 0.038 U | 0.034 U | 0.036 U | 0.035 U | 0.037 U |
| N-Nitrosodi-N-Propylamine | NS | NS | 0.041 UJ | 0.038 UJ | 0.034 UJ | 0.036 UJ | 0.035 U | 0.037 U |
| N-Nitrosodiphenylamine | NS | NS | 0.41 U | 0.38 U | 0.34 U | 0.36 U | 0.35 U | 0.37 U |
| Pentachlorophenol | 0.8 | 1.3 | 0.33 U | 0.3 U | 0.28 U | 0.29 U | 0.28 U | 0.3 U |
| Phenanthrene | **1.1** | 4.9 | 0.055 J | 0.38 U | **6.8** | 0.36 U | 0.73 | 0.11 J |
| Phenol | **0.33** | 100 | 0.41 U | 0.38 U | 0.34 U | 0.36 U | 0.016 J | 0.37 U |
| Pyrene | 64 | 100 | 0.073 J | 0.38 U | 5.5 | 0.36 U | 0.6 | 0.21 J |

**Table 2**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Semivolatile Organic Compounds*

| | | | AKRF Sample ID | EP-27_22.5_20231207 | EP-27_22.5_20231207 | EP-28_22.5_20231207 | EP-29_22.5_20231207 | EP-30_22.5_20231207 | EP-31_22.5_20231207 |
|---|---|---|---|---|---|---|---|---|---|
| | | | Laboratory Sample ID | 460-294189-3 | 460-294189-3 | 460-294189-4 | 460-294189-5 | 460-294189-6 | 460-294189-7 |
| | | | Date Sampled | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 |
| | | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | | Dilution Factor | 1 | 5 | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,2,4,5-Tetrachlorobenzene | NS | NS | | 0.37 U | NR | 0.37 U | 0.42 U | 0.41 U | 0.4 U |
| 1,4-Dioxane (P-Dioxane) | 0.1 | 5.7 | | 0.037 U | NR | 0.037 U | 0.042 U | 0.041 U | 0.04 U |
| 2,3,4,6-Tetrachlorophenol | NS | NS | | 0.37 U | NR | 0.37 U | 0.42 U | 0.41 U | 0.4 U |
| 2,4,5-Trichlorophenol | NS | NS | | 0.37 U | NR | 0.37 U | 0.42 U | 0.41 U | 0.4 U |
| 2,4,6-Trichlorophenol | NS | NS | | 0.15 U | NR | 0.15 U | 0.17 U | 0.17 U | 0.16 U |
| 2,4-Dichlorophenol | NS | NS | | 0.15 U | NR | 0.15 U | 0.17 U | 0.17 U | 0.16 U |
| 2,4-Dimethylphenol | NS | NS | | 0.37 U | NR | 0.37 U | 0.42 U | 0.41 U | 0.057 J |
| 2,4-Dinitrophenol | NS | NS | | 0.29 U | NR | 0.3 U | 0.34 U | 0.33 U | 0.33 U |
| 2,4-Dinitrotoluene | NS | NS | | 0.074 U | NR | 0.075 U | 0.085 U | 0.084 U | 0.082 U |
| 2,6-Dinitrotoluene | NS | NS | | 0.074 U | NR | 0.075 U | 0.085 U | 0.084 U | 0.082 U |
| 2-Chloronaphthalene | NS | NS | | 0.37 U | NR | 0.37 U | 0.03 J | 0.41 U | 0.4 U |
| 2-Chlorophenol | NS | NS | | 0.37 U | NR | 0.37 U | 0.42 U | 0.41 U | 0.4 U |
| 2-Methylnaphthalene | NS | NS | | 3.8 | NR | 0.16 J | 0.42 | 0.58 | 0.38 J |
| 2-Methylphenol (O-Cresol) | 0.33 | 100 | | 0.37 U | NR | 0.37 U | 0.42 U | 0.058 J | 0.4 U |
| 2-Nitroaniline | NS | NS | | 0.37 U | NR | 0.37 U | 0.42 U | 0.41 U | 0.4 U |
| 2-Nitrophenol | NS | NS | | 0.37 U | NR | 0.37 U | 0.42 U | 0.41 U | 0.4 U |
| 3- And 4- Methylphenol (Total) | NS | NS | | 0.37 U | NR | 0.2 J | 1.1 | 3.1 | 3.4 |
| 3,3'-Dichlorobenzidine | NS | NS | | 0.15 U | NR | 0.15 U | 0.17 U | 0.17 U | 0.16 U |
| 3-Nitroaniline | NS | NS | | 0.37 U | NR | 0.37 U | 0.42 U | 0.41 U | 0.4 U |
| 4,6-Dinitro-2-Methylphenol | NS | NS | | 0.29 U | NR | 0.3 U | 0.34 U | 0.33 U | 0.33 U |
| 4-Bromophenyl Phenyl Ether | NS | NS | | 0.37 U | NR | 0.37 U | 0.42 U | 0.41 U | 0.4 U |
| 4-Chloro-3-Methylphenol | NS | NS | | 0.37 U | NR | 0.37 U | 0.42 U | 0.41 U | 0.4 U |
| 4-Chloroaniline | NS | NS | | 0.37 U | NR | 0.37 U | 0.42 U | 0.41 U | 0.4 U |
| 4-Chlorophenyl Phenyl Ether | NS | NS | | 0.37 U | NR | 0.37 U | 0.42 U | 0.41 U | 0.4 U |
| 4-Methylphenol (P-Cresol) | **0.33** | 100 | | 0.37 U | NR | 0.2 J | **1.1** | **3.1** | **3.4** |
| 4-Nitroaniline | NS | NS | | 0.37 U | NR | 0.37 U | 0.42 U | 0.41 U | 0.4 U |
| 4-Nitrophenol | NS | NS | | 0.74 U | NR | 0.75 U | 0.85 U | 0.84 U | 0.82 U |
| Acenaphthene | 20 | 100 | | 1.2 | NR | 0.45 | 0.58 | 1.1 | 0.75 |
| Acenaphthylene | 100 | 100 | | 0.21 J | NR | 0.041 J | 0.21 J | 0.074 J | 0.1 J |
| Acetophenone | NS | NS | | 0.37 U | NR | 0.37 U | 0.42 U | 0.41 U | 0.4 U |
| Anthracene | 100 | 100 | | 0.46 | NR | 1 | 1.5 | 0.85 | 1.1 |
| Atrazine | NS | NS | | 0.15 U | NR | 0.15 U | 0.17 U | 0.17 U | 0.16 U |
| Benzaldehyde | NS | NS | | 0.37 UJ | NR | 0.37 UJ | 0.42 UJ | 0.41 UJ | 0.4 UJ |
| Benzo(a)Anthracene | **1** | 1.4 | | 0.32 | NR | **1.6** | **4.2** | **1.2** | **1.9** |
| Benzo(a)Pyrene | **1** | 1 | | 0.36 | NR | **1.6** | **6** | **1.1** | **2.1** |
| Benzo(b)Fluoranthene | **1** | 1.4 | | 0.29 | NR | **1.7** | **6.3** | **1.3** | **2.3** |
| Benzo(g,h,i)Perylene | **0.64** | 4.9 | | 0.23 J | NR | **0.99** | **3** | **0.65** | **0.99** |
| Benzo(k)Fluoranthene | **0.8** | 4.9 | | 0.14 | NR | 0.69 | **2.3** | 0.46 | **0.91** |
| Benzyl Butyl Phthalate | NS | NS | | 0.37 U | NR | 0.37 U | 0.42 U | 0.41 U | 0.4 U |
| Biphenyl (Diphenyl) | NS | NS | | 0.068 J | NR | 0.046 J | 0.14 J | 0.14 J | 0.13 J |
| Bis(2-Chloroethoxy) Methane | NS | NS | | 0.37 U | NR | 0.37 U | 0.42 U | 0.41 U | 0.4 U |
| Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether) | NS | NS | | 0.037 U | NR | 0.037 U | 0.042 U | 0.041 U | 0.04 U |
| Bis(2-Chloroisopropyl) Ether | NS | NS | | 0.37 U | NR | 0.37 U | 0.42 U | 0.41 U | 0.4 U |
| Bis(2-Ethylhexyl) Phthalate | NS | NS | | 0.24 J | NR | 0.37 U | 0.069 J | 0.41 U | 0.4 U |
| Caprolactam | NS | NS | | 0.37 U | NR | 0.37 U | 0.42 U | 0.41 U | 0.4 U |
| Carbazole | NS | NS | | 0.092 J | NR | 0.31 J | 0.31 J | 0.51 | 0.34 J |
| Chrysene | **1** | 4.9 | | 0.29 J | NR | **1.5** | **4.3** | **1.1** | **2.1** |
| Dibenz(a,h)Anthracene | **0.33** | 0.33 | | 0.052 | NR | 0.2 | **0.76** | 0.16 | 0.26 |
| Dibenzofuran | **2.1** | 18 | | 0.15 J | NR | 0.26 J | 0.48 | 0.58 | 0.43 |
| Diethyl Phthalate | NS | NS | | 0.37 U | NR | 0.37 U | 0.42 U | 0.41 U | 0.4 U |
| Dimethyl Phthalate | NS | NS | | 0.37 U | NR | 0.37 U | 0.42 U | 0.41 U | 0.4 U |
| Di-N-Butyl Phthalate | NS | NS | | 0.37 U | NR | 0.37 U | 0.42 U | 0.41 U | 0.4 U |
| Di-N-Octylphthalate | NS | NS | | 0.37 U | NR | 0.37 U | 0.42 U | 0.41 U | 0.4 U |
| Fluoranthene | 85 | 100 | | 0.9 | NR | 4.1 | 8.1 | 2.9 | 4.9 |
| Fluorene | 30 | 100 | | 0.52 | NR | 0.42 | 0.61 | 0.97 | 0.64 |
| Hexachlorobenzene | 0.33 | 0.33 | | 0.037 U | NR | 0.037 U | 0.042 U | 0.041 U | 0.04 U |
| Hexachlorobutadiene | NS | NS | | 0.074 U | NR | 0.075 U | 0.085 U | 0.084 U | 0.082 U |
| Hexachlorocyclopentadiene | NS | NS | | 0.37 UJ | NR | 0.37 UJ | 0.42 UJ | 0.41 UJ | 0.4 UJ |
| Hexachloroethane | NS | NS | | 0.037 U | NR | 0.037 U | 0.042 U | 0.041 U | 0.04 U |
| Indeno(1,2,3-c,d)Pyrene | **0.5** | 1.4 | | 0.26 | NR | **1.2** | **3.6** | **0.79** | **1.4** |
| Isophorone | NS | NS | | 0.15 U | NR | 0.15 U | 0.17 U | 0.17 U | 0.16 U |
| Naphthalene | **12** | 100 | | NR | **25 D** | 0.36 J | 1.7 | 2 | 1.6 |
| Nitrobenzene | 0.08 | 1.8 | | 0.037 U | NR | 0.037 U | 0.042 U | 0.041 U | 0.04 U |
| N-Nitrosodi-N-Propylamine | NS | NS | | 0.037 U | NR | 0.037 U | 0.042 U | 0.041 U | 0.04 U |
| N-Nitrosodiphenylamine | NS | NS | | 0.37 U | NR | 0.37 U | 0.42 U | 0.41 U | 0.4 U |
| Pentachlorophenol | 0.8 | 1.3 | | 0.29 U | NR | 0.3 U | 0.34 U | 0.33 U | 0.33 U |
| Phenanthrene | **1.1** | 4.9 | | **1.4** | NR | **3.8** | **4.6** | **3.7** | **4.2** |
| Phenol | **0.33** | 100 | | 0.37 U | NR | 0.018 J | 0.087 J | 0.27 J | 0.33 J |
| Pyrene | 64 | 100 | | 1 | NR | 3.5 | 8.2 | 2.3 | 4.3 |

**Table 2**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Semivolatile Organic Compounds*

| | | | AKRF Sample ID | EP-32_22.5_20231207 | EP-33_22.5_20231207 | EP-33_22.5_20231207 | EP-34_22.5_20231207 | EP-34_22.5_20231207 | EP-35_25_20231207 |
|---|---|---|---|---|---|---|---|---|---|
| | | | Laboratory Sample ID | 460-294189-8 | 460-294189-9 | 460-294189-9 | 460-294189-10 | 460-294189-10 | 460-294189-11 |
| | | | Date Sampled | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 |
| | | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | | Dilution Factor | 1 | 1 | 10 | 1 | 5 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,2,4,5-Tetrachlorobenzene | NS | NS | | 0.46 U | 0.42 U | NR | 0.42 U | NR | 0.43 U |
| 1,4-Dioxane (P-Dioxane) | 0.1 | 5.7 | | 0.046 U | 0.042 U | NR | 0.042 U | NR | 0.043 U |
| 2,3,4,6-Tetrachlorophenol | NS | NS | | 0.46 U | 0.42 U | NR | 0.42 U | NR | 0.43 U |
| 2,4,5-Trichlorophenol | NS | NS | | 0.46 U | 0.42 U | NR | 0.42 U | NR | 0.43 U |
| 2,4,6-Trichlorophenol | NS | NS | | 0.19 U | 0.17 U | NR | 0.17 U | NR | 0.17 U |
| 2,4-Dichlorophenol | NS | NS | | 0.19 U | 0.17 U | NR | 0.17 U | NR | 0.17 U |
| 2,4-Dimethylphenol | NS | NS | | 0.46 U | 0.42 U | NR | 0.42 U | NR | 0.43 U |
| 2,4-Dinitrophenol | NS | NS | | 0.37 U | 0.34 U | NR | 0.34 U | NR | 0.35 U |
| 2,4-Dinitrotoluene | NS | NS | | 0.094 U | 0.086 U | NR | 0.086 U | NR | 0.088 U |
| 2,6-Dinitrotoluene | NS | NS | | 0.094 U | 0.086 U | NR | 0.086 U | NR | 0.088 U |
| 2-Chloronaphthalene | NS | NS | | 0.46 U | 0.42 U | NR | 0.42 U | NR | 0.43 U |
| 2-Chlorophenol | NS | NS | | 0.46 U | 0.42 U | NR | 0.42 U | NR | 0.43 U |
| 2-Methylnaphthalene | NS | NS | | 0.11 J | 3.9 | NR | 3.6 | NR | 5.5 |
| 2-Methylphenol (O-Cresol) | 0.33 | 100 | | 0.46 U | 0.42 U | NR | 0.42 U | NR | 0.43 U |
| 2-Nitroaniline | NS | NS | | 0.46 U | 0.42 U | NR | 0.42 U | NR | 0.43 U |
| 2-Nitrophenol | NS | NS | | 0.46 U | 0.42 U | NR | 0.42 U | NR | 0.43 U |
| 3- And 4- Methylphenol (Total) | NS | NS | | 1.8 | 2.5 | NR | 1.1 | NR | 1 |
| 3,3'-Dichlorobenzidine | NS | NS | | 0.19 U | 0.17 U | NR | 0.17 U | NR | 0.17 U |
| 3-Nitroaniline | NS | NS | | 0.46 U | 0.42 U | NR | 0.42 U | NR | 0.43 U |
| 4,6-Dinitro-2-Methylphenol | NS | NS | | 0.37 U | 0.34 U | NR | 0.34 U | NR | 0.35 U |
| 4-Bromophenyl Phenyl Ether | NS | NS | | 0.46 U | 0.42 U | NR | 0.42 U | NR | 0.43 U |
| 4-Chloro-3-Methylphenol | NS | NS | | 0.46 U | 0.42 U | NR | 0.42 U | NR | 0.43 U |
| 4-Chloroaniline | NS | NS | | 0.46 U | 0.42 U | NR | 0.42 U | NR | 0.43 U |
| 4-Chlorophenyl Phenyl Ether | NS | NS | | 0.46 U | 0.42 U | NR | 0.42 U | NR | 0.43 U |
| 4-Methylphenol (P-Cresol) | **0.33** | 100 | | **1.8** | **2.5** | NR | **1.1** | NR | **1** |
| 4-Nitroaniline | NS | NS | | 0.46 U | 0.42 U | NR | 0.42 U | NR | 0.43 U |
| 4-Nitrophenol | NS | NS | | 0.94 U | 0.86 U | NR | 0.86 U | NR | 0.88 U |
| Acenaphthene | 20 | 100 | | 0.45 J | 4.8 | NR | 5 | NR | 3.4 |
| Acenaphthylene | 100 | 100 | | 0.039 J | 2.8 | NR | 3.3 | NR | 1.4 |
| Acetophenone | NS | NS | | 0.46 U | 0.42 U | NR | 0.087 J | NR | 0.43 U |
| Anthracene | 100 | 100 | | 1.1 | 5.9 | NR | 9.3 | NR | 4.2 |
| Atrazine | NS | NS | | 0.19 U | 0.17 U | NR | 0.17 U | NR | 0.17 UJ |
| Benzaldehyde | NS | NS | | 0.46 UJ | 0.42 UJ | NR | 0.42 UJ | NR | 0.43 UJ |
| Benzo(a)Anthracene | **1** | 1.4 | | **2** | **5.3** | NR | **5.4** | NR | **2.9** |
| Benzo(a)Pyrene | **1** | 1 | | **2.2** | **5.7** | NR | **6.8** | NR | **3.6** |
| Benzo(b)Fluoranthene | **1** | 1.4 | | **2.1** | **5.3** | NR | **5.2** | NR | **3.2** |
| Benzo(g,h,i)Perylene | **0.64** | 4.9 | | **1.2** | **2.5** | NR | **3.9** | NR | **2** |
| Benzo(k)Fluoranthene | **0.8** | 4.9 | | **0.85** | **2.2** | NR | **2** | NR | **1** |
| Benzyl Butyl Phthalate | NS | NS | | 0.46 U | 0.42 U | NR | 0.26 J | NR | 0.49 |
| Biphenyl (Diphenyl) | NS | NS | | 0.045 J | 0.44 | NR | 0.87 | NR | 0.56 |
| Bis(2-Chloroethoxy) Methane | NS | NS | | 0.46 U | 0.42 U | NR | 0.42 U | NR | 0.43 U |
| Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether) | NS | NS | | 0.046 U | 0.042 U | NR | 0.042 U | NR | 0.043 U |
| Bis(2-Chloroisopropyl) Ether | NS | NS | | 0.46 U | 0.42 U | NR | 0.42 U | NR | 0.43 U |
| Bis(2-Ethylhexyl) Phthalate | NS | NS | | 0.46 U | 0.065 J | NR | 0.42 U | NR | 0.43 U |
| Caprolactam | NS | NS | | 0.46 U | 0.42 U | NR | 0.42 U | NR | 0.43 U |
| Carbazole | NS | NS | | 0.26 J | 0.6 | NR | 0.29 J | NR | 0.31 J |
| Chrysene | **1** | 4.9 | | **1.9** | **4.8** | NR | **5.3** | NR | **2.9** |
| Dibenz(a,h)Anthracene | **0.33** | 0.33 | | 0.23 | **0.49** | NR | **0.56** | NR | 0.33 |
| Dibenzofuran | **2.1** | 18 | | 0.2 J | 0.94 | NR | 0.46 | NR | 0.46 |
| Diethyl Phthalate | NS | NS | | 0.46 U | 0.42 U | NR | 0.42 U | NR | 0.43 U |
| Dimethyl Phthalate | NS | NS | | 0.46 U | 0.42 U | NR | 0.42 U | NR | 0.43 U |
| Di-N-Butyl Phthalate | NS | NS | | 0.46 U | 0.42 U | NR | 0.42 U | NR | 0.43 U |
| Di-N-Octylphthalate | NS | NS | | 0.46 U | 0.42 U | NR | 0.42 U | NR | 0.43 U |
| Fluoranthene | 85 | 100 | | 5 | NR | 11 D | NR | 14 | 8.1 |
| Fluorene | 30 | 100 | | 0.45 J | 4.6 | NR | 5.4 | NR | 4.1 |
| Hexachlorobenzene | 0.33 | 0.33 | | 0.046 U | 0.042 U | NR | 0.042 U | NR | 0.043 U |
| Hexachlorobutadiene | NS | NS | | 0.094 U | 0.086 U | NR | 0.086 U | NR | 0.088 U |
| Hexachlorocyclopentadiene | NS | NS | | 0.46 U | 0.42 UJ | NR | 0.42 U | NR | 0.43 U |
| Hexachloroethane | NS | NS | | 0.046 U | 0.042 U | NR | 0.042 U | NR | 0.043 U |
| Indeno(1,2,3-c,d)Pyrene | **0.5** | 1.4 | | **1.4** | **2.6** | NR | **3.5** | NR | **1.9** |
| Isophorone | NS | NS | | 0.19 U | 0.17 U | NR | 0.17 U | NR | 0.17 U |
| Naphthalene | **12** | 100 | | 0.55 | NR | **45 D** | NR | **27** | NR |
| Nitrobenzene | 0.08 | 1.8 | | 0.046 U | 0.042 U | NR | 0.042 U | NR | 0.043 U |
| N-Nitrosodi-N-Propylamine | NS | NS | | 0.046 U | 0.042 U | NR | 0.042 U | NR | 0.043 U |
| N-Nitrosodiphenylamine | NS | NS | | 0.46 U | 0.42 U | NR | 0.42 U | NR | 0.43 U |
| Pentachlorophenol | 0.8 | 1.3 | | 0.37 U | 0.34 U | NR | 0.34 U | NR | 0.35 U |
| Phenanthrene | **1.1** | 4.9 | | **3.9** | NR | **14 D** | NR | **18** | NR |
| Phenol | **0.33** | 100 | | 0.46 U | 0.27 J | NR | 0.42 U | NR | 0.12 J |
| Pyrene | 64 | 100 | | 4.3 | NR | 12 D | NR | 18 | 9.7 |

**Table 2**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Semivolatile Organic Compounds*

| | | AKRF Sample ID | EP-35_25_20231207 | EP-35_25_20231207 | EP-36_25_20231207 | EP-37_17.5_20231215 | EP-X3_20231215 | EP-38_17.5_20231215 |
|---|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-294189-11 | 460-294189-11 | 460-294189-12 | 460-294775-1 | 460-294775-9 | 460-294775-2 |
| | | Date Sampled | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/15/2023 | 12/15/2023 | 12/15/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 10 | 50 | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,2,4,5-Tetrachlorobenzene | NS | NS | NR | NR | 0.42 U | 0.41 UJ | 0.42 UJ | 0.35 U |
| 1,4-Dioxane (P-Dioxane) | 0.1 | 5.7 | NR | NR | 0.042 U | 0.041 UJ | 0.042 UJ | 0.035 U |
| 2,3,4,6-Tetrachlorophenol | NS | NS | NR | NR | 0.42 U | 0.41 UJ | 0.42 UJ | 0.35 U |
| 2,4,5-Trichlorophenol | NS | NS | NR | NR | 0.42 U | 0.41 UJ | 0.42 UJ | 0.35 U |
| 2,4,6-Trichlorophenol | NS | NS | NR | NR | 0.17 U | 0.17 UJ | 0.17 UJ | 0.14 U |
| 2,4-Dichlorophenol | NS | NS | NR | NR | 0.17 U | 0.17 UJ | 0.17 UJ | 0.14 U |
| 2,4-Dimethylphenol | NS | NS | NR | NR | 0.42 U | 0.094 JL | 0.42 UJ | 0.35 U |
| 2,4-Dinitrophenol | NS | NS | NR | NR | 0.34 U | 0.33 UJ | 0.34 UJ | 0.28 U |
| 2,4-Dinitrotoluene | NS | NS | NR | NR | 0.085 U | 0.084 UJ | 0.085 UJ | 0.071 U |
| 2,6-Dinitrotoluene | NS | NS | NR | NR | 0.085 U | 0.084 UJ | 0.085 UJ | 0.071 U |
| 2-Chloronaphthalene | NS | NS | NR | NR | 0.42 U | 0.41 UJ | 0.42 UJ | 0.35 U |
| 2-Chlorophenol | NS | NS | NR | NR | 0.42 U | 0.41 UJ | 0.42 UJ | 0.35 U |
| 2-Methylnaphthalene | NS | NS | NR | NR | 0.32 J | 0.98 JL | 0.64 JL | 0.38 |
| 2-Methylphenol (O-Cresol) | 0.33 | 100 | NR | NR | 0.04 J | 0.41 UJ | 0.42 UJ | 0.35 U |
| 2-Nitroaniline | NS | NS | NR | NR | 0.42 U | 0.41 U | 0.42 U | 0.35 U |
| 2-Nitrophenol | NS | NS | NR | NR | 0.42 U | 0.41 UJ | 0.42 UJ | 0.35 U |
| 3- And 4- Methylphenol (Total) | NS | NS | NR | NR | 3 | 1 J | 1 JL | 1.5 |
| 3,3'-Dichlorobenzidine | NS | NS | NR | NR | 0.17 U | 0.17 U | 0.17 U | 0.14 U |
| 3-Nitroaniline | NS | NS | NR | NR | 0.42 U | 0.41 U | 0.42 U | 0.35 U |
| 4,6-Dinitro-2-Methylphenol | NS | NS | NR | NR | 0.34 U | 0.33 UJ | 0.34 UJ | 0.28 U |
| 4-Bromophenyl Phenyl Ether | NS | NS | NR | NR | 0.42 U | 0.41 UJ | 0.42 UJ | 0.35 U |
| 4-Chloro-3-Methylphenol | NS | NS | NR | NR | 0.42 U | 0.41 UJ | 0.42 UJ | 0.35 U |
| 4-Chloroaniline | NS | NS | NR | NR | 0.42 U | 0.41 U | 0.42 U | 0.35 U |
| 4-Chlorophenyl Phenyl Ether | NS | NS | NR | NR | 0.42 U | 0.41 UJ | 0.42 UJ | 0.35 U |
| 4-Methylphenol (P-Cresol) | **0.33** | 100 | NR | NR | **3** | **1 J** | **1 JL** | **1.5** |
| 4-Nitroaniline | NS | NS | NR | NR | 0.42 U | 0.41 UJ | 0.42 U | 0.35 U |
| 4-Nitrophenol | NS | NS | NR | NR | 0.85 U | 0.84 U | 0.85 U | 0.71 U |
| Acenaphthene | 20 | 100 | NR | NR | 0.5 | 0.61 JL | 1.7 JL | 0.72 |
| Acenaphthylene | 100 | 100 | NR | NR | 0.07 J | 0.22 JL | 0.47 JL | 0.16 J |
| Acetophenone | NS | NS | NR | NR | 0.42 U | 0.41 UJ | 0.42 UJ | 0.35 U |
| Anthracene | 100 | 100 | NR | NR | 0.9 | 0.86 JL | 2.8 JL | 1.4 |
| Atrazine | NS | NS | NR | NR | 0.041 JK | 0.17 U | 0.17 U | 0.14 U |
| Benzaldehyde | NS | NS | NR | NR | 0.42 UJ | 0.41 UJ | 0.17 J | 0.08 J |
| Benzo(a)Anthracene | **1** | 1.4 | NR | NR | **1.4** | **1.4 JL** | **4.6 JL** | **2.4** |
| Benzo(a)Pyrene | **1** | 1 | NR | NR | **1.4** | **1.6 J** | **5 J** | **2.8** |
| Benzo(b)Fluoranthene | **1** | 1.4 | NR | NR | **1.6** | **1.9 JL** | **5.5 JL** | **3.1** |
| Benzo(g,h,i)Perylene | **0.64** | 4.9 | NR | NR | **0.73** | **1.2 JL** | **3 JL** | **1.6** |
| Benzo(k)Fluoranthene | **0.8** | 4.9 | NR | NR | 0.57 | 0.59 JL | **1.5 JL** | **1.2** |
| Benzyl Butyl Phthalate | NS | NS | NR | NR | 0.42 U | 0.41 UJ | 0.42 UJ | 0.35 U |
| Biphenyl (Diphenyl) | NS | NS | NR | NR | 0.14 J | 0.16 JL | 0.096 JL | 0.13 J |
| Bis(2-Chloroethoxy) Methane | NS | NS | NR | NR | 0.42 U | 0.41 UJ | 0.42 UJ | 0.35 U |
| Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether) | NS | NS | NR | NR | 0.042 U | 0.041 UJ | 0.042 UJ | 0.035 U |
| Bis(2-Chloroisopropyl) Ether | NS | NS | NR | NR | 0.42 U | 0.41 U | 0.42 U | 0.35 U |
| Bis(2-Ethylhexyl) Phthalate | NS | NS | NR | NR | 0.42 U | 0.05 JL | 0.084 JL | 0.35 U |
| Caprolactam | NS | NS | NR | NR | 0.42 U | 0.41 U | 0.42 U | 0.35 U |
| Carbazole | NS | NS | NR | NR | 0.32 J | 0.38 JL | 0.6 JL | 0.39 |
| Chrysene | **1** | 4.9 | NR | NR | **1.5** | **1.5 JL** | **4.1 JL** | **2.5** |
| Dibenz(a,h)Anthracene | **0.33** | 0.33 | NR | NR | 0.22 | 0.22 JL | **0.62 JL** | 0.32 |
| Dibenzofuran | **2.1** | 18 | NR | NR | 0.41 J | 0.65 JL | 0.99 JL | 0.56 |
| Diethyl Phthalate | NS | NS | NR | NR | 0.42 U | 0.41 UJ | 0.42 UJ | 0.35 U |
| Dimethyl Phthalate | NS | NS | NR | NR | 0.42 U | 0.41 UJ | 0.42 UJ | 0.35 U |
| Di-N-Butyl Phthalate | NS | NS | NR | NR | 0.42 U | 0.41 UJ | 0.42 UJ | 0.35 U |
| Di-N-Octylphthalate | NS | NS | NR | NR | 0.42 U | 0.41 UJ | 0.42 UJ | 0.35 U |
| Fluoranthene | 85 | 100 | NR | NR | 3.4 | 3.4 JL | 9.7 JL | 5.9 |
| Fluorene | 30 | 100 | NR | NR | 0.54 | 0.79 JL | 1.7 JL | 0.8 |
| Hexachlorobenzene | 0.33 | 0.33 | NR | NR | 0.042 U | 0.041 U | 0.042 U | 0.035 U |
| Hexachlorobutadiene | NS | NS | NR | NR | 0.085 U | 0.084 UJ | 0.085 UJ | 0.071 U |
| Hexachlorocyclopentadiene | NS | NS | NR | NR | 0.42 U | 0.41 R | 0.42 R | 0.35 UJ |
| Hexachloroethane | NS | NS | NR | NR | 0.042 U | 0.041 UJ | 0.042 UJ | 0.035 U |
| Indeno(1,2,3-c,d)Pyrene | **0.5** | 1.4 | NR | NR | **0.88** | **1.2** | **3.1** | **1.9** |
| Isophorone | NS | NS | NR | NR | 0.17 U | 0.17 UJ | 0.17 UJ | 0.14 U |
| Naphthalene | **12** | 100 | NR | **150 D** | 1.2 | 3.5 JL | 1.3 JL | 1.9 |
| Nitrobenzene | 0.08 | 1.8 | NR | NR | 0.042 U | 0.041 UJ | 0.042 UJ | 0.035 U |
| N-Nitrosodi-N-Propylamine | NS | NS | NR | NR | 0.042 U | 0.041 UJ | 0.042 UJ | 0.035 U |
| N-Nitrosodiphenylamine | NS | NS | NR | NR | 0.042 J | 0.41 UJ | 0.42 UJ | 0.35 U |
| Pentachlorophenol | 0.8 | 1.3 | NR | NR | 0.34 U | 0.33 UJ | 0.34 UJ | 0.28 U |
| Phenanthrene | **1.1** | 4.9 | **12 D** | NR | **3.3** | **3.7 JL** | **9.8 JL** | **4.8** |
| Phenol | **0.33** | 100 | NR | NR | 0.29 J | 0.29 JL | **1.2 JL** | 0.28 J |
| Pyrene | 64 | 100 | NR | NR | 3.1 | 3.6 JL | 10 | 5.1 |

**Table 2**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Semivolatile Organic Compounds*

| | | AKRF Sample ID | EP-39_20_20231215 | EP-40_17.5_20231215 | EP-41_15_20231215 | EP-42_17.5_20231215 | EP-43_17.5_20231215 | EP-44_20_20231215 |
|---|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-294775-3 | 460-294775-4 | 460-294775-5 | 460-294775-6 | 460-294775-7 | 460-294775-8 |
| | | Date Sampled | 12/15/2023 | 12/15/2023 | 12/15/2023 | 12/15/2023 | 12/15/2023 | 12/15/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 1 | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,2,4,5-Tetrachlorobenzene | NS | NS | 0.4 U | 0.36 U | 0.37 U | 0.37 U | 0.38 U | 0.43 U |
| 1,4-Dioxane (P-Dioxane) | 0.1 | 5.7 | 0.04 U | 0.036 U | 0.037 U | 0.037 U | 0.038 U | 0.043 U |
| 2,3,4,6-Tetrachlorophenol | NS | NS | 0.4 U | 0.36 U | 0.37 U | 0.37 U | 0.38 U | 0.43 U |
| 2,4,5-Trichlorophenol | NS | NS | 0.4 U | 0.36 U | 0.37 U | 0.37 U | 0.38 U | 0.43 U |
| 2,4,6-Trichlorophenol | NS | NS | 0.16 U | 0.14 U | 0.15 U | 0.15 U | 0.15 U | 0.17 U |
| 2,4-Dichlorophenol | NS | NS | 0.16 U | 0.14 U | 0.15 U | 0.15 U | 0.15 U | 0.17 U |
| 2,4-Dimethylphenol | NS | NS | 0.4 U | 0.36 U | 0.37 U | 0.37 U | 0.38 U | 0.43 U |
| 2,4-Dinitrophenol | NS | NS | 0.32 U | 0.29 U | 0.3 U | 0.3 U | 0.3 U | 0.35 U |
| 2,4-Dinitrotoluene | NS | NS | 0.081 U | 0.073 U | 0.075 U | 0.076 U | 0.077 U | 0.088 U |
| 2,6-Dinitrotoluene | NS | NS | 0.081 U | 0.073 U | 0.075 U | 0.076 U | 0.077 U | 0.088 U |
| 2-Chloronaphthalene | NS | NS | 0.4 U | 0.36 U | 0.37 U | 0.37 U | 0.38 U | 0.43 U |
| 2-Chlorophenol | NS | NS | 0.4 U | 0.36 U | 0.37 U | 0.37 U | 0.38 U | 0.43 U |
| 2-Methylnaphthalene | NS | NS | 0.33 J | 0.36 U | 6.3 | 0.24 J | 0.9 | 0.56 |
| 2-Methylphenol (O-Cresol) | 0.33 | 100 | 0.4 U | 0.36 U | 0.37 U | 0.37 U | 0.38 U | 0.43 U |
| 2-Nitroaniline | NS | NS | 0.4 U | 0.36 U | 0.37 U | 0.37 U | 0.38 U | 0.43 U |
| 2-Nitrophenol | NS | NS | 0.4 U | 0.36 U | 0.37 U | 0.37 U | 0.38 U | 0.43 U |
| 3- And 4- Methylphenol (Total) | NS | NS | 0.47 | 0.36 U | 0.085 J | 0.34 J | 0.32 J | 1.1 |
| 3,3'-Dichlorobenzidine | NS | NS | 0.16 U | 0.14 U | 0.15 U | 0.15 U | 0.15 U | 0.17 U |
| 3-Nitroaniline | NS | NS | 0.4 U | 0.36 U | 0.37 U | 0.37 U | 0.38 U | 0.43 U |
| 4,6-Dinitro-2-Methylphenol | NS | NS | 0.32 U | 0.29 U | 0.3 U | 0.3 U | 0.3 U | 0.35 U |
| 4-Bromophenyl Phenyl Ether | NS | NS | 0.4 U | 0.36 U | 0.37 U | 0.37 U | 0.38 U | 0.43 U |
| 4-Chloro-3-Methylphenol | NS | NS | 0.4 U | 0.36 U | 0.37 U | 0.37 U | 0.38 U | 0.43 U |
| 4-Chloroaniline | NS | NS | 0.4 U | 0.36 U | 0.37 U | 0.37 U | 0.38 U | 0.43 U |
| 4-Chlorophenyl Phenyl Ether | NS | NS | 0.4 U | 0.36 U | 0.37 U | 0.37 U | 0.38 U | 0.43 U |
| 4-Methylphenol (P-Cresol) | **0.33** | 100 | **0.47** | 0.36 U | 0.085 J | **0.34 J** | 0.32 J | **1.1** |
| 4-Nitroaniline | NS | NS | 0.4 U | 0.36 U | 0.37 U | 0.37 U | 0.38 U | 0.43 U |
| 4-Nitrophenol | NS | NS | 0.81 U | 0.73 U | 0.75 U | 0.76 U | 0.77 U | 0.88 U |
| Acenaphthene | 20 | 100 | 0.52 | 0.36 U | 0.49 | 0.31 J | 0.78 | 0.31 J |
| Acenaphthylene | 100 | 100 | 0.17 J | 0.36 U | 0.37 U | 0.11 J | 0.18 J | 0.12 J |
| Acetophenone | NS | NS | 0.4 U | 0.36 U | 0.37 U | 0.37 U | 0.38 U | 0.43 U |
| Anthracene | 100 | 100 | 1.1 | 0.019 J | 0.31 J | 0.65 | 1.1 | 0.56 |
| Atrazine | NS | NS | 0.16 U | 0.14 U | 0.15 U | 0.15 U | 0.15 U | 0.17 U |
| Benzaldehyde | NS | NS | 0.4 U | 0.36 UJ | 0.37 UJ | 0.37 UJ | 0.38 UJ | 0.43 UJ |
| Benzo(a)Anthracene | **1** | 1.4 | **2** | 0.036 U | 0.35 | **1.4** | **2.3** | **1.2** |
| Benzo(a)Pyrene | **1** | 1 | **2** | 0.036 U | 0.44 | **1.5** | **2.6** | **1.5** |
| Benzo(b)Fluoranthene | **1** | 1.4 | **2.1** | 0.036 U | 0.44 | **1.6** | **2.6** | **1.6** |
| Benzo(g,h,i)Perylene | **0.64** | 4.9 | **1.1** | 0.36 U | 0.28 J | **0.89** | **1.4** | **0.97** |
| Benzo(k)Fluoranthene | **0.8** | 4.9 | **0.91** | 0.036 U | 0.15 | 0.5 | **1** | 0.51 |
| Benzyl Butyl Phthalate | NS | NS | 0.4 U | 0.36 U | 0.37 U | 0.37 U | 0.38 U | 0.43 U |
| Biphenyl (Diphenyl) | NS | NS | 0.073 J | 0.36 U | 0.37 U | 0.04 J | 0.1 J | 0.057 J |
| Bis(2-Chloroethoxy) Methane | NS | NS | 0.4 U | 0.36 U | 0.37 U | 0.37 U | 0.38 U | 0.43 U |
| Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether) | NS | NS | 0.04 U | 0.036 U | 0.037 U | 0.037 U | 0.038 U | 0.043 U |
| Bis(2-Chloroisopropyl) Ether | NS | NS | 0.4 U | 0.36 U | 0.37 U | 0.37 U | 0.38 U | 0.43 U |
| Bis(2-Ethylhexyl) Phthalate | NS | NS | 0.4 U | 0.36 U | 0.37 U | 0.37 U | 0.028 J | 0.43 U |
| Caprolactam | NS | NS | 0.4 U | 0.36 U | 0.37 U | 0.37 U | 0.38 U | 0.43 U |
| Carbazole | NS | NS | 0.35 J | 0.36 U | 0.37 U | 0.18 J | 0.3 J | 0.15 J |
| Chrysene | **1** | 4.9 | **1.9** | 0.36 U | 0.36 J | **1.4** | **2.3** | **1.3** |
| Dibenz(a,h)Anthracene | **0.33** | 0.33 | 0.3 | 0.036 U | 0.083 | 0.23 | 0.28 | 0.18 |
| Dibenzofuran | **2.1** | 18 | 0.36 J | 0.36 U | 0.33 J | 0.22 J | 0.51 | 0.25 J |
| Diethyl Phthalate | NS | NS | 0.4 U | 0.36 U | 0.37 U | 0.37 U | 0.38 U | 0.43 U |
| Dimethyl Phthalate | NS | NS | 0.4 U | 0.36 U | 0.37 U | 0.37 U | 0.38 U | 0.43 U |
| Di-N-Butyl Phthalate | NS | NS | 0.1 J | 0.36 U | 0.37 U | 0.37 U | 0.38 U | 0.43 U |
| Di-N-Octylphthalate | NS | NS | 0.4 U | 0.36 U | 0.37 U | 0.37 U | 0.38 U | 0.43 U |
| Fluoranthene | 85 | 100 | 4.4 | 0.02 J | 0.76 | 2.7 | 4.9 | 2.9 |
| Fluorene | 30 | 100 | 0.57 | 0.36 U | 0.61 | 0.34 J | 0.88 | 0.36 J |
| Hexachlorobenzene | 0.33 | 0.33 | 0.04 U | 0.036 U | 0.037 U | 0.037 U | 0.038 U | 0.043 U |
| Hexachlorobutadiene | NS | NS | 0.081 U | 0.073 U | 0.075 U | 0.076 U | 0.077 U | 0.088 U |
| Hexachlorocyclopentadiene | NS | NS | 0.4 UJ | 0.36 U | 0.37 UJ | 0.37 UJ | 0.38 UJ | 0.43 UJ |
| Hexachloroethane | NS | NS | 0.04 U | 0.036 U | 0.037 U | 0.037 U | 0.038 U | 0.043 U |
| Indeno(1,2,3-c,d)Pyrene | **0.5** | 1.4 | **1.4** | 0.036 U | 0.35 | **1.1** | **1.7** | **1.2** |
| Isophorone | NS | NS | 0.16 U | 0.14 U | 0.15 U | 0.15 U | 0.15 U | 0.17 U |
| Naphthalene | **12** | 100 | 2.1 | 0.041 J | 0.31 J | 0.33 J | 2.7 | 1 |
| Nitrobenzene | 0.08 | 1.8 | 0.04 U | 0.036 U | 0.037 U | 0.037 U | 0.038 U | 0.043 U |
| N-Nitrosodi-N-Propylamine | NS | NS | 0.04 U | 0.036 U | 0.037 U | 0.037 U | 0.038 U | 0.043 U |
| N-Nitrosodiphenylamine | NS | NS | 0.4 U | 0.36 U | 0.37 U | 0.37 U | 0.38 U | 0.43 U |
| Pentachlorophenol | 0.8 | 1.3 | 0.32 U | 0.29 U | 0.3 U | 0.3 U | 0.3 U | 0.35 U |
| Phenanthrene | **1.1** | 4.9 | **4.3** | 0.037 J | **2.1** | **2.5** | **4.7** | **2.3** |
| Phenol | **0.33** | 100 | 0.21 J | 0.36 U | 0.082 J | 0.15 J | 0.059 J | **0.37 J** |
| Pyrene | 64 | 100 | 3.7 | 0.023 J | 0.78 | 2.8 | 4.3 | 2.8 |

**Table 2**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Semivolatile Organic Compounds*

| | | AKRF Sample ID | A4HAZ_B_20_20230928 | A4HAZ_X1_20230928 | B1HAZ_B_20_20230601 | B1HAZ_X1_20230601 | FB_20230928 | FB_20231103 |
|---|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-289204-1 | 460-289204-2 | 460-281384-5 | 460-281384-8 | 460-289204-3 | 460-291818-9 |
| | | Date Sampled | 9/28/2023 | 9/28/2023 | 6/01/2023 | 6/01/2023 | 9/28/2023 | 11/03/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | µg/L | µg/L |
| | | Dilution Factor | 1 | 1 | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,2,4,5-Tetrachlorobenzene | NS | NS | 0.42 U | 0.42 U | 0.5 U | 0.42 U | 10 U | 10 U |
| 1,4-Dioxane (P-Dioxane) | 0.1 | 5.7 | 0.042 U | 0.042 U | 0.05 U | 0.042 U | 10 U | 10 U |
| 2,3,4,6-Tetrachlorophenol | NS | NS | 0.42 U | 0.42 U | 0.5 U | 0.42 U | 10 U | 10 U |
| 2,4,5-Trichlorophenol | NS | NS | 0.42 U | 0.42 U | 0.5 U | 0.42 U | 10 U | 10 U |
| 2,4,6-Trichlorophenol | NS | NS | 0.17 U | 0.17 U | 0.2 U | 0.17 U | 10 U | 10 U |
| 2,4-Dichlorophenol | NS | NS | 0.17 U | 0.17 U | 0.2 U | 0.17 U | 10 U | 10 U |
| 2,4-Dimethylphenol | NS | NS | 0.42 UJ | 0.42 UJ | 0.5 U | 0.42 U | 10 U | 10 UJ |
| 2,4-Dinitrophenol | NS | NS | 0.34 U | 0.34 U | 0.41 U | 0.34 U | 40 U | 40 U |
| 2,4-Dinitrotoluene | NS | NS | 0.085 U | 0.084 U | 0.1 U | 0.085 U | 10 U | 10 U |
| 2,6-Dinitrotoluene | NS | NS | 0.085 U | 0.084 U | 0.1 U | 0.085 U | 2 U | 2 U |
| 2-Chloronaphthalene | NS | NS | 0.42 U | 0.42 U | 0.5 U | 0.42 U | 10 U | 10 U |
| 2-Chlorophenol | NS | NS | 0.42 U | 0.42 U | 0.5 U | 0.42 U | 10 U | 10 U |
| 2-Methylnaphthalene | NS | NS | 0.42 U | 0.25 J | 0.041 J | 0.091 J | 10 U | 10 U |
| 2-Methylphenol (O-Cresol) | 0.33 | 100 | 0.42 U | 0.42 U | 0.5 U | 0.42 U | 10 U | 10 U |
| 2-Nitroaniline | NS | NS | 0.42 U | 0.42 U | 0.5 U | 0.42 U | 10 U | 10 U |
| 2-Nitrophenol | NS | NS | 0.42 U | 0.42 U | 0.5 U | 0.42 U | 10 U | 10 U |
| 3- And 4- Methylphenol (Total) | NS | NS | 0.42 U | 0.34 J | 0.96 | 1.8 | 10 U | 10 U |
| 3,3'-Dichlorobenzidine | NS | NS | 0.17 U | 0.17 U | 0.2 U | 0.17 U | 10 U | 10 U |
| 3-Nitroaniline | NS | NS | 0.42 U | 0.42 U | 0.5 U | 0.42 U | 10 U | 10 U |
| 4,6-Dinitro-2-Methylphenol | NS | NS | 0.34 U | 0.34 U | 0.41 U | 0.34 U | 20 U | 20 U |
| 4-Bromophenyl Phenyl Ether | NS | NS | 0.42 U | 0.42 U | 0.5 U | 0.42 U | 10 U | 10 U |
| 4-Chloro-3-Methylphenol | NS | NS | 0.42 U | 0.42 U | 0.5 U | 0.42 U | 10 U | 10 U |
| 4-Chloroaniline | NS | NS | 0.42 U | 0.42 U | 0.5 U | 0.42 U | 10 U | 10 U |
| 4-Chlorophenyl Phenyl Ether | NS | NS | 0.42 U | 0.42 U | 0.5 U | 0.42 U | 10 U | 10 U |
| 4-Methylphenol (P-Cresol) | **0.33** | 100 | 0.42 U | **0.34 J** | **0.96** | **1.8** | 10 U | 10 U |
| 4-Nitroaniline | NS | NS | 0.42 U | 0.42 U | 0.5 UJ | 0.42 UJ | 10 U | 10 U |
| 4-Nitrophenol | NS | NS | 0.85 U | 0.84 U | 1 U | 0.85 U | 20 U | 20 U |
| Acenaphthene | 20 | 100 | 0.42 UJ | 0.58 J | 0.058 J | 0.13 J | 10 U | 10 U |
| Acenaphthylene | 100 | 100 | 0.42 U | 0.15 J | 0.026 J | 0.019 J | 10 U | 10 U |
| Acetophenone | NS | NS | 0.42 U | 0.42 U | 0.5 U | 0.42 U | 10 U | 10 U |
| Anthracene | 100 | 100 | 0.42 U | 0.41 J | 0.14 J | 0.31 J | 10 U | 10 U |
| Atrazine | NS | NS | 0.17 U | 0.17 U | 0.2 U | 0.17 U | 2 U | 2 U |
| Benzaldehyde | NS | NS | 0.42 UJ | 0.42 UJ | 0.5 UJ | 0.42 UJ | 10 UJ | 10 UJ |
| Benzo(a)Anthracene | **1** | 1.4 | 0.042 UJ | 0.54 J | 0.39 | 0.54 | 1 U | 1 U |
| Benzo(a)Pyrene | **1** | 1 | 0.042 UJ | 0.7 J | 0.36 | 0.53 | 1 U | 1 U |
| Benzo(b)Fluoranthene | **1** | 1.4 | 0.042 UJ | 0.65 J | 0.39 | 0.72 | 2 U | 2 U |
| Benzo(g,h,i)Perylene | **0.64** | 4.9 | 0.42 U | 0.37 J | 0.21 J | 0.26 J | 10 U | 10 U |
| Benzo(k)Fluoranthene | **0.8** | 4.9 | 0.042 UJ | 0.25 J | 0.15 | 0.23 | 1 U | 1 U |
| Benzyl Butyl Phthalate | NS | NS | 0.42 U | 0.42 U | 0.5 U | 0.42 U | 10 U | 10 U |
| Biphenyl (Diphenyl) | NS | NS | 0.42 U | 0.11 J | 0.5 U | 0.027 J | 10 U | 10 U |
| Bis(2-Chloroethoxy) Methane | NS | NS | 0.42 U | 0.42 U | 0.5 U | 0.42 U | 10 U | 10 U |
| Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether) | NS | NS | 0.042 U | 0.042 U | 0.05 U | 0.042 U | 1 U | 1 U |
| Bis(2-Chloroisopropyl) Ether | NS | NS | 0.42 U | 0.42 U | 0.5 U | 0.42 U | 10 U | 10 U |
| Bis(2-Ethylhexyl) Phthalate | NS | NS | 0.42 U | 0.42 U | 0.5 U | 0.42 U | 2 U | 2 U |
| Caprolactam | NS | NS | 0.42 U | 0.42 U | 0.5 U | 0.42 U | 10 U | 10 U |
| Carbazole | NS | NS | 0.42 U | 0.06 J | 0.05 J | 0.14 J | 10 U | 10 U |
| Chrysene | **1** | 4.9 | 0.42 UJ | 0.6 J | 0.38 J | 0.55 | 2 U | 2 U |
| Dibenz(a,h)Anthracene | **0.33** | 0.33 | 0.042 UJ | 0.091 J | 0.059 | 0.068 | 1 U | 1 U |
| Dibenzofuran | **2.1** | 18 | 0.42 U | 0.07 J | 0.045 J | 0.12 J | 10 U | 10 U |
| Diethyl Phthalate | NS | NS | 0.42 U | 0.42 U | 0.5 U | 0.42 U | 10 U | 10 U |
| Dimethyl Phthalate | NS | NS | 0.42 U | 0.42 U | 0.5 U | 0.42 U | 10 U | 10 U |
| Di-N-Butyl Phthalate | NS | NS | 0.42 U | 0.42 U | 0.021 J | 0.024 J | 10 U | 10 U |
| Di-N-Octylphthalate | NS | NS | 0.42 U | 0.42 U | 0.5 U | 0.42 U | 10 U | 10 U |
| Fluoranthene | 85 | 100 | 0.42 U | 1.2 J | 0.87 | 1.5 | 10 U | 10 U |
| Fluorene | 30 | 100 | 0.42 UJ | 0.35 J | 0.068 J | 0.17 J | 10 U | 10 U |
| Hexachlorobenzene | 0.33 | 0.33 | 0.042 U | 0.042 U | 0.05 U | 0.042 U | 1 U | 1 U |
| Hexachlorobutadiene | NS | NS | 0.085 U | 0.084 U | 0.1 U | 0.085 U | 1 U | 1 U |
| Hexachlorocyclopentadiene | NS | NS | 0.42 R | 0.42 R | 0.5 UJ | 0.42 UJ | 10 U | 10 U |
| Hexachloroethane | NS | NS | 0.042 U | 0.042 U | 0.05 U | 0.042 U | 2 U | 2 U |
| Indeno(1,2,3-c,d)Pyrene | **0.5** | 1.4 | 0.042 UJ | 0.38 J | 0.24 | 0.31 | 2 U | 2 U |
| Isophorone | NS | NS | 0.17 U | 0.17 U | 0.2 U | 0.17 U | 10 U | 10 U |
| Naphthalene | **12** | 100 | 0.42 UJ | 1 J | 0.2 J | 0.39 J | 2 U | 2 U |
| Nitrobenzene | 0.08 | 1.8 | 0.042 U | 0.042 U | 0.05 U | 0.042 U | 1 U | 1 U |
| N-Nitrosodi-N-Propylamine | NS | NS | 0.042 U | 0.042 U | 0.05 U | 0.042 U | 1 U | 1 U |
| N-Nitrosodiphenylamine | NS | NS | 0.42 U | 0.42 U | 0.5 U | 0.42 U | 10 U | 10 U |
| Pentachlorophenol | 0.8 | 1.3 | 0.34 U | 0.34 U | 0.41 U | 0.34 U | 20 U | 20 U |
| Phenanthrene | **1.1** | 4.9 | 0.42 UJ | **1.3 J** | 0.62 | **1.3** | 10 U | 10 U |
| Phenol | **0.33** | 100 | 0.42 U | 0.035 J | 0.5 U | 0.17 J | 10 U | 10 U |
| Pyrene | 64 | 100 | 0.016 J | 1.7 J | 0.65 | 1.1 | 10 U | 10 U |

**Table 2**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Semivolatile Organic Compounds*

| | | AKRF Sample ID | FB_20231127 | FB_20231215 | FB-S_20230601 | FB_20230928 | FB-S_20230601 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-293316-6 | 460-294775-10 | 460-281384-6 | 460-289204-3 | 460-281384-6 |
| | | Date Sampled | 11/27/2023 | 12/15/2023 | 6/01/2023 | 9/28/2023 | 6/01/2023 |
| | | Unit | µg/L | µg/L | µg/L | µg/L | µg/L |
| | | Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| 1,2,4,5-Tetrachlorobenzene | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| 1,4-Dioxane (P-Dioxane) | 0.1 | 5.7 | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2,3,4,6-Tetrachlorophenol | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2,4,5-Trichlorophenol | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2,4,6-Trichlorophenol | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2,4-Dichlorophenol | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2,4-Dimethylphenol | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2,4-Dinitrophenol | NS | NS | 40 U | 40 U | 40 U | 40 U | 40 U |
| 2,4-Dinitrotoluene | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2,6-Dinitrotoluene | NS | NS | 2 U | 2 U | 2 U | 2 U | 2 U |
| 2-Chloronaphthalene | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2-Chlorophenol | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2-Methylnaphthalene | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2-Methylphenol (O-Cresol) | 0.33 | 100 | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2-Nitroaniline | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2-Nitrophenol | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| 3- And 4- Methylphenol (Total) | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| 3,3'-Dichlorobenzidine | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| 3-Nitroaniline | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| 4,6-Dinitro-2-Methylphenol | NS | NS | 20 U | 20 U | 20 U | 20 U | 20 U |
| 4-Bromophenyl Phenyl Ether | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| 4-Chloro-3-Methylphenol | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| 4-Chloroaniline | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| 4-Chlorophenyl Phenyl Ether | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| 4-Methylphenol (P-Cresol) | **0.33** | 100 | 10 U | 10 U | 10 U | 10 U | 10 U |
| 4-Nitroaniline | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| 4-Nitrophenol | NS | NS | 20 U | 20 U | 20 U | 20 U | 20 U |
| Acenaphthene | 20 | 100 | 10 U | 10 U | 10 U | 10 U | 10 U |
| Acenaphthylene | 100 | 100 | 10 U | 10 U | 10 U | 10 U | 10 U |
| Acetophenone | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| Anthracene | 100 | 100 | 10 U | 10 U | 10 U | 10 U | 10 U |
| Atrazine | NS | NS | 2 U | 2 U | 2 U | 2 U | 2 U |
| Benzaldehyde | NS | NS | 10 UJ | 10 UJ | 10 U | 10 UJ | 10 U |
| Benzo(a)Anthracene | **1** | 1.4 | 1 U | 1 U | 1 U | 1 U | 1 U |
| Benzo(a)Pyrene | **1** | 1 | 1 U | 1 U | 1 U | 1 U | 1 U |
| Benzo(b)Fluoranthene | **1** | 1.4 | 2 U | 2 U | 2 U | 2 U | 2 U |
| Benzo(g,h,i)Perylene | **0.64** | 4.9 | 10 U | 10 U | 10 U | 10 U | 10 U |
| Benzo(k)Fluoranthene | **0.8** | 4.9 | 1 U | 1 U | 1 U | 1 U | 1 U |
| Benzyl Butyl Phthalate | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| Biphenyl (Diphenyl) | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| Bis(2-Chloroethoxy) Methane | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether) | NS | NS | 1 U | 1 U | 1 U | 1 U | 1 U |
| Bis(2-Chloroisopropyl) Ether | NS | NS | 10 U | 10 UJ | 10 U | 10 U | 10 U |
| Bis(2-Ethylhexyl) Phthalate | NS | NS | 2 U | 2 U | 2 U | 2 U | 2 U |
| Caprolactam | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| Carbazole | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| Chrysene | **1** | 4.9 | 2 U | 2 U | 2 U | 2 U | 2 U |
| Dibenz(a,h)Anthracene | **0.33** | 0.33 | 1 U | 1 U | 1 U | 1 U | 1 U |
| Dibenzofuran | **2.1** | 18 | 10 U | 10 U | 10 U | 10 U | 10 U |
| Diethyl Phthalate | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| Dimethyl Phthalate | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| Di-N-Butyl Phthalate | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| Di-N-Octylphthalate | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| Fluoranthene | 85 | 100 | 10 U | 10 U | 10 U | 10 U | 10 U |
| Fluorene | 30 | 100 | 10 U | 10 U | 10 U | 10 U | 10 U |
| Hexachlorobenzene | 0.33 | 0.33 | 1 U | 1 U | 1 U | 1 U | 1 U |
| Hexachlorobutadiene | NS | NS | 1 U | 1 U | 1 U | 1 U | 1 U |
| Hexachlorocyclopentadiene | NS | NS | 10 R | 10 U | 10 U | 10 U | 10 U |
| Hexachloroethane | NS | NS | 2 U | 2 U | 2 U | 2 U | 2 U |
| Indeno(1,2,3-c,d)Pyrene | **0.5** | 1.4 | 2 U | 2 U | 2 U | 2 U | 2 U |
| Isophorone | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| Naphthalene | **12** | 100 | 2 U | 2 U | 2 U | 2 U | 2 U |
| Nitrobenzene | 0.08 | 1.8 | 1 U | 1 U | 1 U | 1 U | 1 U |
| N-Nitrosodi-N-Propylamine | NS | NS | 1 U | 1 U | 1 U | 1 U | 1 U |
| N-Nitrosodiphenylamine | NS | NS | 10 U | 10 U | 10 U | 10 U | 10 U |
| Pentachlorophenol | 0.8 | 1.3 | 20 U | 20 U | 20 U | 20 U | 20 U |
| Phenanthrene | **1.1** | 4.9 | 10 U | 10 U | 10 U | 10 U | 10 U |
| Phenol | **0.33** | 100 | 10 U | 10 U | 10 U | 10 U | 10 U |
| Pyrene | 64 | 100 | 10 U | 10 U | 10 U | 10 U | 10 U |

**Table 3**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Metals*

| | | AKRF Sample ID | EP-01_15_20231103 | EP-01_15_20231103 | EP-01_15_20231103 | EP-X1_15_20231103 | EP-X1_15_20231103 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-291818-1 | 460-291818-1 | 460-291818-1 | 460-291818-8 | 460-291818-8 |
| | | Date Sampled | 11/03/2023 | 11/03/2023 | 11/03/2023 | 11/03/2023 | 11/03/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 5 | 10 | 1 | 5 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Aluminum | NS | NS | 5,380 | NR | NR | 4,240 | NR |
| Antimony | NS | NS | 0.71 JL | NR | NR | 0.51 JL | NR |
| Arsenic | **13** | 16 | 7.4 | NR | NR | 6.9 | NR |
| Barium | 410 | 410 | 298 J | NR | NR | 106 J | NR |
| Beryllium | 4.4 | 43 | 0.38 J | NR | NR | 0.29 J | NR |
| Cadmium | 2.5 | 2.5 | 0.39 J | NR | NR | 0.39 J | NR |
| Calcium | NS | NS | 17,000 | NR | NR | 14,100 | NR |
| Chromium, Hexavalent | 1 | 1 | 2.6 UJ | NR | NR | 2.5 UJ | NR |
| Chromium, Total | NS | NS | 22.1 JL | NR | NR | 12.3 JL | NR |
| Cobalt | NS | NS | 5.4 | NR | NR | 4.1 | NR |
| Copper | **50** | 280 | **82** | NR | NR | **80** | NR |
| Cyanide | **2.3** | 13 | 0.68 | NR | NR | 0.43 | NR |
| Iron | NS | NS | 15,200 | NR | NR | 16,300 | NR |
| Lead | **63** | 400 | NR | **4,100 J** | **569** | **893 J** | NR |
| Magnesium | NS | NS | 2,850 | NR | NR | 3,020 | NR |
| Manganese | 1,600 | 2,000 | 215 JL | NR | NR | 226 JL | NR |
| Mercury | **0.18** | 0.26 | **1.1 J** | NR | NR | NR | **3 J** |
| Nickel | **30** | 210 | 18.4 | NR | NR | 15.2 | NR |
| Potassium | NS | NS | 1,110 JL | NR | NR | 878 JL | NR |
| Selenium | **4** | 110 | 0.75 J | NR | NR | 0.62 J | NR |
| Silver | **2** | 110 | 0.2 J | NR | NR | 0.2 J | NR |
| Sodium | NS | NS | 409 | NR | NR | 379 | NR |
| Thallium | NS | NS | 0.097 J | NR | NR | 0.1 J | NR |
| Vanadium | NS | NS | 17.7 JL | NR | NR | 15.3 JL | NR |
| Zinc | **109** | 6,600 | **332** | NR | NR | **241** | NR |

**Table 3**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Metals*

| | | AKRF Sample ID | EP-02_15_20231103 | EP-02_15_20231103 | EP-02_15_20231103 | EP-03_15_20231103 | EP-04_15_20231103 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-291818-2 | 460-291818-2 | 460-291818-2 | 460-291818-3 | 460-291818-4 |
| | | Date Sampled | 11/03/2023 | 11/03/2023 | 11/03/2023 | 11/03/2023 | 11/03/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 5 | 10 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Aluminum | NS | NS | 4,990 | NR | NR | 2,990 | 3,860 |
| Antimony | NS | NS | 0.87 J | NR | NR | 0.5 J | 0.85 J |
| Arsenic | **13** | 16 | 8.5 | NR | NR | 4.7 | 6.1 |
| Barium | 410 | 410 | 101 | NR | NR | 75.1 | 101 |
| Beryllium | 4.4 | 43 | 0.31 J | NR | NR | 0.2 J | 0.24 J |
| Cadmium | 2.5 | 2.5 | 0.36 J | NR | NR | 0.19 J | 0.27 J |
| Calcium | NS | NS | 10,400 | NR | NR | 4,680 | 7,950 |
| Chromium, Hexavalent | 1 | 1 | 2.7 U | NR | NR | 2.5 U | 2.8 U |
| Chromium, Total | NS | NS | 14.2 | NR | NR | 9.5 | 12.4 |
| Cobalt | NS | NS | 5.1 | NR | NR | 4.2 | 4.3 |
| Copper | **50** | 280 | **110** | NR | NR | **78.7** | **102** |
| Cyanide | **2.3** | 13 | 0.28 | NR | NR | 0.17 J | 0.22 J |
| Iron | NS | NS | 17,900 | NR | NR | 13,900 | 14,400 |
| Lead | **63** | 400 | NR | **2,740** | **343** | **431** | **383** |
| Magnesium | NS | NS | 2,380 | NR | NR | 2,120 | 2,220 |
| Manganese | 1,600 | 2,000 | 326 | NR | NR | 164 | 192 |
| Mercury | **0.18** | 0.26 | NR | **3.4** | NR | **0.73** | NR |
| Nickel | **30** | 210 | 16.8 | NR | NR | 12.3 | 14.4 |
| Potassium | NS | NS | 1,020 | NR | NR | 907 | 880 |
| Selenium | **4** | 110 | 0.7 J | NR | NR | 0.88 J | 0.91 J |
| Silver | **2** | 110 | 0.32 J | NR | NR | 0.17 J | 0.22 J |
| Sodium | NS | NS | 238 | NR | NR | 247 | 245 |
| Thallium | NS | NS | NR | 2.6 U | NR | 0.086 J | 0.084 J |
| Vanadium | NS | NS | 16.6 | NR | NR | 9.9 | 15.5 |
| Zinc | **109** | 6,600 | **167** | NR | NR | **115** | **139** |

**Table 3**
**380 4th Avenue**
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Post-Remedial Soil Endpoint Analytical Results
*Metals*

| | | AKRF Sample ID | EP-04_15_20231103 | EP-05_15_20231103 | EP-05_15_20231103 | EP-06_15_20231103 | EP-06_15_20231103 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-291818-4 | 460-291818-5 | 460-291818-5 | 460-291818-6 | 460-291818-6 |
| | | Date Sampled | 11/03/2023 | 11/03/2023 | 11/03/2023 | 11/03/2023 | 11/03/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 5 | 1 | 5 | 1 | 5 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Aluminum | NS | NS | NR | 3,990 | NR | 3,100 | NR |
| Antimony | NS | NS | NR | 0.93 J | NR | 1.2 J | NR |
| Arsenic | **13** | 16 | NR | 6.6 | NR | 6.2 | NR |
| Barium | 410 | 410 | NR | 76.3 | NR | 67 | NR |
| Beryllium | 4.4 | 43 | NR | 0.27 J | NR | 0.22 J | NR |
| Cadmium | 2.5 | 2.5 | NR | 0.29 J | NR | 0.34 J | NR |
| Calcium | NS | NS | NR | 12,700 | NR | 5,270 | NR |
| Chromium, Hexavalent | 1 | 1 | NR | 2.5 U | NR | 2.9 U | NR |
| Chromium, Total | NS | NS | NR | 12.2 | NR | 10.6 | NR |
| Cobalt | NS | NS | NR | 4 | NR | 4.7 | NR |
| Copper | **50** | 280 | NR | **109** | NR | **437** | NR |
| Cyanide | **2.3** | 13 | NR | 0.41 | NR | 0.31 | NR |
| Iron | NS | NS | NR | 12,900 | NR | 16,000 | NR |
| Lead | **63** | 400 | NR | **360** | NR | **293** | NR |
| Magnesium | NS | NS | NR | 2,220 | NR | 2,300 | NR |
| Manganese | 1,600 | 2,000 | NR | 163 | NR | 212 | NR |
| Mercury | **0.18** | 0.26 | **2** | NR | **2.1** | NR | **1.5** |
| Nickel | **30** | 210 | NR | 13.1 | NR | 13.6 | NR |
| Potassium | NS | NS | NR | 896 | NR | 964 | NR |
| Selenium | **4** | 110 | NR | 0.51 J | NR | 0.46 J | NR |
| Silver | **2** | 110 | NR | 0.25 J | NR | 0.2 J | NR |
| Sodium | NS | NS | NR | 298 | NR | 393 | NR |
| Thallium | NS | NS | NR | 0.095 J | NR | 0.059 J | NR |
| Vanadium | NS | NS | NR | 14.6 | NR | 14 | NR |
| Zinc | **109** | 6,600 | NR | **195** | NR | **116** | NR |

**Table 3**
**380 4th Avenue**
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Post-Remedial Soil Endpoint Analytical Results
*Metals*

| | | AKRF Sample ID | EP-07_15_20231103 | EP-07_15_20231103 | EP-08_15_20231110 | EP-08_15_20231110 | EP-09_15_20231110 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-291818-7 | 460-291818-7 | 460-292402-1 | 460-292402-1 | 460-292402-2 |
| | | Date Sampled | 11/03/2023 | 11/03/2023 | 11/10/2023 | 11/10/2023 | 11/10/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 5 | 1 | 10 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Aluminum | NS | NS | 4,530 | NR | 4,010 | NR | 5,030 |
| Antimony | NS | NS | 0.69 J | NR | 1 J | NR | 0.41 J |
| Arsenic | **13** | 16 | 7.4 | NR | **18.3** | NR | 4.4 |
| Barium | 410 | 410 | 110 | NR | 103 | NR | 111 |
| Beryllium | 4.4 | 43 | 0.32 J | NR | 0.27 J | NR | 0.3 J |
| Cadmium | 2.5 | 2.5 | 0.31 J | NR | 0.89 J | NR | 0.16 J |
| Calcium | NS | NS | 17,100 | NR | 13,200 | NR | 3,960 |
| Chromium, Hexavalent | 1 | 1 | 2.5 U | NR | 3 U | NR | 2.8 U |
| Chromium, Total | NS | NS | 13 | NR | 10.5 | NR | 13.2 |
| Cobalt | NS | NS | 4.8 | NR | 5.9 | NR | 5.8 |
| Copper | **50** | 280 | **68.3** | NR | **63.4** | NR | **67.8** |
| Cyanide | **2.3** | 13 | 0.16 J | NR | **5.4** | NR | 0.29 U |
| Iron | NS | NS | 16,000 | NR | 18,600 | NR | 13,300 |
| Lead | **63** | 400 | **491** | NR | **374** | NR | **197** |
| Magnesium | NS | NS | 2,510 | NR | 2,350 | NR | 2,560 |
| Manganese | 1,600 | 2,000 | 203 | NR | 284 | NR | 230 |
| Mercury | **0.18** | 0.26 | NR | **1.7** | NR | **4.6** | **0.89** |
| Nickel | **30** | 210 | 14 | NR | 17.8 | NR | 24 |
| Potassium | NS | NS | 820 | NR | 997 | NR | 1,250 |
| Selenium | **4** | 110 | 0.59 J | NR | **19.4** | NR | 0.47 J |
| Silver | **2** | 110 | 0.25 J | NR | 0.26 J | NR | 0.11 J |
| Sodium | NS | NS | 295 | NR | 317 | NR | 206 |
| Thallium | NS | NS | 0.13 J | NR | 0.35 J | NR | 0.077 J |
| Vanadium | NS | NS | 16.7 | NR | 13.3 | NR | 15.9 |
| Zinc | **109** | 6,600 | **138** | NR | **164** | NR | 86.8 |

**Table 3**
**380 4th Avenue**
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Post-Remedial Soil Endpoint Analytical Results
*Metals*

| | | AKRF Sample ID | EP-10_15_20231110 | EP-10_B_16_20231127 | EP-10_B_16_20231127 | EP-10-N5_15_20231127 | EP-10-N5_15_20231127 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-292402-3 | 460-293317-19 | 460-293317-19 | 460-293317-1 | 460-293317-1 |
| | | Date Sampled | 11/10/2023 | 11/27/2023 | 11/27/2023 | 11/27/2023 | 11/27/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1, 4, 10 | 1 | 10 | 1 | 10 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Aluminum | NS | NS | 3,550 | NR | NR | NR | NR |
| Antimony | NS | NS | NR | NR | NR | NR | NR |
| Arsenic | **13** | 16 | **14** | NR | NR | NR | NR |
| Barium | 410 | 410 | 97.7 | NR | NR | NR | NR |
| Beryllium | 4.4 | 43 | 0.27 J | NR | NR | NR | NR |
| Cadmium | 2.5 | 2.5 | 0.99 J | NR | NR | NR | NR |
| Calcium | NS | NS | 6,090 | NR | NR | NR | NR |
| Chromium, Hexavalent | 1 | 1 | 2.4 U | NR | NR | NR | NR |
| Chromium, Total | NS | NS | 12.7 | NR | NR | NR | NR |
| Cobalt | NS | NS | 4.8 | NR | NR | NR | NR |
| Copper | **50** | 280 | **99.2** | NR | NR | NR | NR |
| Cyanide | **2.3** | 13 | 0.28 U | NR | NR | NR | NR |
| Iron | NS | NS | 23,500 | NR | NR | NR | NR |
| Lead | **63** | 400 | ***over-excavated*** | **259** | **769** | **401** | **751** |
| Magnesium | NS | NS | 1,770 | NR | NR | NR | NR |
| Manganese | 1,600 | 2,000 | 376 | NR | NR | NR | NR |
| Mercury | **0.18** | 0.26 | **0.89** | NR | NR | NR | NR |
| Nickel | **30** | 210 | 14.8 | NR | NR | NR | NR |
| Potassium | NS | NS | 653 | NR | NR | NR | NR |
| Selenium | **4** | 110 | 0.85 J | NR | NR | NR | NR |
| Silver | **2** | 110 | 0.98 | NR | NR | NR | NR |
| Sodium | NS | NS | 154 | NR | NR | NR | NR |
| Thallium | NS | NS | 0.067 J | NR | NR | NR | NR |
| Vanadium | NS | NS | 15.3 | NR | NR | NR | NR |
| Zinc | **109** | 6,600 | **264** | NR | NR | NR | NR |

**Table 3**
**380 4th Avenue**
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Post-Remedial Soil Endpoint Analytical Results
*Metals*

| | | AKRF Sample ID | EP-10-E5_15_20231127 | EP-10-E5_15_20231127 | EP-10-S5_15_20231127 | EP-10-S5_15_20231127 | EP-10-W5_15_20231127 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-293317-3 | 460-293317-3 | 460-293317-5 | 460-293317-5 | 460-293317-7 |
| | | Date Sampled | 11/27/2023 | 11/27/2023 | 11/27/2023 | 11/27/2023 | 11/27/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 10 | 1 | 10 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Aluminum | NS | NS | NR | NR | NR | NR | NR |
| Antimony | NS | NS | NR | NR | NR | NR | NR |
| Arsenic | **13** | 16 | NR | NR | NR | NR | NR |
| Barium | 410 | 410 | NR | NR | NR | NR | NR |
| Beryllium | 4.4 | 43 | NR | NR | NR | NR | NR |
| Cadmium | 2.5 | 2.5 | NR | NR | NR | NR | NR |
| Calcium | NS | NS | NR | NR | NR | NR | NR |
| Chromium, Hexavalent | 1 | 1 | NR | NR | NR | NR | NR |
| Chromium, Total | NS | NS | NR | NR | NR | NR | NR |
| Cobalt | NS | NS | NR | NR | NR | NR | NR |
| Copper | **50** | 280 | NR | NR | NR | NR | NR |
| Cyanide | **2.3** | 13 | NR | NR | NR | NR | NR |
| Iron | NS | NS | NR | NR | NR | NR | NR |
| Lead | **63** | 400 | **310** | **373** | **524** | **579** | **350** |
| Magnesium | NS | NS | NR | NR | NR | NR | NR |
| Manganese | 1,600 | 2,000 | NR | NR | NR | NR | NR |
| Mercury | **0.18** | 0.26 | NR | NR | NR | NR | NR |
| Nickel | **30** | 210 | NR | NR | NR | NR | NR |
| Potassium | NS | NS | NR | NR | NR | NR | NR |
| Selenium | **4** | 110 | NR | NR | NR | NR | NR |
| Silver | **2** | 110 | NR | NR | NR | NR | NR |
| Sodium | NS | NS | NR | NR | NR | NR | NR |
| Thallium | NS | NS | NR | NR | NR | NR | NR |
| Vanadium | NS | NS | NR | NR | NR | NR | NR |
| Zinc | **109** | 6,600 | NR | NR | NR | NR | NR |

**Table 3**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Metals*

| | | AKRF Sample ID | EP-10-W5_15_20231127 | EP-10HAZ_X1_20231127 | EP-10HAZ_X1_20231127 | EP-11_15_20231110 | EP-12_15_20231110 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-293317-7 | 460-293317-17 | 460-293317-17 | 460-292402-4 | 460-292402-5 |
| | | Date Sampled | 11/27/2023 | 11/27/2023 | 11/27/2023 | 11/10/2023 | 11/10/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 10 | 1 | 10 | 1 | 1, 10 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Aluminum | NS | NS | NR | NR | NR | 6,600 | 2,960 |
| Antimony | NS | NS | NR | NR | NR | 1.1 U | 1.7 |
| Arsenic | **13** | 16 | NR | NR | NR | 3.5 | 8.3 |
| Barium | 410 | 410 | NR | NR | NR | 40.2 | 136 |
| Beryllium | 4.4 | 43 | NR | NR | NR | 0.37 J | 0.21 J |
| Cadmium | 2.5 | 2.5 | NR | NR | NR | 1.1 U | 0.46 J |
| Calcium | NS | NS | NR | NR | NR | 1,610 | 5,890 |
| Chromium, Hexavalent | 1 | 1 | NR | NR | NR | 2.2 U | 2.8 U |
| Chromium, Total | NS | NS | NR | NR | NR | 13.3 | 34 |
| Cobalt | NS | NS | NR | NR | NR | 5.4 | 3.8 |
| Copper | **50** | 280 | NR | NR | NR | 24 | **353** |
| Cyanide | **2.3** | 13 | NR | NR | NR | 0.27 U | 0.42 |
| Iron | NS | NS | NR | NR | NR | 13,500 | 15,300 |
| Lead | **63** | 400 | **676** | **235** | **650** | **83.4** | ***over-excavated*** |
| Magnesium | NS | NS | NR | NR | NR | 2,140 | 1,670 |
| Manganese | 1,600 | 2,000 | NR | NR | NR | 272 | 176 |
| Mercury | **0.18** | 0.26 | NR | NR | NR | 0.083 | NR |
| Nickel | **30** | 210 | NR | NR | NR | 24.1 | 14.6 |
| Potassium | NS | NS | NR | NR | NR | 872 | 757 |
| Selenium | **4** | 110 | NR | NR | NR | 0.29 J | 1.4 |
| Silver | **2** | 110 | NR | NR | NR | 0.43 U | **4.9** |
| Sodium | NS | NS | NR | NR | NR | 80.8 J | 172 |
| Thallium | NS | NS | NR | NR | NR | 0.087 J | 0.1 J |
| Vanadium | NS | NS | NR | NR | NR | 17.4 | 12.3 |
| Zinc | **109** | 6,600 | NR | NR | NR | 41.3 | **288** |

**Table 3**
**380 4th Avenue**
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Post-Remedial Soil Endpoint Analytical Results
*Metals*

| | | **AKRF Sample ID** | EP-12_15_20231110 | EP-12_B_16_20231127 | EP-12_B_16_20231127 | EP-12-N5_15_20231127 | EP-12-N10_15_20231127 |
|---|---|---|---|---|---|---|---|
| | | **Laboratory Sample ID** | 460-292402-5 | 460-293317-23 | 460-293317-23 | 460-293317-9 | 460-293317-10 |
| | | **Date Sampled** | 11/10/2023 | 11/27/2023 | 11/27/2023 | 11/27/2023 | 11/27/2023 |
| | | **Unit** | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | **Dilution Factor** | 5 | 1 | 10 | 1, 10 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Aluminum | NS | NS | NR | NR | NR | NR | NR |
| Antimony | NS | NS | NR | NR | NR | NR | NR |
| Arsenic | **13** | 16 | NR | NR | NR | NR | NR |
| Barium | 410 | 410 | NR | NR | NR | NR | NR |
| Beryllium | 4.4 | 43 | NR | NR | NR | NR | NR |
| Cadmium | 2.5 | 2.5 | NR | NR | NR | NR | NR |
| Calcium | NS | NS | NR | NR | NR | NR | NR |
| Chromium, Hexavalent | 1 | 1 | NR | NR | NR | NR | NR |
| Chromium, Total | NS | NS | NR | NR | NR | NR | NR |
| Cobalt | NS | NS | NR | NR | NR | NR | NR |
| Copper | **50** | 280 | NR | NR | NR | NR | NR |
| Cyanide | **2.3** | 13 | NR | NR | NR | NR | NR |
| Iron | NS | NS | NR | NR | NR | NR | NR |
| Lead | **63** | 400 | NR | **613** | **1,510** | ***over-excavated*** | **982** |
| Magnesium | NS | NS | NR | NR | NR | NR | NR |
| Manganese | 1,600 | 2,000 | NR | NR | NR | NR | NR |
| Mercury | **0.18** | 0.26 | **2.5** | NR | NR | NR | NR |
| Nickel | **30** | 210 | NR | NR | NR | NR | NR |
| Potassium | NS | NS | NR | NR | NR | NR | NR |
| Selenium | **4** | 110 | NR | NR | NR | NR | NR |
| Silver | **2** | 110 | NR | NR | NR | NR | NR |
| Sodium | NS | NS | NR | NR | NR | NR | NR |
| Thallium | NS | NS | NR | NR | NR | NR | NR |
| Vanadium | NS | NS | NR | NR | NR | NR | NR |
| Zinc | **109** | 6,600 | NR | NR | NR | NR | NR |

**Table 3**
**380 4th Avenue**
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*Metals*

| | | AKRF Sample ID | EP-12-N10_15_20231127 | EP-12-E5_15_20231127 | EP-12-E5_15_20231127 | EP-12-S5_15_20231127 | EP-12-S10_15_20231127 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-293317-10 | 460-293317-11 | 460-293317-11 | 460-293317-13 | 460-293317-14 |
| | | Date Sampled | 11/27/2023 | 11/27/2023 | 11/27/2023 | 11/27/2023 | 11/27/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 10 | 1 | 10 | 1, 10 | 1, 10 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Aluminum | NS | NS | NR | NR | NR | NR | NR |
| Antimony | NS | NS | NR | NR | NR | NR | NR |
| Arsenic | **13** | 16 | NR | NR | NR | NR | NR |
| Barium | 410 | 410 | NR | NR | NR | NR | NR |
| Beryllium | 4.4 | 43 | NR | NR | NR | NR | NR |
| Cadmium | 2.5 | 2.5 | NR | NR | NR | NR | NR |
| Calcium | NS | NS | NR | NR | NR | NR | NR |
| Chromium, Hexavalent | 1 | 1 | NR | NR | NR | NR | NR |
| Chromium, Total | NS | NS | NR | NR | NR | NR | NR |
| Cobalt | NS | NS | NR | NR | NR | NR | NR |
| Copper | **50** | 280 | NR | NR | NR | NR | NR |
| Cyanide | **2.3** | 13 | NR | NR | NR | NR | NR |
| Iron | NS | NS | NR | NR | NR | NR | NR |
| Lead | **63** | 400 | **3,290** | **1,020** | **3,850** | ***over-excavated*** | ***over-excavated*** |
| Magnesium | NS | NS | NR | NR | NR | NR | NR |
| Manganese | 1,600 | 2,000 | NR | NR | NR | NR | NR |
| Mercury | **0.18** | 0.26 | NR | NR | NR | NR | NR |
| Nickel | **30** | 210 | NR | NR | NR | NR | NR |
| Potassium | NS | NS | NR | NR | NR | NR | NR |
| Selenium | **4** | 110 | NR | NR | NR | NR | NR |
| Silver | **2** | 110 | NR | NR | NR | NR | NR |
| Sodium | NS | NS | NR | NR | NR | NR | NR |
| Thallium | NS | NS | NR | NR | NR | NR | NR |
| Vanadium | NS | NS | NR | NR | NR | NR | NR |
| Zinc | **109** | 6,600 | NR | NR | NR | NR | NR |

**Table 3**
**380 4th Avenue**
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Post-Remedial Soil Endpoint Analytical Results
*Metals*

| | | AKRF Sample ID | EP-12-S15_15_20231206 | EP-12-S15_15_20231206 | EP-12-W5_15_20231127 | EP-12-W10_15_20231127 | EP-12-W10_15_20231127 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-293992-1 | 460-293992-1 | 460-293317-15 | 460-293317-16 | 460-293317-16 |
| | | Date Sampled | 12/06/2023 | 12/06/2023 | 11/27/2023 | 11/27/2023 | 11/27/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 10 | 1, 10 | 1 | 10 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Aluminum | NS | NS | NR | NR | NR | NR | NR |
| Antimony | NS | NS | NR | NR | NR | NR | NR |
| Arsenic | **13** | 16 | NR | NR | NR | NR | NR |
| Barium | 410 | 410 | NR | NR | NR | NR | NR |
| Beryllium | 4.4 | 43 | NR | NR | NR | NR | NR |
| Cadmium | 2.5 | 2.5 | NR | NR | NR | NR | NR |
| Calcium | NS | NS | NR | NR | NR | NR | NR |
| Chromium, Hexavalent | 1 | 1 | NR | NR | NR | NR | NR |
| Chromium, Total | NS | NS | NR | NR | NR | NR | NR |
| Cobalt | NS | NS | NR | NR | NR | NR | NR |
| Copper | **50** | 280 | NR | NR | NR | NR | NR |
| Cyanide | **2.3** | 13 | NR | NR | NR | NR | NR |
| Iron | NS | NS | NR | NR | NR | NR | NR |
| Lead | **63** | 400 | **449** | **2,560** | ***over-excavated*** | **411** | **963** |
| Magnesium | NS | NS | NR | NR | NR | NR | NR |
| Manganese | 1,600 | 2,000 | NR | NR | NR | NR | NR |
| Mercury | **0.18** | 0.26 | NR | NR | NR | NR | NR |
| Nickel | **30** | 210 | NR | NR | NR | NR | NR |
| Potassium | NS | NS | NR | NR | NR | NR | NR |
| Selenium | **4** | 110 | NR | NR | NR | NR | NR |
| Silver | **2** | 110 | NR | NR | NR | NR | NR |
| Sodium | NS | NS | NR | NR | NR | NR | NR |
| Thallium | NS | NS | NR | NR | NR | NR | NR |
| Vanadium | NS | NS | NR | NR | NR | NR | NR |
| Zinc | **109** | 6,600 | NR | NR | NR | NR | NR |

**Table 3**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Metals*

| | | AKRF Sample ID | EP-13_15_20231110 | EP-13_15_20231110 | EP-14_15_20231110 | EP-14_15_20231110 | EP-15_15_20231110 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-292402-6 | 460-292402-6 | 460-292402-7 | 460-292402-7 | 460-292402-8 |
| | | Date Sampled | 11/10/2023 | 11/10/2023 | 11/10/2023 | 11/10/2023 | 11/10/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 5 | 1 | 5 | 1, 5, 10 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Aluminum | NS | NS | 2,920 | NR | 4,160 | NR | ***over-excavated*** *(sample was over-excavated when petroleum hotspot was expanded, beyond its proposed extents in the RAWP, based on olfacotry observations and elevated PID readings; and not due to exceedances of applicable SCOs)* |
| Antimony | NS | NS | 1.3 | NR | 0.33 J | NR | |
| Arsenic | **13** | 16 | 4.9 | NR | 3.8 | NR | |
| Barium | 410 | 410 | 80.7 | NR | 81.4 | NR | |
| Beryllium | 4.4 | 43 | 0.19 J | NR | 0.22 J | NR | |
| Cadmium | 2.5 | 2.5 | 0.25 J | NR | 0.14 J | NR | |
| Calcium | NS | NS | 6,220 | NR | 6,910 | NR | |
| Chromium, Hexavalent | 1 | 1 | 3.1 U | NR | 2.4 U | NR | |
| Chromium, Total | NS | NS | 10.1 | NR | 10.1 | NR | |
| Cobalt | NS | NS | 4.3 | NR | 3.6 | NR | |
| Copper | **50** | 280 | **89.7** | NR | **56.4** | NR | |
| Cyanide | **2.3** | 13 | 0.25 J | NR | 0.2 J | NR | |
| Iron | NS | NS | 12,300 | NR | 11,300 | NR | |
| Lead | **63** | 400 | **526** | NR | **445** | NR | |
| Magnesium | NS | NS | 3,410 | NR | 2,890 | NR | |
| Manganese | 1,600 | 2,000 | 192 | NR | 181 | NR | |
| Mercury | **0.18** | 0.26 | NR | **3.4** | NR | **1.5** | |
| Nickel | **30** | 210 | 28 | NR | 13.1 | NR | |
| Potassium | NS | NS | 1,130 | NR | 793 | NR | |
| Selenium | **4** | 110 | 0.48 J | NR | 0.41 J | NR | |
| Silver | **2** | 110 | 0.28 J | NR | 0.14 J | NR | |
| Sodium | NS | NS | 299 | NR | 153 | NR | |
| Thallium | NS | NS | 0.057 J | NR | 0.06 J | NR | |
| Vanadium | NS | NS | 13.3 | NR | 14.7 | NR | |
| Zinc | **109** | 6,600 | **138** | NR | 90.6 | NR | |

**Table 3**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Metals*

| | | AKRF Sample ID | EP-16_20_20231127 | EP-16_20_20231127 | EP-X2_20_20231127 | EP-17_15_20231127 | EP-17_15_20231127 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-293316-1 | 460-293316-1 | 460-293316-8 | 460-293316-2 | 460-293316-2 |
| | | Date Sampled | 11/27/2023 | 11/27/2023 | 11/27/2023 | 11/27/2023 | 11/27/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 3 | 1 | 1 | 3 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Aluminum | NS | NS | 6,710 | NR | 5,810 | 5,530 | NR |
| Antimony | NS | NS | 1.2 UJ | NR | 1.1 UJ | 1.8 | NR |
| Arsenic | **13** | 16 | 5.3 | NR | 4.1 | 10.3 | NR |
| Barium | 410 | 410 | 39.7 JL | NR | 34.7 JL | 162 | NR |
| Beryllium | 4.4 | 43 | 0.39 J | NR | 0.38 J | 0.35 J | NR |
| Cadmium | 2.5 | 2.5 | 1.2 U | NR | 1.1 U | 0.29 J | NR |
| Calcium | NS | NS | 1,190 JK | NR | 1,430 JK | 7,810 | NR |
| Chromium, Hexavalent | 1 | 1 | 2.4 UJ | NR | 2.3 UJ | 2.8 U | NR |
| Chromium, Total | NS | NS | 10.8 JK | NR | 12.1 JK | 21.7 | NR |
| Cobalt | NS | NS | 6.9 JL | NR | 5.2 JL | 6 | NR |
| Copper | **50** | 280 | 30.9 JL | NR | 14.9 JL | **96** | NR |
| Cyanide | **2.3** | 13 | 0.28 UJ | NR | 0.92 J | 0.34 | NR |
| Iron | NS | NS | 14,600 | NR | 11,500 | 17,600 | NR |
| Lead | **63** | 400 | 22.5 JK | NR | 45.4 JK | **768** | NR |
| Magnesium | NS | NS | 2,760 | NR | 2,310 | 2,420 | NR |
| Manganese | 1,600 | 2,000 | 216 JK | NR | 218 JK | 229 | NR |
| Mercury | **0.18** | 0.26 | NR | **0.36 JK** | 0.15 JK | NR | **1.4** |
| Nickel | **30** | 210 | 14.1 JK | NR | 15.8 JK | 19.7 | NR |
| Potassium | NS | NS | 1,290 JL | NR | 1,030 JL | 1,160 | NR |
| Selenium | **4** | 110 | 0.16 J | NR | 0.22 J | 1.3 J | NR |
| Silver | **2** | 110 | 0.49 U | NR | 0.43 U | 0.26 J | NR |
| Sodium | NS | NS | 125 U | NR | 113 U | 192 U | NR |
| Thallium | NS | NS | 0.082 J | NR | 0.07 J | 0.17 J | NR |
| Vanadium | NS | NS | 23.1 JL | NR | 18.6 JL | 19.6 | NR |
| Zinc | **109** | 6,600 | 9.8 U | NR | 37.6 U | **152 J** | NR |

**Table 3**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Metals*

| | | AKRF Sample ID | EP-18_17.5_20231127 | EP-18_17.5_20231127 | EP-19_17.5_20231127 | EP-19_17.5_20231127 | EP-20_17.5_20231127 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-293316-3 | 460-293316-3 | 460-293316-4 | 460-293316-4 | 460-293316-5 |
| | | Date Sampled | 11/27/2023 | 11/27/2023 | 11/27/2023 | 11/27/2023 | 11/27/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 20 | 1 | 10 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Aluminum | NS | NS | 3,760 | NR | 4,740 | NR | 7,550 |
| Antimony | NS | NS | 0.73 J | NR | 1.3 | NR | 1.1 U |
| Arsenic | **13** | 16 | 9.5 | NR | **16.4** | NR | 3.2 |
| Barium | 410 | 410 | 127 | NR | 177 | NR | 40.2 |
| Beryllium | 4.4 | 43 | 0.26 J | NR | 0.29 J | NR | 0.45 |
| Cadmium | 2.5 | 2.5 | 0.26 J | NR | 0.42 J | NR | 1.1 U |
| Calcium | NS | NS | 19,700 | NR | 7,950 | NR | 1,370 |
| Chromium, Hexavalent | 1 | 1 | 2.7 U | NR | 2.9 U | NR | 2.3 U |
| Chromium, Total | NS | NS | 14.8 | NR | 16.1 | NR | 15.6 |
| Cobalt | NS | NS | 4.7 | NR | 9.5 | NR | 7.1 |
| Copper | **50** | 280 | **56.9** | NR | **73.4** | NR | 15.2 |
| Cyanide | **2.3** | 13 | 0.19 J | NR | 0.19 J | NR | 0.23 U |
| Iron | NS | NS | 12,000 | NR | 22,600 | NR | 11,000 |
| Lead | **63** | 400 | **975** | NR | **954** | NR | 31.1 |
| Magnesium | NS | NS | 4,420 | NR | 3,060 | NR | 2,580 |
| Manganese | 1,600 | 2,000 | 195 | NR | 238 | NR | 108 |
| Mercury | **0.18** | 0.26 | NR | **6** | NR | **6.1** | 0.13 |
| Nickel | **30** | 210 | 14 | NR | 21.9 | NR | **30.6** |
| Potassium | NS | NS | 863 | NR | 1,110 | NR | 934 |
| Selenium | **4** | 110 | 1.1 J | NR | 2.2 | NR | 0.2 J |
| Silver | **2** | 110 | 0.44 J | NR | 0.8 | NR | 0.43 U |
| Sodium | NS | NS | 224 U | NR | 275 U | NR | 154 U |
| Thallium | NS | NS | 0.093 J | NR | 0.14 J | NR | 0.077 J |
| Vanadium | NS | NS | 13.3 | NR | 25.3 | NR | 20.4 |
| Zinc | **109** | 6,600 | **231 J** | NR | **391 J** | NR | 87 U |

**Table 3**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Metals*

| | | AKRF Sample ID | EP-21_20_20231129 | EP-22_17.5_20231129 | EP-23_17.5_20231129 | EP-24_20_20231129 | EP-25_19.5_20231207 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-293467-1 | 460-293467-2 | 460-293467-3 | 460-293467-4 | 460-294189-1 |
| | | Date Sampled | 11/29/2023 | 11/29/2023 | 11/29/2023 | 11/29/2023 | 12/07/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Aluminum | NS | NS | 7,250 | 5,000 | 5,230 | 5,540 | 5,750 |
| Antimony | NS | NS | 1.1 U | 1 U | 1 UJ | 1 U | 0.33 J |
| Arsenic | **13** | 16 | 4 | 3.2 | 3.1 | 2.4 | 3.7 |
| Barium | 410 | 410 | 33.2 | 13.7 | 27 JK | 32.8 | 36.5 |
| Beryllium | 4.4 | 43 | 0.41 J | 0.26 J | 0.33 J | 0.47 | 0.38 |
| Cadmium | 2.5 | 2.5 | 1.1 U | 1 U | 1 U | 1 U | 0.82 U |
| Calcium | NS | NS | 932 | 350 | 2,270 | 2,180 | 2,230 |
| Chromium, Hexavalent | 1 | 1 | 2.4 U | 2.2 U | 2.1 U | 2.2 U | 2.1 U |
| Chromium, Total | NS | NS | 13.2 | 7.6 | 8.7 | 11.8 | 13.3 |
| Cobalt | NS | NS | 6 | 4.9 | 4.1 | 5.8 | 5.7 |
| Copper | **50** | 280 | 14.5 | 7 | 14.6 JK | 14.8 | 17 |
| Cyanide | **2.3** | 13 | 0.3 U | 0.27 U | 0.23 U | 0.22 U | 0.24 U |
| Iron | NS | NS | 13,200 | 11,200 | 12,400 | 10,400 | 14,500 |
| Lead | **63** | 400 | 16.9 | 7.2 | 41.8 | 11.1 | **155** |
| Magnesium | NS | NS | 2,830 | 1,640 | 1,840 | 2,610 | 2,230 |
| Manganese | 1,600 | 2,000 | 221 | 170 | 173 JL | 440 | 181 |
| Mercury | **0.18** | 0.26 | 0.0087 J | 0.13 | **0.47** | 0.019 U | **0.36** |
| Nickel | **30** | 210 | 13.6 | 9.5 | 10.9 | 22.8 | 15.5 |
| Potassium | NS | NS | 1,180 | 648 | 700 | 1,200 | 1,030 |
| Selenium | **4** | 110 | 1.4 U | 1.3 U | 0.13 J | 1.3 U | 0.17 J |
| Silver | **2** | 110 | 0.44 U | 0.4 U | 0.42 U | 0.41 U | 0.33 U |
| Sodium | NS | NS | 146 | 78.2 J | 110 | 120 | 122 |
| Thallium | NS | NS | 0.081 J | 0.4 U | 0.062 J | 0.088 J | 0.069 J |
| Vanadium | NS | NS | 18.3 | 11.4 | 13.9 | 19.1 | 22.1 |
| Zinc | **109** | 6,600 | 38 | 25.1 | 38.7 JK | 33.8 | 41.6 |

**Table 3**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Metals*

| | | AKRF Sample ID | EP-26_17.5_20231207 | EP-27_22.5_20231207 | EP-28_22.5_20231207 | EP-28_22.5_20231207 | EP-29_22.5_20231207 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-294189-2 | 460-294189-3 | 460-294189-4 | 460-294189-4 | 460-294189-5 |
| | | Date Sampled | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 1 | 1 | 10 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Aluminum | NS | NS | 7,460 | 7,320 | 6,220 | NR | 4,870 |
| Antimony | NS | NS | 0.3 J | 0.66 J | 0.51 J | NR | 2.1 |
| Arsenic | **13** | 16 | 3.7 | 8.8 | 3.8 | NR | 5.2 |
| Barium | 410 | 410 | 42 | 74.5 | 40.1 | NR | 58.8 |
| Beryllium | 4.4 | 43 | 0.42 | 0.54 | 0.4 | NR | 0.3 J |
| Cadmium | 2.5 | 2.5 | 0.86 U | 0.12 J | 0.11 J | NR | 0.17 J |
| Calcium | NS | NS | 2,990 J | 18,600 | 4,020 | NR | 9,150 |
| Chromium, Hexavalent | 1 | 1 | 2.2 U | 2.2 U | 2.2 U | NR | 2.5 U |
| Chromium, Total | NS | NS | 25.1 JL | 25 | 14.5 | NR | 12.8 |
| Cobalt | NS | NS | 5.8 | 5.9 | 5.9 | NR | 4.4 |
| Copper | **50** | 280 | 18.8 | 31.4 | 19.4 | NR | **56.8** |
| Cyanide | **2.3** | 13 | 0.23 U | 0.26 | 0.27 U | NR | 0.27 U |
| Iron | NS | NS | 14,500 | 26,900 | 14,200 | NR | 13,000 |
| Lead | **63** | 400 | **72.4** | **63.5** | **69.4** | NR | **317** |
| Magnesium | NS | NS | 3,160 | 2,890 | 2,590 | NR | 5,490 |
| Manganese | 1,600 | 2,000 | 226 | 285 | 270 | NR | 183 |
| Mercury | **0.18** | 0.26 | **0.26** | **0.38** | NR | **4** | NR |
| Nickel | **30** | 210 | 26.5 JL | 21 | 16.2 | NR | 14.8 |
| Potassium | NS | NS | 1,160 | 1,320 | 1,200 | NR | 1,040 |
| Selenium | **4** | 110 | 0.26 J | 0.38 J | 0.33 J | NR | 0.57 J |
| Silver | **2** | 110 | 0.34 U | 0.34 U | 0.35 U | NR | 0.19 J |
| Sodium | NS | NS | 203 | 273 | 120 | NR | 206 |
| Thallium | NS | NS | 0.082 J | 0.18 J | 0.083 J | NR | 0.086 J |
| Vanadium | NS | NS | 22.6 | 24.8 | 19.8 | NR | 17.1 |
| Zinc | **109** | 6,600 | 44.4 | 47.9 | 55.4 | NR | 93.7 |

**Table 3**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Metals*

| | | AKRF Sample ID | EP-29_22.5_20231207 | EP-30_22.5_20231207 | EP-31_22.5_20231207 | EP-31_22.5_20231207 | EP-32_22.5_20231207 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-294189-5 | 460-294189-6 | 460-294189-7 | 460-294189-7 | 460-294189-8 |
| | | Date Sampled | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 3 | 1 | 1 | 3 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Aluminum | NS | NS | NR | 2,140 | 3,710 | NR | 3,380 |
| Antimony | NS | NS | NR | 0.3 J | 3.5 | NR | 4.9 |
| Arsenic | **13** | 16 | NR | 1.9 | 5.8 | NR | **37** |
| Barium | 410 | 410 | NR | 27.9 | 175 | NR | 84.6 |
| Beryllium | 4.4 | 43 | NR | 0.12 J | 0.24 J | NR | 0.2 J |
| Cadmium | 2.5 | 2.5 | NR | 0.95 U | 0.34 J | NR | 0.51 J |
| Calcium | NS | NS | NR | 1,860 | 4,680 | NR | 5,420 |
| Chromium, Hexavalent | 1 | 1 | NR | 2.4 U | 2.4 U | NR | 2.8 U |
| Chromium, Total | NS | NS | NR | 7.1 | 13 | NR | 12.8 |
| Cobalt | NS | NS | NR | 2.2 | 4.9 | NR | 3.7 |
| Copper | **50** | 280 | NR | 19.9 | **73.8** | NR | **56.9** |
| Cyanide | **2.3** | 13 | NR | 0.24 U | 0.31 | NR | 0.34 U |
| Iron | NS | NS | NR | 7,580 | 14,400 | NR | 14,500 |
| Lead | **63** | 400 | NR | **90.7** | **356** | NR | **453** |
| Magnesium | NS | NS | NR | 1,160 | 1,740 | NR | 2,080 |
| Manganese | 1,600 | 2,000 | NR | 115 | 174 | NR | 170 |
| Mercury | **0.18** | 0.26 | **2.1** | **0.54** | NR | **1.2** | NR |
| Nickel | **30** | 210 | NR | 7.5 | 14.7 | NR | 11.7 |
| Potassium | NS | NS | NR | 856 | 1,010 | NR | 957 |
| Selenium | **4** | 110 | NR | 0.21 J | 0.55 J | NR | 0.64 J |
| Silver | **2** | 110 | NR | 0.38 U | 0.14 J | NR | 0.29 J |
| Sodium | NS | NS | NR | 163 | 253 | NR | 286 |
| Thallium | NS | NS | NR | 0.042 J | 0.073 J | NR | 0.053 J |
| Vanadium | NS | NS | NR | 7.2 | 15.9 | NR | 12.9 |
| Zinc | **109** | 6,600 | NR | 35.8 | **174** | NR | **153** |

**Table 3**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Metals*

| | | AKRF Sample ID | EP-32_22.5_20231207 | EP-33_22.5_20231207 | EP-33_22.5_20231207 | EP-34_22.5_20231207 | EP-34_22.5_20231207 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-294189-8 | 460-294189-9 | 460-294189-9 | 460-294189-10 | 460-294189-10 |
| | | Date Sampled | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 20 | 1 | 20 | 1 | 60 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Aluminum | NS | NS | NR | 5,130 | NR | 5,860 | NR |
| Antimony | NS | NS | NR | 1.4 | NR | 1.2 | NR |
| Arsenic | **13** | 16 | NR | 7.5 | NR | 7.3 | NR |
| Barium | 410 | 410 | NR | 145 | NR | 130 | NR |
| Beryllium | 4.4 | 43 | NR | 0.34 J | NR | 0.4 | NR |
| Cadmium | 2.5 | 2.5 | NR | 0.26 J | NR | 0.23 J | NR |
| Calcium | NS | NS | NR | 6,270 | NR | 28,600 | NR |
| Chromium, Hexavalent | 1 | 1 | NR | 2.5 U | NR | 2.5 U | NR |
| Chromium, Total | NS | NS | NR | 14.8 | NR | 16.3 | NR |
| Cobalt | NS | NS | NR | 5.2 | NR | 5.5 | NR |
| Copper | **50** | 280 | NR | **69.1** | NR | **65.7** | NR |
| Cyanide | **2.3** | 13 | NR | 0.29 J | NR | 0.9 | NR |
| Iron | NS | NS | NR | 14,000 | NR | 14,900 | NR |
| Lead | **63** | 400 | NR | **524** | NR | **375** | NR |
| Magnesium | NS | NS | NR | 2,130 | NR | 2,740 | NR |
| Manganese | 1,600 | 2,000 | NR | 183 | NR | 212 | NR |
| Mercury | **0.18** | 0.26 | **8.4** | NR | **5.6** | NR | **63.3** |
| Nickel | **30** | 210 | NR | 16 | NR | 16.5 | NR |
| Potassium | NS | NS | NR | 1,110 | NR | 1,310 | NR |
| Selenium | **4** | 110 | NR | 0.71 J | NR | 0.7 J | NR |
| Silver | **2** | 110 | NR | 0.21 J | NR | 0.18 J | NR |
| Sodium | NS | NS | NR | 273 | NR | 351 | NR |
| Thallium | NS | NS | NR | 0.092 J | NR | 0.1 J | NR |
| Vanadium | NS | NS | NR | 19.1 | NR | 20.3 | NR |
| Zinc | **109** | 6,600 | NR | **154** | NR | **149** | NR |

**Table 3**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Metals*

| | | AKRF Sample ID | EP-35_25_20231207 | EP-35_25_20231207 | EP-36_25_20231207 | EP-36_25_20231207 | EP-37_17.5_20231215 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-294189-11 | 460-294189-11 | 460-294189-12 | 460-294189-12 | 460-294775-1 |
| | | Date Sampled | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/15/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 5 | 1 | 5 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Aluminum | NS | NS | 5,840 | NR | 6,510 | NR | 6,560 |
| Antimony | NS | NS | 2.1 | NR | 2 | NR | 2.6 J |
| Arsenic | **13** | 16 | 8 | NR | 9.3 | NR | 11 |
| Barium | 410 | 410 | 194 | NR | 104 | NR | 140 |
| Beryllium | 4.4 | 43 | 0.4 J | NR | 0.47 | NR | 0.41 |
| Cadmium | 2.5 | 2.5 | 0.23 J | NR | 0.43 J | NR | 0.34 J |
| Calcium | NS | NS | 8,260 | NR | 4,900 | NR | 13,800 |
| Chromium, Hexavalent | 1 | 1 | 2.6 U | NR | 2.5 U | NR | 2.5 UJ |
| Chromium, Total | NS | NS | 16.4 | NR | 36.1 | NR | 20.5 JK |
| Cobalt | NS | NS | 6.6 | NR | 4.6 | NR | 6.6 |
| Copper | **50** | 280 | **55.4** | NR | **63.7** | NR | **168 J** |
| Cyanide | **2.3** | 13 | 0.27 J | NR | 0.28 U | NR | **5.2 JL** |
| Iron | NS | NS | 16,300 | NR | 17,600 | NR | 16,900 |
| Lead | **63** | 400 | **364** | NR | **430** | NR | **1,020 J** |
| Magnesium | NS | NS | 2,180 | NR | 4,070 | NR | 2,440 |
| Manganese | 1,600 | 2,000 | 219 | NR | 334 | NR | 212 |
| Mercury | **0.18** | 0.26 | NR | **2** | NR | **3.2** | NR |
| Nickel | **30** | 210 | 19.5 | NR | 17.2 | NR | 19.9 |
| Potassium | NS | NS | 1,170 | NR | 2,420 | NR | 1,070 JK |
| Selenium | **4** | 110 | 0.95 J | NR | 0.43 J | NR | 1.8 |
| Silver | **2** | 110 | 0.21 J | NR | 0.72 | NR | 0.33 J |
| Sodium | NS | NS | 355 | NR | 288 | NR | 359 J |
| Thallium | NS | NS | 0.11 J | NR | 0.14 J | NR | 0.17 J |
| Vanadium | NS | NS | 21.9 | NR | 49.2 | NR | 23.8 |
| Zinc | **109** | 6,600 | **121** | NR | **212** | NR | **241 JK** |

**Table 3**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Metals*

| | | AKRF Sample ID | EP-37_17.5_20231215 | EP-37_17.5_20231215 | EP-X3_20231215 | EP-X3_20231215 | EP-38_17.5_20231215 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-294775-1 | 460-294775-1 | 460-294775-9 | 460-294775-9 | 460-294775-2 |
| | | Date Sampled | 12/15/2023 | 12/15/2023 | 12/15/2023 | 12/15/2023 | 12/15/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 5 | 10 | 1 | 5 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Aluminum | NS | NS | NR | NR | 6,270 | NR | 3,980 |
| Antimony | NS | NS | NR | NR | 1.2 J | NR | 1.5 |
| Arsenic | **13** | 16 | NR | NR | 8.2 | NR | 7.4 |
| Barium | 410 | 410 | NR | NR | 94.7 | NR | 113 |
| Beryllium | 4.4 | 43 | NR | NR | 0.36 J | NR | 0.26 J |
| Cadmium | 2.5 | 2.5 | NR | NR | 0.26 J | NR | 0.21 J |
| Calcium | NS | NS | NR | NR | 8,380 | NR | 5,380 |
| Chromium, Hexavalent | 1 | 1 | NR | NR | 2.5 UJ | NR | 2.1 U |
| Chromium, Total | NS | NS | NR | NR | 18 JK | NR | 13.1 |
| Cobalt | NS | NS | NR | NR | 6 | NR | 4.4 |
| Copper | **50** | 280 | NR | NR | **64.6 J** | NR | **57.3** |
| Cyanide | **2.3** | 13 | NR | NR | 0.18 JL | NR | 0.17 J |
| Iron | NS | NS | NR | NR | 14,800 | NR | 11,700 |
| Lead | **63** | 400 | NR | **1,310** | **521 J** | NR | **463** |
| Magnesium | NS | NS | NR | NR | 2,500 | NR | 1,590 |
| Manganese | 1,600 | 2,000 | NR | NR | 214 | NR | 173 |
| Mercury | **0.18** | 0.26 | **3.9** | NR | NR | **5.1** | NR |
| Nickel | **30** | 210 | NR | NR | 20 | NR | 13.6 |
| Potassium | NS | NS | NR | NR | 1,010 JK | NR | 757 |
| Selenium | **4** | 110 | NR | NR | 1.1 J | NR | 1.2 |
| Silver | **2** | 110 | NR | NR | 0.17 J | NR | 0.31 J |
| Sodium | NS | NS | NR | NR | 267 J | NR | 285 |
| Thallium | NS | NS | NR | NR | 0.11 J | NR | 0.092 J |
| Vanadium | NS | NS | NR | NR | 23.3 JK | NR | 15.4 |
| Zinc | **109** | 6,600 | NR | NR | **129** | NR | **179** |

**Table 3**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Metals*

| | | AKRF Sample ID | EP-38_17.5_20231215 | EP-39_20_20231215 | EP-39_20_20231215 | EP-40_17.5_20231215 | EP-41_15_20231215 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-294775-2 | 460-294775-3 | 460-294775-3 | 460-294775-4 | 460-294775-5 |
| | | Date Sampled | 12/15/2023 | 12/15/2023 | 12/15/2023 | 12/15/2023 | 12/15/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 5 | 1 | 5 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Aluminum | NS | NS | NR | 6,510 | NR | 5,510 | 8,850 |
| Antimony | NS | NS | NR | 2.1 | NR | 0.13 J | 0.87 J |
| Arsenic | **13** | 16 | NR | 7.1 | NR | 3.1 | 6.2 |
| Barium | 410 | 410 | NR | 91.8 | NR | 29.8 | 80.5 |
| Beryllium | 4.4 | 43 | NR | 0.43 | NR | 0.36 | 0.45 |
| Cadmium | 2.5 | 2.5 | NR | 0.19 J | NR | 0.83 U | 0.24 J |
| Calcium | NS | NS | NR | 14,400 | NR | 1,490 | 14,100 |
| Chromium, Hexavalent | 1 | 1 | NR | 2.4 U | NR | 2.1 U | 2.2 U |
| Chromium, Total | NS | NS | NR | 24.5 | NR | 13.4 | 22.4 |
| Cobalt | NS | NS | NR | 5.5 | NR | 4.7 | 6.7 |
| Copper | **50** | 280 | NR | 42.5 | NR | 13.3 | **50.7** |
| Cyanide | **2.3** | 13 | NR | 0.37 | NR | 0.23 U | 0.36 |
| Iron | NS | NS | NR | 15,800 | NR | 12,300 | 15,800 |
| Lead | **63** | 400 | NR | **264** | NR | 14 | **196** |
| Magnesium | NS | NS | NR | 3,050 | NR | 2,030 | 4,110 |
| Manganese | 1,600 | 2,000 | NR | 206 | NR | 278 | 272 |
| Mercury | **0.18** | 0.26 | **3.2** | NR | **2.9** | **0.43** | NR |
| Nickel | **30** | 210 | NR | 19.4 | NR | 12.5 | 24.4 |
| Potassium | NS | NS | NR | 1,270 | NR | 1,110 | 1,480 |
| Selenium | **4** | 110 | NR | 0.42 J | NR | 1 U | 0.41 J |
| Silver | **2** | 110 | NR | 0.12 J | NR | 0.33 U | 0.1 J |
| Sodium | NS | NS | NR | 298 | NR | 141 | 260 |
| Thallium | NS | NS | NR | 0.14 J | NR | 0.083 J | 0.13 J |
| Vanadium | NS | NS | NR | 24.2 | NR | 22.5 | 28.1 |
| Zinc | **109** | 6,600 | NR | 103 | NR | 25.2 | 104 |

**Table 3**
**380 4th Avenue**
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Post-Remedial Soil Endpoint Analytical Results
*Metals*

| | | AKRF Sample ID | EP-41_15_20231215 | EP-42_17.5_20231215 | EP-43_17.5_20231215 | EP-43_17.5_20231215 | EP-44_20_20231215 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-294775-5 | 460-294775-6 | 460-294775-7 | 460-294775-7 | 460-294775-8 |
| | | Date Sampled | 12/15/2023 | 12/15/2023 | 12/15/2023 | 12/15/2023 | 12/15/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 5 | 1 | 1 | 5 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Aluminum | NS | NS | NR | 6,920 | 6,540 | NR | 3,980 |
| Antimony | NS | NS | NR | 0.32 J | 1.1 | NR | 1.3 |
| Arsenic | **13** | 16 | NR | 3.9 | 6.6 | NR | 7.1 |
| Barium | 410 | 410 | NR | 43.4 | 72.2 | NR | 96.6 |
| Beryllium | 4.4 | 43 | NR | 0.38 | 0.46 | NR | 0.3 J |
| Cadmium | 2.5 | 2.5 | NR | 0.12 J | 0.23 J | NR | 0.35 J |
| Calcium | NS | NS | NR | 3,500 | 6,680 | NR | 22,900 |
| Chromium, Hexavalent | 1 | 1 | NR | 2.2 U | 2.3 U | NR | 2.5 U |
| Chromium, Total | NS | NS | NR | 14.7 | 15.6 | NR | 11.5 |
| Cobalt | NS | NS | NR | 6 | 6 | NR | 6.8 |
| Copper | **50** | 280 | NR | 19.4 | **80.5** | NR | **195** |
| Cyanide | **2.3** | 13 | NR | 0.13 J | 0.27 | NR | 0.23 J |
| Iron | NS | NS | NR | 14,400 | 15,200 | NR | 10,600 |
| Lead | **63** | 400 | NR | 52.3 | **508** | NR | **397** |
| Magnesium | NS | NS | NR | 2,770 | 2,350 | NR | 2,310 |
| Manganese | 1,600 | 2,000 | NR | 275 | 264 | NR | 240 |
| Mercury | **0.18** | 0.26 | **1.2** | **0.39** | NR | **1.4** | NR |
| Nickel | **30** | 210 | NR | 20.2 | 17.2 | NR | 17.6 |
| Potassium | NS | NS | NR | 1,230 | 994 | NR | 673 |
| Selenium | **4** | 110 | NR | 0.24 J | 0.65 J | NR | 1.4 |
| Silver | **2** | 110 | NR | 0.35 U | 0.15 J | NR | 0.19 J |
| Sodium | NS | NS | NR | 147 | 197 | NR | 482 |
| Thallium | NS | NS | NR | 0.092 J | 0.098 J | NR | 0.11 J |
| Vanadium | NS | NS | NR | 21.3 | 20.9 | NR | 17.5 |
| Zinc | **109** | 6,600 | NR | 51.6 | **129** | NR | **169** |

**Table 3**
**380 4th Avenue**
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Post-Remedial Soil Endpoint Analytical Results
*Metals*

| | | AKRF Sample ID | EP-44_20_20231215 | A4HAZ_B_20_20230928 | A4HAZ_X1_20230928 | A4HAZ_N_15_20230928 | A4HAZ_E_15_20230928 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-294775-8 | 460-289204-1 | 460-289204-2 | 460-289204-5 | 460-289204-6 |
| | | Date Sampled | 12/15/2023 | 9/28/2023 | 9/28/2023 | 9/28/2023 | 9/28/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 5 | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Aluminum | NS | NS | NR | 6,350 | 4,720 | NR | NR |
| Antimony | NS | NS | NR | 0.33 JL | 0.24 JL | NR | NR |
| Arsenic | **13** | 16 | NR | 3.8 | 4.4 | NR | NR |
| Barium | 410 | 410 | NR | 53 | 46.2 | NR | NR |
| Beryllium | 4.4 | 43 | NR | 0.37 J | 0.31 J | NR | NR |
| Cadmium | 2.5 | 2.5 | NR | 1.3 U | 0.12 J | NR | NR |
| Calcium | NS | NS | NR | 3,040 | 2,800 | NR | NR |
| Chromium, Hexavalent | 1 | 1 | NR | 2.6 U | 2.5 U | NR | NR |
| Chromium, Total | NS | NS | NR | 13.4 JK | 12.3 JK | NR | NR |
| Cobalt | NS | NS | NR | 5.6 | 5.4 | NR | NR |
| Copper | **50** | 280 | NR | 28.8 JL | 32.3 JL | NR | NR |
| Cyanide | **2.3** | 13 | NR | 0.31 U | 0.29 U | NR | NR |
| Iron | NS | NS | NR | 13,000 | 12,000 | NR | NR |
| Lead | **63** | 400 | NR | **216 J** | **183 J** | **531** | **336** |
| Magnesium | NS | NS | NR | 2,230 JK | 2,250 JK | NR | NR |
| Manganese | 1,600 | 2,000 | NR | 239 JK | 164 JK | NR | NR |
| Mercury | **0.18** | 0.26 | **2.4** | **0.21 JL** | **0.47 JL** | NR | NR |
| Nickel | **30** | 210 | NR | 19.7 | 17.4 | NR | NR |
| Potassium | NS | NS | NR | 915 JK | 715 JK | NR | NR |
| Selenium | **4** | 110 | NR | 0.41 J | 0.46 J | NR | NR |
| Silver | **2** | 110 | NR | 0.51 U | 0.094 J | NR | NR |
| Sodium | NS | NS | NR | 220 | 157 | NR | NR |
| Thallium | NS | NS | NR | 0.085 J | 0.076 J | NR | NR |
| Vanadium | NS | NS | NR | 19.4 JK | 16.1 JK | NR | NR |
| Zinc | **109** | 6,600 | NR | 66.6 JL | 62.2 JL | NR | NR |

**Table 3**
**380 4th Avenue**
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Post-Remedial Soil Endpoint Analytical Results
*Metals*

| | | AKRF Sample ID | A4HAZ_S_15_20230928 | A4HAZ_W_15_20230928 | B1HAZ_B_20_20230601 | B1HAZ_B_20_20230601 | B1HAZ_X1_20230601 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-289204-7 | 460-289204-8 | 460-281384-5 | 460-281384-5 | 460-281384-8 |
| | | Date Sampled | 9/28/2023 | 9/28/2023 | 6/01/2023 | 6/01/2023 | 6/01/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 1 | 1 | 10 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Aluminum | NS | NS | NR | NR | 5,570 | NR | 4,750 |
| Antimony | NS | NS | NR | NR | 1 J | NR | 0.75 J |
| Arsenic | **13** | 16 | NR | NR | 8.4 | NR | 9.1 |
| Barium | 410 | 410 | NR | NR | 130 | NR | 107 |
| Beryllium | 4.4 | 43 | NR | NR | 0.34 J | NR | 0.3 J |
| Cadmium | 2.5 | 2.5 | NR | NR | 0.22 J | NR | 0.29 J |
| Calcium | NS | NS | NR | NR | 8,470 | NR | 8,370 |
| Chromium, Hexavalent | 1 | 1 | NR | NR | 3.1 UJ | NR | 2.5 UJ |
| Chromium, Total | NS | NS | NR | NR | 16.4 JL | NR | 13.6 JL |
| Cobalt | NS | NS | NR | NR | 5.5 JL | NR | 5.3 JL |
| Copper | **50** | 280 | NR | NR | **109** | NR | **97.7** |
| Cyanide | **2.3** | 13 | NR | NR | 1 | NR | 1 |
| Iron | NS | NS | NR | NR | 18,000 | NR | 15,300 |
| Lead | **63** | 400 | **376** | **438** | **415** | NR | **381** |
| Magnesium | NS | NS | NR | NR | 3,240 J | NR | 3,020 J |
| Manganese | 1,600 | 2,000 | NR | NR | 262 | NR | 236 |
| Mercury | **0.18** | 0.26 | NR | NR | NR | **3.3** | NR |
| Nickel | **30** | 210 | NR | NR | 20.9 JL | NR | 21.1 JL |
| Potassium | NS | NS | NR | NR | 1,260 JL | NR | 1,030 JL |
| Selenium | **4** | 110 | NR | NR | 0.62 J | NR | 0.72 J |
| Silver | **2** | 110 | NR | NR | 0.3 J | NR | 0.21 J |
| Sodium | NS | NS | NR | NR | 414 JL | NR | 259 JL |
| Thallium | NS | NS | NR | NR | 0.1 J | NR | 0.12 J |
| Vanadium | NS | NS | NR | NR | 18.1 JL | NR | 16.4 JL |
| Zinc | **109** | 6,600 | NR | NR | **177 JL** | NR | **150 JL** |

**Table 3**
**380 4th Avenue**
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*Metals*

| | | **AKRF Sample ID** | B1HAZ_X1_20230601 | B1HAZ_N_15_20230601 | B1HAZ_E_15_20230601 | B1HAZ_S_15_20230601 | B1HAZ_W_15_20230601 |
|---|---|---|---|---|---|---|---|
| | | **Laboratory Sample ID** | 460-281384-8 | 460-281384-1 | 460-281384-2 | 460-281384-3 | 460-281384-4 |
| | | **Date Sampled** | 6/01/2023 | 6/01/2023 | 6/01/2023 | 6/01/2023 | 6/01/2023 |
| | | **Unit** | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | **Dilution Factor** | 5 | 10 | 10 | 10 | 10 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Aluminum | NS | NS | NR | NR | NR | NR | NR |
| Antimony | NS | NS | NR | NR | NR | NR | NR |
| Arsenic | **13** | 16 | NR | NR | NR | NR | NR |
| Barium | 410 | 410 | NR | NR | NR | NR | NR |
| Beryllium | 4.4 | 43 | NR | NR | NR | NR | NR |
| Cadmium | 2.5 | 2.5 | NR | NR | NR | NR | NR |
| Calcium | NS | NS | NR | NR | NR | NR | NR |
| Chromium, Hexavalent | 1 | 1 | NR | NR | NR | NR | NR |
| Chromium, Total | NS | NS | NR | NR | NR | NR | NR |
| Cobalt | NS | NS | NR | NR | NR | NR | NR |
| Copper | **50** | 280 | NR | NR | NR | NR | NR |
| Cyanide | **2.3** | 13 | NR | NR | NR | NR | NR |
| Iron | NS | NS | NR | NR | NR | NR | NR |
| Lead | **63** | 400 | NR | **485** | **467** | **378** | **319** |
| Magnesium | NS | NS | NR | NR | NR | NR | NR |
| Manganese | 1,600 | 2,000 | NR | NR | NR | NR | NR |
| Mercury | **0.18** | 0.26 | **2.5** | NR | NR | NR | NR |
| Nickel | **30** | 210 | NR | NR | NR | NR | NR |
| Potassium | NS | NS | NR | NR | NR | NR | NR |
| Selenium | **4** | 110 | NR | NR | NR | NR | NR |
| Silver | **2** | 110 | NR | NR | NR | NR | NR |
| Sodium | NS | NS | NR | NR | NR | NR | NR |
| Thallium | NS | NS | NR | NR | NR | NR | NR |
| Vanadium | NS | NS | NR | NR | NR | NR | NR |
| Zinc | **109** | 6,600 | NR | NR | NR | NR | NR |

**Table 3**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Metals*

| | | AKRF Sample ID | FB_20230928 | FB_20231103 | FB_20231127 | FB_20231127 | FB_20231127 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-289204-3 | 460-291818-9 | 460-293316-6 | 460-293317-18 | 460-293317-18 |
| | | Date Sampled | 9/28/2023 | 11/03/2023 | 11/27/2023 | 11/27/2023 | 11/27/2023 |
| | | Unit | µg/L | µg/L | µg/L | µg/L | µg/L |
| | | Dilution Factor | 1 | 1 | 1 | 1 | 10 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Aluminum | NS | NS | 40 U | 40 U | 40 U | NR | NR |
| Antimony | NS | NS | 2 U | 2 U | 2 U | NR | NR |
| Arsenic | **13** | 16 | 2 U | 2 U | 2 U | NR | NR |
| Barium | 410 | 410 | 4 U | 4 U | 4 U | NR | NR |
| Beryllium | 4.4 | 43 | 0.8 U | 0.8 U | 0.8 U | NR | NR |
| Cadmium | 2.5 | 2.5 | 2 U | 2 U | 2 U | NR | NR |
| Calcium | NS | NS | 500 U | 500 U | 500 U | NR | NR |
| Chromium, Hexavalent | 1 | 1 | 10 U | 10 U | 10 U | NR | NR |
| Chromium, Total | NS | NS | 4 U | 4 U | 4 U | NR | NR |
| Cobalt | NS | NS | 4 U | 4 U | 4 U | NR | NR |
| Copper | **50** | 280 | 4 U | 4 U | 4 U | NR | NR |
| Cyanide | **2.3** | 13 | 10 U | 10 U | 10 U | NR | NR |
| Iron | NS | NS | 23.4 J | 120 U | 120 U | NR | NR |
| Lead | **63** | 400 | 1.2 U | 1.2 U | NR | 1.2 U | 12 U |
| Magnesium | NS | NS | 200 U | 200 U | 200 U | NR | NR |
| Manganese | 1,600 | 2,000 | 8 U | 8 U | 8 U | NR | NR |
| Mercury | **0.18** | 0.26 | 0.2 U | 0.2 U | 0.2 U | NR | NR |
| Nickel | **30** | 210 | 4 U | 4 U | 4 U | NR | NR |
| Potassium | NS | NS | 200 U | 200 U | 200 U | NR | NR |
| Selenium | **4** | 110 | 2.5 U | 2.5 U | 2.5 U | NR | NR |
| Silver | **2** | 110 | 2 U | 2 U | 2 U | NR | NR |
| Sodium | NS | NS | 500 U | 500 U | 26,800 | NR | NR |
| Thallium | NS | NS | 0.8 U | 0.8 U | 0.8 U | NR | NR |
| Vanadium | NS | NS | 4 U | 4 U | 4 U | NR | NR |
| Zinc | **109** | 6,600 | 16 U | 16 U | 189 | NR | NR |

**Table 3**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Metals*

| | | AKRF Sample ID | FB_20231215 | FB-S_20230601 | FB-S_20230601 | FB_20230928 | FB-S_20230601 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-294775-10 | 460-281384-6 | 460-281384-6 | 460-289204-3 | 460-281384-6 |
| | | Date Sampled | 12/15/2023 | 6/01/2023 | 6/01/2023 | 9/28/2023 | 6/01/2023 |
| | | Unit | µg/L | µg/L | µg/L | µg/L | µg/L |
| | | Dilution Factor | 1 | 1 | 10 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Aluminum | NS | NS | 40 U | 40 U | NR | 40 U | 40 U |
| Antimony | NS | NS | 2 U | 2 U | NR | 2 U | 2 U |
| Arsenic | **13** | 16 | 2 U | 2 U | NR | 2 U | 2 U |
| Barium | 410 | 410 | 4 U | 4 U | NR | 4 U | 4 U |
| Beryllium | 4.4 | 43 | 0.8 U | 0.8 U | NR | 0.8 U | 0.8 U |
| Cadmium | 2.5 | 2.5 | 2 U | 2 U | NR | 2 U | 2 U |
| Calcium | NS | NS | 500 U | 49.7 J | NR | 500 U | 49.7 J |
| Chromium, Hexavalent | 1 | 1 | 10 U | 10 U | NR | 10 U | 10 U |
| Chromium, Total | NS | NS | 4 U | 4 U | NR | 4 U | 4 U |
| Cobalt | NS | NS | 4 U | 4 U | NR | 4 U | 4 U |
| Copper | **50** | 280 | 4 U | 4 U | NR | 4 U | 4 U |
| Cyanide | **2.3** | 13 | 10 U | 8.2 J | NR | 10 U | **8.2 J** |
| Iron | NS | NS | 120 U | 120 U | NR | 23.4 J | 120 U |
| Lead | **63** | 400 | 1.2 U | 1.2 U | 12 U | 1.2 U | 1.2 U |
| Magnesium | NS | NS | 200 U | 200 U | NR | 200 U | 200 U |
| Manganese | 1,600 | 2,000 | 8 U | 8 U | NR | 8 U | 8 U |
| Mercury | **0.18** | 0.26 | 0.2 U | 0.2 U | NR | 0.2 U | 0.2 U |
| Nickel | **30** | 210 | 4 U | 4 U | NR | 4 U | 4 U |
| Potassium | NS | NS | 200 U | 200 U | NR | 200 U | 200 U |
| Selenium | **4** | 110 | 2.5 U | 2.5 U | NR | 2.5 U | 2.5 U |
| Silver | **2** | 110 | 2 U | 2 U | NR | 2 U | 2 U |
| Sodium | NS | NS | 500 U | 62 J | NR | 500 U | 62 J |
| Thallium | NS | NS | 0.8 U | 0.8 U | NR | 0.8 U | 0.8 U |
| Vanadium | NS | NS | 4 U | 4 U | NR | 4 U | 4 U |
| Zinc | **109** | 6,600 | 16 U | 16 U | NR | 16 U | 16 U |

**Table 4**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Toxicity Characteristic Leaching Procedure Lead*

| | AKRF Sample ID | A4HAZ_B_20_20230928 | A4HAZ_X1_20230928 | A4HAZ_N_15_20230928 | A4HAZ_E_15_20230928 | A4HAZ_S_15_20230928 |
|---|---|---|---|---|---|---|
| | Laboratory Sample ID | 460-289204-1 | 460-289204-2 | 460-289204-5 | 460-289204-6 | 460-289204-7 |
| | Date Sampled | 9/28/2023 | 9/28/2023 | 9/28/2023 | 9/28/2023 | 9/28/2023 |
| | Unit | mg/l | mg/l | mg/l | mg/l | mg/l |
| | Dilution Factor | 10 | 10 | 10 | 10 | 10 |
| Compound | EPA Hazardous Waste | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Lead | 5 | 0.552 | 0.662 | 0.578 | 0.292 | 0.0168 |

**Table 4**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Toxicity Characteristic Leaching Procedure Lead*

| | AKRF Sample ID | A4HAZ_W_15_20230928 | B1HAZ_B_20_20230601 | B1HAZ_X1_20230601 | B1HAZ_N_15_20230601 | B1HAZ_E_15_20230601 |
|---|---|---|---|---|---|---|
| | Laboratory Sample ID | 460-289204-8 | 460-281384-5 | 460-281384-8 | 460-281384-1 | 460-281384-2 |
| | Date Sampled | 9/28/2023 | 6/01/2023 | 6/01/2023 | 6/01/2023 | 6/01/2023 |
| | Unit | mg/l | mg/l | mg/l | mg/l | mg/l |
| | Dilution Factor | 10 | 10 | 10 | 10 | 10 |
| Compound | EPA Hazardous Waste | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Lead | 5 | 0.277 | 0.578 J | 0.272 J | 0.245 | 0.275 |

**Table 4**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Toxicity Characteristic Leaching Procedure Lead*

| | AKRF Sample ID | B1HAZ_S_15_20230601 | B1HAZ_W_15_20230601 | EP-10_B_16_20231127 | EP-10HAZ_X1_20231127 | EP-10-N5_15_20231127 |
|---|---|---|---|---|---|---|
| | Laboratory Sample ID | 460-281384-3 | 460-281384-4 | 460-293317-19 | 460-293317-17 | 460-293317-1 |
| | Date Sampled | 6/01/2023 | 6/01/2023 | 11/27/2023 | 11/27/2023 | 11/27/2023 |
| | Unit | mg/l | mg/l | mg/l | mg/l | mg/l |
| | Dilution Factor | 10 | 10 | 10 | 10 | 10 |
| Compound | EPA Hazardous Waste | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Lead | 5 | 0.89 | 0.255 | 0.769 | 0.65 | 0.751 |

**Table 4**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Toxicity Characteristic Leaching Procedure Lead*

| | AKRF Sample ID | EP-10-E5_15_20231127 | EP-10-S5_15_20231127 | EP-10-W5_15_20231127 | EP-12_B_16_20231127 | EP-12-N5_15_20231127 |
|---|---|---|---|---|---|---|
| | Laboratory Sample ID | 460-293317-3 | 460-293317-5 | 460-293317-7 | 460-293317-23 | 460-293317-9 |
| | Date Sampled | 11/27/2023 | 11/27/2023 | 11/27/2023 | 11/27/2023 | 11/27/2023 |
| | Unit | mg/l | mg/l | mg/l | mg/l | mg/l |
| | Dilution Factor | 10 | 10 | 10 | 10 | 10 |
| **Compound** | **EPA Hazardous Waste** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Lead | 5 | 0.373 | 0.579 | 0.676 | 1.51 | ***over-excavated*** |

**Table 4**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Toxicity Characteristic Leaching Procedure Lead*

| | AKRF Sample ID | EP-12-N10_15_20231127 | EP-12-E5_15_20231127 | EP-12-S5_15_20231127 | EP-12-S10_15_20231127 | EP-12-S15_15_20231206 |
|---|---|---|---|---|---|---|
| | Laboratory Sample ID | 460-293317-10 | 460-293317-11 | 460-293317-13 | 460-293317-14 | 460-293992-1 |
| | Date Sampled | 11/27/2023 | 11/27/2023 | 11/27/2023 | 11/27/2023 | 12/6/2023 |
| | Unit | mg/l | mg/l | mg/l | mg/l | mg/l |
| | Dilution Factor | 10 | 10 | 10 | 10 | 10 |
| **Compound** | **EPA Hazardous Waste** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| Lead | 5 | 3.29 | 3.85 | ***over-excavated*** | ***over-excavated*** | 2.56 |

**Table 4**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Toxicity Characteristic Leaching Procedure Lead*

| | **AKRF Sample ID** | EP-12-W5_15_20231127 | EP-12-W10_15_20231127 | FB-S_20230601 | FB_20231127 |
|---|---|---|---|---|---|
| | **Laboratory Sample ID** | 460-293317-15 | 460-293317-16 | 460-281384-6 | 460-293317-18 |
| | **Date Sampled** | 11/27/2023 | 11/27/2023 | 06/01/2023 | 11/27/2023 |
| | **Unit** | mg/l | mg/l | mg/l | mg/l |
| | **Dilution Factor** | 10 | 10 | 10 | 10 |
| **Compound** | **EPA Hazardous Waste** | CONC Q | CONC Q | CONC Q | CONC Q |
| Lead | 5 | ***over-excavated*** | 0.963 | 12.0 U | 12.0 U |

**Table 5**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Polychlorinated Biphenyls*

| | | **AKRF Sample ID** | EP-01_15_20231103 | EP-X1_15_20231103 | EP-02_15_20231103 | EP-03_15_20231103 | EP-04_15_20231103 |
|---|---|---|---|---|---|---|---|
| | | **Laboratory Sample ID** | 460-291818-1 | 460-291818-8 | 460-291818-2 | 460-291818-3 | 460-291818-4 |
| | | **Date Sampled** | 11/03/2023 | 11/03/2023 | 11/03/2023 | 11/03/2023 | 11/03/2023 |
| | | **Unit** | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | **Dilution Factor** | 1 | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| PCB-1016 (Aroclor 1016) | NS | NS | 0.088 U | 0.086 U | 0.091 U | 0.085 U | 0.089 U |
| PCB-1221 (Aroclor 1221) | NS | NS | 0.088 U | 0.086 U | 0.091 U | 0.085 U | 0.089 U |
| PCB-1232 (Aroclor 1232) | NS | NS | 0.088 U | 0.086 U | 0.091 U | 0.085 U | 0.089 U |
| PCB-1242 (Aroclor 1242) | NS | NS | 0.088 U | 0.086 U | 0.091 U | 0.085 U | 0.089 U |
| PCB-1248 (Aroclor 1248) | NS | NS | 0.088 U | 0.086 U | 0.091 U | 0.085 U | 0.089 U |
| PCB-1254 (Aroclor 1254) | NS | NS | 0.088 U | 0.086 U | 0.091 U | 0.085 U | 0.089 U |
| PCB-1260 (Aroclor 1260) | NS | NS | 0.088 U | 0.086 U | 0.091 U | 0.085 U | 0.089 U |
| PCB-1262 (Aroclor 1262) | NS | NS | 0.088 U | 0.086 U | 0.091 U | 0.085 U | 0.089 U |
| PCB-1268 (Aroclor 1268) | NS | NS | 0.088 U | 0.086 U | 0.091 U | 0.085 U | 0.089 U |
| Total PCBs | 0.1 | 1 | 0.088 U | 0.086 U | 0.091 U | 0.085 U | 0.089 U |

**Table 5**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Polychlorinated Biphenyls*

| | | AKRF Sample ID | EP-05_15_20231103 | EP-06_15_20231103 | EP-07_15_20231103 | EP-08_15_20231110 | EP-09_15_20231110 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-291818-5 | 460-291818-6 | 460-291818-7 | 460-292402-1 | 460-292402-2 |
| | | Date Sampled | 11/03/2023 | 11/03/2023 | 11/03/2023 | 11/10/2023 | 11/10/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| PCB-1016 (Aroclor 1016) | NS | NS | 0.082 U | 0.094 U | 0.087 U | 0.1 U | 0.095 U |
| PCB-1221 (Aroclor 1221) | NS | NS | 0.082 U | 0.094 U | 0.087 U | 0.1 U | 0.095 U |
| PCB-1232 (Aroclor 1232) | NS | NS | 0.082 U | 0.094 U | 0.087 U | 0.1 U | 0.095 U |
| PCB-1242 (Aroclor 1242) | NS | NS | 0.082 U | 0.094 U | 0.087 U | 0.1 U | 0.095 U |
| PCB-1248 (Aroclor 1248) | NS | NS | 0.082 U | 0.094 U | 0.087 U | 0.1 U | 0.095 U |
| PCB-1254 (Aroclor 1254) | NS | NS | 0.082 U | 0.094 U | 0.087 U | 0.1 U | 0.095 U |
| PCB-1260 (Aroclor 1260) | NS | NS | 0.082 U | 0.094 U | 0.087 U | 0.1 U | 0.095 U |
| PCB-1262 (Aroclor 1262) | NS | NS | 0.082 U | 0.094 U | 0.087 U | 0.1 U | 0.095 U |
| PCB-1268 (Aroclor 1268) | NS | NS | 0.082 U | 0.094 U | 0.087 U | 0.1 U | 0.095 U |
| Total PCBs | 0.1 | 1 | 0.082 U | 0.094 U | 0.087 U | 0.1 U | 0.095 U |

**Table 5**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Polychlorinated Biphenyls*

| | | **AKRF Sample ID** | EP-10_15_20231110 | EP-11_15_20231110 | EP-12_15_20231110 | EP-13_15_20231110 | EP-14_15_20231110 |
|---|---|---|---|---|---|---|---|
| | | **Laboratory Sample ID** | 460-292402-3 | 460-292402-4 | 460-292402-5 | 460-292402-6 | 460-292402-7 |
| | | **Date Sampled** | 11/10/2023 | 11/10/2023 | 11/10/2023 | 11/10/2023 | 11/10/2023 |
| | | **Unit** | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | **Dilution Factor** | 1 | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| PCB-1016 (Aroclor 1016) | NS | NS | 0.081 U | 0.077 U | 0.094 U | 0.1 U | 0.083 U |
| PCB-1221 (Aroclor 1221) | NS | NS | 0.081 U | 0.077 U | 0.094 U | 0.1 U | 0.083 U |
| PCB-1232 (Aroclor 1232) | NS | NS | 0.081 U | 0.077 U | 0.094 U | 0.1 U | 0.083 U |
| PCB-1242 (Aroclor 1242) | NS | NS | 0.081 U | 0.077 U | 0.094 U | 0.1 U | 0.083 U |
| PCB-1248 (Aroclor 1248) | NS | NS | 0.081 U | 0.077 U | 0.094 U | 0.1 U | 0.083 U |
| PCB-1254 (Aroclor 1254) | NS | NS | 0.081 U | 0.077 U | 0.094 U | 0.1 U | 0.083 U |
| PCB-1260 (Aroclor 1260) | NS | NS | 0.081 U | 0.077 U | 0.094 U | 0.1 U | 0.083 U |
| PCB-1262 (Aroclor 1262) | NS | NS | 0.081 U | 0.077 U | 0.094 U | 0.1 U | 0.083 U |
| PCB-1268 (Aroclor 1268) | NS | NS | 0.081 U | 0.077 U | 0.094 U | 0.1 U | 0.083 U |
| Total PCBs | 0.1 | 1 | 0.081 U | 0.077 U | 0.094 U | 0.1 U | 0.083 U |

**Table 5**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Polychlorinated Biphenyls*

| | | AKRF Sample ID | EP-15_15_20231110 | EP-16_20_20231127 | EP-X2_20_20231127 | EP-17_15_20231127 | EP-18_17.5_20231127 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-292402-8 | 460-293316-1 | 460-293316-8 | 460-293316-2 | 460-293316-3 |
| | | Date Sampled | 11/10/2023 | 11/27/2023 | 11/27/2023 | 11/27/2023 | 11/27/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| PCB-1016 (Aroclor 1016) | NS | NS | ***over-excavated*** | 0.082 U | 0.08 U | 0.093 U | 0.093 U |
| PCB-1221 (Aroclor 1221) | NS | NS | *(sample was over-excavated* | 0.082 U | 0.08 U | 0.093 U | 0.093 U |
| PCB-1232 (Aroclor 1232) | NS | NS | *when petroleum hotspot was* | 0.082 U | 0.08 U | 0.093 U | 0.093 U |
| PCB-1242 (Aroclor 1242) | NS | NS | *expanded, beyond its* | 0.082 U | 0.08 U | 0.093 U | 0.093 U |
| PCB-1248 (Aroclor 1248) | NS | NS | *proposed extents in the* | 0.082 U | 0.08 U | 0.093 U | 0.093 U |
| PCB-1254 (Aroclor 1254) | NS | NS | *RAWP, based on olfacotry* | 0.082 U | 0.08 U | 0.093 U | 0.093 U |
| PCB-1260 (Aroclor 1260) | NS | NS | *observations and elevated* | 0.082 U | 0.08 U | 0.093 U | 0.093 U |
| PCB-1262 (Aroclor 1262) | NS | NS | *PID readings; and not due to* | 0.082 U | 0.08 U | 0.093 U | 0.093 U |
| PCB-1268 (Aroclor 1268) | NS | NS | *exceedances of applicable* | 0.082 U | 0.08 U | 0.093 U | 0.093 U |
| Total PCBs | 0.1 | 1 | *SCOs)* | 0.082 U | 0.08 U | 0.093 U | 0.093 U |

**Table 5**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Polychlorinated Biphenyls*

| | | AKRF Sample ID | EP-19_17.5_20231127 | EP-20_17.5_20231127 | EP-21_20_20231129 | EP-22_17.5_20231129 | EP-23_17.5_20231129 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-293316-4 | 460-293316-5 | 460-293467-1 | 460-293467-2 | 460-293467-3 |
| | | Date Sampled | 11/27/2023 | 11/27/2023 | 11/29/2023 | 11/29/2023 | 11/29/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| PCB-1016 (Aroclor 1016) | NS | NS | 0.098 U | 0.076 U | 0.083 U | 0.077 U | 0.07 U |
| PCB-1221 (Aroclor 1221) | NS | NS | 0.098 U | 0.076 U | 0.083 U | 0.077 U | 0.07 U |
| PCB-1232 (Aroclor 1232) | NS | NS | 0.098 U | 0.076 U | 0.083 U | 0.077 U | 0.07 U |
| PCB-1242 (Aroclor 1242) | NS | NS | 0.098 U | 0.076 U | 0.083 U | 0.077 U | 0.07 U |
| PCB-1248 (Aroclor 1248) | NS | NS | 0.098 U | 0.076 U | 0.083 U | 0.077 U | 0.07 U |
| PCB-1254 (Aroclor 1254) | NS | NS | 0.098 U | 0.076 U | 0.083 U | 0.077 U | 0.07 U |
| PCB-1260 (Aroclor 1260) | NS | NS | 0.098 U | 0.076 U | 0.083 U | 0.077 U | 0.07 U |
| PCB-1262 (Aroclor 1262) | NS | NS | 0.098 U | 0.076 U | 0.083 U | 0.077 U | 0.07 U |
| PCB-1268 (Aroclor 1268) | NS | NS | 0.098 U | 0.076 U | 0.083 U | 0.077 U | 0.07 U |
| Total PCBs | 0.1 | 1 | 0.098 U | 0.076 U | 0.083 U | 0.077 U | 0.07 U |

**Table 5**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Polychlorinated Biphenyls*

| | | **AKRF Sample ID** | EP-24_20_20231129 | EP-25_19.5_20231207 | EP-26_17.5_20231207 | EP-27_22.5_20231207 | EP-28_22.5_20231207 |
|---|---|---|---|---|---|---|---|
| | | **Laboratory Sample ID** | 460-293467-4 | 460-294189-1 | 460-294189-2 | 460-294189-3 | 460-294189-4 |
| | | **Date Sampled** | 11/29/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 |
| | | **Unit** | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | **Dilution Factor** | 1 | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| PCB-1016 (Aroclor 1016) | NS | NS | 0.074 U | 0.072 U | 0.075 U | 0.074 U | 0.075 U |
| PCB-1221 (Aroclor 1221) | NS | NS | 0.074 U | 0.072 U | 0.075 U | 0.074 U | 0.075 U |
| PCB-1232 (Aroclor 1232) | NS | NS | 0.074 U | 0.072 U | 0.075 U | 0.074 U | 0.075 U |
| PCB-1242 (Aroclor 1242) | NS | NS | 0.074 U | 0.072 U | 0.075 U | 0.074 U | 0.075 U |
| PCB-1248 (Aroclor 1248) | NS | NS | 0.074 U | 0.072 U | 0.075 U | 0.074 U | 0.075 U |
| PCB-1254 (Aroclor 1254) | NS | NS | 0.074 U | 0.072 U | 0.075 U | 0.074 U | 0.075 U |
| PCB-1260 (Aroclor 1260) | NS | NS | 0.074 U | 0.072 U | 0.075 U | 0.074 U | 0.075 U |
| PCB-1262 (Aroclor 1262) | NS | NS | 0.074 U | 0.072 U | 0.075 U | 0.074 U | 0.075 U |
| PCB-1268 (Aroclor 1268) | NS | NS | 0.074 U | 0.072 U | 0.075 U | 0.074 U | 0.075 U |
| Total PCBs | 0.1 | 1 | 0.074 U | 0.072 U | 0.075 U | 0.074 U | 0.075 U |

**Table 5**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Polychlorinated Biphenyls*

| | | AKRF Sample ID | EP-29_22.5_20231207 | EP-30_22.5_20231207 | EP-31_22.5_20231207 | EP-32_22.5_20231207 | EP-33_22.5_20231207 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-294189-5 | 460-294189-6 | 460-294189-7 | 460-294189-8 | 460-294189-9 |
| | | Date Sampled | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| PCB-1016 (Aroclor 1016) | NS | NS | 0.085 U | 0.084 U | 0.082 U | 0.094 U | 0.086 U |
| PCB-1221 (Aroclor 1221) | NS | NS | 0.085 U | 0.084 U | 0.082 U | 0.094 U | 0.086 U |
| PCB-1232 (Aroclor 1232) | NS | NS | 0.085 U | 0.084 U | 0.082 U | 0.094 U | 0.086 U |
| PCB-1242 (Aroclor 1242) | NS | NS | 0.085 U | 0.084 U | 0.082 U | 0.094 U | 0.086 U |
| PCB-1248 (Aroclor 1248) | NS | NS | 0.085 U | 0.084 U | 0.082 U | 0.094 U | 0.086 U |
| PCB-1254 (Aroclor 1254) | NS | NS | 0.085 U | 0.084 U | 0.082 U | 0.094 U | 0.086 U |
| PCB-1260 (Aroclor 1260) | NS | NS | 0.085 U | 0.084 U | 0.082 U | 0.094 U | 0.086 U |
| PCB-1262 (Aroclor 1262) | NS | NS | 0.085 U | 0.084 U | 0.082 U | 0.094 U | 0.086 U |
| PCB-1268 (Aroclor 1268) | NS | NS | 0.085 U | 0.084 U | 0.082 U | 0.094 U | 0.086 U |
| Total PCBs | 0.1 | 1 | 0.085 U | 0.084 U | 0.082 U | 0.094 U | 0.086 U |

**Table 5**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Polychlorinated Biphenyls*

| | | AKRF Sample ID | EP-34_22.5_20231207 | EP-35_25_20231207 | EP-36_25_20231207 | EP-37_17.5_20231215 | EP-X3_20231215 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-294189-10 | 460-294189-11 | 460-294189-12 | 460-294775-1 | 460-294775-9 |
| | | Date Sampled | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/15/2023 | 12/15/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| PCB-1016 (Aroclor 1016) | NS | NS | 0.086 U | 0.088 U | 0.085 U | 0.084 U | 0.085 U |
| PCB-1221 (Aroclor 1221) | NS | NS | 0.086 U | 0.088 U | 0.085 U | 0.084 U | 0.085 U |
| PCB-1232 (Aroclor 1232) | NS | NS | 0.086 U | 0.088 U | 0.085 U | 0.084 U | 0.085 U |
| PCB-1242 (Aroclor 1242) | NS | NS | 0.086 U | 0.088 U | 0.085 U | 0.084 U | 0.085 U |
| PCB-1248 (Aroclor 1248) | NS | NS | 0.086 U | 0.088 U | 0.085 U | 0.084 U | 0.085 U |
| PCB-1254 (Aroclor 1254) | NS | NS | 0.086 U | 0.088 U | 0.085 U | 0.084 U | 0.085 U |
| PCB-1260 (Aroclor 1260) | NS | NS | 0.086 U | 0.088 U | 0.085 U | 0.084 U | 0.085 U |
| PCB-1262 (Aroclor 1262) | NS | NS | 0.086 U | 0.088 U | 0.085 U | 0.084 U | 0.085 U |
| PCB-1268 (Aroclor 1268) | NS | NS | 0.086 U | 0.088 U | 0.085 U | 0.084 U | 0.085 U |
| Total PCBs | 0.1 | 1 | 0.086 U | 0.088 U | 0.085 U | 0.084 U | 0.085 U |

**Table 5**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Polychlorinated Biphenyls*

| | | AKRF Sample ID | EP-38_17.5_20231215 | EP-39_20_20231215 | EP-40_17.5_20231215 | EP-41_15_20231215 | EP-42_17.5_20231215 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-294775-2 | 460-294775-3 | 460-294775-4 | 460-294775-5 | 460-294775-6 |
| | | Date Sampled | 12/15/2023 | 12/15/2023 | 12/15/2023 | 12/15/2023 | 12/15/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| PCB-1016 (Aroclor 1016) | NS | NS | 0.071 U | 0.081 U | 0.073 U | 0.075 U | 0.076 U |
| PCB-1221 (Aroclor 1221) | NS | NS | 0.071 U | 0.081 U | 0.073 U | 0.075 U | 0.076 U |
| PCB-1232 (Aroclor 1232) | NS | NS | 0.071 U | 0.081 U | 0.073 U | 0.075 U | 0.076 U |
| PCB-1242 (Aroclor 1242) | NS | NS | 0.071 U | 0.081 U | 0.073 U | 0.075 U | 0.076 U |
| PCB-1248 (Aroclor 1248) | NS | NS | 0.071 U | 0.081 U | 0.073 U | 0.075 U | 0.076 U |
| PCB-1254 (Aroclor 1254) | NS | NS | 0.071 U | 0.081 U | 0.073 U | 0.075 U | 0.076 U |
| PCB-1260 (Aroclor 1260) | NS | NS | 0.071 U | 0.081 U | 0.073 U | 0.075 U | 0.076 U |
| PCB-1262 (Aroclor 1262) | NS | NS | 0.071 U | 0.081 U | 0.073 U | 0.075 U | 0.076 U |
| PCB-1268 (Aroclor 1268) | NS | NS | 0.071 U | 0.081 U | 0.073 U | 0.075 U | 0.076 U |
| Total PCBs | 0.1 | 1 | 0.071 U | 0.081 U | 0.073 U | 0.075 U | 0.076 U |

**Table 5**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Polychlorinated Biphenyls*

| | | AKRF Sample ID | EP-43_17.5_20231215 | EP-44_20_20231215 | A4HAZ_B_20_20230928 | A4HAZ_X1_20230928 | B1HAZ_B_20_20230601 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-294775-7 | 460-294775-8 | 460-289204-1 | 460-289204-2 | 460-281384-5 |
| | | Date Sampled | 12/15/2023 | 12/15/2023 | 9/28/2023 | 9/28/2023 | 6/01/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| PCB-1016 (Aroclor 1016) | NS | NS | 0.077 U | 0.088 U | 0.085 U | 0.084 U | 0.1 U |
| PCB-1221 (Aroclor 1221) | NS | NS | 0.077 U | 0.088 U | 0.085 U | 0.084 U | 0.1 U |
| PCB-1232 (Aroclor 1232) | NS | NS | 0.077 U | 0.088 U | 0.085 U | 0.084 U | 0.1 U |
| PCB-1242 (Aroclor 1242) | NS | NS | 0.077 U | 0.088 U | 0.085 U | 0.084 U | 0.1 U |
| PCB-1248 (Aroclor 1248) | NS | NS | 0.077 U | 0.088 U | 0.085 U | 0.084 U | 0.1 U |
| PCB-1254 (Aroclor 1254) | NS | NS | 0.077 U | 0.088 U | 0.085 U | 0.084 U | 0.1 U |
| PCB-1260 (Aroclor 1260) | NS | NS | 0.077 U | 0.088 U | 0.085 U | 0.084 U | 0.1 U |
| PCB-1262 (Aroclor 1262) | NS | NS | 0.077 U | 0.088 U | 0.085 U | 0.084 U | 0.1 U |
| PCB-1268 (Aroclor 1268) | NS | NS | 0.077 U | 0.088 U | 0.085 U | 0.084 U | 0.1 U |
| Total PCBs | 0.1 | 1 | 0.077 U | 0.088 U | 0.085 U | 0.084 U | 0.1 U |

**Table 5**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Polychlorinated Biphenyls*

| | | AKRF Sample ID | B1HAZ_X1_20230601 | FB_20230928 | FB_20231103 | FB_20231127 | FB_20231215 |
|---|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-281384-8 | 460-289204-3 | 460-291818-9 | 460-293316-6 | 460-294775-10 |
| | | Date Sampled | 6/01/2023 | 9/28/2023 | 11/03/2023 | 11/27/2023 | 12/15/2023 |
| | | Unit | mg/kg | µg/L | µg/L | µg/L | µg/L |
| | | Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q | CONC Q |
| PCB-1016 (Aroclor 1016) | NS | NS | 0.085 U | 0.4 U | 0.4 U | 0.4 U | 0.4 U |
| PCB-1221 (Aroclor 1221) | NS | NS | 0.085 U | 0.4 U | 0.4 U | 0.4 U | 0.4 U |
| PCB-1232 (Aroclor 1232) | NS | NS | 0.085 U | 0.4 U | 0.4 U | 0.4 U | 0.4 U |
| PCB-1242 (Aroclor 1242) | NS | NS | 0.085 U | 0.4 U | 0.4 U | 0.4 U | 0.4 U |
| PCB-1248 (Aroclor 1248) | NS | NS | 0.085 U | 0.4 U | 0.4 U | 0.4 U | 0.4 U |
| PCB-1254 (Aroclor 1254) | NS | NS | 0.085 U | 0.4 U | 0.4 U | 0.4 U | 0.4 U |
| PCB-1260 (Aroclor 1260) | NS | NS | 0.085 U | 0.4 U | 0.4 U | 0.4 U | 0.4 U |
| PCB-1262 (Aroclor 1262) | NS | NS | 0.085 U | 0.4 U | 0.4 U | 0.4 U | 0.4 U |
| PCB-1268 (Aroclor 1268) | NS | NS | 0.085 U | 0.4 U | 0.4 U | 0.4 U | 0.4 U |
| Total PCBs | 0.1 | 1 | 0.085 U | 0.4 U | 0.4 U | 0.4 U | 0.4 U |

**Table 5**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Polychlorinated Biphenyls*

| | | **AKRF Sample ID** | FB-S_20230601 | FB_20230928 | FB-S_20230601 |
|---|---|---|---|---|---|
| | | **Laboratory Sample ID** | 460-281384-6 | 460-289204-3 | 460-281384-6 |
| | | **Date Sampled** | 6/01/2023 | 9/28/2023 | 6/01/2023 |
| | | **Unit** | µg/L | µg/L | µg/L |
| | | **Dilution Factor** | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q |
| PCB-1016 (Aroclor 1016) | NS | NS | 0.4 U | 0.4 U | 0.4 U |
| PCB-1221 (Aroclor 1221) | NS | NS | 0.4 U | 0.4 U | 0.4 U |
| PCB-1232 (Aroclor 1232) | NS | NS | 0.4 U | 0.4 U | 0.4 U |
| PCB-1242 (Aroclor 1242) | NS | NS | 0.4 U | 0.4 U | 0.4 U |
| PCB-1248 (Aroclor 1248) | NS | NS | 0.4 U | 0.4 U | 0.4 U |
| PCB-1254 (Aroclor 1254) | NS | NS | 0.4 U | 0.4 U | 0.4 U |
| PCB-1260 (Aroclor 1260) | NS | NS | 0.4 U | 0.4 U | 0.4 U |
| PCB-1262 (Aroclor 1262) | NS | NS | 0.4 U | 0.4 U | 0.4 U |
| PCB-1268 (Aroclor 1268) | NS | NS | 0.4 U | 0.4 U | 0.4 U |
| Total PCBs | 0.1 | 1 | 0.4 U | 0.4 U | 0.4 U |

**Table 6**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Pesticides*

| | | AKRF Sample ID | EP-01_15_20231103 | EP-X1_15_20231103 | EP-02_15_20231103 | EP-03_15_20231103 |
|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-291818-1 | 460-291818-8 | 460-291818-2 | 460-291818-3 |
| | | Date Sampled | 11/03/2023 | 11/03/2023 | 11/03/2023 | 11/03/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q |
| Aldrin | 0.0048 | 0.044 | 0.0088 U | 0.0086 U | 0.0091 U | 0.0085 U |
| Alpha Bhc (Alpha Hexachlorocyclohexane) | 0.02 | 0.22 | 0.0026 U | 0.0026 U | 0.0027 U | 0.0025 U |
| Alpha Endosulfan | NS | NS | 0.0088 U | 0.0086 U | 0.0091 U | 0.0085 U |
| Beta Bhc (Beta Hexachlorocyclohexane) | 0.021 | 0.18 | 0.0026 U | 0.0026 U | 0.0027 U | 0.0025 U |
| Beta Endosulfan | NS | NS | 0.0088 U | 0.0086 U | 0.0091 U | 0.0085 U |
| cis-Chlordane | 0.014 | 0.65 | 0.0088 U | 0.0086 U | 0.0091 U | 0.0085 U |
| Delta BHC (Delta Hexachlorocyclohexane) | 0.024 | 100 | 0.0026 U | 0.0026 U | 0.0027 U | 0.0025 U |
| Dieldrin | 0.005 | 0.075 | 0.0026 U | 0.0026 U | 0.0027 U | 0.0025 U |
| Endosulfan Sulfate | NS | NS | 0.0088 U | 0.0086 U | 0.0091 U | 0.0085 U |
| Endosulfans ABS | 4.3 | 35 | 0 U | 0 U | 0 U | 0 U |
| Endrin | 0.014 | 5.3 | 0.0088 U | 0.0086 U | 0.0091 U | 0.0085 U |
| Endrin Aldehyde | NS | NS | 0.0088 U | 0.0086 U | 0.0091 U | 0.0085 U |
| Endrin Ketone | NS | NS | 0.0088 U | 0.0086 U | 0.0091 U | 0.0085 U |
| Gamma Bhc (Lindane) | 0.026 | 0.24 | 0.0026 U | 0.0026 U | 0.0027 U | 0.0025 U |
| Heptachlor | 0.013 | 0.53 | 0.0088 U | 0.0086 U | 0.0091 U | 0.0085 U |
| Heptachlor Epoxide | NS | NS | 0.0088 U | 0.0086 U | 0.0091 U | 0.0085 U |
| Methoxychlor | NS | NS | 0.0088 U | 0.0086 U | 0.0091 U | 0.0085 U |
| P,P'-DDD | 0.0033 | 5 | 0.0088 U | 0.0086 U | 0.0091 U | 0.0085 U |
| P,P'-DDE | 0.0033 | 3.4 | 0.0088 U | 0.0086 U | 0.0091 U | 0.0085 U |
| P,P'-DDT | 0.0033 | 3.8 | 0.0088 U | 0.0086 U | 0.0091 U | 0.0085 U |
| Toxaphene | NS | NS | 0.088 U | 0.086 U | 0.091 U | 0.085 U |

**Table 6**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Pesticides*

| | | AKRF Sample ID | EP-04_15_20231103 | EP-05_15_20231103 | EP-06_15_20231103 | EP-07_15_20231103 |
|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-291818-4 | 460-291818-5 | 460-291818-6 | 460-291818-7 |
| | | Date Sampled | 11/03/2023 | 11/03/2023 | 11/03/2023 | 11/03/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q |
| Aldrin | 0.0048 | 0.044 | 0.0089 U | 0.0082 U | 0.0094 U | 0.0087 U |
| Alpha Bhc (Alpha Hexachlorocyclohexane) | 0.02 | 0.22 | 0.0027 U | 0.0024 U | 0.0028 U | 0.0026 U |
| Alpha Endosulfan | NS | NS | 0.0089 U | 0.0082 U | 0.0094 U | 0.0087 U |
| Beta Bhc (Beta Hexachlorocyclohexane) | 0.021 | 0.18 | 0.0027 U | 0.0024 U | 0.0028 U | 0.0026 U |
| Beta Endosulfan | NS | NS | 0.0089 U | 0.0082 U | 0.0094 U | 0.0087 U |
| cis-Chlordane | 0.014 | 0.65 | 0.0089 U | 0.0082 U | 0.0094 U | 0.0087 U |
| Delta BHC (Delta Hexachlorocyclohexane) | 0.024 | 100 | 0.0027 U | 0.0024 U | 0.0028 U | 0.0026 U |
| Dieldrin | 0.005 | 0.075 | 0.0027 U | 0.0024 U | 0.0028 U | 0.0026 U |
| Endosulfan Sulfate | NS | NS | 0.0089 U | 0.0082 U | 0.0094 U | 0.0087 U |
| Endosulfans ABS | 4.3 | 35 | 0 U | 0 U | 0 U | 0 U |
| Endrin | 0.014 | 5.3 | 0.0089 U | 0.0082 U | 0.0094 U | 0.0087 U |
| Endrin Aldehyde | NS | NS | 0.0089 U | 0.0082 U | 0.0094 U | 0.0087 U |
| Endrin Ketone | NS | NS | 0.0089 U | 0.0082 U | 0.0094 U | 0.0087 U |
| Gamma Bhc (Lindane) | 0.026 | 0.24 | 0.0027 U | 0.0024 U | 0.0028 U | 0.0026 U |
| Heptachlor | 0.013 | 0.53 | 0.0089 U | 0.0082 U | 0.0094 U | 0.0087 U |
| Heptachlor Epoxide | NS | NS | 0.0089 U | 0.0082 U | 0.0094 U | 0.0087 U |
| Methoxychlor | NS | NS | 0.0089 U | 0.0082 U | 0.0094 U | 0.0087 U |
| P,P'-DDD | 0.0033 | 5 | 0.0089 U | 0.0082 U | 0.0094 U | 0.0087 U |
| P,P'-DDE | 0.0033 | 3.4 | 0.0089 U | 0.0082 U | 0.0094 U | 0.0087 U |
| P,P'-DDT | 0.0033 | 3.8 | 0.0089 U | 0.0082 U | 0.0094 U | 0.0087 U |
| Toxaphene | NS | NS | 0.089 U | 0.082 U | 0.094 U | 0.087 U |

**Table 6**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Pesticides*

| | | **AKRF Sample ID** | EP-08_15_20231110 | EP-09_15_20231110 | EP-10_15_20231110 | EP-11_15_20231110 |
|---|---|---|---|---|---|---|
| | | **Laboratory Sample ID** | 460-292402-1 | 460-292402-2 | 460-292402-3 | 460-292402-4 |
| | | **Date Sampled** | 11/10/2023 | 11/10/2023 | 11/10/2023 | 11/10/2023 |
| | | **Unit** | mg/kg | mg/kg | mg/kg | mg/kg |
| | | **Dilution Factor** | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q |
| Aldrin | 0.0048 | 0.044 | 0.01 U | 0.0095 U | 0.0081 U | 0.0077 U |
| Alpha Bhc (Alpha Hexachlorocyclohexane) | 0.02 | 0.22 | 0.0031 U | 0.0028 U | 0.0024 U | 0.0023 U |
| Alpha Endosulfan | NS | NS | 0.01 U | 0.0095 U | 0.0081 U | 0.0077 U |
| Beta Bhc (Beta Hexachlorocyclohexane) | 0.021 | 0.18 | 0.0031 U | 0.0028 U | 0.0024 U | 0.0023 U |
| Beta Endosulfan | NS | NS | 0.01 U | 0.0095 U | 0.0081 U | 0.0077 U |
| cis-Chlordane | 0.014 | 0.65 | 0.01 U | 0.0095 U | 0.0081 U | 0.0077 U |
| Delta BHC (Delta Hexachlorocyclohexane) | 0.024 | 100 | 0.0031 U | 0.0028 U | 0.0024 U | 0.0023 U |
| Dieldrin | 0.005 | 0.075 | 0.0031 U | 0.0028 U | 0.0024 U | 0.0023 U |
| Endosulfan Sulfate | NS | NS | 0.01 U | 0.0095 U | 0.0081 U | 0.0077 U |
| Endosulfans ABS | 4.3 | 35 | 0 U | 0 U | 0 U | 0 U |
| Endrin | 0.014 | 5.3 | 0.01 U | 0.0095 U | 0.0081 U | 0.0077 U |
| Endrin Aldehyde | NS | NS | 0.01 U | 0.0095 U | 0.0081 U | 0.0077 U |
| Endrin Ketone | NS | NS | 0.01 U | 0.0095 U | 0.0081 U | 0.0077 U |
| Gamma Bhc (Lindane) | 0.026 | 0.24 | 0.0031 U | 0.0028 U | 0.0024 U | 0.0023 U |
| Heptachlor | 0.013 | 0.53 | 0.01 U | 0.0095 U | 0.0081 U | 0.0077 U |
| Heptachlor Epoxide | NS | NS | 0.01 U | 0.0095 U | 0.0081 U | 0.0077 U |
| Methoxychlor | NS | NS | 0.01 U | 0.0095 U | 0.0081 U | 0.0077 U |
| P,P'-DDD | 0.0033 | 5 | 0.01 U | 0.0095 U | 0.0081 U | 0.0077 U |
| P,P'-DDE | 0.0033 | 3.4 | 0.01 U | 0.0095 U | 0.0081 U | 0.0077 U |
| P,P'-DDT | 0.0033 | 3.8 | 0.01 U | 0.0095 U | 0.0081 U | 0.0077 U |
| Toxaphene | NS | NS | 0.1 U | 0.095 U | 0.081 U | 0.077 U |

**Table 6**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Pesticides*

| | | **AKRF Sample ID** | EP-12_15_20231110 | EP-13_15_20231110 | EP-14_15_20231110 | EP-15_15_20231110 |
|---|---|---|---|---|---|---|
| | | **Laboratory Sample ID** | 460-292402-5 | 460-292402-6 | 460-292402-7 | 460-292402-8 |
| | | **Date Sampled** | 11/10/2023 | 11/10/2023 | 11/10/2023 | 11/10/2023 |
| | | **Unit** | mg/kg | mg/kg | mg/kg | mg/kg |
| | | **Dilution Factor** | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q |
| Aldrin | 0.0048 | 0.044 | 0.0094 U | 0.01 U | 0.0083 U | ***over-excavated*** *(sample was over-excavated when petroleum hotspot was expanded, beyond its proposed extents in the RAWP, based on olfactory observations and elevated PID readings; and not due to exceedances of applicable SCOs)* |
| Alpha Bhc (Alpha Hexachlorocyclohexane) | 0.02 | 0.22 | 0.0028 U | 0.0031 U | 0.0025 U | |
| Alpha Endosulfan | NS | NS | 0.0094 U | 0.01 U | 0.0083 U | |
| Beta Bhc (Beta Hexachlorocyclohexane) | 0.021 | 0.18 | 0.0028 U | 0.0031 U | 0.0025 U | |
| Beta Endosulfan | NS | NS | 0.0094 U | 0.01 U | 0.0083 U | |
| cis-Chlordane | 0.014 | 0.65 | 0.0094 U | 0.01 U | 0.0083 U | |
| Delta BHC (Delta Hexachlorocyclohexane) | 0.024 | 100 | 0.0028 U | 0.0031 U | 0.0025 U | |
| Dieldrin | 0.005 | 0.075 | 0.0028 U | 0.0031 U | 0.0025 U | |
| Endosulfan Sulfate | NS | NS | 0.0094 U | 0.01 U | 0.0083 U | |
| Endosulfans ABS | 4.3 | 35 | 0 U | 0 U | 0 U | |
| Endrin | 0.014 | 5.3 | 0.0094 U | 0.01 U | 0.0083 U | |
| Endrin Aldehyde | NS | NS | 0.0094 U | 0.01 U | 0.0083 U | |
| Endrin Ketone | NS | NS | 0.0094 U | 0.01 U | 0.0083 U | |
| Gamma Bhc (Lindane) | 0.026 | 0.24 | 0.0028 U | 0.0031 U | 0.0025 U | |
| Heptachlor | 0.013 | 0.53 | 0.0094 U | 0.01 U | 0.0083 U | |
| Heptachlor Epoxide | NS | NS | 0.0094 U | 0.01 U | 0.0083 U | |
| Methoxychlor | NS | NS | 0.0094 U | 0.01 U | 0.0083 U | |
| P,P'-DDD | 0.0033 | 5 | 0.0094 U | 0.01 U | 0.0083 U | |
| P,P'-DDE | 0.0033 | 3.4 | 0.0094 U | 0.01 U | 0.0083 U | |
| P,P'-DDT | 0.0033 | 3.8 | 0.0094 U | 0.01 U | 0.0083 U | |
| Toxaphene | NS | NS | 0.094 U | 0.1 U | 0.083 U | |

**Table 6**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Pesticides*

| | | AKRF Sample ID | EP-16_20_20231127 | EP-X2_20_20231127 | EP-17_15_20231127 | EP-18_17.5_20231127 |
|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-293316-1 | 460-293316-8 | 460-293316-2 | 460-293316-3 |
| | | Date Sampled | 11/27/2023 | 11/27/2023 | 11/27/2023 | 11/27/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q |
| Aldrin | 0.0048 | 0.044 | 0.0082 U | 0.008 U | 0.0093 U | 0.0093 U |
| Alpha Bhc (Alpha Hexachlorocyclohexane) | 0.02 | 0.22 | 0.0024 U | 0.0024 U | 0.0028 U | 0.0028 U |
| Alpha Endosulfan | NS | NS | 0.0082 U | 0.008 U | 0.0093 U | 0.0093 U |
| Beta Bhc (Beta Hexachlorocyclohexane) | 0.021 | 0.18 | 0.0024 U | 0.0024 U | 0.0028 U | 0.0028 U |
| Beta Endosulfan | NS | NS | 0.0082 U | 0.008 U | 0.0093 U | 0.0093 U |
| cis-Chlordane | 0.014 | 0.65 | 0.0082 U | 0.008 U | 0.0093 U | 0.0093 U |
| Delta BHC (Delta Hexachlorocyclohexane) | 0.024 | 100 | 0.0024 U | 0.0024 U | 0.0028 U | 0.0028 U |
| Dieldrin | 0.005 | 0.075 | 0.0024 U | 0.0024 U | 0.0028 U | 0.0028 U |
| Endosulfan Sulfate | NS | NS | 0.0082 U | 0.008 U | 0.0093 U | 0.0093 U |
| Endosulfans ABS | 4.3 | 35 | 0 U | 0 U | 0 U | 0 U |
| Endrin | 0.014 | 5.3 | 0.0082 U | 0.008 U | 0.0093 U | 0.0093 U |
| Endrin Aldehyde | NS | NS | 0.0082 U | 0.008 U | 0.0093 U | 0.0093 U |
| Endrin Ketone | NS | NS | 0.0082 U | 0.008 U | 0.0093 U | 0.0093 U |
| Gamma Bhc (Lindane) | 0.026 | 0.24 | 0.0024 U | 0.0024 U | 0.0028 U | 0.0028 U |
| Heptachlor | 0.013 | 0.53 | 0.0082 U | 0.008 U | 0.0093 U | 0.0093 U |
| Heptachlor Epoxide | NS | NS | 0.0082 U | 0.008 U | 0.0093 U | 0.0093 U |
| Methoxychlor | NS | NS | 0.0082 U | 0.008 U | 0.0093 U | 0.0093 U |
| P,P'-DDD | 0.0033 | 5 | 0.0082 U | 0.008 U | 0.0093 U | 0.0093 U |
| P,P'-DDE | 0.0033 | 3.4 | 0.0082 U | 0.008 U | 0.0093 U | 0.0093 U |
| P,P'-DDT | 0.0033 | 3.8 | 0.0082 U | 0.008 U | 0.0093 U | 0.0093 U |
| Toxaphene | NS | NS | 0.082 U | 0.08 U | 0.093 U | 0.093 U |

**Table 6**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Pesticides*

| | | AKRF Sample ID | EP-19_17.5_20231127 | EP-20_17.5_20231127 | EP-21_20_20231129 | EP-22_17.5_20231129 |
|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-293316-4 | 460-293316-5 | 460-293467-1 | 460-293467-2 |
| | | Date Sampled | 11/27/2023 | 11/27/2023 | 11/29/2023 | 11/29/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q |
| Aldrin | 0.0048 | 0.044 | 0.0098 U | 0.0076 U | 0.0083 U | 0.0077 U |
| Alpha Bhc (Alpha Hexachlorocyclohexane) | 0.02 | 0.22 | 0.0029 U | 0.0023 U | 0.0025 U | 0.0023 U |
| Alpha Endosulfan | NS | NS | 0.0098 U | 0.0076 U | 0.0083 U | 0.0077 U |
| Beta Bhc (Beta Hexachlorocyclohexane) | 0.021 | 0.18 | 0.0029 U | 0.0023 U | 0.0025 U | 0.0023 U |
| Beta Endosulfan | NS | NS | 0.0098 U | 0.0076 U | 0.0083 U | 0.0077 U |
| cis-Chlordane | 0.014 | 0.65 | 0.0098 U | 0.0076 U | 0.0083 U | 0.0077 U |
| Delta BHC (Delta Hexachlorocyclohexane) | 0.024 | 100 | 0.0029 U | 0.0023 U | 0.0025 U | 0.0023 U |
| Dieldrin | 0.005 | 0.075 | 0.0029 U | 0.0023 U | 0.0025 U | 0.0023 U |
| Endosulfan Sulfate | NS | NS | 0.0098 U | 0.0076 U | 0.0083 U | 0.0077 U |
| Endosulfans ABS | 4.3 | 35 | 0 U | 0 U | 0 U | 0 U |
| Endrin | 0.014 | 5.3 | 0.0098 U | 0.0076 U | 0.0083 U | 0.0077 U |
| Endrin Aldehyde | NS | NS | 0.0098 U | 0.0076 U | 0.0083 U | 0.0077 U |
| Endrin Ketone | NS | NS | 0.0098 U | 0.0076 U | 0.0083 U | 0.0077 U |
| Gamma Bhc (Lindane) | 0.026 | 0.24 | 0.0029 U | 0.0023 U | 0.0025 U | 0.0023 U |
| Heptachlor | 0.013 | 0.53 | 0.0098 U | 0.0076 U | 0.0083 U | 0.0077 U |
| Heptachlor Epoxide | NS | NS | 0.0098 U | 0.0076 U | 0.0083 U | 0.0077 U |
| Methoxychlor | NS | NS | 0.0098 U | 0.0076 U | 0.0083 U | 0.0077 U |
| P,P'-DDD | 0.0033 | 5 | 0.0098 U | 0.0076 U | 0.0083 U | 0.0077 U |
| P,P'-DDE | 0.0033 | 3.4 | 0.0098 U | 0.0076 U | 0.0083 U | 0.0077 U |
| P,P'-DDT | 0.0033 | 3.8 | 0.0098 U | 0.0076 U | 0.0083 U | 0.0077 U |
| Toxaphene | NS | NS | 0.098 U | 0.076 U | 0.083 U | 0.077 U |

**Table 6**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Pesticides*

| | | **AKRF Sample ID** | EP-23_17.5_20231129 | EP-24_20_20231129 | EP-25_19.5_20231207 | EP-26_17.5_20231207 |
|---|---|---|---|---|---|---|
| | | **Laboratory Sample ID** | 460-293467-3 | 460-293467-4 | 460-294189-1 | 460-294189-2 |
| | | **Date Sampled** | 11/29/2023 | 11/29/2023 | 12/07/2023 | 12/07/2023 |
| | | **Unit** | mg/kg | mg/kg | mg/kg | mg/kg |
| | | **Dilution Factor** | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q |
| Aldrin | 0.0048 | 0.044 | 0.007 U | 0.0074 U | 0.0072 U | 0.0075 U |
| Alpha Bhc (Alpha Hexachlorocyclohexane) | 0.02 | 0.22 | 0.0021 U | 0.0022 U | 0.0021 U | 0.0022 U |
| Alpha Endosulfan | NS | NS | 0.007 U | 0.0074 U | 0.0072 U | 0.0075 U |
| Beta Bhc (Beta Hexachlorocyclohexane) | 0.021 | 0.18 | 0.0021 U | 0.0022 U | 0.0021 U | 0.0022 U |
| Beta Endosulfan | NS | NS | 0.007 U | 0.0074 U | 0.0072 U | 0.0075 U |
| cis-Chlordane | 0.014 | 0.65 | 0.007 U | 0.0074 U | 0.0072 U | 0.0075 U |
| Delta BHC (Delta Hexachlorocyclohexane) | 0.024 | 100 | 0.0021 U | 0.0022 U | 0.0021 U | 0.0022 U |
| Dieldrin | 0.005 | 0.075 | 0.0021 U | 0.0022 U | 0.0021 U | 0.0022 U |
| Endosulfan Sulfate | NS | NS | 0.007 U | 0.0074 U | 0.0072 U | 0.0075 U |
| Endosulfans ABS | 4.3 | 35 | 0 U | 0 U | 0 U | 0 U |
| Endrin | 0.014 | 5.3 | 0.007 U | 0.0074 U | 0.0072 U | 0.0075 U |
| Endrin Aldehyde | NS | NS | 0.007 U | 0.0074 U | 0.0072 U | 0.0075 U |
| Endrin Ketone | NS | NS | 0.007 U | 0.0074 U | 0.0072 U | 0.0075 U |
| Gamma Bhc (Lindane) | 0.026 | 0.24 | 0.0021 U | 0.0022 U | 0.0021 U | 0.0022 U |
| Heptachlor | 0.013 | 0.53 | 0.007 U | 0.0074 U | 0.0072 U | 0.0075 U |
| Heptachlor Epoxide | NS | NS | 0.007 U | 0.0074 U | 0.0072 U | 0.0075 U |
| Methoxychlor | NS | NS | 0.007 U | 0.0074 U | 0.0072 U | 0.0075 U |
| P,P'-DDD | 0.0033 | 5 | 0.007 U | 0.0074 U | 0.0072 U | 0.0075 U |
| P,P'-DDE | 0.0033 | 3.4 | 0.007 U | 0.0074 U | 0.0072 U | 0.0075 U |
| P,P'-DDT | 0.0033 | 3.8 | 0.007 U | 0.0074 U | 0.0072 U | 0.0075 U |
| Toxaphene | NS | NS | 0.07 U | 0.074 U | 0.072 U | 0.075 U |

**Table 6**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Pesticides*

| | | AKRF Sample ID | EP-27_22.5_20231207 | EP-28_22.5_20231207 | EP-29_22.5_20231207 | EP-30_22.5_20231207 |
|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-294189-3 | 460-294189-4 | 460-294189-5 | 460-294189-6 |
| | | Date Sampled | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q |
| Aldrin | 0.0048 | 0.044 | 0.0074 U | 0.0075 U | 0.0085 U | 0.0084 U |
| Alpha Bhc (Alpha Hexachlorocyclohexane) | 0.02 | 0.22 | 0.0022 U | 0.0022 U | 0.0025 U | 0.0025 U |
| Alpha Endosulfan | NS | NS | 0.0074 U | 0.0075 U | 0.0085 U | 0.0084 U |
| Beta Bhc (Beta Hexachlorocyclohexane) | 0.021 | 0.18 | 0.0022 U | 0.0022 U | 0.0025 U | 0.0025 U |
| Beta Endosulfan | NS | NS | 0.0074 U | 0.0075 U | 0.0085 U | 0.0084 U |
| cis-Chlordane | 0.014 | 0.65 | 0.0074 U | 0.0075 U | 0.0085 U | 0.0084 U |
| Delta BHC (Delta Hexachlorocyclohexane) | 0.024 | 100 | 0.0022 U | 0.0022 U | 0.0025 U | 0.0025 U |
| Dieldrin | 0.005 | 0.075 | 0.0022 U | 0.0022 U | 0.0025 U | 0.0025 U |
| Endosulfan Sulfate | NS | NS | 0.0074 U | 0.0075 U | 0.0085 U | 0.0084 U |
| Endosulfans ABS | 4.3 | 35 | 0 U | 0 U | 0 U | 0 U |
| Endrin | 0.014 | 5.3 | 0.0074 U | 0.0075 U | 0.0085 U | 0.0084 U |
| Endrin Aldehyde | NS | NS | 0.0074 U | 0.0075 U | 0.0085 U | 0.0084 U |
| Endrin Ketone | NS | NS | 0.0074 U | 0.0075 U | 0.0085 U | 0.0084 U |
| Gamma Bhc (Lindane) | 0.026 | 0.24 | 0.0022 U | 0.0022 U | 0.0025 U | 0.0025 U |
| Heptachlor | 0.013 | 0.53 | 0.0074 U | 0.0075 U | 0.0085 U | 0.0084 U |
| Heptachlor Epoxide | NS | NS | 0.0074 U | 0.0075 U | 0.0085 U | 0.0084 U |
| Methoxychlor | NS | NS | 0.0074 U | 0.0075 U | 0.0085 U | 0.0084 U |
| P,P'-DDD | 0.0033 | 5 | 0.0074 U | 0.0075 U | 0.0085 U | 0.0084 U |
| P,P'-DDE | 0.0033 | 3.4 | 0.0074 U | 0.0075 U | 0.0085 U | 0.0084 U |
| P,P'-DDT | 0.0033 | 3.8 | 0.0074 U | 0.0075 U | 0.0085 U | 0.0084 U |
| Toxaphene | NS | NS | 0.074 U | 0.075 U | 0.085 U | 0.084 U |

**Table 6**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Pesticides*

| | | AKRF Sample ID | EP-31_22.5_20231207 | EP-32_22.5_20231207 | EP-33_22.5_20231207 | EP-34_22.5_20231207 |
|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-294189-7 | 460-294189-8 | 460-294189-9 | 460-294189-10 |
| | | Date Sampled | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q |
| Aldrin | 0.0048 | 0.044 | 0.0082 U | 0.0094 U | 0.0086 U | 0.0086 U |
| Alpha Bhc (Alpha Hexachlorocyclohexane) | 0.02 | 0.22 | 0.0025 U | 0.0028 U | 0.0026 U | 0.0026 U |
| Alpha Endosulfan | NS | NS | 0.0082 U | 0.0094 U | 0.0086 U | 0.0086 U |
| Beta Bhc (Beta Hexachlorocyclohexane) | 0.021 | 0.18 | 0.0025 U | 0.0028 U | 0.0026 U | 0.0026 U |
| Beta Endosulfan | NS | NS | 0.0082 U | 0.0094 U | 0.0086 U | 0.0086 U |
| cis-Chlordane | 0.014 | 0.65 | 0.0082 U | 0.0094 U | 0.0086 U | 0.0086 U |
| Delta BHC (Delta Hexachlorocyclohexane) | 0.024 | 100 | 0.0025 U | 0.0028 U | 0.0026 U | 0.0026 U |
| Dieldrin | 0.005 | 0.075 | 0.0025 U | 0.0028 U | 0.0026 U | 0.0026 U |
| Endosulfan Sulfate | NS | NS | 0.0082 U | 0.0094 U | 0.0086 U | 0.0086 U |
| Endosulfans ABS | 4.3 | 35 | 0 U | 0 U | 0 U | 0 U |
| Endrin | 0.014 | 5.3 | 0.0082 U | 0.0094 U | 0.0086 U | 0.0086 U |
| Endrin Aldehyde | NS | NS | 0.0082 U | 0.0094 U | 0.0086 U | 0.0086 U |
| Endrin Ketone | NS | NS | 0.0082 U | 0.0094 U | 0.0086 U | 0.0086 U |
| Gamma Bhc (Lindane) | 0.026 | 0.24 | 0.0025 U | 0.0028 U | 0.0026 U | 0.0026 U |
| Heptachlor | 0.013 | 0.53 | 0.0082 U | 0.0094 U | 0.0086 U | 0.0086 U |
| Heptachlor Epoxide | NS | NS | 0.0082 U | 0.0094 U | 0.0086 U | 0.0086 U |
| Methoxychlor | NS | NS | 0.0082 U | 0.0094 U | 0.0086 U | 0.0086 U |
| P,P'-DDD | 0.0033 | 5 | 0.0082 U | 0.0094 U | 0.0086 U | 0.0086 U |
| P,P'-DDE | 0.0033 | 3.4 | 0.0082 U | 0.0094 U | 0.0086 U | 0.0086 U |
| P,P'-DDT | 0.0033 | 3.8 | 0.0082 U | 0.0094 U | 0.0086 U | 0.0086 U |
| Toxaphene | NS | NS | 0.082 U | 0.094 U | 0.086 U | 0.086 U |

**Table 6**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Pesticides*

| | | AKRF Sample ID | EP-35_25_20231207 | EP-36_25_20231207 | EP-37_17.5_20231215 | EP-X3_20231215 |
|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-294189-11 | 460-294189-12 | 460-294775-1 | 460-294775-9 |
| | | Date Sampled | 12/07/2023 | 12/07/2023 | 12/15/2023 | 12/15/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q |
| Aldrin | 0.0048 | 0.044 | 0.0088 U | 0.0085 U | 0.0084 U | 0.0085 U |
| Alpha Bhc (Alpha Hexachlorocyclohexane) | 0.02 | 0.22 | 0.0026 U | 0.0025 U | 0.0025 U | 0.0025 U |
| Alpha Endosulfan | NS | NS | 0.0088 U | 0.0085 U | 0.0084 U | 0.0085 U |
| Beta Bhc (Beta Hexachlorocyclohexane) | 0.021 | 0.18 | 0.0026 U | 0.0025 U | 0.0025 U | 0.0025 U |
| Beta Endosulfan | NS | NS | 0.0088 U | 0.0085 U | 0.0084 U | 0.0085 U |
| cis-Chlordane | 0.014 | 0.65 | 0.0088 U | 0.0085 U | 0.0084 U | 0.0085 U |
| Delta BHC (Delta Hexachlorocyclohexane) | 0.024 | 100 | 0.0026 U | 0.0025 U | 0.0025 U | 0.0025 U |
| Dieldrin | 0.005 | 0.075 | 0.0026 U | 0.0025 U | 0.0025 U | 0.0025 U |
| Endosulfan Sulfate | NS | NS | 0.0088 U | 0.0085 U | 0.0084 U | 0.0085 U |
| Endosulfans ABS | 4.3 | 35 | 0 U | 0 U | 0 U | 0 U |
| Endrin | 0.014 | 5.3 | 0.0088 U | 0.0085 U | 0.0084 U | 0.0085 U |
| Endrin Aldehyde | NS | NS | 0.0088 U | 0.0085 U | 0.0084 U | 0.0085 U |
| Endrin Ketone | NS | NS | 0.0088 U | 0.0085 U | 0.0084 U | 0.0085 U |
| Gamma Bhc (Lindane) | 0.026 | 0.24 | 0.0026 U | 0.0025 U | 0.0025 U | 0.0025 U |
| Heptachlor | 0.013 | 0.53 | 0.0088 U | 0.0085 U | 0.0084 U | 0.0085 U |
| Heptachlor Epoxide | NS | NS | 0.0088 U | 0.0085 U | 0.0084 U | 0.0085 U |
| Methoxychlor | NS | NS | 0.0088 U | 0.0085 U | 0.0084 U | 0.0085 U |
| P,P'-DDD | 0.0033 | 5 | 0.0088 U | 0.0085 U | 0.0084 U | 0.0085 U |
| P,P'-DDE | 0.0033 | 3.4 | 0.0088 U | 0.0085 U | 0.0084 U | 0.0085 U |
| P,P'-DDT | 0.0033 | 3.8 | 0.0088 U | 0.0085 U | 0.0084 U | 0.0085 U |
| Toxaphene | NS | NS | 0.088 U | 0.085 U | 0.084 U | 0.085 U |

**Table 6**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Pesticides*

| | | **AKRF Sample ID** | EP-38_17.5_20231215 | EP-39_20_20231215 | EP-40_17.5_20231215 | EP-41_15_20231215 |
|---|---|---|---|---|---|---|
| | | **Laboratory Sample ID** | 460-294775-2 | 460-294775-3 | 460-294775-4 | 460-294775-5 |
| | | **Date Sampled** | 12/15/2023 | 12/15/2023 | 12/15/2023 | 12/15/2023 |
| | | **Unit** | mg/kg | mg/kg | mg/kg | mg/kg |
| | | **Dilution Factor** | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q |
| Aldrin | 0.0048 | 0.044 | 0.0071 U | 0.0081 U | 0.0073 U | 0.0075 U |
| Alpha Bhc (Alpha Hexachlorocyclohexane) | 0.02 | 0.22 | 0.0021 U | 0.0024 U | 0.0022 U | 0.0022 U |
| Alpha Endosulfan | NS | NS | 0.0071 U | 0.0081 U | 0.0073 U | 0.0075 U |
| Beta Bhc (Beta Hexachlorocyclohexane) | 0.021 | 0.18 | 0.0021 U | 0.0024 U | 0.0022 U | 0.0022 U |
| Beta Endosulfan | NS | NS | 0.0071 U | 0.0081 U | 0.0073 U | 0.0075 U |
| cis-Chlordane | 0.014 | 0.65 | 0.0071 U | 0.0081 U | 0.0073 U | 0.0075 U |
| Delta BHC (Delta Hexachlorocyclohexane) | 0.024 | 100 | 0.0021 U | 0.0024 U | 0.0022 U | 0.0022 U |
| Dieldrin | 0.005 | 0.075 | 0.0021 U | 0.0024 U | 0.0022 U | 0.0022 U |
| Endosulfan Sulfate | NS | NS | 0.0071 U | 0.0081 U | 0.0073 U | 0.0075 U |
| Endosulfans ABS | 4.3 | 35 | 0 U | 0 U | 0 U | 0 U |
| Endrin | 0.014 | 5.3 | 0.0071 U | 0.0081 U | 0.0073 U | 0.0075 U |
| Endrin Aldehyde | NS | NS | 0.0071 U | 0.0081 U | 0.0073 U | 0.0075 U |
| Endrin Ketone | NS | NS | 0.0071 U | 0.0081 U | 0.0073 U | 0.0075 U |
| Gamma Bhc (Lindane) | 0.026 | 0.24 | 0.0021 U | 0.0024 U | 0.0022 U | 0.0022 U |
| Heptachlor | 0.013 | 0.53 | 0.0071 U | 0.0081 U | 0.0073 U | 0.0075 U |
| Heptachlor Epoxide | NS | NS | 0.0071 U | 0.0081 U | 0.0073 U | 0.0075 U |
| Methoxychlor | NS | NS | 0.0071 U | 0.0081 U | 0.0073 U | 0.0075 U |
| P,P'-DDD | 0.0033 | 5 | 0.0071 U | 0.0081 U | 0.0073 U | 0.0075 U |
| P,P'-DDE | 0.0033 | 3.4 | 0.0071 U | 0.0081 U | 0.0073 U | 0.0075 U |
| P,P'-DDT | 0.0033 | 3.8 | 0.0071 U | 0.0081 U | 0.0073 U | 0.0075 U |
| Toxaphene | NS | NS | 0.071 U | 0.081 U | 0.073 U | 0.075 U |

**Table 6**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Pesticides*

| | | AKRF Sample ID | EP-42_17.5_20231215 | EP-43_17.5_20231215 | EP-44_20_20231215 | A4HAZ_B_20_20230928 |
|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-294775-6 | 460-294775-7 | 460-294775-8 | 460-289204-1 |
| | | Date Sampled | 12/15/2023 | 12/15/2023 | 12/15/2023 | 9/28/2023 |
| | | Unit | mg/kg | mg/kg | mg/kg | mg/kg |
| | | Dilution Factor | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q |
| Aldrin | 0.0048 | 0.044 | 0.0076 U | 0.0077 U | 0.0087 U | 0.0085 U |
| Alpha Bhc (Alpha Hexachlorocyclohexane) | 0.02 | 0.22 | 0.0023 U | 0.0023 U | 0.0026 U | 0.0025 U |
| Alpha Endosulfan | NS | NS | 0.0076 U | 0.0077 U | 0.0087 U | 0.0085 U |
| Beta Bhc (Beta Hexachlorocyclohexane) | 0.021 | 0.18 | 0.0023 U | 0.0023 U | 0.0026 U | 0.0025 U |
| Beta Endosulfan | NS | NS | 0.0076 U | 0.0077 U | 0.0087 U | 0.0085 U |
| cis-Chlordane | 0.014 | 0.65 | 0.0076 U | 0.0077 U | 0.0087 U | 0.0085 U |
| Delta BHC (Delta Hexachlorocyclohexane) | 0.024 | 100 | 0.0023 U | 0.0023 U | 0.0026 U | 0.0025 U |
| Dieldrin | 0.005 | 0.075 | 0.0023 U | 0.0023 U | 0.0026 U | 0.0025 U |
| Endosulfan Sulfate | NS | NS | 0.0076 U | 0.0077 U | 0.0087 U | 0.0085 U |
| Endosulfans ABS | 4.3 | 35 | 0 U | 0 U | 0 U | 0 U |
| Endrin | 0.014 | 5.3 | 0.0076 U | 0.0077 U | 0.0087 U | 0.0085 U |
| Endrin Aldehyde | NS | NS | 0.0076 U | 0.0077 U | 0.0087 U | 0.0085 U |
| Endrin Ketone | NS | NS | 0.0076 U | 0.0077 U | 0.0087 U | 0.0085 U |
| Gamma Bhc (Lindane) | 0.026 | 0.24 | 0.0023 U | 0.0023 U | 0.0026 U | 0.0025 U |
| Heptachlor | 0.013 | 0.53 | 0.0076 U | 0.0077 U | 0.0087 U | 0.0085 U |
| Heptachlor Epoxide | NS | NS | 0.0076 U | 0.0077 U | 0.0087 U | 0.0085 U |
| Methoxychlor | NS | NS | 0.0076 U | 0.0077 U | 0.0087 U | 0.0085 U |
| P,P'-DDD | 0.0033 | 5 | 0.0076 U | 0.0077 U | 0.0087 U | 0.0085 U |
| P,P'-DDE | 0.0033 | 3.4 | 0.0076 U | 0.0077 U | 0.0087 U | 0.0085 U |
| P,P'-DDT | 0.0033 | 3.8 | 0.0076 U | 0.0077 U | 0.0087 U | 0.0085 U |
| Toxaphene | NS | NS | 0.076 U | 0.077 U | 0.087 U | 0.085 U |

**Table 6**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Pesticides*

| | | **AKRF Sample ID** | A4HAZ_X1_20230928 | B1HAZ_B_20_20230601 | B1HAZ_X1_20230601 | FB_20230928 |
|---|---|---|---|---|---|---|
| | | **Laboratory Sample ID** | 460-289204-2 | 460-281384-5 | 460-281384-8 | 460-289204-3 |
| | | **Date Sampled** | 9/28/2023 | 6/01/2023 | 6/01/2023 | 9/28/2023 |
| | | **Unit** | mg/kg | mg/kg | mg/kg | µg/L |
| | | **Dilution Factor** | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q |
| Aldrin | 0.0048 | 0.044 | 0.0084 U | 0.01 U | 0.0085 U | 0.02 U |
| Alpha Bhc (Alpha Hexachlorocyclohexane) | 0.02 | 0.22 | 0.0025 U | 0.003 U | 0.0025 U | 0.02 U |
| Alpha Endosulfan | NS | NS | 0.0084 U | 0.01 U | 0.0085 U | 0.02 U |
| Beta Bhc (Beta Hexachlorocyclohexane) | 0.021 | 0.18 | 0.0025 U | 0.003 U | 0.0025 U | 0.02 U |
| Beta Endosulfan | NS | NS | 0.0084 U | 0.01 U | 0.0085 U | 0.02 U |
| cis-Chlordane | 0.014 | 0.65 | 0.0084 U | 0.01 U | 0.0085 U | 0.02 U |
| Delta BHC (Delta Hexachlorocyclohexane) | 0.024 | 100 | 0.0025 U | 0.003 U | 0.0025 U | 0.02 U |
| Dieldrin | 0.005 | 0.075 | 0.0025 U | 0.003 U | 0.0025 U | 0.02 U |
| Endosulfan Sulfate | NS | NS | 0.0084 U | 0.01 UJ | 0.0085 UJ | 0.02 U |
| Endosulfans ABS | 4.3 | 35 | 0 U | 0 U | 0 U | 0 U |
| Endrin | 0.014 | 5.3 | 0.0084 U | 0.01 U | 0.0085 U | 0.02 U |
| Endrin Aldehyde | NS | NS | 0.0084 U | 0.01 U | 0.0085 U | 0.02 U |
| Endrin Ketone | NS | NS | 0.0084 U | 0.01 U | 0.0085 U | 0.02 U |
| Gamma Bhc (Lindane) | 0.026 | 0.24 | 0.0025 U | 0.003 U | 0.0025 U | 0.02 U |
| Heptachlor | 0.013 | 0.53 | 0.0084 U | 0.01 U | 0.0085 U | 0.02 U |
| Heptachlor Epoxide | NS | NS | 0.0084 U | 0.01 U | 0.0085 U | 0.02 U |
| Methoxychlor | NS | NS | 0.0084 U | 0.01 U | 0.0085 U | 0.02 U |
| P,P'-DDD | 0.0033 | 5 | 0.0084 U | 0.01 U | 0.0085 U | 0.02 U |
| P,P'-DDE | 0.0033 | 3.4 | 0.0084 U | 0.01 U | 0.0085 U | 0.02 U |
| P,P'-DDT | 0.0033 | 3.8 | 0.0084 U | 0.01 U | 0.0085 U | 0.02 U |
| Toxaphene | NS | NS | 0.084 U | 0.1 U | 0.085 U | 0.5 U |

**Table 6**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Pesticides*

| | | AKRF Sample ID | FB_20231103 | FB_20231127 | FB_20231215 | FB-S_20230601 |
|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-291818-9 | 460-293316-6 | 460-294775-10 | 460-281384-6 |
| | | Date Sampled | 11/03/2023 | 11/27/2023 | 12/15/2023 | 6/01/2023 |
| | | Unit | µg/L | µg/L | µg/L | µg/L |
| | | Dilution Factor | 1 | 1 | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q | CONC Q | CONC Q |
| Aldrin | 0.0048 | 0.044 | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Alpha Bhc (Alpha Hexachlorocyclohexane) | 0.02 | 0.22 | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Alpha Endosulfan | NS | NS | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Beta Bhc (Beta Hexachlorocyclohexane) | 0.021 | 0.18 | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Beta Endosulfan | NS | NS | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| cis-Chlordane | 0.014 | 0.65 | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Delta BHC (Delta Hexachlorocyclohexane) | 0.024 | 100 | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Dieldrin | 0.005 | 0.075 | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Endosulfan Sulfate | NS | NS | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Endosulfans ABS | 4.3 | 35 | 0 U | 0 U | 0 U | 0 U |
| Endrin | 0.014 | 5.3 | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Endrin Aldehyde | NS | NS | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Endrin Ketone | NS | NS | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Gamma Bhc (Lindane) | 0.026 | 0.24 | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Heptachlor | 0.013 | 0.53 | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Heptachlor Epoxide | NS | NS | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Methoxychlor | NS | NS | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| P,P'-DDD | 0.0033 | 5 | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| P,P'-DDE | 0.0033 | 3.4 | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| P,P'-DDT | 0.0033 | 3.8 | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Toxaphene | NS | NS | 0.5 U | 0.5 U | 0.5 U | 0.5 U |

**Table 6**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*Pesticides*

| | | **AKRF Sample ID** | FB_20230928 | FB-S_20230601 |
|---|---|---|---|---|
| | | **Laboratory Sample ID** | 460-289204-3 | 460-281384-6 |
| | | **Date Sampled** | 9/28/2023 | 6/01/2023 |
| | | **Unit** | µg/L | µg/L |
| | | **Dilution Factor** | 1 | 1 |
| **Compound** | **NYSDEC UUSCO** | **NYSDEC RRSCO** | CONC Q | CONC Q |
| Aldrin | 0.0048 | 0.044 | 0.02 U | 0.02 U |
| Alpha Bhc (Alpha Hexachlorocyclohexane) | 0.02 | 0.22 | 0.02 U | 0.02 U |
| Alpha Endosulfan | NS | NS | 0.02 U | 0.02 U |
| Beta Bhc (Beta Hexachlorocyclohexane) | 0.021 | 0.18 | 0.02 U | 0.02 U |
| Beta Endosulfan | NS | NS | 0.02 U | 0.02 U |
| cis-Chlordane | 0.014 | 0.65 | 0.02 U | 0.02 U |
| Delta BHC (Delta Hexachlorocyclohexane) | 0.024 | 100 | 0.02 U | 0.02 U |
| Dieldrin | 0.005 | 0.075 | 0.02 U | 0.02 U |
| Endosulfan Sulfate | NS | NS | 0.02 U | 0.02 U |
| Endosulfans ABS | 4.3 | 35 | 0 U | 0 U |
| Endrin | 0.014 | 5.3 | 0.02 U | 0.02 U |
| Endrin Aldehyde | NS | NS | 0.02 U | 0.02 U |
| Endrin Ketone | NS | NS | 0.02 U | 0.02 U |
| Gamma Bhc (Lindane) | 0.026 | 0.24 | 0.02 U | 0.02 U |
| Heptachlor | 0.013 | 0.53 | 0.02 U | 0.02 U |
| Heptachlor Epoxide | NS | NS | 0.02 U | 0.02 U |
| Methoxychlor | NS | NS | 0.02 U | 0.02 U |
| P,P'-DDD | 0.0033 | 5 | 0.02 U | 0.02 U |
| P,P'-DDE | 0.0033 | 3.4 | 0.02 U | 0.02 U |
| P,P'-DDT | 0.0033 | 3.8 | 0.02 U | 0.02 U |
| Toxaphene | NS | NS | 0.5 U | 0.5 U |

**Table 7**
**380 4th Avenue**
**Brooklyn, NY**
Post_Remedial Soil Endpoint Analytical Results
*Per- and Polyfluoroalkyl Substances*

| | | AKRF Sample ID | EP-01_15_20231103 | EP-X1_15_20231103 | EP-02_15_20231103 | EP-03_15_20231103 |
|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-291879-1 | 460-291879-8 | 460-291879-2 | 460-291879-3 |
| | | Date Sampled | 11/03/2023 | 11/03/2023 | 11/03/2023 | 11/03/2023 |
| | | Dilution Factor | 1 | 1 | 1 | 1 |
| | | Unit | ppb | ppb | ppb | ppb |
| **Compound** | **NYSDEC UUGV** | **NYSDEC RRGV** | CONC Q | CONC Q | CONC Q | CONC Q |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid | NS | NS | 1.01 U | 0.98 U | 1.11 U | 1.01 U |
| 1H,1H, 2H, 2H-Perfluorohexane sulfonic acid | NS | NS | 1.01 U | 0.98 U | 1.11 U | 1.01 U |
| 2H,2H,3H,3H-Perfluorooctanoic acid | NS | NS | 6.32 U | 6.1 U | 6.91 U | 6.34 U |
| 3-Perfluoroheptyl propanoic acid | NS | NS | 6.32 U | 6.1 U | 6.91 U | 6.34 U |
| 3-Perfluoropropyl propanoic acid | NS | NS | 1.26 U | 1.22 U | 1.38 U | 1.27 U |
| 4,8-Dioxa-3H-perfluorononanoic acid | NS | NS | 1.01 U | 0.98 U | 1.11 U | 1.01 U |
| 6:2 Fluorotelomer sulfonate | NS | NS | 1.01 U | 0.98 U | 1.11 U | 1.01 U |
| 8:2 Fluorotelomer sulfonate | NS | NS | 1.01 U | 0.98 U | 1.11 U | 1.01 U |
| 9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid | NS | NS | 1.01 U | 0.98 U | 1.11 U | 1.01 U |
| Hexafluoropropylene oxide dimer acid | NS | NS | 1.01 U | 0.98 U | 1.11 U | 1.01 U |
| N-ethyl perfluorooctanesulfonamide | NS | NS | 0.25 U | 0.24 U | 0.28 U | 0.25 U |
| N-ethyl perfluorooctanesulfonamidoacetic acid | NS | NS | 0.25 U | 0.24 U | 0.28 U | 0.25 U |
| N-ethyl perfluorooctanesulfonamidoethanol | NS | NS | 2.53 U | 2.44 U | 2.76 U | 2.54 U |
| N-methyl perfluorooctanesulfonamide | NS | NS | 0.25 U | 0.24 U | 0.28 U | 0.25 U |
| N-methyl perfluorooctanesulfonamidoacetic acid | NS | NS | 0.25 U | 0.24 U | 0.28 U | 0.25 U |
| N-methyl perfluorooctanesulfonamidoethanol | NS | NS | 2.53 U | 2.44 U | 2.76 U | 2.54 U |
| Nonafluoro-3,6-dioxaheptanoic acid | NS | NS | 0.51 U | 0.49 U | 0.55 U | 0.51 U |
| Perfluoro(2-ethoxyethane)sulfonic acid | NS | NS | 0.51 U | 0.49 U | 0.55 U | 0.51 U |
| Perfluoro-3-methoxypropanoic acid | NS | NS | 0.51 U | 0.49 U | 0.55 U | 0.51 U |
| Perfluoro-4-methoxybutanoic acid | NS | NS | 0.51 U | 0.49 U | 0.55 U | 0.51 U |
| Perfluorobutanesulfonic acid | NS | NS | 0.25 U | 0.24 U | 0.28 U | 0.25 U |
| Perfluorobutanoic acid | NS | NS | 1.01 U | 0.98 U | 1.11 U | 0.062 J |
| Perfluorodecanesulfonic acid | NS | NS | 0.25 U | 0.24 U | 0.28 U | 0.25 U |
| Perfluorodecanoic acid | NS | NS | 0.25 U | 0.24 U | 0.28 U | 0.25 U |
| Perfluorododecanesulfonic acid | NS | NS | 0.25 U | 0.24 U | 0.28 U | 0.25 U |
| Perfluorododecanoic acid | NS | NS | 0.25 U | 0.24 U | 0.28 U | 0.25 U |
| Perfluoroheptanesulfonic acid | NS | NS | 0.25 U | 0.24 U | 0.28 U | 0.25 U |
| Perfluoroheptanoic acid | NS | NS | 0.25 U | 0.24 U | 0.034 J | 0.041 J |
| Perfluorohexanesulfonic acid | NS | NS | 0.25 U | 0.24 U | 0.28 U | 0.25 U |
| Perfluorohexanoic acid | NS | NS | 0.25 U | 0.24 U | 0.28 U | 0.25 U |
| Perfluorononanesulfonic acid | NS | NS | 0.25 U | 0.24 U | 0.28 U | 0.25 U |
| Perfluorononanoic acid | NS | NS | 0.25 U | 0.24 U | 0.28 U | 0.25 U |
| Perfluorooctanesulfonamide | NS | NS | 0.25 U | 0.24 U | 0.28 U | 0.25 U |
| Perfluorooctanesulfonic acid (PFOS) | 0.88 | 44 | 0.25 U | 0.24 U | 0.28 U | 0.25 U |
| Perfluorooctanoic acid (PFOA) | 0.66 | 33 | 0.18 U | 0.14 J | 0.1 J | 0.25 U |
| Perfluoropentanoic acid | NS | NS | 0.51 U | 0.029 J | 0.061 J | 0.11 J |
| Perfluoropentansulfonic acid | NS | NS | 0.25 U | 0.24 U | 0.28 U | 0.25 U |
| Perfluorotetradecanoic acid | NS | NS | 0.25 U | 0.24 U | 0.28 U | 0.25 U |
| Perfluorotridecanoic acid | NS | NS | 0.25 U | 0.24 U | 0.28 U | 0.25 U |
| Perfluoroundecanoic acid | NS | NS | 0.25 U | 0.24 U | 0.28 U | 0.25 U |

**Table 7**
**380 4th Avenue**
**Brooklyn, NY**
Post_Remedial Soil Endpoint Analytical Results
*Per- and Polyfluoroalkyl Substances*

| | | AKRF Sample ID | EP-04_15_20231103 | EP-05_15_20231103 | EP-06_15_20231103 | EP-07_15_20231103 |
|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-291879-4 | 460-291879-5 | 460-291879-6 | 460-291879-7 |
| | | Date Sampled | 11/03/2023 | 11/03/2023 | 11/03/2023 | 11/03/2023 |
| | | Dilution Factor | 1 | 1 | 1 | 1 |
| | | Unit | ppb | ppb | ppb | ppb |
| **Compound** | **NYSDEC UUGV** | **NYSDEC RRGV** | CONC Q | CONC Q | CONC Q | CONC Q |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid | NS | NS | 0.97 U | 1.15 U | 1.27 U | 1.11 U |
| 1H,1H, 2H, 2H-Perfluorohexane sulfonic acid | NS | NS | 0.97 U | 1.15 U | 1.27 U | 1.11 U |
| 2H,2H,3H,3H-Perfluorooctanoic acid | NS | NS | 6.07 U | 7.17 U | 7.94 U | 6.96 U |
| 3-Perfluoroheptyl propanoic acid | NS | NS | 6.07 U | 7.17 U | 7.94 U | 6.96 U |
| 3-Perfluoropropyl propanoic acid | NS | NS | 1.21 U | 1.43 U | 1.59 U | 1.39 U |
| 4,8-Dioxa-3H-perfluorononanoic acid | NS | NS | 0.97 U | 1.15 U | 1.27 U | 1.11 U |
| 6:2 Fluorotelomer sulfonate | NS | NS | 0.97 U | 1.15 U | 1.27 U | 1.11 U |
| 8:2 Fluorotelomer sulfonate | NS | NS | 0.97 U | 1.15 U | 1.27 U | 1.11 U |
| 9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid | NS | NS | 0.97 U | 1.15 U | 1.27 U | 1.11 U |
| Hexafluoropropylene oxide dimer acid | NS | NS | 0.97 U | 1.15 U | 1.27 U | 1.11 U |
| N-ethyl perfluorooctanesulfonamide | NS | NS | 0.24 U | 0.29 U | 0.32 U | 0.28 U |
| N-ethyl perfluorooctanesulfonamidoacetic acid | NS | NS | 0.24 U | 0.29 U | 0.32 U | 0.28 U |
| N-ethyl perfluorooctanesulfonamidoethanol | NS | NS | 2.43 U | 2.87 U | 3.18 U | 2.78 U |
| N-methyl perfluorooctanesulfonamide | NS | NS | 0.24 U | 0.29 U | 0.32 U | 0.28 U |
| N-methyl perfluorooctanesulfonamidoacetic acid | NS | NS | 0.24 U | 0.29 U | 0.32 U | 0.28 U |
| N-methyl perfluorooctanesulfonamidoethanol | NS | NS | 2.43 U | 2.87 U | 3.18 U | 2.78 U |
| Nonafluoro-3,6-dioxaheptanoic acid | NS | NS | 0.49 U | 0.57 U | 0.64 U | 0.56 U |
| Perfluoro(2-ethoxyethane)sulfonic acid | NS | NS | 0.49 U | 0.57 U | 0.64 U | 0.56 U |
| Perfluoro-3-methoxypropanoic acid | NS | NS | 0.49 U | 0.57 U | 0.64 U | 0.56 U |
| Perfluoro-4-methoxybutanoic acid | NS | NS | 0.49 U | 0.57 U | 0.64 U | 0.56 U |
| Perfluorobutanesulfonic acid | NS | NS | 0.24 U | 0.29 U | 0.32 U | 0.28 U |
| Perfluorobutanoic acid | NS | NS | 0.97 U | 1.15 U | 0.097 J | 1.11 U |
| Perfluorodecanesulfonic acid | NS | NS | 0.24 U | 0.29 U | 0.32 U | 0.28 U |
| Perfluorodecanoic acid | NS | NS | 0.24 U | 0.29 U | 0.32 U | 0.28 U |
| Perfluorododecanesulfonic acid | NS | NS | 0.24 U | 0.29 U | 0.32 U | 0.28 U |
| Perfluorododecanoic acid | NS | NS | 0.24 U | 0.29 U | 0.32 U | 0.28 U |
| Perfluoroheptanesulfonic acid | NS | NS | 0.24 U | 0.29 U | 0.32 U | 0.28 U |
| Perfluoroheptanoic acid | NS | NS | 0.24 U | 0.29 U | 0.32 U | 0.28 U |
| Perfluorohexanesulfonic acid | NS | NS | 0.24 U | 0.29 U | 0.32 U | 0.28 U |
| Perfluorohexanoic acid | NS | NS | 0.24 U | 0.29 U | 0.32 U | 0.28 U |
| Perfluorononanesulfonic acid | NS | NS | 0.24 U | 0.29 U | 0.32 U | 0.28 U |
| Perfluorononanoic acid | NS | NS | 0.24 U | 0.29 U | 0.32 U | 0.28 U |
| Perfluorooctanesulfonamide | NS | NS | 0.24 U | 0.29 U | 0.32 U | 0.28 U |
| Perfluorooctanesulfonic acid (PFOS) | 0.88 | 44 | 0.24 U | 0.29 U | 0.32 U | 0.28 U |
| Perfluorooctanoic acid (PFOA) | 0.66 | 33 | 0.24 U | 0.2 J | 0.32 U | 0.081 J |
| Perfluoropentanoic acid | NS | NS | 0.061 J | 0.57 U | 0.64 U | 0.041 J |
| Perfluoropentansulfonic acid | NS | NS | 0.24 U | 0.29 U | 0.32 U | 0.28 U |
| Perfluorotetradecanoic acid | NS | NS | 0.24 U | 0.29 U | 0.32 U | 0.28 U |
| Perfluorotridecanoic acid | NS | NS | 0.24 U | 0.29 U | 0.32 U | 0.28 U |
| Perfluoroundecanoic acid | NS | NS | 0.24 U | 0.29 U | 0.32 U | 0.28 U |

**Table 7**
**380 4th Avenue**
**Brooklyn, NY**
Post_Remedial Soil Endpoint Analytical Results
*Per- and Polyfluoroalkyl Substances*

| | | AKRF Sample ID | EP-08_15_20231110 | EP-09_15_20231110 | EP-10_15_20231110 | EP-11_15_20231110 |
|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-292456-1 | 460-292456-2 | 460-292456-3 | 460-292456-4 |
| | | Date Sampled | 11/10/2023 | 11/10/2023 | 11/10/2023 | 11/10/2023 |
| | | Dilution Factor | 1 | 1 | 1 | 1 |
| | | Unit | ppb | ppb | ppb | ppb |
| **Compound** | **NYSDEC UUGV** | **NYSDEC RRGV** | CONC Q | CONC Q | CONC Q | CONC Q |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid | NS | NS | 1.23 UJ | 1.07 UJ | 1.01 UJ | 0.93 UJ |
| 1H,1H, 2H, 2H-Perfluorohexane sulfonic acid | NS | NS | 1.23 U | 1.07 U | 1.01 U | 0.93 U |
| 2H,2H,3H,3H-Perfluorooctanoic acid | NS | NS | 7.68 U | 6.67 U | 6.3 U | 5.79 U |
| 3-Perfluoroheptyl propanoic acid | NS | NS | 7.68 U | 6.67 U | 6.3 U | 5.79 U |
| 3-Perfluoropropyl propanoic acid | NS | NS | 1.54 U | 1.33 U | 1.26 U | 1.16 U |
| 4,8-Dioxa-3H-perfluorononanoic acid | NS | NS | 1.23 U | 1.07 U | 1.01 U | 0.93 U |
| 6:2 Fluorotelomer sulfonate | NS | NS | 1.23 U | 1.07 U | 1.01 U | 0.93 U |
| 8:2 Fluorotelomer sulfonate | NS | NS | 1.23 U | 1.07 U | 1.01 U | 0.93 U |
| 9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid | NS | NS | 1.23 U | 1.07 U | 1.01 U | 0.93 U |
| Hexafluoropropylene oxide dimer acid | NS | NS | 1.23 U | 1.07 U | 1.01 U | 0.93 U |
| N-ethyl perfluorooctanesulfonamide | NS | NS | 0.31 U | 0.27 U | 0.25 U | 0.23 U |
| N-ethyl perfluorooctanesulfonamidoacetic acid | NS | NS | 0.31 U | 0.27 U | 0.25 U | 0.23 U |
| N-ethyl perfluorooctanesulfonamidoethanol | NS | NS | 3.07 U | 2.67 U | 2.52 U | 2.32 U |
| N-methyl perfluorooctanesulfonamide | NS | NS | 0.31 U | 0.27 U | 0.25 U | 0.23 U |
| N-methyl perfluorooctanesulfonamidoacetic acid | NS | NS | 0.31 U | 0.27 U | 0.25 U | 0.23 U |
| N-methyl perfluorooctanesulfonamidoethanol | NS | NS | 3.07 U | 2.67 U | 2.52 U | 2.32 U |
| Nonafluoro-3,6-dioxaheptanoic acid | NS | NS | 0.61 U | 0.53 U | 0.5 U | 0.46 U |
| Perfluoro(2-ethoxyethane)sulfonic acid | NS | NS | 0.61 U | 0.53 U | 0.5 U | 0.46 U |
| Perfluoro-3-methoxypropanoic acid | NS | NS | 0.61 U | 0.53 U | 0.5 U | 0.46 U |
| Perfluoro-4-methoxybutanoic acid | NS | NS | 0.61 U | 0.53 U | 0.5 U | 0.46 U |
| Perfluorobutanesulfonic acid | NS | NS | 0.31 U | 0.27 U | 0.25 U | 0.23 U |
| Perfluorobutanoic acid | NS | NS | 0.32 J | 1.07 U | 1.01 U | 0.93 U |
| Perfluorodecanesulfonic acid | NS | NS | 0.31 U | 0.27 U | 0.25 U | 0.23 U |
| Perfluorodecanoic acid | NS | NS | 0.31 U | 0.27 U | 0.25 U | 0.23 U |
| Perfluorododecanesulfonic acid | NS | NS | 0.31 U | 0.27 U | 0.25 U | 0.23 U |
| Perfluorododecanoic acid | NS | NS | 0.31 U | 0.27 U | 0.25 U | 0.23 U |
| Perfluoroheptanesulfonic acid | NS | NS | 0.31 U | 0.27 U | 0.25 U | 0.23 U |
| Perfluoroheptanoic acid | NS | NS | 0.31 U | 0.27 U | 0.25 U | 0.23 U |
| Perfluorohexanesulfonic acid | NS | NS | 0.31 U | 0.27 U | 0.25 U | 0.23 U |
| Perfluorohexanoic acid | NS | NS | 0.31 U | 0.27 U | 0.25 U | 0.23 U |
| Perfluorononanesulfonic acid | NS | NS | 0.31 U | 0.27 U | 0.25 U | 0.23 U |
| Perfluorononanoic acid | NS | NS | 0.31 U | 0.27 U | 0.25 U | 0.23 U |
| Perfluorooctanesulfonamide | NS | NS | 0.31 U | 0.27 U | 0.25 U | 0.23 U |
| Perfluorooctanesulfonic acid (PFOS) | 0.88 | 44 | 0.31 U | 0.27 U | 0.25 U | 0.23 U |
| Perfluorooctanoic acid (PFOA) | 0.66 | 33 | 0.09 J | 0.072 J | 0.13 J | 0.23 U |
| Perfluoropentanoic acid | NS | NS | 0.038 J | 0.53 U | 0.5 U | 0.46 U |
| Perfluoropentansulfonic acid | NS | NS | 0.31 U | 0.27 U | 0.25 U | 0.23 U |
| Perfluorotetradecanoic acid | NS | NS | 0.31 U | 0.27 U | 0.25 U | 0.23 U |
| Perfluorotridecanoic acid | NS | NS | 0.31 U | 0.27 U | 0.25 U | 0.23 U |
| Perfluoroundecanoic acid | NS | NS | 0.31 U | 0.27 U | 0.25 U | 0.23 U |

**Table 7**
**380 4th Avenue**
**Brooklyn, NY**
Post_Remedial Soil Endpoint Analytical Results
*Per- and Polyfluoroalkyl Substances*

| | | AKRF Sample ID | EP-12_15_20231110 | EP-13_15_20231110 | EP-14_15_20231110 | EP-15_15_20231110 |
|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-292456-5 | 460-292456-6 | 460-292456-7 | 460-292456-8 |
| | | Date Sampled | 11/10/2023 | 11/10/2023 | 11/10/2023 | 11/10/2023 |
| | | Dilution Factor | 1 | 1 | 1 | 1 |
| | | Unit | ppb | ppb | ppb | ppb |
| **Compound** | **NYSDEC UUGV** | **NYSDEC RRGV** | CONC Q | CONC Q | CONC Q | CONC Q |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid | NS | NS | 1.11 UJ | 1.31 UJ | 1.05 UJ | |
| 1H,1H, 2H, 2H-Perfluorohexane sulfonic acid | NS | NS | 1.11 U | 1.31 U | 1.05 U | |
| 2H,2H,3H,3H-Perfluorooctanoic acid | NS | NS | 6.91 U | 8.19 U | 6.58 U | |
| 3-Perfluoroheptyl propanoic acid | NS | NS | 6.91 U | 8.19 U | 6.58 U | |
| 3-Perfluoropropyl propanoic acid | NS | NS | 1.38 U | 1.64 U | 1.32 U | |
| 4,8-Dioxa-3H-perfluorononanoic acid | NS | NS | 1.11 U | 1.31 U | 1.05 U | |
| 6:2 Fluorotelomer sulfonate | NS | NS | 1.11 U | 1.31 U | 1.05 U | |
| 8:2 Fluorotelomer sulfonate | NS | NS | 1.11 U | 1.31 U | 1.05 U | |
| 9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid | NS | NS | 1.11 U | 1.31 U | 1.05 U | |
| Hexafluoropropylene oxide dimer acid | NS | NS | 1.11 U | 1.31 U | 1.05 U | |
| N-ethyl perfluorooctanesulfonamide | NS | NS | 0.28 U | 0.33 U | 0.26 U | |
| N-ethyl perfluorooctanesulfonamidoacetic acid | NS | NS | 0.28 U | 0.33 U | 0.26 U | |
| N-ethyl perfluorooctanesulfonamidoethanol | NS | NS | 2.76 U | 1.04 J | 2.63 U | |
| N-methyl perfluorooctanesulfonamide | NS | NS | 0.28 U | 0.33 U | 0.26 U | |
| N-methyl perfluorooctanesulfonamidoacetic acid | NS | NS | 0.28 U | 0.33 U | 0.26 U | |
| N-methyl perfluorooctanesulfonamidoethanol | NS | NS | 2.76 U | 3.39 | 0.15 J | ***over-excavated*** |
| Nonafluoro-3,6-dioxaheptanoic acid | NS | NS | 0.55 U | 0.66 U | 0.53 U | *(sample was over-excavated* |
| Perfluoro(2-ethoxyethane)sulfonic acid | NS | NS | 0.55 U | 0.66 U | 0.53 U | *when petroleum hotspot was* |
| Perfluoro-3-methoxypropanoic acid | NS | NS | 0.55 U | 0.66 U | 0.53 U | *expanded, beyond its* |
| Perfluoro-4-methoxybutanoic acid | NS | NS | 0.55 U | 0.66 U | 0.53 U | *proposed extents in the* |
| Perfluorobutanesulfonic acid | NS | NS | 0.28 U | 0.33 U | 0.26 U | *RAWP, based on olfactory* |
| Perfluorobutanoic acid | NS | NS | 1.11 U | 0.28 J | 1.05 U | *observations and elevated* |
| Perfluorodecanesulfonic acid | NS | NS | 0.28 U | 0.33 U | 0.26 U | *PID readings; and not due to* |
| Perfluorodecanoic acid | NS | NS | 0.28 U | 0.33 U | 0.26 U | *exceedances of applicable* |
| Perfluorododecanesulfonic acid | NS | NS | 0.28 U | 0.33 U | 0.26 U | *SCOs)* |
| Perfluorododecanoic acid | NS | NS | 0.28 U | 0.33 U | 0.26 U | |
| Perfluoroheptanesulfonic acid | NS | NS | 0.28 U | 0.33 U | 0.26 U | |
| Perfluoroheptanoic acid | NS | NS | 0.28 U | 0.33 U | 0.26 U | |
| Perfluorohexanesulfonic acid | NS | NS | 0.28 U | 0.33 U | 0.26 U | |
| Perfluorohexanoic acid | NS | NS | 0.28 U | 0.33 U | 0.26 U | |
| Perfluorononanesulfonic acid | NS | NS | 0.28 U | 0.33 U | 0.26 U | |
| Perfluorononanoic acid | NS | NS | 0.28 U | 0.33 U | 0.26 U | |
| Perfluorooctanesulfonamide | NS | NS | 0.28 U | 0.33 U | 0.26 U | |
| Perfluorooctanesulfonic acid (PFOS) | 0.88 | 44 | 0.28 U | 0.33 U | 0.26 U | |
| Perfluorooctanoic acid (PFOA) | 0.66 | 33 | 0.27 J | 0.33 U | 0.061 J | |
| Perfluoropentanoic acid | NS | NS | 0.048 J | 0.054 J | 0.53 U | |
| Perfluoropentansulfonic acid | NS | NS | 0.28 U | 0.33 U | 0.26 U | |
| Perfluorotetradecanoic acid | NS | NS | 0.28 U | 0.33 U | 0.26 U | |
| Perfluorotridecanoic acid | NS | NS | 0.28 U | 0.33 U | 0.26 U | |
| Perfluoroundecanoic acid | NS | NS | 0.28 U | 0.33 U | 0.26 U | |

**Table 7**
**380 4th Avenue**
**Brooklyn, NY**
Post_Remedial Soil Endpoint Analytical Results
*Per- and Polyfluoroalkyl Substances*

| | | AKRF Sample ID | EP-16_20_20231127 | EP-X2_20_20231127 | EP-17_15_20231127 | EP-18_17.5_20231127 |
|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-293318-1 | 460-293318-7 | 460-293318-2 | 460-293318-4 |
| | | Date Sampled | 11/27/2023 | 11/27/2023 | 11/27/2023 | 11/27/2023 |
| | | Dilution Factor | 1 | 1 | 1 | 1 |
| | | Unit | ppb | ppb | ppb | ppb |
| **Compound** | **NYSDEC UUGV** | **NYSDEC RRGV** | CONC Q | CONC Q | CONC Q | CONC Q |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid | NS | NS | 0.98 U | 0.99 U | 1.04 U | 1.11 U |
| 1H,1H, 2H, 2H-Perfluorohexane sulfonic acid | NS | NS | 0.98 U | 0.99 U | 1.04 U | 1.11 U |
| 2H,2H,3H,3H-Perfluorooctanoic acid | NS | NS | 6.16 U | 6.18 U | 6.52 U | 6.96 U |
| 3-Perfluoroheptyl propanoic acid | NS | NS | 6.16 U | 6.18 U | 6.52 U | 6.96 U |
| 3-Perfluoropropyl propanoic acid | NS | NS | 1.23 U | 1.24 U | 1.3 U | 1.39 U |
| 4,8-Dioxa-3H-perfluorononanoic acid | NS | NS | 0.98 U | 0.99 U | 1.04 U | 1.11 U |
| 6:2 Fluorotelomer sulfonate | NS | NS | 0.98 U | 0.99 U | 1.04 U | 1.11 U |
| 8:2 Fluorotelomer sulfonate | NS | NS | 0.98 U | 0.99 U | 1.04 U | 1.11 U |
| 9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid | NS | NS | 0.98 U | 0.99 U | 1.04 U | 1.11 U |
| Hexafluoropropylene oxide dimer acid | NS | NS | 0.98 U | 0.99 U | 1.04 U | 1.11 U |
| N-ethyl perfluorooctanesulfonamide | NS | NS | 0.25 U | 0.25 U | 0.26 U | 0.28 U |
| N-ethyl perfluorooctanesulfonamidoacetic acid | NS | NS | 0.25 U | 0.25 U | 0.26 U | 0.28 U |
| N-ethyl perfluorooctanesulfonamidoethanol | NS | NS | 2.46 U | 2.47 U | 2.61 U | 2.78 U |
| N-methyl perfluorooctanesulfonamide | NS | NS | 0.25 U | 0.25 U | 0.26 U | 0.28 U |
| N-methyl perfluorooctanesulfonamidoacetic acid | NS | NS | 0.25 U | 0.25 U | 0.26 U | 0.28 U |
| N-methyl perfluorooctanesulfonamidoethanol | NS | NS | 2.46 U | 2.47 U | 2.61 U | 2.78 U |
| Nonafluoro-3,6-dioxaheptanoic acid | NS | NS | 0.49 U | 0.49 U | 0.52 U | 0.56 U |
| Perfluoro(2-ethoxyethane)sulfonic acid | NS | NS | 0.49 U | 0.49 U | 0.52 U | 0.56 U |
| Perfluoro-3-methoxypropanoic acid | NS | NS | 0.49 U | 0.49 U | 0.52 U | 0.56 U |
| Perfluoro-4-methoxybutanoic acid | NS | NS | 0.49 U | 0.49 U | 0.52 U | 0.56 U |
| Perfluorobutanesulfonic acid | NS | NS | 0.25 U | 0.25 U | 0.26 U | 0.28 U |
| Perfluorobutanoic acid | NS | NS | 0.98 U | 0.99 U | 1.04 U | 0.065 J |
| Perfluorodecanesulfonic acid | NS | NS | 0.25 U | 0.25 U | 0.26 U | 0.28 U |
| Perfluorodecanoic acid | NS | NS | 0.25 U | 0.25 U | 0.26 U | 0.28 U |
| Perfluorododecanesulfonic acid | NS | NS | 0.25 U | 0.25 U | 0.26 U | 0.28 U |
| Perfluorododecanoic acid | NS | NS | 0.25 U | 0.25 U | 0.26 U | 0.28 U |
| Perfluoroheptanesulfonic acid | NS | NS | 0.25 U | 0.25 U | 0.26 U | 0.28 U |
| Perfluoroheptanoic acid | NS | NS | 0.25 U | 0.25 U | 0.26 U | 0.28 U |
| Perfluorohexanesulfonic acid | NS | NS | 0.25 U | 0.25 U | 0.26 U | 0.28 U |
| Perfluorohexanoic acid | NS | NS | 0.25 U | 0.25 U | 0.26 U | 0.28 U |
| Perfluorononanesulfonic acid | NS | NS | 0.25 U | 0.25 U | 0.26 U | 0.28 U |
| Perfluorononanoic acid | NS | NS | 0.25 U | 0.25 U | 0.26 U | 0.28 U |
| Perfluorooctanesulfonamide | NS | NS | 0.25 U | 0.25 U | 0.26 U | 0.28 U |
| Perfluorooctanesulfonic acid (PFOS) | 0.88 | 44 | 0.25 U | 0.25 U | 0.26 U | 0.28 U |
| Perfluorooctanoic acid (PFOA) | 0.66 | 33 | 0.25 U | 0.25 U | 0.071 J | 0.13 J |
| Perfluoropentanoic acid | NS | NS | 0.49 U | 0.49 U | 0.52 U | 0.56 U |
| Perfluoropentansulfonic acid | NS | NS | 0.25 U | 0.25 U | 0.26 U | 0.28 U |
| Perfluorotetradecanoic acid | NS | NS | 0.25 U | 0.25 U | 0.26 U | 0.28 U |
| Perfluorotridecanoic acid | NS | NS | 0.25 U | 0.25 U | 0.26 U | 0.28 U |
| Perfluoroundecanoic acid | NS | NS | 0.25 U | 0.25 U | 0.26 U | 0.28 U |

**Table 7**
**380 4th Avenue**
**Brooklyn, NY**
Post_Remedial Soil Endpoint Analytical Results
*Per- and Polyfluoroalkyl Substances*

| | | AKRF Sample ID | EP-19_17.5_20231127 | EP-20_17.5_20231127 | EP-21_20_20231205 | EP-22_17.5_20231205 |
|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-293318-5 | 460-293318-6 | 460-293896-1 | 460-293896-2 |
| | | Date Sampled | 11/27/2023 | 11/27/2023 | 12/05/2023 | 12/05/2023 |
| | | Dilution Factor | 1 | 1 | 1 | 1 |
| | | Unit | ppb | ppb | ppb | ppb |
| **Compound** | **NYSDEC UUGV** | **NYSDEC RRGV** | CONC Q | CONC Q | CONC Q | CONC Q |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid | NS | NS | 1.08 U | 0.93 U | 0.93 UJ | 0.85 UJ |
| 1H,1H, 2H, 2H-Perfluorohexane sulfonic acid | NS | NS | 1.08 U | 0.93 U | 0.93 U | 0.85 U |
| 2H,2H,3H,3H-Perfluorooctanoic acid | NS | NS | 6.75 U | 5.81 U | 5.81 U | 5.33 U |
| 3-Perfluoroheptyl propanoic acid | NS | NS | 6.75 U | 5.81 U | 5.81 U | 5.33 U |
| 3-Perfluoropropyl propanoic acid | NS | NS | 1.35 U | 1.16 U | 1.16 U | 1.07 U |
| 4,8-Dioxa-3H-perfluorononanoic acid | NS | NS | 1.08 U | 0.93 U | 0.93 UJ | 0.85 UJ |
| 6:2 Fluorotelomer sulfonate | NS | NS | 1.08 U | 0.93 U | 0.93 U | 0.85 U |
| 8:2 Fluorotelomer sulfonate | NS | NS | 1.08 U | 0.93 U | 0.93 U | 0.85 U |
| 9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid | NS | NS | 1.08 U | 0.93 U | 0.93 U | 0.85 U |
| Hexafluoropropylene oxide dimer acid | NS | NS | 1.08 U | 0.93 U | 0.93 U | 0.85 U |
| N-ethyl perfluorooctanesulfonamide | NS | NS | 0.27 U | 0.23 U | 0.23 U | 0.21 U |
| N-ethyl perfluorooctanesulfonamidoacetic acid | NS | NS | 0.27 U | 0.23 U | 0.23 U | 0.21 U |
| N-ethyl perfluorooctanesulfonamidoethanol | NS | NS | 2.7 U | 2.32 U | 2.33 U | 2.13 U |
| N-methyl perfluorooctanesulfonamide | NS | NS | 0.27 U | 0.23 U | 0.23 U | 0.21 U |
| N-methyl perfluorooctanesulfonamidoacetic acid | NS | NS | 0.27 U | 0.23 U | 0.23 U | 0.21 U |
| N-methyl perfluorooctanesulfonamidoethanol | NS | NS | 2.7 U | 2.32 U | 2.33 U | 2.13 U |
| Nonafluoro-3,6-dioxaheptanoic acid | NS | NS | 0.54 U | 0.46 U | 0.47 U | 0.43 U |
| Perfluoro(2-ethoxyethane)sulfonic acid | NS | NS | 0.54 U | 0.46 U | 0.47 U | 0.43 U |
| Perfluoro-3-methoxypropanoic acid | NS | NS | 0.54 U | 0.46 U | 0.47 U | 0.43 U |
| Perfluoro-4-methoxybutanoic acid | NS | NS | 0.54 U | 0.46 U | 0.47 U | 0.43 U |
| Perfluorobutanesulfonic acid | NS | NS | 0.27 U | 0.23 U | 0.23 U | 0.21 U |
| Perfluorobutanoic acid | NS | NS | 1.08 U | 0.93 U | 0.93 U | 0.85 U |
| Perfluorodecanesulfonic acid | NS | NS | 0.27 U | 0.23 U | 0.23 U | 0.21 U |
| Perfluorodecanoic acid | NS | NS | 0.27 U | 0.23 U | 0.23 U | 0.21 U |
| Perfluorododecanesulfonic acid | NS | NS | 0.27 U | 0.23 U | 0.23 U | 0.21 U |
| Perfluorododecanoic acid | NS | NS | 0.27 U | 0.23 U | 0.23 U | 0.21 U |
| Perfluoroheptanesulfonic acid | NS | NS | 0.27 U | 0.23 U | 0.23 U | 0.21 U |
| Perfluoroheptanoic acid | NS | NS | 0.27 U | 0.23 U | 0.23 U | 0.21 U |
| Perfluorohexanesulfonic acid | NS | NS | 0.27 U | 0.23 U | 0.23 UJ | 0.21 UJ |
| Perfluorohexanoic acid | NS | NS | 0.27 U | 0.23 U | 0.23 U | 0.21 U |
| Perfluorononanesulfonic acid | NS | NS | 0.27 U | 0.23 U | 0.23 U | 0.21 U |
| Perfluorononanoic acid | NS | NS | 0.27 U | 0.23 U | 0.23 U | 0.21 U |
| Perfluorooctanesulfonamide | NS | NS | 0.27 U | 0.23 U | 0.23 U | 0.21 U |
| Perfluorooctanesulfonic acid (PFOS) | 0.88 | 44 | 0.27 U | 0.23 U | 0.088 J | 0.12 J |
| Perfluorooctanoic acid (PFOA) | 0.66 | 33 | 0.27 U | 0.23 U | 0.23 U | 0.21 U |
| Perfluoropentanoic acid | NS | NS | 0.043 J | 0.46 U | 0.47 U | 0.43 U |
| Perfluoropentansulfonic acid | NS | NS | 0.27 U | 0.23 U | 0.23 U | 0.21 U |
| Perfluorotetradecanoic acid | NS | NS | 0.27 U | 0.23 U | 0.23 U | 0.21 U |
| Perfluorotridecanoic acid | NS | NS | 0.27 U | 0.23 U | 0.23 U | 0.21 U |
| Perfluoroundecanoic acid | NS | NS | 0.27 U | 0.23 U | 0.23 U | 0.21 U |

**Table 7**
**380 4th Avenue**
**Brooklyn, NY**
Post_Remedial Soil Endpoint Analytical Results
*Per- and Polyfluoroalkyl Substances*

| | | AKRF Sample ID | EP-23_17.5_20231205 | EP-24_20_20231205 | EP-25_22.5_20231207 | EP-26_22.5_20231207 |
|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-293896-3 | 460-293896-4 | 460-294195-1 | 460-294195-2 |
| | | Date Sampled | 12/05/2023 | 12/05/2023 | 12/07/2023 | 12/07/2023 |
| | | Dilution Factor | 1 | 1 | 1 | 1 |
| | | Unit | ppb | ppb | ppb | ppb |
| **Compound** | **NYSDEC UUGV** | **NYSDEC RRGV** | CONC Q | CONC Q | CONC Q | CONC Q |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid | NS | NS | 0.98 UJ | 1.09 UJ | 0.91 U | 0.91 U |
| 1H,1H, 2H, 2H-Perfluorohexane sulfonic acid | NS | NS | 0.98 U | 1.09 U | 0.91 U | 0.91 U |
| 2H,2H,3H,3H-Perfluorooctanoic acid | NS | NS | 6.09 U | 6.79 U | 5.67 U | 5.71 U |
| 3-Perfluoroheptyl propanoic acid | NS | NS | 6.09 U | 6.79 U | 5.67 UJ | 5.71 UJ |
| 3-Perfluoropropyl propanoic acid | NS | NS | 1.22 U | 1.36 U | 1.13 U | 1.14 U |
| 4,8-Dioxa-3H-perfluorononanoic acid | NS | NS | 0.98 UJ | 1.09 UJ | 0.91 U | 0.91 U |
| 6:2 Fluorotelomer sulfonate | NS | NS | 0.98 U | 1.09 U | 0.91 U | 0.91 U |
| 8:2 Fluorotelomer sulfonate | NS | NS | 0.98 U | 1.09 U | 0.91 U | 0.91 U |
| 9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid | NS | NS | 0.98 U | 1.09 U | 0.91 U | 0.91 U |
| Hexafluoropropylene oxide dimer acid | NS | NS | 0.98 U | 1.09 U | 0.91 U | 0.91 U |
| N-ethyl perfluorooctanesulfonamide | NS | NS | 0.24 U | 0.27 U | 0.23 U | 0.23 U |
| N-ethyl perfluorooctanesulfonamidoacetic acid | NS | NS | 0.24 U | 0.27 U | 0.23 U | 0.23 U |
| N-ethyl perfluorooctanesulfonamidoethanol | NS | NS | 2.44 U | 2.72 U | 2.27 U | 2.28 U |
| N-methyl perfluorooctanesulfonamide | NS | NS | 0.24 U | 0.27 U | 0.23 U | 0.23 U |
| N-methyl perfluorooctanesulfonamidoacetic acid | NS | NS | 0.24 U | 0.27 U | 0.23 U | 0.23 U |
| N-methyl perfluorooctanesulfonamidoethanol | NS | NS | 2.44 U | 0.13 J | 2.27 U | 2.28 U |
| Nonafluoro-3,6-dioxaheptanoic acid | NS | NS | 0.49 U | 0.54 U | 0.45 U | 0.46 U |
| Perfluoro(2-ethoxyethane)sulfonic acid | NS | NS | 0.49 U | 0.54 U | 0.45 U | 0.46 U |
| Perfluoro-3-methoxypropanoic acid | NS | NS | 0.49 U | 0.54 U | 0.45 U | 0.46 U |
| Perfluoro-4-methoxybutanoic acid | NS | NS | 0.49 U | 0.54 U | 0.45 U | 0.46 U |
| Perfluorobutanesulfonic acid | NS | NS | 0.24 U | 0.27 U | 0.23 U | 0.23 U |
| Perfluorobutanoic acid | NS | NS | 0.98 U | 1.09 U | 0.91 U | 0.91 U |
| Perfluorodecanesulfonic acid | NS | NS | 0.24 U | 0.27 U | 0.23 U | 0.23 U |
| Perfluorodecanoic acid | NS | NS | 0.24 U | 0.27 U | 0.23 U | 0.23 U |
| Perfluorododecanesulfonic acid | NS | NS | 0.24 U | 0.27 U | 0.23 U | 0.23 U |
| Perfluorododecanoic acid | NS | NS | 0.24 U | 0.27 U | 0.23 U | 0.23 U |
| Perfluoroheptanesulfonic acid | NS | NS | 0.24 U | 0.27 U | 0.23 U | 0.23 U |
| Perfluoroheptanoic acid | NS | NS | 0.24 U | 0.27 U | 0.23 U | 0.23 U |
| Perfluorohexanesulfonic acid | NS | NS | 0.24 UJ | 0.27 UJ | 0.23 U | 0.23 U |
| Perfluorohexanoic acid | NS | NS | 0.24 U | 0.27 U | 0.23 U | 0.23 U |
| Perfluorononanesulfonic acid | NS | NS | 0.24 U | 0.27 U | 0.23 U | 0.23 U |
| Perfluorononanoic acid | NS | NS | 0.24 U | 0.27 U | 0.23 U | 0.23 U |
| Perfluorooctanesulfonamide | NS | NS | 0.24 U | 0.27 U | 0.23 U | 0.23 U |
| Perfluorooctanesulfonic acid (PFOS) | 0.88 | 44 | 0.24 U | 0.27 U | 0.23 U | 0.23 U |
| Perfluorooctanoic acid (PFOA) | 0.66 | 33 | 0.24 U | 0.27 U | 0.23 U | 0.23 U |
| Perfluoropentanoic acid | NS | NS | 0.49 U | 0.13 J | 0.45 U | 0.46 U |
| Perfluoropentansulfonic acid | NS | NS | 0.24 U | 0.27 U | 0.23 U | 0.23 U |
| Perfluorotetradecanoic acid | NS | NS | 0.24 U | 0.27 U | 0.23 U | 0.23 U |
| Perfluorotridecanoic acid | NS | NS | 0.24 U | 0.27 U | 0.23 U | 0.23 U |
| Perfluoroundecanoic acid | NS | NS | 0.24 U | 0.27 U | 0.23 U | 0.23 U |

**Table 7**
**380 4th Avenue**
**Brooklyn, NY**
Post_Remedial Soil Endpoint Analytical Results
*Per- and Polyfluoroalkyl Substances*

| | | AKRF Sample ID | EP-27_20_20231207 | EP-28_20_20231207 | EP-29_20_20231207 | EP-30_20_20231207 |
|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-294195-3 | 460-294195-4 | 460-294195-5 | 460-294195-6 |
| | | Date Sampled | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 |
| | | Dilution Factor | 1 | 1 | 1 | 1 |
| | | Unit | ppb | ppb | ppb | ppb |
| **Compound** | **NYSDEC UUGV** | **NYSDEC RRGV** | CONC Q | CONC Q | CONC Q | CONC Q |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid | NS | NS | 0.91 U | 0.91 U | 1.01 U | 1.01 U |
| 1H,1H, 2H, 2H-Perfluorohexane sulfonic acid | NS | NS | 0.91 U | 0.91 U | 1.01 U | 1.01 U |
| 2H,2H,3H,3H-Perfluorooctanoic acid | NS | NS | 5.7 U | 5.69 U | 6.29 U | 6.32 U |
| 3-Perfluoroheptyl propanoic acid | NS | NS | 5.7 UJ | 5.69 UJ | 6.29 UJ | 6.32 UJ |
| 3-Perfluoropropyl propanoic acid | NS | NS | 1.14 U | 1.14 U | 1.26 U | 1.26 U |
| 4,8-Dioxa-3H-perfluorononanoic acid | NS | NS | 0.91 U | 0.91 U | 1.01 U | 1.01 U |
| 6:2 Fluorotelomer sulfonate | NS | NS | 0.91 U | 0.91 U | 1.01 U | 1.01 U |
| 8:2 Fluorotelomer sulfonate | NS | NS | 0.91 U | 0.91 U | 1.01 U | 1.01 U |
| 9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid | NS | NS | 0.91 U | 0.91 U | 1.01 U | 1.01 U |
| Hexafluoropropylene oxide dimer acid | NS | NS | 0.91 U | 0.91 U | 1.01 U | 1.01 U |
| N-ethyl perfluorooctanesulfonamide | NS | NS | 0.23 U | 0.23 U | 0.25 U | 0.25 U |
| N-ethyl perfluorooctanesulfonamidoacetic acid | NS | NS | 0.23 U | 0.23 U | 0.25 U | 0.25 U |
| N-ethyl perfluorooctanesulfonamidoethanol | NS | NS | 2.28 U | 2.27 U | 2.52 U | 2.53 U |
| N-methyl perfluorooctanesulfonamide | NS | NS | 0.23 U | 0.23 U | 0.25 U | 0.25 U |
| N-methyl perfluorooctanesulfonamidoacetic acid | NS | NS | 0.23 U | 0.23 U | 0.25 U | 0.25 U |
| N-methyl perfluorooctanesulfonamidoethanol | NS | NS | 2.28 U | 2.27 U | 2.52 U | 2.53 U |
| Nonafluoro-3,6-dioxaheptanoic acid | NS | NS | 0.46 U | 0.45 U | 0.5 U | 0.51 U |
| Perfluoro(2-ethoxyethane)sulfonic acid | NS | NS | 0.46 U | 0.45 U | 0.5 U | 0.51 U |
| Perfluoro-3-methoxypropanoic acid | NS | NS | 0.46 U | 0.45 U | 0.5 U | 0.51 U |
| Perfluoro-4-methoxybutanoic acid | NS | NS | 0.46 U | 0.45 U | 0.5 U | 0.51 U |
| Perfluorobutanesulfonic acid | NS | NS | 0.23 U | 0.23 U | 0.05 J | 0.25 U |
| Perfluorobutanoic acid | NS | NS | 0.91 U | 0.91 U | 1.01 U | 1.01 U |
| Perfluorodecanesulfonic acid | NS | NS | 0.23 U | 0.23 U | 0.25 U | 0.25 U |
| Perfluorodecanoic acid | NS | NS | 0.23 U | 0.23 U | 0.25 U | 0.25 U |
| Perfluorododecanesulfonic acid | NS | NS | 0.23 U | 0.23 U | 0.25 U | 0.25 U |
| Perfluorododecanoic acid | NS | NS | 0.23 U | 0.23 U | 0.25 U | 0.25 U |
| Perfluoroheptanesulfonic acid | NS | NS | 0.23 U | 0.23 U | 0.25 U | 0.25 U |
| Perfluoroheptanoic acid | NS | NS | 0.23 U | 0.23 U | 0.25 U | 0.25 U |
| Perfluorohexanesulfonic acid | NS | NS | 0.23 U | 0.23 U | 0.25 U | 0.25 U |
| Perfluorohexanoic acid | NS | NS | 0.23 U | 0.23 U | 0.25 U | 0.25 U |
| Perfluorononanesulfonic acid | NS | NS | 0.23 U | 0.23 U | 0.25 U | 0.25 U |
| Perfluorononanoic acid | NS | NS | 0.23 U | 0.23 U | 0.25 U | 0.25 U |
| Perfluorooctanesulfonamide | NS | NS | 0.23 U | 0.23 U | 0.25 U | 0.25 U |
| Perfluorooctanesulfonic acid (PFOS) | 0.88 | 44 | 0.23 U | 0.23 U | 0.25 U | 0.25 U |
| Perfluorooctanoic acid (PFOA) | 0.66 | 33 | 0.23 U | 0.23 U | 0.25 U | 0.25 U |
| Perfluoropentanoic acid | NS | NS | 0.46 U | 0.45 U | 0.042 J | 0.054 J |
| Perfluoropentansulfonic acid | NS | NS | 0.23 U | 0.23 U | 0.25 U | 0.25 U |
| Perfluorotetradecanoic acid | NS | NS | 0.23 U | 0.23 U | 0.25 U | 0.25 U |
| Perfluorotridecanoic acid | NS | NS | 0.23 U | 0.23 U | 0.25 U | 0.25 U |
| Perfluoroundecanoic acid | NS | NS | 0.23 U | 0.23 U | 0.25 U | 0.25 U |

**Table 7**
**380 4th Avenue**
**Brooklyn, NY**
Post_Remedial Soil Endpoint Analytical Results
*Per- and Polyfluoroalkyl Substances*

| | | AKRF Sample ID | EP-31_20_20231207 | EP-32_20_20231207 | EP-33_20_20231207 | EP-34_20_20231207 |
|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-294195-7 | 460-294195-8 | 460-294195-9 | 460-294195-10 |
| | | Date Sampled | 12/07/2023 | 12/07/2023 | 12/07/2023 | 12/07/2023 |
| | | Dilution Factor | 1 | 1 | 1 | 1 |
| | | Unit | ppb | ppb | ppb | ppb |
| **Compound** | **NYSDEC UUGV** | **NYSDEC RRGV** | CONC Q | CONC Q | CONC Q | CONC Q |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid | NS | NS | 1.01 U | 1.08 U | 0.97 U | 1.03 U |
| 1H,1H, 2H, 2H-Perfluorohexane sulfonic acid | NS | NS | 1.01 U | 1.08 U | 0.97 U | 1.03 U |
| 2H,2H,3H,3H-Perfluorooctanoic acid | NS | NS | 6.3 U | 6.77 U | 6.08 U | 6.42 U |
| 3-Perfluoroheptyl propanoic acid | NS | NS | 6.3 UJ | 6.77 UJ | 6.08 UJ | 6.42 UJ |
| 3-Perfluoropropyl propanoic acid | NS | NS | 1.26 U | 1.35 U | 1.22 U | 1.28 U |
| 4,8-Dioxa-3H-perfluorononanoic acid | NS | NS | 1.01 U | 1.08 U | 0.97 U | 1.03 U |
| 6:2 Fluorotelomer sulfonate | NS | NS | 1.01 U | 1.08 U | 0.97 U | 1.03 U |
| 8:2 Fluorotelomer sulfonate | NS | NS | 1.01 U | 1.08 U | 0.97 U | 1.03 U |
| 9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid | NS | NS | 1.01 U | 1.08 U | 0.97 U | 1.03 U |
| Hexafluoropropylene oxide dimer acid | NS | NS | 1.01 U | 1.08 U | 0.97 U | 1.03 U |
| N-ethyl perfluorooctanesulfonamide | NS | NS | 0.25 U | 0.27 U | 0.24 U | 0.26 U |
| N-ethyl perfluorooctanesulfonamidoacetic acid | NS | NS | 0.25 U | 0.27 U | 0.24 U | 0.26 U |
| N-ethyl perfluorooctanesulfonamidoethanol | NS | NS | 2.52 U | 2.71 U | 2.43 U | 2.57 U |
| N-methyl perfluorooctanesulfonamide | NS | NS | 0.25 U | 0.27 U | 0.24 U | 0.26 U |
| N-methyl perfluorooctanesulfonamidoacetic acid | NS | NS | 0.25 U | 0.27 U | 0.24 U | 0.26 U |
| N-methyl perfluorooctanesulfonamidoethanol | NS | NS | 2.52 U | 0.14 J | 2.43 U | 2.57 U |
| Nonafluoro-3,6-dioxaheptanoic acid | NS | NS | 0.5 U | 0.54 U | 0.49 U | 0.51 U |
| Perfluoro(2-ethoxyethane)sulfonic acid | NS | NS | 0.5 U | 0.54 U | 0.49 U | 0.51 U |
| Perfluoro-3-methoxypropanoic acid | NS | NS | 0.5 U | 0.54 U | 0.49 U | 0.51 U |
| Perfluoro-4-methoxybutanoic acid | NS | NS | 0.5 U | 0.54 U | 0.49 U | 0.51 U |
| Perfluorobutanesulfonic acid | NS | NS | 0.04 J | 0.038 J | 0.24 U | 0.033 J |
| Perfluorobutanoic acid | NS | NS | 1.01 U | 1.08 U | 0.97 U | 1.03 U |
| Perfluorodecanesulfonic acid | NS | NS | 0.25 U | 0.27 U | 0.24 U | 0.26 U |
| Perfluorodecanoic acid | NS | NS | 0.25 U | 0.27 U | 0.24 U | 0.26 U |
| Perfluorododecanesulfonic acid | NS | NS | 0.25 U | 0.27 U | 0.24 U | 0.26 U |
| Perfluorododecanoic acid | NS | NS | 0.25 U | 0.27 U | 0.24 U | 0.26 U |
| Perfluoroheptanesulfonic acid | NS | NS | 0.25 U | 0.27 U | 0.24 U | 0.26 U |
| Perfluoroheptanoic acid | NS | NS | 0.25 U | 0.27 U | 0.24 U | 0.26 U |
| Perfluorohexanesulfonic acid | NS | NS | 0.25 U | 0.27 U | 0.24 U | 0.26 U |
| Perfluorohexanoic acid | NS | NS | 0.25 U | 0.27 U | 0.24 U | 0.26 U |
| Perfluorononanesulfonic acid | NS | NS | 0.25 U | 0.27 U | 0.24 U | 0.26 U |
| Perfluorononanoic acid | NS | NS | 0.25 U | 0.27 U | 0.24 U | 0.26 U |
| Perfluorooctanesulfonamide | NS | NS | 0.25 U | 0.27 U | 0.24 U | 0.26 U |
| Perfluorooctanesulfonic acid (PFOS) | 0.88 | 44 | 0.25 U | 0.27 U | 0.24 U | 0.26 U |
| Perfluorooctanoic acid (PFOA) | 0.66 | 33 | 0.25 U | 0.27 U | 0.24 U | 0.26 U |
| Perfluoropentanoic acid | NS | NS | 0.028 J | 0.54 U | 0.072 J | 0.044 J |
| Perfluoropentansulfonic acid | NS | NS | 0.25 U | 0.27 U | 0.24 U | 0.26 U |
| Perfluorotetradecanoic acid | NS | NS | 0.25 U | 0.27 U | 0.24 U | 0.26 U |
| Perfluorotridecanoic acid | NS | NS | 0.25 U | 0.27 U | 0.24 U | 0.26 U |
| Perfluoroundecanoic acid | NS | NS | 0.25 U | 0.27 U | 0.24 U | 0.26 U |

**Table 7**
**380 4th Avenue**
**Brooklyn, NY**
Post_Remedial Soil Endpoint Analytical Results
*Per- and Polyfluoroalkyl Substances*

| | | AKRF Sample ID | EP-35_25_20231207 | EP-36_25_20231207 | EP-37_17.5_20231215 | EP-X3_20231215 |
|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-294195-11 | 460-294195-12 | 460-294809-1 | 460-294809-9 |
| | | Date Sampled | 12/07/2023 | 12/07/2023 | 12/15/2023 | 12/15/2023 |
| | | Dilution Factor | 1 | 1 | 1 | 1 |
| | | Unit | ppb | ppb | ppb | ppb |
| **Compound** | **NYSDEC UUGV** | **NYSDEC RRGV** | CONC Q | CONC Q | CONC Q | CONC Q |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid | NS | NS | 1.06 U | 1.11 U | 0.99 U | 0.95 U |
| 1H,1H, 2H, 2H-Perfluorohexane sulfonic acid | NS | NS | 1.06 U | 1.11 U | 0.99 U | 0.95 U |
| 2H,2H,3H,3H-Perfluorooctanoic acid | NS | NS | 6.62 U | 6.97 U | 6.18 U | 5.93 U |
| 3-Perfluoroheptyl propanoic acid | NS | NS | 6.62 UJ | 6.97 UJ | 6.18 U | 5.93 U |
| 3-Perfluoropropyl propanoic acid | NS | NS | 1.32 U | 1.39 U | 1.24 U | 1.19 U |
| 4,8-Dioxa-3H-perfluorononanoic acid | NS | NS | 1.06 U | 1.11 U | 0.99 U | 0.95 U |
| 6:2 Fluorotelomer sulfonate | NS | NS | 1.06 U | 1.11 U | 0.99 U | 0.95 U |
| 8:2 Fluorotelomer sulfonate | NS | NS | 1.06 U | 1.11 U | 0.99 U | 0.95 U |
| 9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid | NS | NS | 1.06 U | 1.11 U | 0.99 U | 0.95 U |
| Hexafluoropropylene oxide dimer acid | NS | NS | 1.06 U | 1.11 U | 0.99 U | 0.95 U |
| N-ethyl perfluorooctanesulfonamide | NS | NS | 0.26 U | 0.28 U | 0.25 U | 0.24 U |
| N-ethyl perfluorooctanesulfonamidoacetic acid | NS | NS | 0.26 U | 0.28 U | 0.25 U | 0.24 U |
| N-ethyl perfluorooctanesulfonamidoethanol | NS | NS | 2.65 U | 2.79 U | 2.47 U | 2.37 U |
| N-methyl perfluorooctanesulfonamide | NS | NS | 0.26 U | 0.28 U | 0.25 U | 0.24 U |
| N-methyl perfluorooctanesulfonamidoacetic acid | NS | NS | 0.26 U | 0.28 U | 0.25 U | 0.24 U |
| N-methyl perfluorooctanesulfonamidoethanol | NS | NS | 2.65 U | 2.79 U | 2.47 U | 2.37 U |
| Nonafluoro-3,6-dioxaheptanoic acid | NS | NS | 0.53 U | 0.56 U | 0.49 U | 0.47 U |
| Perfluoro(2-ethoxyethane)sulfonic acid | NS | NS | 0.53 U | 0.56 U | 0.49 U | 0.47 U |
| Perfluoro-3-methoxypropanoic acid | NS | NS | 0.53 U | 0.56 U | 0.49 U | 0.47 U |
| Perfluoro-4-methoxybutanoic acid | NS | NS | 0.53 U | 0.56 U | 0.49 U | 0.47 U |
| Perfluorobutanesulfonic acid | NS | NS | 0.26 U | 0.084 J | 0.14 J | 0.24 U |
| Perfluorobutanoic acid | NS | NS | 1.06 U | 1.11 U | 0.99 U | 0.95 U |
| Perfluorodecanesulfonic acid | NS | NS | 0.26 U | 0.28 U | 0.25 U | 0.24 U |
| Perfluorodecanoic acid | NS | NS | 0.26 U | 0.28 U | 0.25 U | 0.24 U |
| Perfluorododecanesulfonic acid | NS | NS | 0.26 U | 0.28 U | 0.25 U | 0.24 U |
| Perfluorododecanoic acid | NS | NS | 0.26 U | 0.28 U | 0.25 U | 0.24 U |
| Perfluoroheptanesulfonic acid | NS | NS | 0.26 U | 0.28 U | 0.25 U | 0.24 U |
| Perfluoroheptanoic acid | NS | NS | 0.26 U | 0.28 U | 0.25 U | 0.24 U |
| Perfluorohexanesulfonic acid | NS | NS | 0.26 U | 0.28 U | 0.25 U | 0.24 U |
| Perfluorohexanoic acid | NS | NS | 0.26 U | 0.28 U | 0.036 J | 0.025 J |
| Perfluorononanesulfonic acid | NS | NS | 0.26 U | 0.28 U | 0.25 U | 0.24 U |
| Perfluorononanoic acid | NS | NS | 0.26 U | 0.28 U | 0.25 U | 0.24 U |
| Perfluorooctanesulfonamide | NS | NS | 0.26 U | 0.28 U | 0.25 U | 0.24 U |
| Perfluorooctanesulfonic acid (PFOS) | 0.88 | 44 | 0.26 U | 0.28 U | 0.25 U | 0.24 U |
| Perfluorooctanoic acid (PFOA) | 0.66 | 33 | 0.12 J | 0.28 U | 0.11 J | 0.13 J |
| Perfluoropentanoic acid | NS | NS | 0.53 U | 0.56 U | 0.49 U | 0.47 U |
| Perfluoropentansulfonic acid | NS | NS | 0.26 U | 0.28 U | 0.25 U | 0.24 U |
| Perfluorotetradecanoic acid | NS | NS | 0.26 U | 0.28 U | 0.25 U | 0.24 U |
| Perfluorotridecanoic acid | NS | NS | 0.26 U | 0.28 U | 0.25 U | 0.24 U |
| Perfluoroundecanoic acid | NS | NS | 0.26 U | 0.28 U | 0.25 U | 0.24 U |

**Table 7**
**380 4th Avenue**
**Brooklyn, NY**
Post_Remedial Soil Endpoint Analytical Results
*Per- and Polyfluoroalkyl Substances*

| | | AKRF Sample ID | EP-38_17.5_20231215 | EP-39_20_20231215 | EP-40_17.5_20231215 | EP-41_15_20231215 |
|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-294809-2 | 460-294809-3 | 460-294809-4 | 460-294809-5 |
| | | Date Sampled | 12/15/2023 | 12/15/2023 | 12/15/2023 | 12/15/2023 |
| | | Dilution Factor | 1 | 1 | 1 | 1 |
| | | Unit | ppb | ppb | ppb | ppb |
| **Compound** | **NYSDEC UUGV** | **NYSDEC RRGV** | CONC Q | CONC Q | CONC Q | CONC Q |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid | NS | NS | 1.06 U | 0.92 U | 0.84 U | 0.87 U |
| 1H,1H, 2H, 2H-Perfluorohexane sulfonic acid | NS | NS | 1.06 U | 0.92 U | 0.84 U | 0.87 U |
| 2H,2H,3H,3H-Perfluorooctanoic acid | NS | NS | 6.64 U | 5.77 U | 5.28 U | 5.41 U |
| 3-Perfluoroheptyl propanoic acid | NS | NS | 6.64 U | 5.77 U | 5.28 U | 5.41 U |
| 3-Perfluoropropyl propanoic acid | NS | NS | 1.33 U | 1.15 U | 1.06 U | 1.08 U |
| 4,8-Dioxa-3H-perfluorononanoic acid | NS | NS | 1.06 U | 0.92 U | 0.84 U | 0.87 U |
| 6:2 Fluorotelomer sulfonate | NS | NS | 1.06 U | 0.92 U | 0.84 U | 0.87 U |
| 8:2 Fluorotelomer sulfonate | NS | NS | 1.06 U | 0.92 U | 0.84 U | 0.87 U |
| 9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid | NS | NS | 1.06 U | 0.92 U | 0.84 U | 0.87 U |
| Hexafluoropropylene oxide dimer acid | NS | NS | 1.06 U | 0.92 U | 0.84 U | 0.87 U |
| N-ethyl perfluorooctanesulfonamide | NS | NS | 0.27 U | 0.23 U | 0.21 U | 0.22 U |
| N-ethyl perfluorooctanesulfonamidoacetic acid | NS | NS | 0.27 U | 0.23 U | 0.21 U | 0.22 U |
| N-ethyl perfluorooctanesulfonamidoethanol | NS | NS | 2.66 U | 2.31 U | 2.11 U | 2.16 U |
| N-methyl perfluorooctanesulfonamide | NS | NS | 0.27 U | 0.23 U | 0.21 U | 0.22 U |
| N-methyl perfluorooctanesulfonamidoacetic acid | NS | NS | 0.27 U | 0.23 U | 0.21 U | 0.22 U |
| N-methyl perfluorooctanesulfonamidoethanol | NS | NS | 2.66 U | 2.31 U | 2.11 U | 2.16 U |
| Nonafluoro-3,6-dioxaheptanoic acid | NS | NS | 0.53 U | 0.46 U | 0.42 U | 0.43 U |
| Perfluoro(2-ethoxyethane)sulfonic acid | NS | NS | 0.53 U | 0.46 U | 0.42 U | 0.43 U |
| Perfluoro-3-methoxypropanoic acid | NS | NS | 0.53 U | 0.46 U | 0.42 U | 0.43 U |
| Perfluoro-4-methoxybutanoic acid | NS | NS | 0.53 U | 0.46 U | 0.42 U | 0.43 U |
| Perfluorobutanesulfonic acid | NS | NS | 0.051 J | 0.23 U | 0.21 U | 0.22 U |
| Perfluorobutanoic acid | NS | NS | 1.06 U | 0.92 U | 0.84 U | 0.87 U |
| Perfluorodecanesulfonic acid | NS | NS | 0.27 U | 0.23 U | 0.21 U | 0.22 U |
| Perfluorodecanoic acid | NS | NS | 0.27 U | 0.23 U | 0.21 U | 0.22 U |
| Perfluorododecanesulfonic acid | NS | NS | 0.27 U | 0.23 U | 0.21 U | 0.22 U |
| Perfluorododecanoic acid | NS | NS | 0.27 U | 0.23 U | 0.21 U | 0.22 U |
| Perfluoroheptanesulfonic acid | NS | NS | 0.27 U | 0.23 U | 0.21 U | 0.22 U |
| Perfluoroheptanoic acid | NS | NS | 0.27 U | 0.23 U | 0.21 U | 0.22 U |
| Perfluorohexanesulfonic acid | NS | NS | 0.27 U | 0.23 U | 0.21 U | 0.22 U |
| Perfluorohexanoic acid | NS | NS | 0.05 J | 0.044 J | 0.21 U | 0.22 U |
| Perfluorononanesulfonic acid | NS | NS | 0.27 U | 0.23 U | 0.21 U | 0.22 U |
| Perfluorononanoic acid | NS | NS | 0.27 U | 0.23 U | 0.21 U | 0.22 U |
| Perfluorooctanesulfonamide | NS | NS | 0.27 U | 0.23 U | 0.22 U | 0.22 U |
| Perfluorooctanesulfonic acid (PFOS) | 0.88 | 44 | 0.27 U | 0.23 U | 0.21 U | 0.089 J |
| Perfluorooctanoic acid (PFOA) | 0.66 | 33 | 0.17 J | 0.087 J | 0.21 U | 0.066 J |
| Perfluoropentanoic acid | NS | NS | 0.53 U | 0.46 U | 0.42 U | 0.43 U |
| Perfluoropentansulfonic acid | NS | NS | 0.092 J | 0.23 U | 0.21 U | 0.22 U |
| Perfluorotetradecanoic acid | NS | NS | 0.27 U | 0.23 U | 0.21 U | 0.22 U |
| Perfluorotridecanoic acid | NS | NS | 0.27 U | 0.23 U | 0.21 U | 0.22 U |
| Perfluoroundecanoic acid | NS | NS | 0.27 U | 0.23 U | 0.21 U | 0.22 U |

**Table 7**
**380 4th Avenue**
**Brooklyn, NY**
Post_Remedial Soil Endpoint Analytical Results
*Per- and Polyfluoroalkyl Substances*

| | | AKRF Sample ID | EP-42_17.5_20231215 | EP-43_17.5_20231215 | EP-44_20_20231215 | A4HAZ_B_20_20230928 |
|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-294809-6 | 460-294809-7 | 460-294809-8 | 460-289205-1 |
| | | Date Sampled | 12/15/2023 | 12/15/2023 | 12/15/2023 | 9/28/2023 |
| | | Dilution Factor | 1 | 1 | 1 | 1 |
| | | Unit | ppb | ppb | ppb | ppb |
| **Compound** | **NYSDEC UUGV** | **NYSDEC RRGV** | CONC Q | CONC Q | CONC Q | CONC Q |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid | NS | NS | 0.93 U | 0.89 U | 1.05 U | 1.01 U |
| 1H,1H, 2H, 2H-Perfluorohexane sulfonic acid | NS | NS | 0.93 U | 0.89 U | 1.05 U | 1.05 U |
| 2H,2H,3H,3H-Perfluorooctanoic acid | NS | NS | 5.83 U | 5.58 U | 6.54 U | 6.55 U |
| 3-Perfluoroheptyl propanoic acid | NS | NS | 5.83 U | 5.58 U | 6.54 U | 6.55 U |
| 3-Perfluoropropyl propanoic acid | NS | NS | 1.17 U | 1.12 U | 1.31 U | 1.31 U |
| 4,8-Dioxa-3H-perfluorononanoic acid | NS | NS | 0.93 U | 0.89 U | 1.05 U | 1.05 U |
| 6:2 Fluorotelomer sulfonate | NS | NS | 0.93 U | 0.89 U | 1.05 U | 1.05 U |
| 8:2 Fluorotelomer sulfonate | NS | NS | 0.93 U | 0.89 U | 1.05 U | 1.05 U |
| 9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid | NS | NS | 0.93 U | 0.89 U | 1.05 U | 1.05 U |
| Hexafluoropropylene oxide dimer acid | NS | NS | 0.93 U | 0.89 U | 1.05 U | 1.05 U |
| N-ethyl perfluorooctanesulfonamide | NS | NS | 0.23 U | 0.22 U | 0.26 U | 0.26 U |
| N-ethyl perfluorooctanesulfonamidoacetic acid | NS | NS | 0.23 U | 0.22 U | 0.26 U | 0.26 U |
| N-ethyl perfluorooctanesulfonamidoethanol | NS | NS | 2.33 U | 2.23 U | 2.62 U | 2.62 U |
| N-methyl perfluorooctanesulfonamide | NS | NS | 0.23 U | 0.22 U | 0.26 U | 0.26 U |
| N-methyl perfluorooctanesulfonamidoacetic acid | NS | NS | 0.23 U | 0.22 U | 0.26 U | 0.26 U |
| N-methyl perfluorooctanesulfonamidoethanol | NS | NS | 2.33 U | 2.23 U | 2.62 U | 2.62 U |
| Nonafluoro-3,6-dioxaheptanoic acid | NS | NS | 0.47 U | 0.45 U | 0.52 U | 0.52 U |
| Perfluoro(2-ethoxyethane)sulfonic acid | NS | NS | 0.47 U | 0.45 U | 0.52 U | 0.52 U |
| Perfluoro-3-methoxypropanoic acid | NS | NS | 0.47 U | 0.45 U | 0.52 U | 0.52 U |
| Perfluoro-4-methoxybutanoic acid | NS | NS | 0.47 U | 0.45 U | 0.52 U | 0.52 U |
| Perfluorobutanesulfonic acid | NS | NS | 0.024 J | 0.22 U | 0.26 U | 0.26 U |
| Perfluorobutanoic acid | NS | NS | 0.93 U | 0.89 U | 1.05 U | 1.05 U |
| Perfluorodecanesulfonic acid | NS | NS | 0.23 U | 0.22 U | 0.26 U | 0.26 UJ |
| Perfluorodecanoic acid | NS | NS | 0.23 U | 0.22 U | 0.26 U | 0.26 U |
| Perfluorododecanesulfonic acid | NS | NS | 0.23 U | 0.22 U | 0.26 U | 0.26 UJ |
| Perfluorododecanoic acid | NS | NS | 0.23 U | 0.22 U | 0.26 U | 0.26 U |
| Perfluoroheptanesulfonic acid | NS | NS | 0.23 U | 0.22 U | 0.26 U | 0.26 U |
| Perfluoroheptanoic acid | NS | NS | 0.23 U | 0.22 U | 0.26 U | 0.26 U |
| Perfluorohexanesulfonic acid | NS | NS | 0.23 U | 0.22 U | 0.26 U | 0.26 U |
| Perfluorohexanoic acid | NS | NS | 0.23 U | 0.22 U | 0.26 U | 0.26 U |
| Perfluorononanesulfonic acid | NS | NS | 0.23 U | 0.22 U | 0.26 U | 0.26 U |
| Perfluorononanoic acid | NS | NS | 0.23 U | 0.22 U | 0.26 U | 0.26 U |
| Perfluorooctanesulfonamide | NS | NS | 0.23 U | 0.22 U | 0.26 U | 0.26 U |
| Perfluorooctanesulfonic acid (PFOS) | 0.88 | 44 | 0.072 J | 0.22 U | 0.26 U | 0.26 U |
| Perfluorooctanoic acid (PFOA) | 0.66 | 33 | 0.23 U | 0.06 J | 0.16 J | 0.26 U |
| Perfluoropentanoic acid | NS | NS | 0.47 U | 0.45 U | 0.52 U | 0.52 U |
| Perfluoropentansulfonic acid | NS | NS | 0.23 U | 0.22 U | 0.26 U | 0.26 U |
| Perfluorotetradecanoic acid | NS | NS | 0.23 U | 0.22 U | 0.26 U | 0.26 U |
| Perfluorotridecanoic acid | NS | NS | 0.23 U | 0.22 U | 0.26 U | 0.26 U |
| Perfluoroundecanoic acid | NS | NS | 0.23 U | 0.22 U | 0.26 U | 0.26 U |

**Table 7**
**380 4th Avenue**
**Brooklyn, NY**
Post_Remedial Soil Endpoint Analytical Results
*Per- and Polyfluoroalkyl Substances*

| | | **AKRF Sample ID** | A4HAZ_X1_20230928 | B1HAZ_B_20_20230601 | B1HAZ_B_20_20230601 | B1HAZ_X1_20230601 |
|---|---|---|---|---|---|---|
| | | **Laboratory Sample ID** | 460-289205-2 | 460-281406-1 | 460-281406-1 | 460-281406-2 |
| | | **Date Sampled** | 9/28/2023 | 6/01/2023 | 6/01/2023 | 6/01/2023 |
| | | **Dilution Factor** | 1 | 1 | 10 | 1 |
| | | **Unit** | ppb | ppb | ppb | ppb |
| **Compound** | **NYSDEC UUGV** | **NYSDEC RRGV** | CONC Q | CONC Q | CONC Q | CONC Q |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid | NS | NS | 1.85 U | 0.8 U | NR | 0.79 U |
| 1H,1H, 2H, 2H-Perfluorohexane sulfonic acid | NS | NS | 0.93 U | NR | 7.97 U | NR |
| 2H,2H,3H,3H-Perfluorooctanoic acid | NS | NS | 5.79 U | 4.98 U | NR | 4.96 U |
| 3-Perfluoroheptyl propanoic acid | NS | NS | 5.79 U | 4.98 UJ | NR | 4.96 U |
| 3-Perfluoropropyl propanoic acid | NS | NS | 1.16 U | 1 U | NR | 0.99 U |
| 4,8-Dioxa-3H-perfluorononanoic acid | NS | NS | 0.93 U | 0.8 UJ | NR | 0.79 UJ |
| 6:2 Fluorotelomer sulfonate | NS | NS | 0.93 U | NR | 9.96 U | NR |
| 8:2 Fluorotelomer sulfonate | NS | NS | 0.93 U | NR | 9.96 U | NR |
| 9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid | NS | NS | 0.93 U | 0.8 U | NR | 0.79 U |
| Hexafluoropropylene oxide dimer acid | NS | NS | 0.93 U | 0.8 U | NR | 0.79 U |
| N-ethyl perfluorooctanesulfonamide | NS | NS | 0.23 UJ | 0.2 U | NR | 0.2 U |
| N-ethyl perfluorooctanesulfonamidoacetic acid | NS | NS | 0.23 UJ | 0.2 U | NR | 0.2 U |
| N-ethyl perfluorooctanesulfonamidoethanol | NS | NS | 4.63 U | 1.99 U | NR | 1.98 U |
| N-methyl perfluorooctanesulfonamide | NS | NS | 0.23 UJ | 0.2 U | NR | 0.2 U |
| N-methyl perfluorooctanesulfonamidoacetic acid | NS | NS | 0.23 UJ | 0.2 U | NR | 0.2 U |
| N-methyl perfluorooctanesulfonamidoethanol | NS | NS | 4.63 U | 1.99 U | NR | 1.98 U |
| Nonafluoro-3,6-dioxaheptanoic acid | NS | NS | 0.46 U | 0.4 U | NR | 0.4 U |
| Perfluoro(2-ethoxyethane)sulfonic acid | NS | NS | 0.46 U | 0.4 U | NR | 0.4 U |
| Perfluoro-3-methoxypropanoic acid | NS | NS | 0.46 U | 0.4 U | NR | 0.4 U |
| Perfluoro-4-methoxybutanoic acid | NS | NS | 0.46 U | 0.4 U | NR | 0.4 U |
| Perfluorobutanesulfonic acid | NS | NS | 0.23 U | 0.2 U | NR | 0.2 U |
| Perfluorobutanoic acid | NS | NS | 0.93 U | 0.8 U | NR | 0.79 U |
| Perfluorodecanesulfonic acid | NS | NS | 0.23 UJ | 0.2 U | NR | 0.2 U |
| Perfluorodecanoic acid | NS | NS | 0.23 U | 0.2 U | NR | 0.2 U |
| Perfluorododecanesulfonic acid | NS | NS | 0.23 UJ | 0.2 U | NR | 0.2 U |
| Perfluorododecanoic acid | NS | NS | 0.23 UJ | 0.2 U | NR | 0.2 U |
| Perfluoroheptanesulfonic acid | NS | NS | 0.23 U | 0.2 U | NR | 0.2 U |
| Perfluoroheptanoic acid | NS | NS | 0.23 U | 0.2 U | NR | 0.2 U |
| Perfluorohexanesulfonic acid | NS | NS | 0.23 UJ | 0.2 U | NR | 0.2 U |
| Perfluorohexanoic acid | NS | NS | 0.05 J | 0.2 U | NR | 0.2 U |
| Perfluorononanesulfonic acid | NS | NS | 0.23 U | 0.2 U | NR | 0.2 U |
| Perfluorononanoic acid | NS | NS | 0.23 U | 0.2 U | NR | 0.2 U |
| Perfluorooctanesulfonamide | NS | NS | 0.23 UJ | 0.2 U | NR | 0.2 U |
| Perfluorooctanesulfonic acid (PFOS) | 0.88 | 44 | 0.23 UJ | 0.07 J | NR | 0.089 J |
| Perfluorooctanoic acid (PFOA) | 0.66 | 33 | 0.12 J | 0.22 JK | NR | 0.2 U |
| Perfluoropentanoic acid | NS | NS | 0.46 U | 0.4 U | NR | 0.4 U |
| Perfluoropentansulfonic acid | NS | NS | 0.23 U | 0.2 U | NR | 0.2 U |
| Perfluorotetradecanoic acid | NS | NS | 0.46 U | 0.2 U | NR | 0.2 U |
| Perfluorotridecanoic acid | NS | NS | 0.46 U | 0.2 U | NR | 0.2 U |
| Perfluoroundecanoic acid | NS | NS | 0.23 UJ | 0.2 U | NR | 0.2 U |

**Table 7**
**380 4th Avenue**
**Brooklyn, NY**
Post_Remedial Soil Endpoint Analytical Results
*Per- and Polyfluoroalkyl Substances*

| | | AKRF Sample ID | B1HAZ_X1_20230601 | FB_PFAS_20230809 | FB_20230928 | FB_20231103 |
|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-281406-2 | 23H0724-07 | 460-289205-3 | 460-291879-9 |
| | | Date Sampled | 6/01/2023 | 8/09/2023 | 9/28/2023 | 11/03/2023 |
| | | Dilution Factor | 10 | 1 | 1 | 1 |
| | | Unit | ppb | ppt | ppt | ppt |
| **Compound** | **NYSDEC UUGV** | **NYSDEC RRGV** | CONC Q | CONC Q | CONC Q | CONC Q |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid | NS | NS | NR | 7.22 U | 6.81 U | 7.49 U |
| 1H,1H, 2H, 2H-Perfluorohexane sulfonic acid | NS | NS | 7.93 U | 7.16 U | 6.81 U | 7.49 U |
| 2H,2H,3H,3H-Perfluorooctanoic acid | NS | NS | NR | 23.9 U | 42.6 U | 46.8 U |
| 3-Perfluoroheptyl propanoic acid | NS | NS | NR | 23.9 U | 42.6 U | 46.8 U |
| 3-Perfluoropropyl propanoic acid | NS | NS | NR | 4.78 U | 8.51 U | 9.37 U |
| 4,8-Dioxa-3H-perfluorononanoic acid | NS | NS | NR | 7.22 U | 6.81 U | 7.49 U |
| 6:2 Fluorotelomer sulfonate | NS | NS | 9.92 U | 7.26 U | 6.81 U | 7.49 U |
| 8:2 Fluorotelomer sulfonate | NS | NS | 9.92 U | 7.34 U | 6.81 U | 7.49 U |
| 9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid | NS | NS | NR | 7.15 U | 6.81 UJ | 7.49 U |
| Hexafluoropropylene oxide dimer acid | NS | NS | NR | 7.64 U | 6.81 U | 7.49 U |
| N-ethyl perfluorooctanesulfonamide | NS | NS | NR | 1.91 U | 1.7 U | 1.87 U |
| N-ethyl perfluorooctanesulfonamidoacetic acid | NS | NS | NR | 1.91 U | 1.7 U | 1.87 U |
| N-ethyl perfluorooctanesulfonamidoethanol | NS | NS | NR | 19.1 U | 17 U | 18.7 U |
| N-methyl perfluorooctanesulfonamide | NS | NS | NR | 1.91 U | 1.7 U | 1.87 U |
| N-methyl perfluorooctanesulfonamidoacetic acid | NS | NS | NR | 1.91 U | 3.41 U | 3.75 U |
| N-methyl perfluorooctanesulfonamidoethanol | NS | NS | NR | 19.1 U | 17 U | 18.7 U |
| Nonafluoro-3,6-dioxaheptanoic acid | NS | NS | NR | 3.82 U | 3.41 U | 3.75 U |
| Perfluoro(2-ethoxyethane)sulfonic acid | NS | NS | NR | 3.4 U | 3.41 U | 3.75 U |
| Perfluoro-3-methoxypropanoic acid | NS | NS | NR | 3.82 U | 3.41 U | 3.75 U |
| Perfluoro-4-methoxybutanoic acid | NS | NS | NR | 3.82 U | 3.41 U | 3.75 U |
| Perfluorobutanesulfonic acid | NS | NS | NR | 1.69 U | 1.7 U | 1.87 U |
| Perfluorobutanoic acid | NS | NS | NR | 0.749 J | 6.81 U | 7.49 U |
| Perfluorodecanesulfonic acid | NS | NS | NR | 1.84 U | 1.7 U | 1.87 U |
| Perfluorodecanoic acid | NS | NS | NR | 1.91 U | 1.7 U | 1.87 U |
| Perfluorododecanesulfonic acid | NS | NS | NR | 1.85 U | 1.7 U | 1.87 U |
| Perfluorododecanoic acid | NS | NS | NR | 1.91 U | 1.7 U | 1.87 U |
| Perfluoroheptanesulfonic acid | NS | NS | NR | 1.82 U | 1.7 U | 1.87 U |
| Perfluoroheptanoic acid | NS | NS | NR | 1.91 U | 1.7 U | 1.87 U |
| Perfluorohexanesulfonic acid | NS | NS | NR | 1.75 U | 1.7 U | 1.87 U |
| Perfluorohexanoic acid | NS | NS | NR | 1.91 U | 1.7 U | 1.87 U |
| Perfluorononanesulfonic acid | NS | NS | NR | NR | 1.7 U | 1.87 U |
| Perfluorononanoic acid | NS | NS | NR | 1.91 U | 1.7 U | 1.87 U |
| Perfluorooctanesulfonamide | NS | NS | NR | 1.91 U | 1.7 U | 1.87 U |
| Perfluorooctanesulfonic acid (PFOS) | 0.88 | 44 | NR | 1.78 U | 1.7 U | 1.87 U |
| Perfluorooctanoic acid (PFOA) | 0.66 | 33 | NR | 1.91 U | 1.7 U | 1.87 U |
| Perfluoropentanoic acid | NS | NS | NR | 3.82 U | 3.41 U | 3.75 U |
| Perfluoropentansulfonic acid | NS | NS | NR | 1.8 U | 1.7 U | 1.87 U |
| Perfluorotetradecanoic acid | NS | NS | NR | 1.91 U | 1.7 U | 1.87 U |
| Perfluorotridecanoic acid | NS | NS | NR | 1.91 U | 1.7 U | 1.87 U |
| Perfluoroundecanoic acid | NS | NS | NR | 1.91 U | 1.7 U | 1.87 U |

**Table 7**
**380 4th Avenue**
**Brooklyn, NY**
Post_Remedial Soil Endpoint Analytical Results
*Per- and Polyfluoroalkyl Substances*

| | | AKRF Sample ID | FB_20231127 | FB_20231215 | FB-S_20230601 | FB_20230928 |
|---|---|---|---|---|---|---|
| | | Laboratory Sample ID | 460-293318-3 | 460-294809-10 | 460-281406-3 | 460-289205-3 |
| | | Date Sampled | 11/27/2023 | 12/15/2023 | 6/01/2023 | 9/28/2023 |
| | | Dilution Factor | 1 | 1 | 1 | 1 |
| | | Unit | ppt | ppt | ppt | ppt |
| **Compound** | **NYSDEC UUGV** | **NYSDEC RRGV** | CONC Q | CONC Q | CONC Q | CONC Q |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid | NS | NS | 7.65 U | 7.35 U | 7.07 U | 6.81 U |
| 1H,1H, 2H, 2H-Perfluorohexane sulfonic acid | NS | NS | 7.65 U | 7.35 U | 7.07 U | 6.81 U |
| 2H,2H,3H,3H-Perfluorooctanoic acid | NS | NS | 47.8 U | 45.9 U | 44.2 U | 42.6 U |
| 3-Perfluoroheptyl propanoic acid | NS | NS | 47.8 U | 45.9 U | 44.2 U | 42.6 U |
| 3-Perfluoropropyl propanoic acid | NS | NS | 9.57 U | 9.18 U | 8.84 U | 8.51 U |
| 4,8-Dioxa-3H-perfluorononanoic acid | NS | NS | 7.65 U | 7.35 U | 7.07 UJ | 6.81 U |
| 6:2 Fluorotelomer sulfonate | NS | NS | 7.65 U | 7.35 U | 7.07 U | 6.81 U |
| 8:2 Fluorotelomer sulfonate | NS | NS | 7.65 U | 7.35 U | 7.07 U | 6.81 U |
| 9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid | NS | NS | 7.65 UJ | 7.35 U | 7.07 U | 6.81 UJ |
| Hexafluoropropylene oxide dimer acid | NS | NS | 7.65 U | 7.35 U | 7.07 U | 6.81 U |
| N-ethyl perfluorooctanesulfonamide | NS | NS | 1.91 U | 1.84 U | 1.77 U | 1.7 U |
| N-ethyl perfluorooctanesulfonamidoacetic acid | NS | NS | 1.91 U | 1.84 U | 1.77 U | 1.7 U |
| N-ethyl perfluorooctanesulfonamidoethanol | NS | NS | 19.1 U | 18.4 U | 17.7 U | 17 U |
| N-methyl perfluorooctanesulfonamide | NS | NS | 1.91 U | 1.84 U | 1.77 U | 1.7 U |
| N-methyl perfluorooctanesulfonamidoacetic acid | NS | NS | 3.83 U | 3.67 U | 3.53 U | 3.41 U |
| N-methyl perfluorooctanesulfonamidoethanol | NS | NS | 19.1 U | 18.4 U | 17.7 U | 17 U |
| Nonafluoro-3,6-dioxaheptanoic acid | NS | NS | 3.83 U | 3.67 U | 3.53 U | 3.41 U |
| Perfluoro(2-ethoxyethane)sulfonic acid | NS | NS | 3.83 U | 3.67 U | 3.53 U | 3.41 U |
| Perfluoro-3-methoxypropanoic acid | NS | NS | 3.83 U | 3.67 U | 3.53 U | 3.41 U |
| Perfluoro-4-methoxybutanoic acid | NS | NS | 3.83 U | 3.67 U | 3.53 U | 3.41 U |
| Perfluorobutanesulfonic acid | NS | NS | 1.91 U | 1.84 U | 1.77 U | 1.7 U |
| Perfluorobutanoic acid | NS | NS | 7.65 U | 7.35 U | 7.07 U | 6.81 U |
| Perfluorodecanesulfonic acid | NS | NS | 1.91 U | 1.84 U | 1.77 U | 1.7 U |
| Perfluorodecanoic acid | NS | NS | 1.91 U | 1.84 U | 1.77 U | 1.7 U |
| Perfluorododecanesulfonic acid | NS | NS | 1.91 U | 1.84 U | 1.77 U | 1.7 U |
| Perfluorododecanoic acid | NS | NS | 1.91 U | 1.84 U | 1.77 U | 1.7 U |
| Perfluoroheptanesulfonic acid | NS | NS | 1.91 U | 1.84 U | 1.77 U | 1.7 U |
| Perfluoroheptanoic acid | NS | NS | 1.91 U | 1.84 U | 1.77 U | 1.7 U |
| Perfluorohexanesulfonic acid | NS | NS | 1.91 U | 1.84 U | 1.77 U | 1.7 U |
| Perfluorohexanoic acid | NS | NS | 1.91 U | 1.84 U | 1.77 U | 1.7 U |
| Perfluorononanesulfonic acid | NS | NS | 1.91 U | 1.84 U | 1.77 U | 1.7 U |
| Perfluorononanoic acid | NS | NS | 1.91 U | 1.84 U | 1.77 U | 1.7 U |
| Perfluorooctanesulfonamide | NS | NS | 1.91 U | 1.84 U | 1.77 U | 1.7 U |
| Perfluorooctanesulfonic acid (PFOS) | 0.88 | 44 | 1.91 U | 1.84 U | 1.77 U | 1.7 U |
| Perfluorooctanoic acid (PFOA) | 0.66 | 33 | 1.91 U | 1.84 U | 1.77 U | 1.7 U |
| Perfluoropentanoic acid | NS | NS | 3.83 U | 3.67 U | 3.53 U | 3.41 U |
| Perfluoropentansulfonic acid | NS | NS | 1.91 U | 1.84 U | 1.77 U | 1.7 U |
| Perfluorotetradecanoic acid | NS | NS | 1.91 U | 1.84 U | 1.77 U | 1.7 U |
| Perfluorotridecanoic acid | NS | NS | 1.91 U | 1.84 U | 1.77 U | 1.7 U |
| Perfluoroundecanoic acid | NS | NS | 1.91 U | 1.84 U | 1.77 U | 1.7 U |

**Table 7**
**380 4th Avenue**
**Brooklyn, NY**
Post_Remedial Soil Endpoint Analytical Results
*Per- and Polyfluoroalkyl Substances*

| | | **AKRF Sample ID** | FB-S_20230601 |
|---|---|---|---|
| | | **Laboratory Sample ID** | 460-281406-3 |
| | | **Date Sampled** | 6/01/2023 |
| | | **Dilution Factor** | 1 |
| | | **Unit** | ppt |
| **Compound** | **NYSDEC UUGV** | **NYSDEC RRGV** | CONC Q |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid | NS | NS | 7.07 U |
| 1H,1H, 2H, 2H-Perfluorohexane sulfonic acid | NS | NS | 7.07 U |
| 2H,2H,3H,3H-Perfluorooctanoic acid | NS | NS | 44.2 U |
| 3-Perfluoroheptyl propanoic acid | NS | NS | 44.2 U |
| 3-Perfluoropropyl propanoic acid | NS | NS | 8.84 U |
| 4,8-Dioxa-3H-perfluorononanoic acid | NS | NS | 7.07 UJ |
| 6:2 Fluorotelomer sulfonate | NS | NS | 7.07 U |
| 8:2 Fluorotelomer sulfonate | NS | NS | 7.07 U |
| 9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid | NS | NS | 7.07 U |
| Hexafluoropropylene oxide dimer acid | NS | NS | 7.07 U |
| N-ethyl perfluorooctanesulfonamide | NS | NS | 1.77 U |
| N-ethyl perfluorooctanesulfonamidoacetic acid | NS | NS | 1.77 U |
| N-ethyl perfluorooctanesulfonamidoethanol | NS | NS | 17.7 U |
| N-methyl perfluorooctanesulfonamide | NS | NS | 1.77 U |
| N-methyl perfluorooctanesulfonamidoacetic acid | NS | NS | 3.53 U |
| N-methyl perfluorooctanesulfonamidoethanol | NS | NS | 17.7 U |
| Nonafluoro-3,6-dioxaheptanoic acid | NS | NS | 3.53 U |
| Perfluoro(2-ethoxyethane)sulfonic acid | NS | NS | 3.53 U |
| Perfluoro-3-methoxypropanoic acid | NS | NS | 3.53 U |
| Perfluoro-4-methoxybutanoic acid | NS | NS | 3.53 U |
| Perfluorobutanesulfonic acid | NS | NS | 1.77 U |
| Perfluorobutanoic acid | NS | NS | 7.07 U |
| Perfluorodecanesulfonic acid | NS | NS | 1.77 U |
| Perfluorodecanoic acid | NS | NS | 1.77 U |
| Perfluorododecanesulfonic acid | NS | NS | 1.77 U |
| Perfluorododecanoic acid | NS | NS | 1.77 U |
| Perfluoroheptanesulfonic acid | NS | NS | 1.77 U |
| Perfluoroheptanoic acid | NS | NS | 1.77 U |
| Perfluorohexanesulfonic acid | NS | NS | 1.77 U |
| Perfluorohexanoic acid | NS | NS | 1.77 U |
| Perfluorononanesulfonic acid | NS | NS | 1.77 U |
| Perfluorononanoic acid | NS | NS | 1.77 U |
| Perfluorooctanesulfonamide | NS | NS | 1.77 U |
| Perfluorooctanesulfonic acid (PFOS) | 0.88 | 44 | 1.77 U |
| Perfluorooctanoic acid (PFOA) | 0.66 | 33 | 1.77 U |
| Perfluoropentanoic acid | NS | NS | 3.53 U |
| Perfluoropentansulfonic acid | NS | NS | 1.77 U |
| Perfluorotetradecanoic acid | NS | NS | 1.77 U |
| Perfluorotridecanoic acid | NS | NS | 1.77 U |
| Perfluoroundecanoic acid | NS | NS | 1.77 U |

**Tables 1-7**
**380 4th Avenue**
**Brooklyn, NY**
Post-Remedial Soil Endpoint Analytical Results
*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. |
| **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. |
| **UJ** | : | The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be innaccurate or imprecise. |
| **mg/kg** | : | milligrams per kilogram |
| **mg/L** | : | milligrams per liter |
| **ppb** | : | parts per billion |
| **ppt** | : | parts per trillion |
| **µg/L** | : | micrograms per liter |

**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.**

| | | |
|---|---|---|
| **EPA Hazardous Waste Criteria by TCLP** | : | Protection of Environment. Chapter I - United States Environmental Protection Agency. Subchapter I - Solid Wastes. Part 261 - Identification And Listing Of Hazardous Waste.<br>Subpart C - Characteristics Of Hazardous Waste. § 261.24 (b)<br>Table 1—Maximum Concentration of Contaminants for the Toxicity Characteristic. |

**Exceedances of the EPA Hazardous Waste Criteria are highlighted in bold font.**

| | | |
|---|---|---|
| **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 April 2023. |

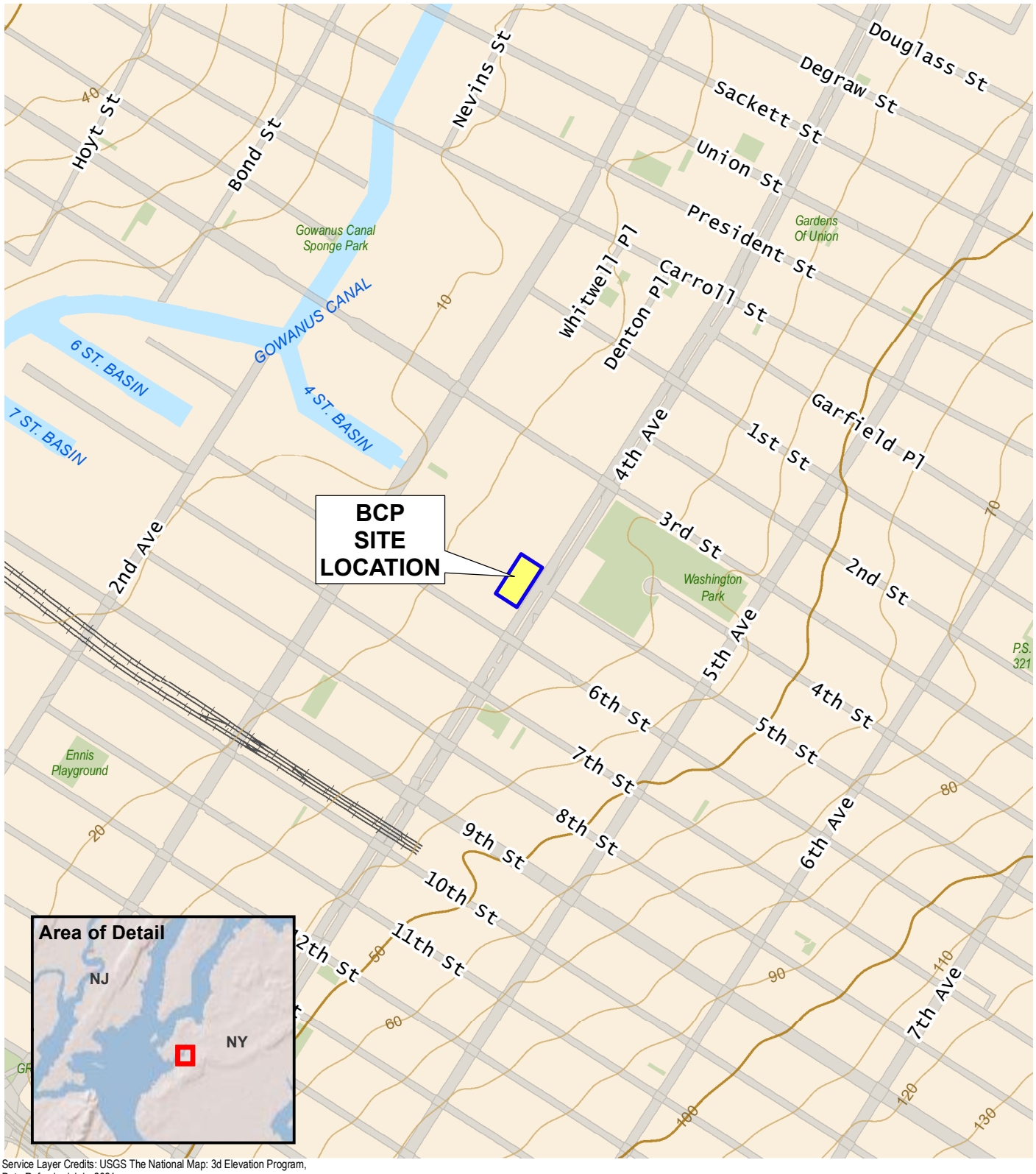
**Exceedances of NYSDEC PFAS Unrestricted Use Guidance Values (UUGVs) are highlighted in bold font.**
**Exceedances of NYSDEC PFAS Restricted Residential Guidance Values (RRGVs) are highlighted in gray shading.**

**Endpoint samples with "Over-Excavated" indicated in the analyte result cell previously had an exceedance of their applicable RRSCO or PGWSCO, which were over-excavated and subsequent sampling was performed until the analyte met the applicable criteria documenting the extent of the remedial excavation.**

**DUPLICATES**

EP-10HAZ_X1_20231127 is a blind duplicate of sample EP-10-E5_15_20231127
EP-X1_15_20231103 is a blind duplicate of sample EP-01_15_20231103
EP-X2_20_20231127 is a blind duplicate of sample EP-16_20_20231127
EP-X3_20231215 is a blind duplicate of sample EP-37_17.5_20231215
A4HAZ_X1_20230928 is a blind duplicate of sample A4HAZ_B_20_20230928
B1HAZ_X1_20230601 is a blind duplicate of sample B1HAZ_B_20_20230601

**FIGURES**




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

0 600 1,200

SCALE IN FEET



AKRF
440 Park Avenue South, New York, NY 10016

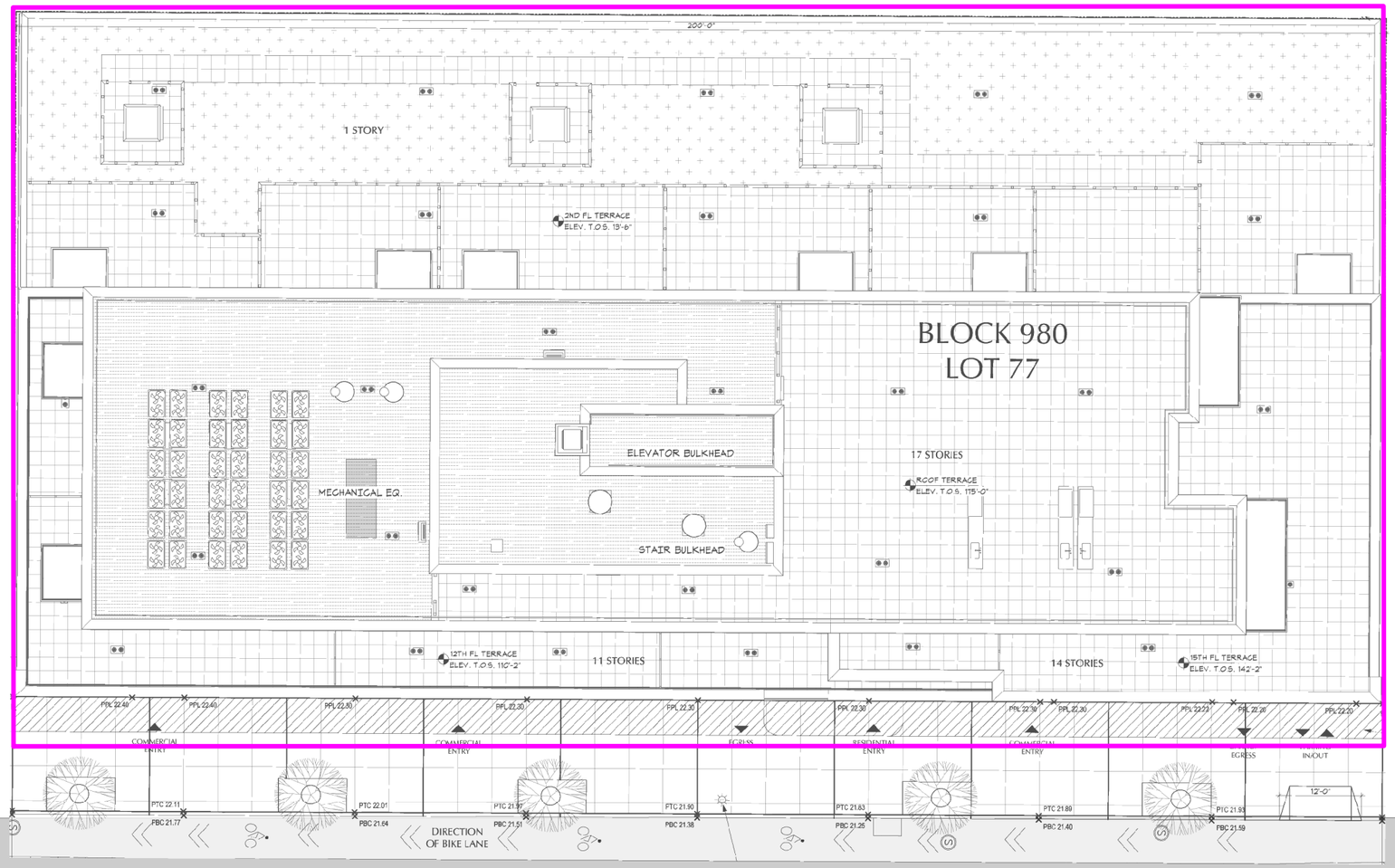
**380 4th Avenue**
Brooklyn, New York

**BROWNFIELD CLEANUP PROGRAM**
**SITE LOCATION**

DATE
**7/3/2024**

PROJECT NO.
**210226**

FIGURE
**1**




**LEGEND**

PROJECT SITE BOUNDARY

0 20 40

SCALE IN FEET

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

Map Source:
Based on Figure A-100.00 Cellar Plan,
Prepared by GF55 Architects, LLP 2023
225 West 39th Streett New York, New York
May 2023

AKRF
440 Park Avenue South, New York, NY 10016

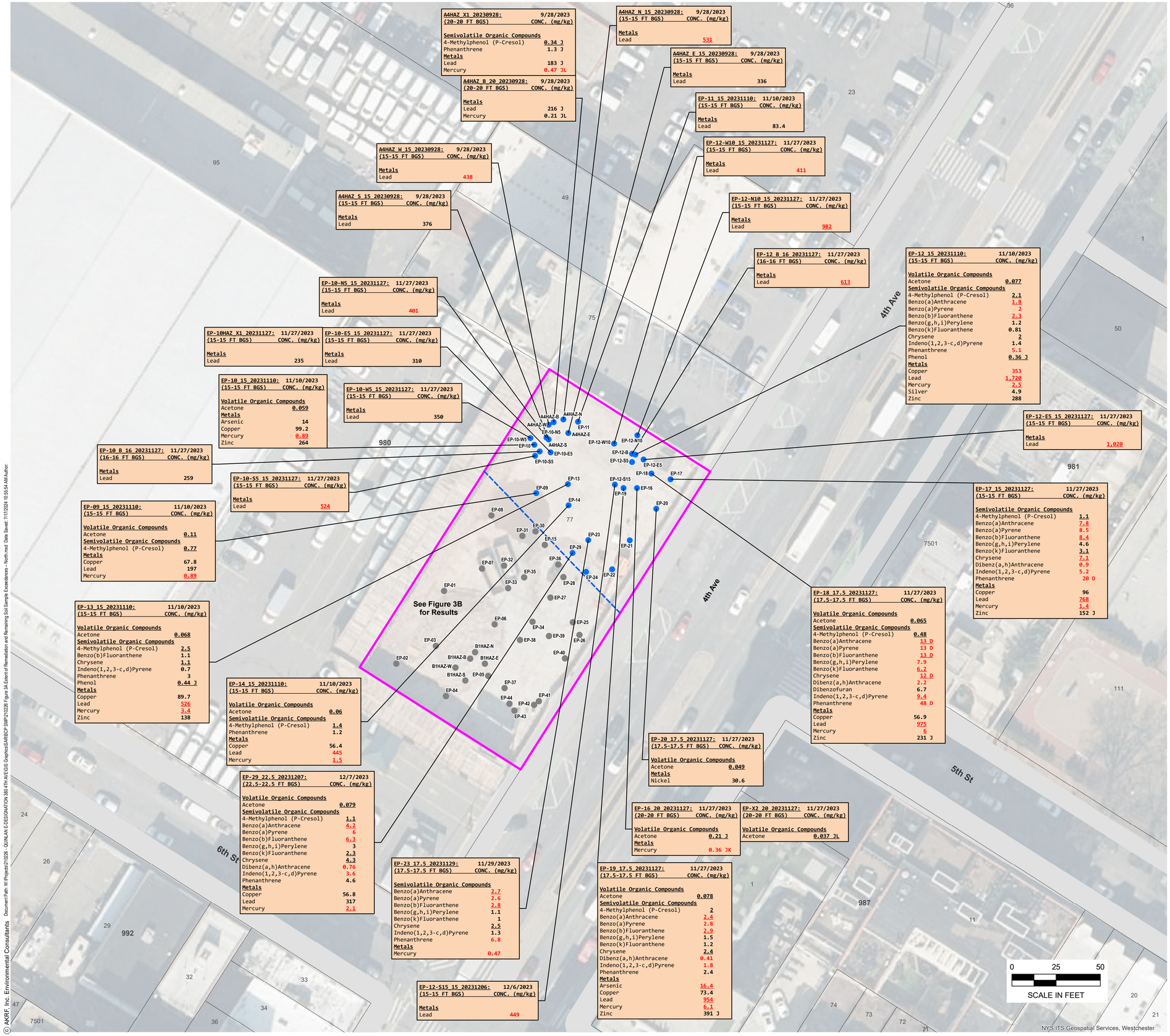
**380 4th Avenue**
Brooklyn, New York

**SITE PLAN**

DATE
**7/3/2024**

PROJECT NO.
**210226**

FIGURE
**2**




## LEGEND

- PROJECT SITE BOUNDARY
- 20 — LOT BOUNDARY AND TAX LOT NUMBER
- 980 — BLOCK NUMBER
- MATCHLINE SEPARATING CHEMBOX EXCEEDANCE NORTH OR SOUTH PART OF SITE
- EP-20 — ENDPOINT SAMPLE LOCATION
- EP-26 — ENDPOINT SAMPLE LOCATION (SEE FIGURE 3B FOR CONTAMINATION REMAINING AT THE EXCAVATION EXTENT FOR THIS PORTION OF THE SITE)

| | PART 375 PGWSCOs | PART 375 RRSCOs | PART 375 UUSCOs |
|---|---|---|---|
| | mg/kg | mg/kg | mg/kg |
| **Volatile Organic Compounds** | | | |
| Acetone | 0.03 | 100 | 0.03 |
| **Semivolatile Organic Compounds** | | | |
| 4-Methylphenol (P-Cresol) | 0.33 | 100 | 0.33 |
| Benzo(a)Anthracene | 1 | 1.4 | 1 |
| Benzo(a)Pyrene | 22 | 1 | 1 |
| Benzo(b)Fluoranthene | 2.1 | 1.4 | 1 |
| Benzo(g,h,i)Perylene | 1,000 | 4.9 | 0.64 |
| Benzo(k)Fluoranthene | 2 | 4.9 | 0.8 |
| Chrysene | 1 | 4.9 | 1 |
| Dibenz(a,h)Anthracene | 1,000 | 0.33 | 0.33 |
| Dibenzofuran | 110 | 18 | 2.1 |
| Indeno(1,2,3-c,d)Pyrene | 6.6 | 1.4 | 0.5 |
| Phenanthrene | 1,000 | 4.9 | 1.1 |
| Phenol | 0.33 | 100 | 0.33 |
| **Metals** | | | |
| Arsenic | 16 | 16 | 13 |
| Copper | 1,720 | 280 | 50 |
| Lead | 450 | 400 | 63 |
| Mercury | 0.73 | 0.26 | 0.18 |
| Nickel | 130 | 210 | 30 |
| Silver | 8.3 | 110 | 2 |
| Zinc | 2,480 | 6,600 | 109 |

EP-10HAZ_X1_20231127 is a blind duplicate of sample EP-10-E5_15_20231127
EP-X2_20_20231127 is a blind duplicate of sample EP-16_20_20231127

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

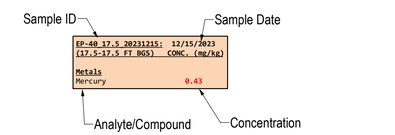
**Exceedances of NYSDEC Unrestricted Use Soil Cleanup Objectives (UUSCOs) are presented in bold font.**

**Exceedances of NYSDEC Restricted Residential Soil Cleanup Objectives (RRSCOs) are presented in red.**

**Exceedances of NYSDEC Protected Groundwater Soil Cleanup Objectives (PGWSCOs) for VOCs that were above GW Standards are presented in underlined font.**

mg/kg:milligrams per kilogram = parts per million (ppm)

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
NA: Not Applicable




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

AKRF
440 Park Avenue South, New York, NY 10016

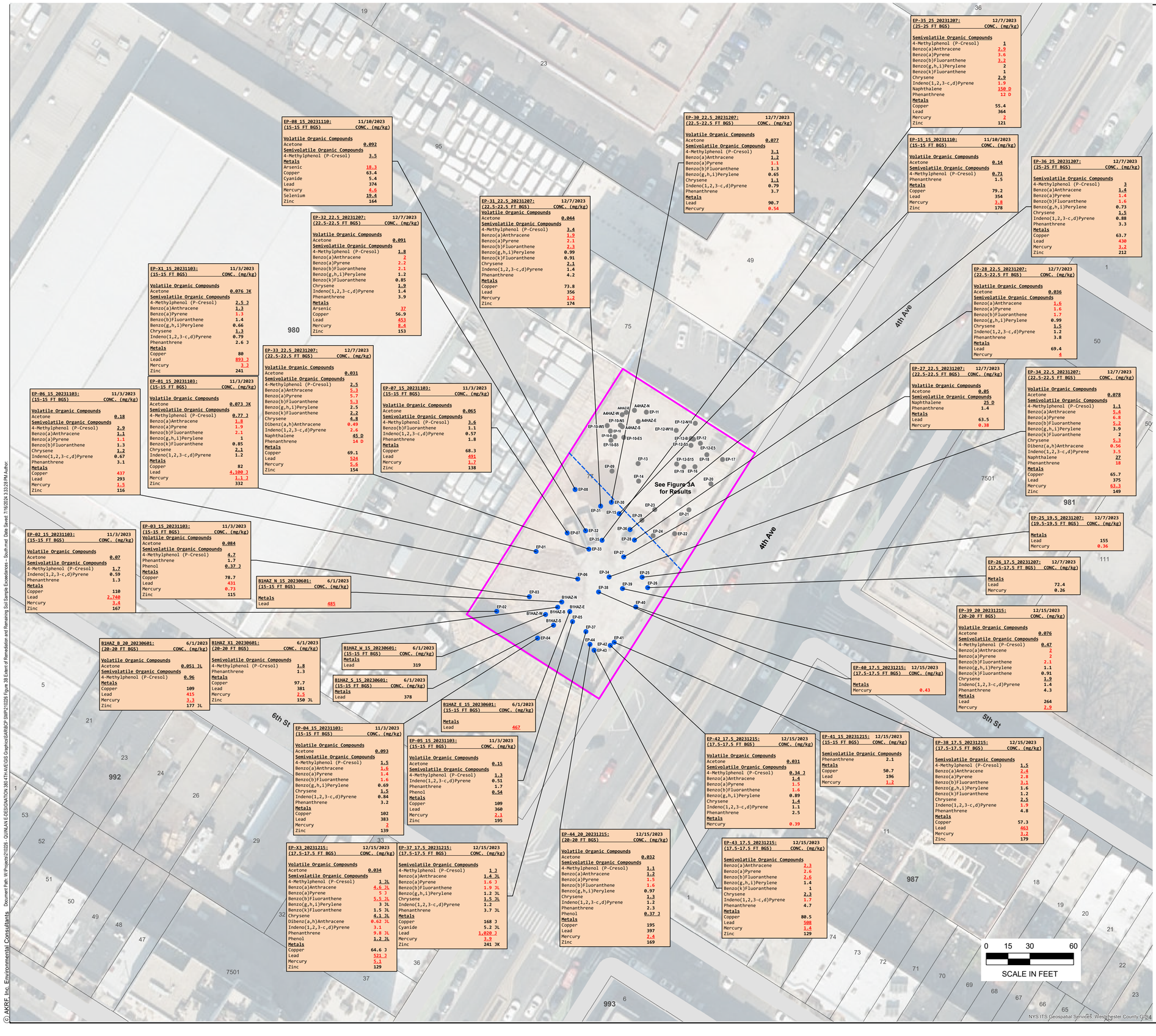
380 4th Avenue
Brooklyn, New York

# Extent of Remediation and Remaining Soil Sample Exceedances – North

DATE
7/17/2024

PROJECT NO.
210226

FIGURE
3A




## LEGEND

- PROJECT SITE BOUNDARY
- 20 — LOT BOUNDARY AND TAX LOT NUMBER
- 980 — BLOCK NUMBER
- MATCHLINE SEPARATING CHEMBOX EXCEEDANCE NORTH OR SOUTH PART OF SITE
- EP-26 ● — ENDPOINT SAMPLE LOCATION (SEE FIGURE 3A FOR CONTAMINATION REMAINING AT THE EXCAVATION EXTENT FOR THIS PORTION OF THE SITE)
- EP-20 ● — ENDPOINT SAMPLE LOCATION

| | PART 375 PGSCOs mg/kg | PART 375 RRSCOs mg/kg | PART 375 UUSCOs mg/kg |
|---|---|---|---|
| **Volatile Organic Compounds** | | | |
| Acetone | 0.03 | 100 | 0.03 |
| Naphthalene | 12 | 100 | 12 |
| **Semivolatile Organic Compounds** | | | |
| 4-Methylphenol (P-Cresol) | 0.33 | 100 | 0.33 |
| Benzo(a)Anthracene | 1 | 1.4 | 1 |
| Benzo(a)Pyrene | 22 | 1 | 1 |
| Benzo(b)Fluoranthene | 2.1 | 1.4 | 1 |
| Benzo(g,h,i)Perylene | 1,000 | 4.9 | 0.64 |
| Benzo(k)Fluoranthene | 2 | 4.9 | 0.8 |
| Chrysene | 1 | 4.9 | 1 |
| Dibenz(a,h)Anthracene | 1,000 | 0.33 | 0.33 |
| Indeno(1,2,3-c,d)Pyrene | 6.6 | 1.4 | 0.5 |
| Phenanthrene | 1,000 | 4.9 | 1.1 |
| Phenol | 0.33 | 100 | 0.33 |
| **Metals** | | | |
| Arsenic | 16 | 16 | 13 |
| Copper | 1,720 | 280 | 50 |
| Cyanide | 40 | 13 | 2.3 |
| Lead | 450 | 400 | 63 |
| Mercury | 0.73 | 0.26 | 0.18 |
| Silver | 8.3 | 110 | 2 |
| Zinc | 2,480 | 6,600 | 109 |

EP-X1_15_20231103 is a blind duplicate of sample EP-01_15_20231103
EP-X3_20231215 is a blind duplicate of sample EP-37_17.5_20231215

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

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

**Exceedances of NYSDEC Restricted Residential Soil Cleanup Objectives (RRSCOs) are presented in red.**

**Exceedances of NYSDEC Protected Groundwater Soil Cleanup Objectives (PGWSCOs) for VOCs that were above GW Standards are presented in underlined font.**

mg/kg:milligrams per kilogram = parts per million (ppm)

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
NA: Not Applicable

Sample ID — EP-40_17.5_20231215: 12/15/2023 (17.5-17.5 FT BGS) CONC. (mg/kg) — Sample Date
Metals — Mercury 0.43
Analyte/Compound — Concentration

AKRF
440 Park Avenue South, New York, NY 10016

# 380 4th Avenue
Brooklyn, New York

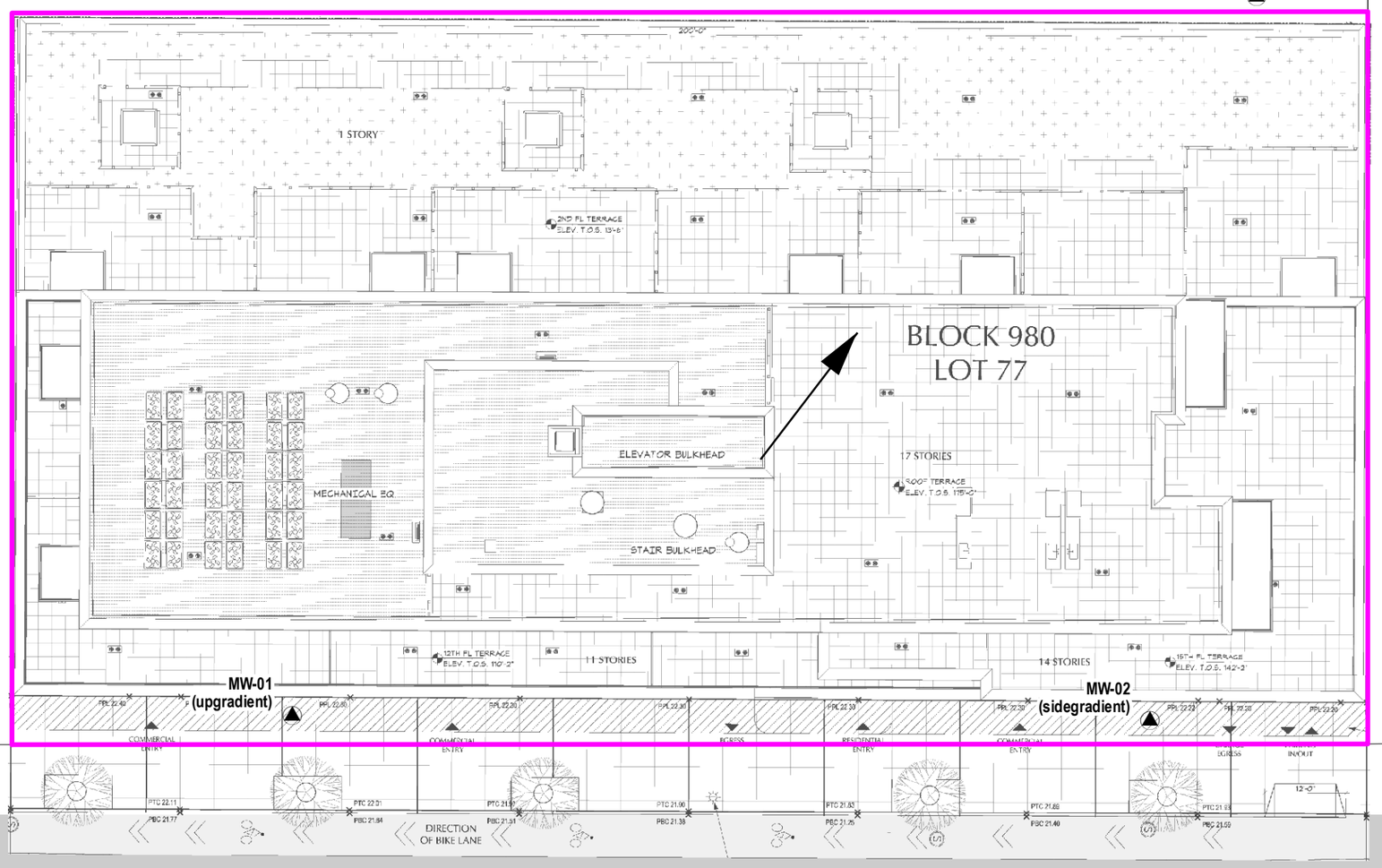
# Extent of Remediation and Remaining Soil Sample Exceedances- South

DATE
**7/16/2024**

PROJECT NO.
**210226**

FIGURE
**3B**


Document Path: W:\Projects\210226 - QUINLAN ESD\SIGNATION 380 4TH AVE\GIS Graphics\SA\RCP 380*210226 Figure 3B Extent of Remediation and Remaining Soil Sample Exceedances - South.mxd Date Saved: 7/16/2024 3:33:03 PM Author:




**LEGEND**

- PROJECT SITE BOUNDARY
- PROPOSED GROUNDWATER MONITORING WELL LOCATION
- GROUNDWATER FLOW DIRECTION (AS REPORTED IN THE MARCH 2023 REDMEDIAL INVESTIGATION REPORT)

Note:
* Coordination for the proposed groundwater monitoring well on the adjacent property is ongoing and the exact location is subject to change. If needed, an alternative location will be coordinated with NYSDEC.

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

Map Source:
Based on Figure A-010.00-101, Architectrual Site Plan,
Prepared by GF55 Architects, LLP 2023
225 West 39th Streett New York, New York
May 2023

0 10 20 40
SCALE IN FEET

AKRF
440 Park Avenue South, New York, NY 10016

**380 4th Avenue**
Brooklyn, New York

# PROPOSED GROUNDWATER MONITORING WELL LOCATIONS

DATE
**10/24/2024**

PROJECT NO.
**210226**

FIGURE
**4**

**APPENDIX A**

**ENVIRONMENTAL EASEMENT, SITE SURVEY,**

**AND METES & BOUNDS DESCRIPTION**

**NYC DEPARTMENT OF FINANCE**
**OFFICE OF THE CITY REGISTER**

This page is part of the instrument. The City Register will rely on the information provided by you on this page for purposes of indexing this instrument.The information on this page will control for indexing purposes in the event of any conflict with the rest of the document.

2024053100222001001EA858

**RECORDING AND ENDORSEMENT COVER PAGE** **PAGE 1 OF 10**

**Document ID: 2024053100222001** Document Date: 05-29-2024 Preparation Date: 05-31-2024
Document Type: EASEMENT
Document Page Count: 9

**PRESENTER:**
SIVE PAGET & RIESEL, P.C.
560 LEXINGTON AVENUE, 15TH FLOOR
NEW YORK, NY 10022
212-421-2150
NDUNCAN@SPRLAW.COM

**RETURN TO:**
SIVE PAGET & RIESEL, P.C.
560 LEXINGTON AVENUE, 15TH FLOOR
NEW YORK, NY 10022
212-421-2150
NDUNCAN@SPRLAW.COM

**PROPERTY DATA**

| Borough | Block | Lot | Unit | Address |
|---|---|---|---|---|
| BROOKLYN | 980 | 77 | Entire Lot | 380 4 AVENUE |

**Property Type:** NON-RESIDENTIAL VACANT LAND Easement

**CROSS REFERENCE DATA**

CRFN_____ *or* DocumentID_____ *or* _____ Year_____ Reel____ Page_____ *or* File Number_____

**PARTIES**

**GRANTOR/SELLER:**
380 4TH AVENUE OWNER, LLC
C/O: QUINLAN DEVELOPMENT GROUP, LLC, 157 COLUMBUS AVENUE, SUITE 2E
NEW YORK, NY 10023

**GRANTEE/BUYER:**
PEOPLE OF NEW YORK BY DEPT. ENVIRONMENTAL CONSERVA
625 BROADWAY
ALBANY, NY 12233

**FEES AND TAXES**

**Mortgage :**

| | | |
|---|---|---|
| Mortgage Amount: | $ | 0.00 |
| Taxable Mortgage Amount: | $ | 0.00 |
| Exemption: | | |
| TAXES: County (Basic): | $ | 0.00 |
| City (Additional): | $ | 0.00 |
| Spec (Additional): | $ | 0.00 |
| TASF: | $ | 0.00 |
| MTA: | $ | 0.00 |
| NYCTA: | $ | 0.00 |
| Additional MRT: | $ | 0.00 |
| TOTAL: | $ | 0.00 |
| Recording Fee: | $ | 82.00 |
| Affidavit Fee: | $ | 0.00 |

Filing Fee: $ 100.00

NYC Real Property Transfer Tax: $ 0.00

NYS Real Estate Transfer Tax: $ 0.00

**RECORDED OR FILED IN THE OFFICE OF THE CITY REGISTER OF THE CITY OF NEW YORK**
Recorded/Filed 06-04-2024 09:29
City Register File No.(CRFN): **2024000141888**

*City Register Official Signature*

## ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36 OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

**THIS INDENTURE** made this 29th day of May, 2024 between Owner, 380 4th Avenue Owner, LLC, having an office at c/o Quinlan Development Group, LLC, 157 Columbus Avenue, Suite 2E, County of New York, State of New York (the "Grantor"), and The People of the State of New York (the "Grantee"), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

**WHEREAS,** the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

**WHEREAS,** the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and the restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

**WHEREAS,** the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

**WHEREAS,** Grantor, is the owner of real property located at the address of 374 to 390 4th Avenue in the City of New York, County of New York and State of New York, known and designated on the tax map of the New York City Department of Finance as tax map parcel number: Block 980, Lot 77, being the same as that property conveyed to Grantor by deed dated as of October 6, 2022 and recorded in the City Register of the City of New York as CRFN No. 2022000395586. The property subject to this Environmental Easement (the "Controlled Property") comprises approximately 0.46 +/- acres, and is hereinafter more fully described in the Land Title Survey dated May 19, 2023 prepared by Vincent J. Dicce, L.S. (License No. 049333), which will be attached to the Site Management Plan. The Controlled Property description is set forth in and attached hereto as Schedule A; and

**WHEREAS**, the Department accepts this Environmental Easement in order to ensure the protection of public health and the environment and to achieve the requirements for remediation established for the Controlled Property until such time as this Environmental Easement is extinguished pursuant to ECL Article 71, Title 36; and

**NOW THEREFORE**, in consideration of the mutual covenants contained herein and the terms and conditions of Brownfield Cleanup Agreement Index Number: C224358-10-22, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement").

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property.

A. (1) The Controlled Property may be used for:

**Restricted Residential as described in 6 NYCRR Part 375-1.8(g)(2)(ii), Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv)**

(2) All Engineering Controls must be operated and maintained as specified in the Site Management Plan (SMP);

(3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP;

(4) The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the New York City Department of Health and Mental Hygiene to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;

(5) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;

(6) Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP;

(7) All future activities on the property that will disturb remaining

contaminated material must be conducted in accordance with the SMP;

(8) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;

(9) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP;

(10) Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by this Environmental Easement.

B. The Controlled Property shall not be used for Residential purposes as defined in 6NYCRR 375-1.8(g)(2)(i), and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, New York 12233
Phone: (518) 402-9553

D. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.

E. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of ECL Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

**This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the Environmental Conservation**

## Law.

F. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

G. Grantor covenants and agrees that it shall, at such time as NYSDEC may require, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require, that:

(1) the inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under the direction of the individual set forth at 6 NYCRR Part 375-1.8(h)(3).

(2) the institutional controls and/or engineering controls employed at such site:

(i) are in-place;

(ii) are unchanged from the previous certification, or that any identified changes to the controls employed were approved by the NYSDEC and that all controls are in the Department-approved format; and

(iii) that nothing has occurred that would impair the ability of such control to protect the public health and environment;

(3) the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;

(4) nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls;

(5) the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

(6) to the best of his/her knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and

(7) the information presented is accurate and complete.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer part or all of the underlying fee interest to the Controlled Property, subject and subordinate to this Environmental Easement;

5. Enforcement

A. This Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against

the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person violates this Environmental Easement, the Grantee may revoke the Certificate of Completion with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.

6. Notice. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

County, NYSDEC Site Number, NYSDEC Brownfield Cleanup Agreement, State Assistance Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to:

Site Number: C224358
Office of General Counsel
NYSDEC
625 Broadway
Albany New York 12233-5500

With a copy to:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, NY 12233

All notices and correspondence shall be delivered by hand, by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the

recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation, or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

11. Consistency with the SMP. To the extent there is any conflict or inconsistency between the terms of this Environmental Easement and the SMP, regarding matters specifically addressed by the SMP, the terms of the SMP will control.

**Remainder of Page Intentionally Left Blank**

**IN WITNESS WHEREOF,** Grantor has caused this instrument to be signed in its name.

380 4th Avenue Owner, LLC:

By: _____

Print Name: Timothy Quinlan

Title: Authorized Signatory Date: May 21, 2024

**Grantor's Acknowledgment**

STATE OF NEW YORK )
) ss:
COUNTY OF New York )

On the 21st day of May, in the year 2024, before me, the undersigned, personally appeared Timothy Quinlan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

_____
Notary Public - State of New York

ROBERT S. COHEN
NOTARY PUBLIC, STATE OF NEW YORK
Registration No. 01CO4853984
Qualified in Westchester County
My Commission Expires 3/3/2026

**THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK**, Acting by and Through the Department of Environmental Conservation as Designee of the Commissioner,

By: _____
Andrew O. Guglielmi, Director
Division of Environmental Remediation

**Grantee's Acknowledgment**

STATE OF NEW YORK )
) ss:
COUNTY OF ALBANY )

On the 29th day of May, in the year 2024 before me, the undersigned, personally appeared Andrew O. Guglielmi, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____
Notary Public - State of New York

Cheryl A. Salem
Notary Public State of New York
Registration No. 01SA0002177
Qualified in Albany County
My Commission Expires March 3, 2027

## SCHEDULE "A" PROPERTY DESCRIPTION

### EASEMENT DESCRIPTION – Block 980, Lot 77

ALL that certain plot, piece or parcel of land, situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, bounded and described as follows:

BEGINNING at a point on the northwesterly side of 4th Avenue, distant 100 feet northeasterly from the corner formed by the intersection of the northwesterly side of 4th Avenue with the northeasterly side of 6th Street;

RUNNING THENCE northwesterly parallel with 6th Street, 100 feet;

THENCE northeasterly parallel with 4th Avenue, 200 feet;

THENCE southeasterly parallel with 6th Street, 100 feet to the northwesterly side of 4th Avenue;

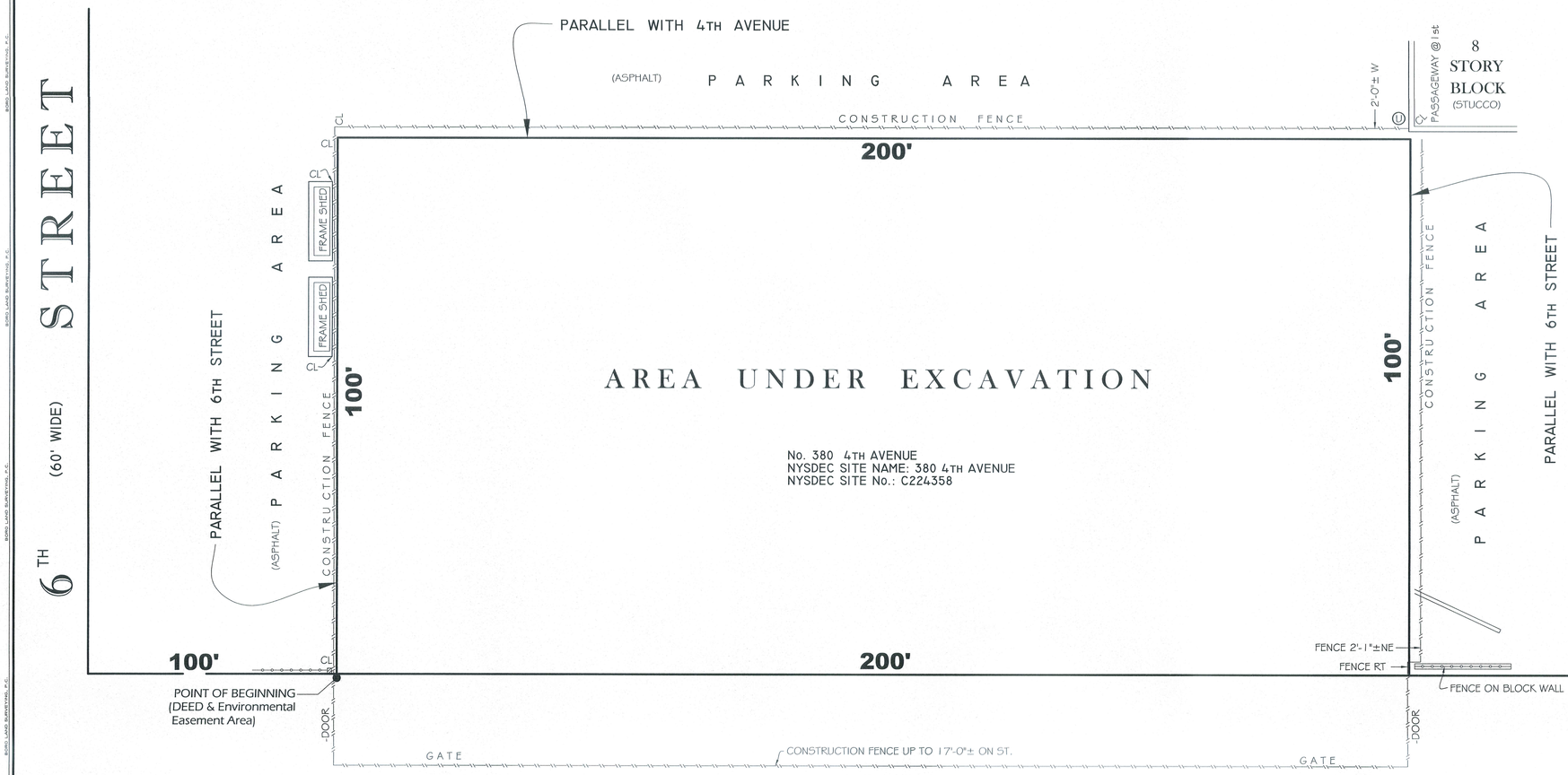
THENCE southwesterly along the northwesterly side of 4th Avenue 200 feet to the point or place of BEGINNING.

Area : 0.46 ± Acres or 20,000 Sq. Ft.

21051131U

**No. 380 4th AVENUE**
**BROOKLYN, NY 11215**

TOTAL LOT AREA = 20,000± SQ. FT.
= 0.46± ACRES




4TH (120' WIDE) AVENUE

## LEGAL DESCRIPTION (DEED & ENVIRONMENTAL EASEMENT AREA)

ALL THAT CERTAIN PLOT, PIECE OR PARCEL OF LAND, SITUATE, LYING AND BEING IN THE BOROUGH OF BROOKLYN, COUNTY OF KINGS, CITY AND STATE OF NEW YORK, BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A PONT ON THE NORTHWESTERLY SIDE OF 4TH AVENUE, DISTANT 100 FEET NORTHEASTERLY FROM THE CORNER FORMED BY THE INTERSECTION OF THE NORTHWESTERLY SIDE OF 4TH AVENUE WITH THE NORTHEASTERLY SIDE OF 6TH STREET;

RUNNING THENCE NORTHWESTERLY PARALLEL WITH 6TH STREET, 100 FEET;

THENCE NORTHEASTERLY PARALLEL WITH 4TH AVENUE, 200 FEET;

THENCE SOUTHEASTERLY PARALLEL WITH 6TH STREET, 100 FEET TO THE NORTHWESTERLY SIDE OF 4TH AVENUE;

THENCE SOUTHWESTERLY ALONG THE NORTHWESTERLY SIDE OF 4TH AVENUE 200 FEET TO THE POINT OR PLACE OF BEGINNING.

AREA (DEED & ENVIRONMENTAL EASEMENT)= 0.46±ACRES OR 20,000 SQ FT.

## NOTE:

THIS PROPERTY IS SUBJECT TO AN ENVIRONMENTAL EASEMENT HELD BY THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION PURSUANT TO TITLE 36 ARTICLE 71 OF THE NEW YORK ENVIRONMENTAL CONSERVATION LAW. THE ENGINEERING AND INSTITUTION CONTROLS FOR THIS EASEMENT ARE SET FORTH IN MORE DETAIL IN THE SITE MANAGEMENT PLAN (SMP). A COPY OF THE SMP MUST BE OBTAINED BY ANY PARTY WITH AN INTERESTS IN THE PROPERTY. THE SMP CAN BE OBTAINED FROM NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION, DIVISION OF ENVIRONMENTAL REMEDIATION, SITE CONTROL SECTION, 625 BROADWAY, ALBANY, NY 12233 OR AT DERWEB@DEC.NY.GOV.

NOTE: TO PROVIDE CLARITY, CERTAIN DIMENSIONS, FEATURES AND/OR LOCATIONS ARE NOT DRAWN TO SCALE.



*BLOCK:* 980
*LOT:* 77
*SECTION:* 4
*COUNTY:* KINGS
*DWG BY:* PLATO SMITH
*CHK'D BY:*

SURVEYED
MAY 19, 2023

STATE OF NEW YORK · VINCENT J. DICCE · LICENSED LAND SURVEYOR

VINCENT J. DICCE L.S./Pres.
REGISTRATION No. 049333

GRAPHIC SCALES

0' 5' 10' 25' 50'
SCALE: 1"=12'

0' 1.5 3.05 7.62 15.25
SCALE: 2.54CM =3.66M

BORO LAND SURVEYING, P.C.
353 COURT STREET
BROOKLYN, N.Y. 11231
TEL. (718) 624-BORO (2676)
EMAIL: BOROSURVEY@GMAIL.COM

## LEGEND

| | | | | | |
|---|---|---|---|---|---|
| CHAIN LINK FENCE | CALC. | CALCULATED | ST. | STREET |
| IRON/OR METAL FENCE | C.D. | CELLAR DOOR | STY. | STORY |
| WOOD FENCE | CL | CLEAR | N./No. | NORTH |
| OTHER TYPE OF FENCE | CONC. | CONCRETE | S./So. | SOUTH |
| WIRE FENCE | ENT. UND. | ENTRANCE UNDER | E. | EAST |
| CHIMNEY | HEDGE | HEDGE | W. | WEST |
| DRAIN | IND'T | INDEPENDENT | NE. | NORTHEAST |
| OVERHEAD WIRE | L.A. | LOW AREA | SE. | SOUTHEAST |
| UTILITY POLE | N.T.S. | NOT TO SCALE | NW. | NORTHWEST |
| A. AREAWAY | ORN. | ORNAMENTAL | SW. | SOUTHWEST |
| ALUM. ALUMINUM | PROJ. | PROJECTS | W.W./W. | WINDOW WELL |
| AWN. AWNING | RET. | RETAINING | | |
| BSM'T BASEMENT | RT | RIGHT | | |

# APPENDIX B
# LIST OF SITE CONTACTS

# APPENDIX B – LIST OF SITE CONTACTS

| Company | Individual Name | Title | Contact Number* |
|---|---|---|---|
| AKRF | Michelle Lapin | Remedial Engineer | 646-388-9520 (office) |
| | Stephen Malinowski | QA/QC Officer | 631-574-3724 (office) |
| | Tim Larigan | Project Manager | 646-388-9508 (office) |
| NYSDEC | Kelly Lewandowski | Site Control | (518) 402-9569 (office) |
| | Michael Sollecito | Project Manager | (518-402-2198 (office) |
| | David Gardener | Regional Chief | (518) 402-9818 (office) |
| NYSDOH | Michele Dolan | Project Manager | (518) 402-7860 (office) |
| 380 4th Avenue Owner, LLC | Kyle Cohen | Volunteer's Representative | 914-886-3056 (office) |
| Medical, Fire, Police | N/A | N/A | 911 |
| One Call Center | N/A | N/A | (800) 272-4480 (3-day notice required for utility mark out) |
| Poison Control Center | N/A | N/A | (800) 222-1222 |
| Pollution Toxic Chemical Oil Spills | N/A | N/A | (800) 424-8802 |
| NYSDEC Spills Hotline | N/A | N/A | (800) 457-7362 |

*Note: Contact numbers subject to change and will be updated as necessary.

# APPENDIX C

# REMEDIAL PARTY/OWNER RESPONSIBILITIES

# RESPONSIBILITIES OF OWNER AND REMEDIAL PARTIES

## Responsibilities

The responsibilities for implementing the Site Management Plan (SMP) for the 380 4th Avenue site (the "Site"), number C224358, are divided between the site owner(s) and a Remedial Party, as defined below. The owner(s) is/are currently listed as:

380 4th Avenue Owner, LLC
157 Columbus Avenue, Suite 2E
New York, NY 10023

**Solely for the purposes of this document and based upon the facts related to a particular site and the remedial program being carried out,** the term Remedial Party ("RP") refers to any of the following: certificate of completion holder, volunteer, applicant, responsible party, and, in the event the New York State Department of Environmental Conservation ("NYSDEC") is carrying out remediation or site management, the NYSDEC and/or an agent acting on its behalf. The RP is:

380 4th Avenue Owner, LLC
157 Columbus Avenue, Suite 2E
New York, NY 10023

Nothing on this page shall supersede the provisions of an Environmental Easement, Consent Order, Consent Decree, agreement, or other legally binding document that affects rights and obligations relating to the site.

## Site Owner's Responsibilities:

1) The owner shall follow the provisions of the SMP as they relate to future construction and excavation at the site.
2) In accordance with a periodic time frame determined by the NYSDEC, the owner shall periodically certify, in writing, that all Institutional Controls set forth in an Environmental Easement, remain in place, and continue to be complied with. The owner shall provide a written certification to the RP, upon the RP's request, to allow the RP to include the certification in the site's Periodic Review Report (PRR) certification to the NYSDEC.
3) In the event the site is delisted, the owner remains bound by the Environmental Easement and shall submit, upon request by the NYSDEC, a written certification that the Environmental Easement is still in place and has been complied with.
4) The owner shall grant access to the site to the RP and the NYSDEC and its agents for the purposes of performing activities required under the SMP and assuring compliance with the SMP.
5) The owner is responsible for assuring the security of the remedial components located on its property to the best of its ability. If damage to the remedial components or vandalism is evident, the owner shall notify the site's RP and the NYSDEC in accordance with the timeframes indicated in Section 1.3 - Notifications.
6) If some action or inaction by the owner adversely impacts the site, the owner must notify the site's RP and the NYSDEC in accordance with the time frame indicated in Section 1.3 - Notifications and (ii) coordinate the performance of necessary corrective actions with the RP.
7) The owner must notify the RP and the NYSDEC of any change in ownership of the site property (identifying the tax map numbers in any correspondence) and provide contact information for the new owner of the Site property. 6 NYCRR Part 375-1.11(d) contains notification requirements applicable to any construction or activity changes and changes in ownership. Among the notification requirements is the following: Sixty days prior written notification must be made to the NYSDEC. Notification is to

be submitted to the NYSDEC Division of Environmental Remediation's Site Control Section. Notification requirements for a change in use are detailed in Section 2.4 of the SMP. A change of use includes, but is not limited to, any activity that may increase direct human or environmental exposure (e.g., day care, school or park). A 60-Day Advance Notification Form and Instructions are found at http://www.dec.ny.gov/chemical/76250.html.

8) In accordance with the tenant notification law, within 15 days of receipt, the owner must supply a copy of any vapor intrusion data, that is produced with respect to structures and that exceeds NYSDOH or OSHA guidelines on the Site, whether produced by the NYSDEC, RP, or owner, to the tenants on the property. The owner must otherwise comply with the tenant and occupant notification provisions of Environmental Conservation Law Article 27, Title 24.

**Remedial Party Responsibilities**

1) The RP must follow the SMP provisions regarding any construction and/or excavation it undertakes at the Site.

2) The RP shall report to the NYSDEC project manager all activities required for remediation, operation, maintenance, monitoring, and reporting. Such reporting includes, but is not limited to, periodic review reports and certifications, electronic data deliverables, corrective action work plans and reports, and updated SMPs.

3) Before accessing the Site property to undertake a specific activity, the RP shall provide the owner advance notification that shall include an explanation of the work expected to be completed. The RP shall provide to (i) the owner, upon the owner's request, (ii) the NYSDEC project manager, and (iii) other entities, if required by the SMP, a copy of any data generated during the site visit and/or any final report produced.

4) If the NYSDEC project manager determines that an update of the SMP is necessary, the RP shall update the SMP and obtain final approval from the NYSDEC project manager. Within 5 business days after NYSDEC project manager approval, the RP shall submit a copy of the approved SMP to the owner(s).

5) The RP shall notify the NYSDEC project manager and the owner of any changes in RP ownership and/or control and of any changes in the party/entity responsible for the operation, maintenance, and monitoring of and reporting with respect to any remedial system (Engineering Controls). The RP shall provide contact information for the new party/entity. Such activity constitutes a Change of Use pursuant to 375-1.11(d) and requires 60-days prior notice to the NYSDEC. A 60-Day Advance Notification Form and Instructions are found at http://www.dec.ny.gov/chemical/76250.html

6) The RP shall notify the NYSDEC project manager of any damage to or modification of the systems as required under Section 1.3 - Notifications of the SMP.

7) Prior to a change in use that impacts the remedial system or requirements and/or responsibilities for implementing the SMP, the RP shall submit to the NYSDEC project manager for approval an amended SMP.

8) Any change in use, change in ownership, change in site classification (*e.g.*, delisting), reduction or expansion of remediation, and other significant changes related to the site may result in a change in responsibilities and, therefore, necessitate an update to the SMP and/or updated legal documents. The RP shall contact the NYSDEC project manager to discuss the need to update such documents.

Change in RP ownership and/or control and/or site ownership does not affect the RP's obligations with respect to the site unless a legally binding document executed by the NYSDEC releases the RP of its obligations.

Future site owners and RPs and their successors and assigns are required to carry out the activities set forth above.

# APPENDIX D
# EXCAVATION WORK PLAN

# APPENDIX D – EXCAVATION WORK PLAN (EWP)

## 1.1 Notification

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination, the Site owner or their representative will notify the New York State Department of Environmental Conservation (NYSDEC). Currently, this notification will be made to:

David Gardener (david.gardender@dec.ny.gov)
Regional Remediation Engineer
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, NY 12233-7016

Michael Sollecito (michael.sollecito@dec.ny.gov)
NYSDEC Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, NY 12233-7016

Michele Dolan (beei@health.ny.gov)
NYSDOH Project Manager
Empire State Plaza
Corning Tower Room 1787
Albany, New York 12237

This information will be updated as necessary to provide accurate contact information. A full listing of Site-related contact information is provided in Appendix B.

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent of excavation, plans/drawings for Site re-grading, estimated volumes of contaminated soil to be excavated, and any modification of truck routes;
- A summary of environmental conditions anticipated to be encountered in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
- A schedule for the work, detailing the start and completion of all intrusive work;
- A summary of the applicable components of this EWP;
- A statement that the work will be performed in compliance with this EWP and 29 Code of Federal Regulations (CFR) 1910.120 and 29 CFR 1926 Subpart P;
- A copy of the contractor's health and safety plan (HASP), in electronic format, if it differs from the HASP provided in Appendix G of this SMP;
- Identification of disposal facilities for potential waste streams; and
- Identification of sources of any anticipated backfill, along with all required request to import forms and all supporting documentation including, but not limited to, chemical testing results.

The NYSDEC project manager will review the notification and may impose additional requirements for the excavation that are not listed in this EWP.

## 1.2 Soil Screening Methods

Visual, olfactory, and instrument-based [(e.g. photoionization detector (PID)] soil screening will be performed by a qualified environmental professional (QEP), as defined in 6 New York Codes, Rules, and Regulations (NYCRR) Part 375, during all excavations into known or potentially contaminated material (remaining contamination). Soil screening will be performed when invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, after issuance of the Certificate of Completion (COC). All potentially contaminated soil/fill material will be field screened using a PID or similar equipment.

Soils will be segregated based on previous environmental data and field screening results into material that requires off-site disposal and material that requires testing to determine if the material can be reused on-site. Further discussion of off-site disposal of materials and on-site reuse is provided in Section 1.6 and 1.7 of this Appendix.

## 1.3 Stockpile Methods

Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters and other discharge points.

Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYSDEC.

## 1.4 Materials Excavation and Load Out

A QEP, as defined in 6 NYCRR Part 375, or a person under their supervision, will oversee all invasive work and the excavation and load-out of all excavated material.

The owner of the property and remedial party (if applicable) and its contractors are responsible for safe execution of all invasive and other work performed under this Plan.

The presence of utilities and easements on the Site will be investigated by the QEP. It will be determined whether a risk or impediment to the planned work under this SMP is posed by utilities or easements on the Site. A site utility stakeout will be completed for all utilities prior to any ground intrusive activities at the Site.

Loaded vehicles leaving the Site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate federal, state, local, and New York State Department of Transportation requirements (and all other applicable transportation requirements).

A truck wash will be operated on-site, as appropriate. The QEP will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the Site until the activities performed under this section are complete. Truck wash waters will be collected and disposed of off-site at a permitted facility in an appropriate manner. See Section 1.8 – Fluids Management for additional details.

Locations where vehicles enter or exit the Site shall be inspected daily for evidence of off-site soil tracking.

The QEP will be responsible for ensuring that all egress points for truck and equipment transport from the Site are clean of dirt and other materials derived from the Site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials. Material accumulated from the street cleaning and egress

cleaning activities will be disposed off-site at a permitted landfill facility in accordance with all applicable local, state, and federal regulations. See Section 1.6 – Materials Disposal Off-site for additional details.

## 1.5 Materials Transport Off-Site

All transport of materials will be performed by licensed haulers in accordance with appropriate local, state, and federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Material transported by trucks exiting the Site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

Truck transport routes are as follows:

- For Trucks Heading North: Head southwest on 4th Avenue and turn right onto 9th Street, then turn left onto 3rd Avenue to merge onto Interstate 278 North.
- For Trucks Heading South: Head southwest on 4th Avenue and turn right onto 9th Street, then turn left onto 3rd Avenue to merge onto Interstate 278 South.

A truck Route Map is provided as Figure 1. All trucks loaded with Site materials will exit the vicinity of the Site using only these approved truck routes. These are the most appropriate routes and take into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; (f) overall safety in transport; and (g) community input.

Trucks will be prohibited from stopping and idling in the neighborhood outside the Site.

Egress points for truck and equipment transport from the Site will be kept clean of dirt and other materials during site remediation and development. See Section 1.4 – Material Excavation and Load-out for additional details.

Queuing of trucks will be performed on-site to minimize off-site disturbance. Off-site queuing will be prohibited.

## 1.6 Materials Disposal Off-Site

All material excavated and removed from the Site will be treated as contaminated and regulated material and will be transported and disposed at a permitted facility in accordance with all local, state (including 6 NYCRR Part 360), and federal regulations. If disposal of material from the Site is proposed for unregulated off-site disposal (i.e., clean soil removed for development purposes), a formal request with an associated plan will be made to NYSDEC. Unregulated off-site management of materials from the Site will not occur without prior formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, [e.g., hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, construction and demolition (C&D) recycling facility, etc.] Actual disposal quantities and associated documentation will be reported to the NYSDEC project manager in the subsequent Periodic Review Report. This documentation will include but will not be limited to: waste profiles, test results, facility acceptance letters, manifests, bills of lading, and facility receipts.

Non-hazardous fill and contaminated soils taken off-site will be handled consistent with 6 NYCRR Parts 360, 361, 362, 363, 364 and 365. Material that does not meet Unrestricted Use Soil Cleanup

Objectives (UUSCOs) is prohibited from being taken to a New York State C&D debris recovery facility (6 NYCRR Subpart 360-15 registered or permitted facility).

## 1.7 Materials Reuse On-Site

The QEP as defined in 6 NYCRR part 375 will ensure that procedures defined for materials reuse in this SMP are followed and that unacceptable material (i.e., contaminated) does not remain on-site.

Proposed materials for reuse on-site must be sampled for full suite analytical parameters including per- and polyfluoroalkyl substances (PFAS) and 1,4-dioxane. The sampling frequency will be in accordance with DER-10 Table 5.4(e)10, unless prior approval is obtained from the NYSDEC project manager for modification of the sampling frequency. The analytical results of soil/fill material testing must meet the site use criteria presented in NYSDEC DER-10 Appendix 5 – Allowable Constituent Levels for Imported Fill or Soil for all constituents listed, and the NYSDEC Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances October 2020 guidance values. Approvals for modifications to the analytical parameters must be obtained from the NYSDEC project manager prior to the sampling event.

Soil/fill material for reuse on-site will be segregated and staged as described in Sections 1.2 and 1.3 of this EWP. The anticipated size and location of stockpiles will be provided in the 15-day notification to the NYSDEC project manager. Stockpile locations will be based on the location of Site excavation activities and proximity to nearby Site features. Material reuse on-site will comply with requirements of NYSDEC DER-10 Section 5.4(e)4. Any modifications to the requirements of DER-10 Section 5.4(e)4 must be approved by the NYSDEC project manager prior to reuse on-site.

Any demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC project manager for acceptance. Concrete crushing or processing on-site will not be performed without prior NYSDEC project manager approval. Organic matter (e.g., wood, roots, stumps) or other solid waste derived from clearing and grubbing of the Site will not be reused on-site.

## 1.8 Fluids Management

All liquids to be removed from the Site, including but not limited to excavation dewatering, decontamination waters and groundwater monitoring well purge and development waters, will be handled, transported, and disposed off-site at a permitted facility in accordance with applicable local, state, and federal regulations. Dewatering, purge, and development fluids will not be recharged back to the land surface or subsurface of the Site, and will be managed off-site, unless prior approval is obtained from NYSDEC project manager.

Discharge of water generated during large-scale construction activities to surface waters (i.e., a local pond, stream or river) will be performed under a State Pollutant Discharge Elimination System (SPDES) permit.

## 1.9 Backfill from Off-Site Sources

All materials proposed for import onto the Site will be approved by the QEP, as defined in 6 NYCRR Part 375, and will be in compliance with provisions in this SMP prior to receipt at the Site. A Request to Import/Reuse Fill or Soil form, which can be found at http://www.dec.ny.gov/regulations/67386.html, will be prepared and submitted to the NYSDEC project manager allowing a minimum of 5 business days for review.

Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the Site.

All imported soils will meet the backfill and cover soil quality standards established in 6 NYCRR 375-6.7(d) and DER-10 Appendix 5 for restricted residential, commercial, or industrial use. Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this Site, will not be imported onto the Site without prior approval by NYSDEC. Soil material will be sampled for the full suite of analytical parameters, including PFAS and 1, 4-dioxane. Solid waste will not be imported onto the Site.

Trucks entering the Site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

## 1.10 Stormwater Pollution Prevention

Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYSDEC. All necessary repairs shall be made immediately.

Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.

All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.

Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.

Silt fencing or hay bales will be installed around the entire perimeter of the construction area.

## 1.11 Contingency Plan

If underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition. The NYSDEC project manager will be notified within two hours of the discovery.

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for a full list of analytes [total analyte list (TAL) metals, total compound list (TCL) volatiles and semi-volatiles (including 1,4-dioxane), TCL pesticides and polychlorinated biphenyls (PCBs), and PFAS], unless the Site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC project manager for approval prior to sampling. Any tanks will be closed as per NYSDEC regulations and guidance.

Identification of unknown or unexpected contaminated media identified by screening during invasive Site work will be promptly communicated by phone within two hours to NYSDEC's project manager. Reportable quantities of petroleum product will also be reported to the NYSDEC Spills hotline. These findings will be also included in the subsequent Periodic Review Report.

## 1.12 Community Air Monitoring Plan

During any excavation activity initiated under the SMP, air monitoring will be conducted in accordance with the Community Air Monitoring Plan (CAMP) included as Appendix H of this

SMP. Work zone monitoring will be performed for the health and safety of workers during interior intrusive work activities in accordance with action levels and guidance outlined in the site-specific HASP. In summary, the CAMP calls for real-time monitoring for VOCs and particulates (i.e., dust) at the downwind perimeter of each designated work area when intrusive activities are in progress at the Site. Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas. Continuous monitoring is required for all ground intrusive activities to the extent practicable (e.g., air monitoring may not be conducted during precipitation events).

VOC and particulate monitoring equipment will consist of a PID capable of detecting the VOCs found in the excavated soil and real-time aerosol or particulate monitoring equipment capable of measuring particulate matter less than 10 micrometers in size ($PM_{10}$). VOC monitoring equipment will be calibrated, and the particulate monitoring equipment zeroed, and documented in a dedicated field logbook on a daily basis. Both VOC and particulate monitoring equipment will be capable of calculating 15-minute running average concentrations, which will be compared to the prescribed action levels.

If VOC monitoring results in the ambient air concentration of total organic vapors in excess of 5 parts per million (ppm) above background for the 15-minute average, work activities will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases below 5 ppm over background, work activities can resume with measures taken to reduce vapors and continue monitoring. If total organic vapor levels persist at levels in excess of 5 ppm over background, work activities will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. If the organic vapor level is repeatedly over 25 ppm above background, activities will be shut down and the Site work plan re-evaluated.

If particulate monitoring results in a 15-minute average concentration measurement that is between 100 micrograms per cubic meter ($\mu g/m^3$) and 150 $\mu g/m^3$ above the background level, additional dust suppression techniques will be implemented to reduce the generation of fugitive dust and corrective action taken to protect Site personnel and reduce the potential for contaminant migration. Should dust suppression measures being utilized not lower particulates to an acceptable level (e.g., below 150 $\mu g/m^3$ above the background level, and no visible dust from the work area), work will be suspended until appropriate corrective measures are implemented to remedy the situation.

Details regarding work zone and community air monitoring are outlined in the HASP attached as Appendix G. Exceedances of action levels listed in the CAMP will be reported to the NYSDEC and New York State Department of Health (NYSDOH) project managers.

## 1.13 Odor Control Plan

This odor control plan is capable of controlling emissions of nuisance odors off-site. Specific odor control methods to be used on a routine basis will include (a) through (f), as outlined in the following paragraph. If nuisance odors are identified at the Site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH project managers will be notified of all odor events within one day of the odor event and notified of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the remedial party's Remediation Engineer, and any measures that are implemented will be discussed in the Excavation Activities Report.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate

odor nuisances will include: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

## 1.14 Dust Control Plan

A dust suppression plan that addresses dust management during invasive on-site work will include, at a minimum, the items listed below:

- Dust suppression will be achieved through the use of a dedicated on-site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.

## 1.15 Other Nuisances

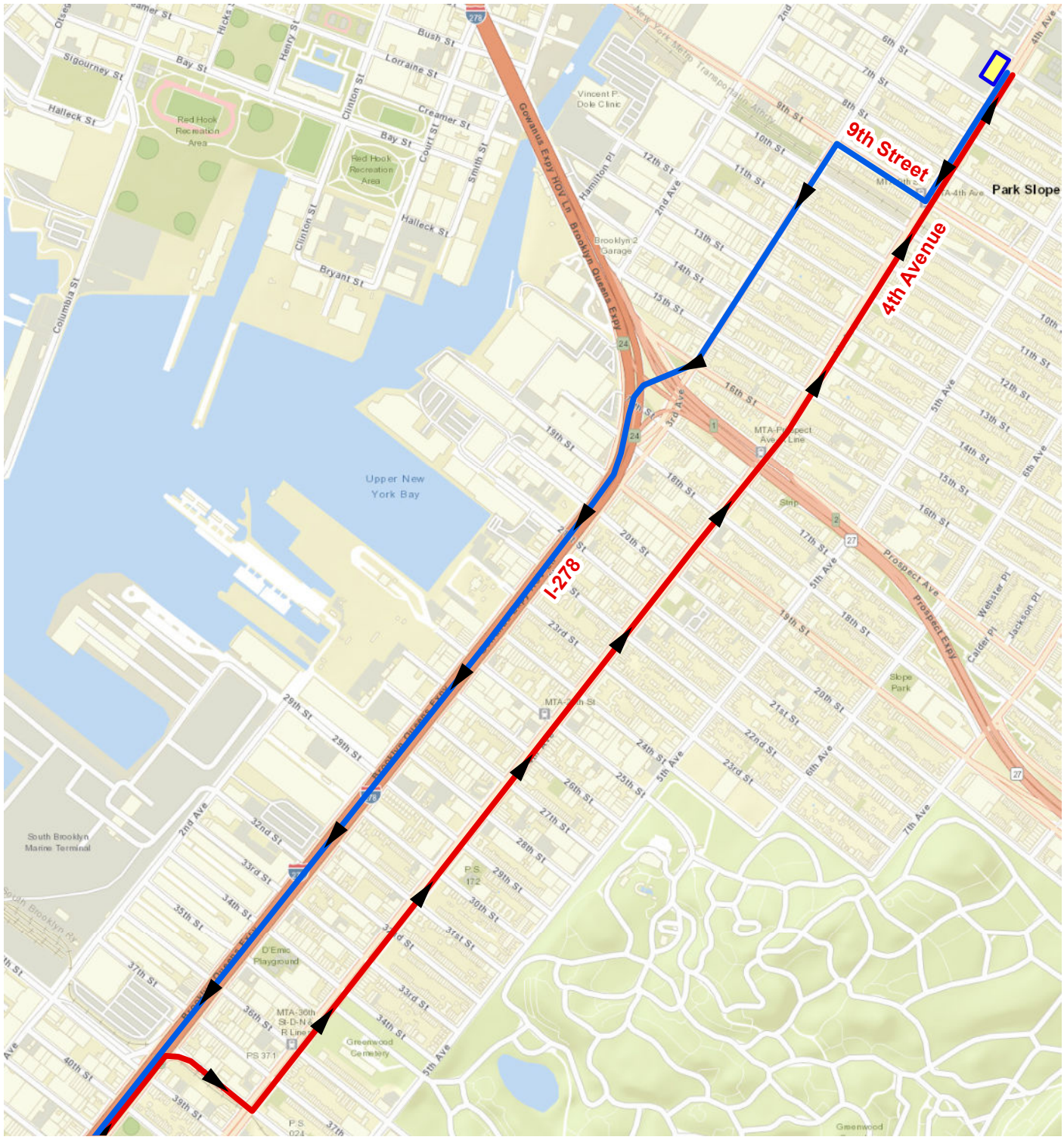
A plan for rodent control will be developed and utilized by the contractor prior to and during site clearing and site grubbing, and during all remedial work.

A plan will be developed and utilized by the contractor for all remedial work to ensure compliance with local noise control ordinances.

## 1.16 Reporting

A report is to be submitted to the NYSDEC within 90 days of completion of the activities performed under this EWP. This report shall contain a summary of the activities performed; a summary of all data gathered and results; information about any media that was removed from the site: volume, contamination levels, area from which removed; and any other information that may be indicate a change to the "remaining contamination" that is at the Site. Such changes may require revision of the SMP.

**FIGURE 1 - TRUCK ROUTE MAP**




**LEGEND**

- PROJECT SITE BOUNDARY
- TRUCK ROUTE FROM SITE
- TRUCK ROUTE TO SITE

*Service Layer Credits:*
*ESRI World Street Map 2021*
*City of New York Department of Transportation, April, 2019,*
*New York City Truck Routes: New York City*

0 1,000 2,000

SCALE IN FEET

AKRF
440 Park Avenue South, New York, NY 10016

**380 4th Avenue**
Brooklyn, New York

**TRUCK ROUTE MAP**

DATE
**7/12/2024**

PROJECT NO.
**210026**

FIGURE
**1**

# APPENDIX E
# SITE MANAGEMENT FORMS

## Annual Site-Wide Inspection

**Overview of Annual Site-Wide Inspection requirements:**

1) General Site conditions at time of inspection;

2) SMP-related Site Activities being conducted, upcoming SMP-related tasks;

3) Institutional Control (IC) Checklist (SMP maintained on-Site, routine SMP tasks being conducted); and

4) Site Documentation.

---

**1) General Site conditions at time of inspection:**

| | |
|---|---|
| **NAME:** | **DATE:** |
| **TIME:** | **WEATHER:** |
| Annual Inspection or Emergency Inspection (if emergency, specify nature)? | |

Notes:_____

_____

_____

_____

**2) Are any SMP-related site activities currently being conducted (Groundwater Monitoring)?**

☐ YES ☐ NO

Notes/Details:

_____

_____

_____

_____

_____

**3) IC Checklist (SMP maintained on-Site, routine SMP tasks being conducted)**

| | |
|---|---|
| *Copy of SMP on-Site?* | ☐ YES ☐ NO |
| *Building Use Still Consistent with SMP (Restricted Residential)?* | ☐ YES ☐ NO |

***Have the required SMP tasks been conducted during the reporting period?***

Quarterly groundwater monitoring/sampling ☐ YES ☐ NO

Notes:_____

_____

_____

_____

**5) Site documentation**

Including updates regarding notification to NYSDEC regarding any changes to Site conditions/operations, routine reporting to NYSDEC, etc.).

Notes:_____

_____

_____

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_____

AKRF

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

Page of

# Groundwater Monitoring Well Sampling Log

| | | | | | |
|---|---|---|---|---|---|
| **Project Name:** | | **Client:** | | **Well ID:** | |
| **Project Location:** | | **Sampled By:** | | | |
| **Project Number:** | | **Sampling Date:** | | | |
| **Headspace PID:** | | **Sampling Time:** | | | |
| **Total Well Depth:** | ft. below top of casing | **Water Column:** | feet | *= 0.041 * WC for 1" wells | |
| **Depth to Water:** | ft. below top of casing | **Well Volume*:** | gallons | *= 0.163 * WC for 2" wells | |
| **Product Thickness:** | ft. below top of casing | **Volume Purged:** | gallons | *= 0.653 * WC for 4" wells | |
| **Depth to Top of Screen:** | ft. below top of casing | **Well Diameter:** | 2 inches | The target maximum flow rate is 100 ml/min. If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample. | |
| **Depth to Bottom of Screen:** | ft. below top of casing | **Purging Device:** | | | |
| **Approximate Pump Intake:** | ft. below top of casing | | | | |

| Time | Depth to Water (ft.) | Purge Rate (ml/min) | Temperature (°C) | Conductivity (mS/cm) | Dissolved Oxygen (mg/L) | pH | ORP (mV) | Turbidity (NTU) | Comments (problems, odor, sheen) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
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| | | | | | | | | | |
| **Stabilization Criteria:** | | | | **+/- 3 mS/cm** | **+/- 0.3 mg/L** | **+/- 0.1 pH units** | **+/- 10 mV** | **<50 NTU** | |

Notes:

ORP - oxidation reduction potential  mV - millivolt  NTU - nephelometric turbidity units  ml/min - mililiter per minute  mS/cm - MilliSiemens per centimeter  mg/L - miligrams per liter

Groundwater samples analyzed for

# APPENDIX F
# QUALITY ASSURANCE PROJECT PLAN

# 380 4TH AVENUE
**BROOKLYN, NEW YORK**

# Quality Assurance Project Plan

## For

## Site Management Plan

**NYSDEC BCP Site Number: C224358**
**AKRF Project Number: 210226**

**Prepared For:**

New York State Department of Environmental Conservation
Division of Environmental Remediation, Remedial Bureau B
625 Broadway, 12th Floor
Albany, New York 12233

**Prepared On Behalf Of:**

380 4th Avenue Owner, LLC
157 Columbus Avenue, Suite 2E
New York, NY 10023

**Prepared by:**

**AKRF, Inc.**
440 Park Avenue South, 7th Floor
New York, New York 10016
212-696-0670

**DECEMBER 2024**

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## IN-TEXT TABLES



## FIGURES



## ATTACHMENTS

# 1.0 INTRODUCTION

This Quality Assurance Project Plan (QAPP) describes the protocols and procedures that will be followed during implementation of the Site Management Plan (SMP) and associated appendices at the 380 4th Avenue Brownfield Cleanup Program (BCP) site located in the Gowanus neighborhood of Brooklyn, New York (hereinafter referred to as the "Site"). The Site is an approximately 0.46-acre parcel identified on the New York City Tax Map as Block 980, Lot 77. Figure 1 shows the Site location.

The objective of this QAPP is to provide for Quality Assurance (QA) and maintain Quality Control (QC) during sampling performed to evaluate the performance and effectiveness of the remedy. Adherence to the QAPP will ensure that defensible data will be obtained during all environmental work at the Site.

# 2.0 PROJECT TEAM

The project team will be drawn from AKRF professional and technical personnel, and AKRF's subcontractors. All field personnel and subcontractors will have completed a 40-hour training course and updated 8-hour refresher course that meet the Occupational Safety and Health Administration (OSHA) requirements of 29 CFR Part 1910. The following sections describe the key project personnel and their responsibilities.

## 2.1 Remedial Engineer

The Remedial Engineer (RE) for this project will be Michelle Lapin, P.E. The RE will have primary direct responsibility for implementation of the remedial program for the Site. The RE will coordinate the work of other contractors and subcontractors involved in all aspects of remedial construction, including soil excavation, stockpiling, characterization, removal and disposal, air monitoring, emergency spill response services, import of backfill material, and management of waste transport and disposal. The RE will be responsible for all appropriate communication with New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH). Ms. Lapin's resume is included in Attachment A.

## 2.2 Quality Assurance/Quality Control Officer

Stephen Malinowski, Qualified Environmental Professional (QEP) will serve as the QA/QC Officer and will be responsible for adherence to the QAPP. The QA/QC Officer will review the procedures with all personnel prior to commencing any fieldwork and will conduct periodic Site visits to assess implementation of the procedures. The QA/QC Officer will also be responsible for reviewing the Data Usability Summary Reports (DUSRs) prepared by a third-party data validator for analytical results. Mr. Malinowski's resume is included in Attachment A.

## 2.3 Project Manager

The Project Manager will be responsible for directing and coordinating all elements of the RAWP. The Project Manager will prepare reports and participate in meetings with the Site Owner, Volunteer, and/or the NYSDEC. Tim Larigan will serve as the project manager for the SMP. Mr. Larigan's resume is included in Attachment A.

## 2.4 Field Team Leader, Field Technician, and Site Safety Officer

The Field Team Leader will be responsible for supervising the daily sampling and health and safety activities in the field and will ensure adherence to the work plan and Health and Safety Plan (HASP) and Community Air Monitoring Program (CAMP), included in Appendices H and I of the SMP, respectively. The Field Team Leader will also act as the field technician and Site Safety Officer (SSO) and will report to the project manager or project manager alternate on a regular basis regarding daily progress and any deviations from the work plan. The Field Team Leader will be a qualified and responsible person able to act professionally and promptly during environmental work at the Site. Madelyn Fleming will be the Field Team Leader. Ms. Fleming resume is included in Attachment A.

## 2.5 Laboratory Quality Assurance/Quality Control Officer

The laboratory QA/QC Officer will be Carl Armbruster of Eurofins-TestAmerica Laboratories (Eurofins-TestAmerica), the NYSDOH Environmental Laboratory Approval Program (ELAP)-certified laboratory being employed for all environmental sampling at the Site. The laboratory QA/QC Officer will be responsible for quality control procedures and checks in the laboratory and

ensuring adherence to laboratory protocols. He will track the movement of samples from the time they are checked in at the laboratory to the time that analytical results are issued. He will also conduct a final check on the analytical calculations and sign off on the laboratory reports.

## 2.6 Thirty-Party Data Validator

The third-party data validator will be responsible for reviewing the final data packages for analyzed samples and preparing a DUSR that will provide performance information with regard to accuracy, precision, sensitivity, representation, completeness, and comparability associated with the laboratory analyses for the investigation. The third-party data validator will be Lori Beyer of L.A.B. Validation Corporation of East Northrop, New York.

# 3.0 STANDARD OPERATING PROCEDURES

The following sections describe the Standard Operating Procedures (SOPs) for the monitoring activities included in the SMP. During these operations, safety monitoring will be performed as described in the HASP and CAMP, included as Appendices H and I of the SMP, respectively. SMP implementation will include quarterly groundwater monitoring and sampling (for the six months, then as needed) and soil vapor intrusion evaluation (SVIE) for the building (after completion of the building envelope and operation of the heating, ventilation, and air conditioning system).

## 3.1 Groundwater Monitoring Well Installation and Development

Groundwater monitoring wells will be installed to evaluate the groundwater quality beneath the Site. The following procedure should be followed for installation. The well locations and/or screen depths may be adjusted based on observations and data compiled during the necessary field activities. Details outlined below may be altered based on the preparation and submittal of a work plan submitted to NYSDEC and NYSDOH. This QAPP will be updated accordingly and included in the SMP.

All monitoring wells will be advanced using direct push probe, roto-sonic, or hollow stem auger technology. A target depth of approximately 10 feet below the water table will be used for monitoring wells. Groundwater beneath the Site is approximately 15 feet below ground surface (bgs); however, this may be susceptible to tidal influence from the nearby Gowanus Canal. Monitoring wells are anticipated be constructed with 15 feet of polyvinyl chloride (PVC) screen.

Morie sand will be backfilled around the screen zone of each new well to a depth of two feet above the screen. The annular space around the well riser will be sealed with bentonite extending one to two feet above the sand filter pack and completed with a non-shrinking cement mixture to approximately one foot below grade. The monitoring wells will be finished with a flush-mount access cover. The monitoring wells will be developed by agitating the well screen with a surge block and pumping out the sediment until below 50 nephelometric turbidity units, if practicable. The location/elevation of each new PVC well will be surveyed by a licensed surveyor and incorporated into the existing Site map.

## 3.2 Decontamination of Sampling Equipment

All sampling equipment (augers, drilling rods, split spoon samplers, probe rods, pumps, etc.) will be either dedicated or decontaminated between sampling locations. Decontamination will be conducted on plastic sheeting (or equivalent) that is bermed to prevent discharge to the ground. The decontamination procedure will be as follows:

1. Scrub using tap water/Simple Green® or Alconox mixture and bristle brush.
2. Rinse with tap water.
3. Scrub again with tap water/Simple Green® or Alconox mixture and bristle brush.
4. Rinse with tap water.
5. Rinse with distilled water.
6. Air-dry the equipment, if possible.

## 3.3 Heavy Equipment Decontamination

Decontamination of chemically contaminated heavy equipment (e.g., augers, rods, etc.) will be accomplished using high-pressure steam or dry decontamination with brushes and shovels.

Decontamination will take place on a decontamination pad and all liquids used in the decontamination procedure will be collected, stored, and disposed of in accordance with federal, state, and local regulations. Vehicles or equipment brought into an exclusion zone will be treated as contaminated and will be decontaminated prior to removal. Personnel performing this task will wear the proper personal protective equipment, as prescribed in the Site-specific HASP (see Appendix G of the SMP).

A decontamination area will be established around the planned work area, adjacent to the environmental enclosure. The floor of the decontamination area will be covered with 6-mil plastic sheeting, as necessary, and bermed to prevent spreading of decontamination fluids or potential discharge to the ground surface.

All equipment in direct contact with known or potentially contaminated material will be either dedicated or decontaminated prior to handling less contaminated material or removal from the Site.

## 3.4 Management of Investigation-Derived Waste

Investigation-Derived Waste (IDW) included will be containerized in New York State Department of Transportation-approved 55-gallon drums during the site management activities. The drums will be sealed at the end of each workday and labeled with the date, the boring location(s), the type of waste e.g., drill cuttings, excavated trenching material), and the name and phone number of an AKRF point-of-contact. All IDW collected into drums will be sampled and disposed of or treated according to applicable local, state, and federal regulations.

# 4.0 SAMPLING AND LABORATORY PROCEDURES

## 4.1 Soil Sampling (if necessary)

If required, soil sampling will be conducted using the following procedures:

- Characterize the sample according to the modified Burmister soil classification system.
- Field screen the sample for evidence of contamination (e.g., odors, staining,) using visual and olfactory methods and screen for volatile organic compounds (VOCs) using a photoionization detector (PID) equipped with a 10.6 electron volt (eV) lamp.
- Collect an aliquot of soil from each proposed sample location, place in laboratory-supplied glassware, label the sample in accordance with Section 4.7.2 of this QAPP, and place in an ice-filled cooler for shipment to the laboratory.
- Complete the proper chain of custody (COC) paperwork and seal the cooler.
- Record sample location, sample depth, and sample observations (evidence of contamination, PID readings, soil classification, etc.) in field logbook and boring log data sheet, if applicable.
- Decontaminate any soil sampling equipment between sample locations, as described in Section 3.2 of this QAPP.

## 4.2 Groundwater Sampling

Post-remedial groundwater sampling will be conducted at the frequency specified in the SMP in accordance with United States Environmental Protection Agency (EPA) low-flow methodology. Groundwater sampling will be generally conducted as follows:

- Remove the well plug and immediately measure the vapor concentrations in the well headspace with a PID calibrated to the manufacturer's specifications.
- Measure the depth to water and total well depth, and check for the presence of non-aqueous phase liquid (NAPL) using an oil-water interface probe. Measure the thickness of NAPL, if any, and record the result in the field book and well log. If present, collect a sample of NAPL using a disposable plastic weighted bailer or similar collection device. Groundwater samples will not be collected from wells containing measurable NAPL.
- Connect dedicated tubing to either a submersible or bladder pump and lower the pump such that the intake of the pump is set at the midpoint of the water column within the screened interval of the well. In accordance with the NYSDEC-issued April 2023 Sampling, Analysis, and Assessment of per- and polyfluoroalkyl substances (PFAS), low-density polyethylene (LDPE) sampling bladders will be used when sampling for PFAS. Connect the discharge end of the tubing to the flow-through cell of a Horiba Quanta multi-parameter (or equivalent) meter. Connect tubing to the output of the cell and place the discharge end of the tubing in a five-gallon bucket.
- Activate the pump at the lowest flow rate setting of the pump.
- Measure the depth to water within the well. The pump flow rate may be increased such that the water level measurements do not change by more than 0.3 foot as compared to the initial static reading. The well-purging rate should be adjusted so as to produce a smooth, constant (laminar) flow rate and so as not to produce excessive turbulence in the well. The expected targeted purge rate will be approximately 0.5 liter and will be no greater than 3.8 liters per minute.

- Transfer discharged water from the 5-gallon buckets to 55-gallon drums designated for well-purge water.
- During purging, collect periodic samples and analyze for water quality indicators (e.g., turbidity, pH, temperature, dissolved oxygen, reduction-oxidation potential, and specific conductivity) with measurements collected approximately every five minutes.
- Continue purging the well until turbidity is less than 50 nephelometric turbidity units (NTUs) and water quality indicators have stabilized to the extent practicable. The criteria for stabilization will be three successive readings for the following parameters and criteria:
  - Dissolved Oxygen - +/- 0.3 milligram per Liter (mg/L)
  - Turbidity - <50 NTUs
  - Oxidation/Reduction Potential (ORP)/Eh - +/- 10 millivolts (mV)
  - Specific Conductance - +/- 3% millisievert per centimeter (mS/cm)
  - pH - +/- 0.1 pH units

If the water quality parameters do not stabilize and/or turbidity is greater than 50 NTUs within two hours, purging may be discontinued. Efforts to stabilize the water quality for the well must be recorded in the field book, and samples may then be collected as described herein.

After purging, disconnect the tubing to the inlet of the flow-through cell. Collect groundwater samples directly from the discharge end of the tubing and place them into the required sample containers. Label the containers as described in Section 4.7.2 of this QAPP and place them in an ice-filled cooler for shipment to the laboratory. Groundwater samples will be analyzed for VOCs by EPA Method 624.

Collect one final field sample and analyze for turbidity and water quality parameters (pH, temperature, dissolved oxygen, reduction-oxidation potential, and specific conductivity).

Record all measurements (depth to water, depth to NAPL, water quality parameters, turbidity), calculations (well volume), and observations in the project logbook and field data sheet, if applicable.

Once sampling is complete, remove the pump and tubing from the well. Dispose of the dedicated equipment and decontaminate reusable equipment, as described in Section 3.2. The purge water will be managed as described in Section 3.4 of this QAPP.

Sample collection for the emerging contaminants 1,4-dioxane and/or PFAS is not anticipated. If required, samples will be collected and handled in accordance with the NYSDEC-issued Sampling, Analysis, and Assessment of PFAS, dated April 2023.

A figure illustrating the SMP groundwater sampling locations is provided on Figure 4 of the SMP.

### 4.3 Indoor Air Sampling

Indoor air sampling, required as part of the SVIE, will be conducted using Summa canisters with 24-hour flow regulators. Samples will be collected using the following procedures:

*Sample Set-up*

1. Conduct a pre-sampling inspection and record chemical inventory of the Site building.
2. Install flexible hose to a Gilian GilAir plus (or equivalent) sampling pump and connect the Teflon sample tubing to the hose. Connect the other end (discharge end) of the flexible tubing

to a 1-liter Tedlar bag. Purge the soil gas sampler of approximately three sampler volumes by activating the pump to fill the Tedlar bag to near capacity. The air withdrawal flow rate shall be 0.2 liter/minute or less.

3. The Tedlar bag will be analyzed in the field using a PID calibrated to the manufacturer's specifications to check for levels of VOC) in the sub-slab soil vapor.
4. Disconnect the sample tubing from the Gilian GilAir plus (or equivalent) pump and connect it to the inlet of a labeled 6-liter Summa canister.
5. Repeat procedure for all sampling locations.

*Sample Collection*

1. After Summa canisters are set up at all of the sampling locations, record the vacuum reading from the vacuum gauge on the canister at the beginning of the 24-hour sampling period. Open the valve of the canister and record the time in the field book. In addition, place labeled Summa canisters at the breathing zone level (minimum of 3- to 5-feet above the ground floor) for collection of samples over a 24-hour period.
2. At the end of the 24-hour sampling period, close the valve, remove the flow-rate controllers and vacuum gauges, install caps on canisters, and record the time at the end of the sampling period.
3. Place the sample canisters in shipping containers for transportation to laboratory.
4. Repeat procedure for all sampling locations.

## 4.4 Laboratory Methods

Table 1 summarizes the laboratory methods that will be used to analyze field samples and the sample container type, preservation, and applicable holding times. Other analytes may be added if required by the disposal facility. An NYSDOH Environmental Laboratory Approval Program (ELAP)-certified laboratory will be used for all chemical analyses in accordance with DER-10 2.1(b) and 2.1(f), including the NYSDEC July 2005 Analytical Services Protocol (ASP) Category B Deliverables.

**Table 1**
**Laboratory Analytical Methods for Analysis Groups**

| Matrix | Analysis | EPA Method | Bottle Type | Preservative | Hold Time |
|---|---|---|---|---|---|
| Soil and Soil QA/QC (if necessary) | VOCs | 8260C | EnCore® samplers (3) and 2 oz. plastic jar | ≤ 6 ºC | 48 hours to extract; 14 days to analyze |
| | Semivolatile Organic Compounds (SVOCs) | 8270D | 8 oz. Glass Jar | ≤ 6 ºC | 14 days to extract; 40 days to analyze |
| | Total Analyte List (TAL) Metals, and Hexavalent Chromium | 6000/7000 Series, 6010C, and 7196A | 8 oz. Glass Jar | ≤ 6 ºC | 6 months holding time; Mercury 28 days holding time; Hexavalent chromium 30 days to extract, 7 days to analyze |
| | Pesticides | 8081B | 8 oz. Glass Jar | ≤ 6 ºC | 14 days to extract; 40 days to analyze |
| | Polychlorinated Biphenyls (PCBs) | 8082A | 8 oz. Glass Jar | ≤ 6 ºC | 14 days to extract; 40 days to analyze |
| | PFAS | 1633 | 4 oz. HDPE Plastic Container | 4 ºC (+/- 2 ºC) | 14 days to extract; 40 days to analyze |
| Groundwater and Groundwater QA/QC (if necessary) | VOCs | 8260C | 5 40 mL Glass Vials | HCl to pH < 2 and ≤ 6 ºC | 48 hours to extract; 14 days to analyze |
| | SVOCs | 8270D | 2,000 mL Amber Jar | ≤ 6 ºC | 7 days to extract; 40 days to analyze |
| | TAL Metals | 6000/7000 Series | 2,000 mL Amber Jar | $HNO_3$ to pH < 2 | 6 months for metals; 28 days for mercury; 24 hours for hexavalent chromium |
| | Pesticides | 8081B | 2,000 mL Amber Jar | ≤ 6 ºC | 7 days to extract; 40 days to analyze |
| | PCBs | 8082A | 2,000 mL Amber Jar | ≤ 6 ºC | 7 days to extract; 40 days to analyze |
| Soil Vapor, Indoor Air, and Ambient Air (if necessary) | VOCs | TO-15 | 6 L SUMMA® Canister, Tedlar Bags | None | 14 days |

Notes:
oz. – ounce
mL – milliliter
ºC – degrees Celsius
HCL – hydrochloric acid
$HNO_3$ – nitric acid
ng/L – parts per trillion

## 4.5 Quality Control Sampling

In addition to the laboratory analysis of the groundwater samples, additional analysis will be included for QC measures, as required by the Category B sampling techniques. These samples will include field blank, trip blank, matrix spike/matrix spike duplicate (MS/MSD), and blind duplicate

samples at a frequency of one sample per 20 field samples collected. QC samples will be analyzed for the same parameters as the accompanying samples, with the exception of any trip blanks, which will be analyzed for the VOC list only. Table 2 provides a summary of the field samples and QA/QC samples to be analyzed by the laboratory.

**Table 2**
**Field Sample and QC Sample Quantities**

| Sample Type | Parameters | EPA Method[1] | Field Samples | QC Samples | | | |
|---|---|---|---|---|---|---|---|
| | | | | Duplicate[2] | MS/MSD[2] | Field Blank[2] | Trip Blank[3] |
| Soil (if necessary) | VOCs | 8260C | TBD | 1/20 (TBD) | 1/20 (TBD) | 1/20 (TBD) | 1 (Laboratory-Supplied) |
| | SVOCs, TAL Metals, Mercury, PCBs, Pesticides, and PFAS | 8270D, 6010C/7471B, 8082A, 8081B, and 1633 | TBD | 1/20 (TBD) | 1/20 (TBD) | 1/20 (TBD) | NA |
| Groundwater | VOCs | 8260C | TBD | 1/20 (TBD) | 1/20 (TBD) | 1/20 (TBD) | 1/20 (TBD) |
| Sub-Slab Soil Vapor (if necessary) | VOCs | TO-15 | TBD | NA | NA | NA | NA |
| Indoor/ Ambient Air | VOCs | TO-15 | TBD | NA | NA | NA | NA |

Notes:
TBD – To be determined (based on planned work activities)
NA – Not Applicable
[1] – NYSDEC July 2005 ASP Category B deliverables
[2] – One duplicate, MS/MSD, and field blank per 20 field samples or shipment
[3] – One trip blank per 20 field samples or shipment with VOC analyses

## 4.6 Sample Handling

### 4.6.1 Sample Identification

All samples will be consistently identified in all field documentation, COC documents, and laboratory reports. All samples will be amended with the collection date at the end of the sample name in a year, month, day (YYYYMMDD) format. Blind duplicate sample nomenclature will consist of the sample type, followed by an "X"; MS/MSD sample nomenclature will consist of the parent sample name only but triplicate sample volume will be collected and the COC comment section will explain that the additional volume is for running the MS/MSD; and trip and field blanks will consist of "TB-" and "FB-", respectively, followed by a sequential number of the trip/field blanks collected within the SDG and the matrix (soil or groundwater). In accordance with NYSDEC Environmental Quality Information System (EQuIS™) protocol, special characters will not be used for sample nomenclature and sample IDs below 10 will be amended with a "0". Sample nomenclature examples are provided in Table 3.

**Table 3**
**Examples of Sample Nomenclature**

| Sample Description | Sample Designation |
|---|---|
| Groundwater sample collected from a monitoring well on June 1, 2025 | MW-01_20250601 |
| Indoor air sample collected from the cellar of the building on June 1, 2025 | IA-01_20250601 |
| Ambient air sample collected from the exterior of the building on June 1, 2025 | AA-01_20250601 |

### 4.6.2 Sample Labeling and Shipping

All sample containers will be provided with labels containing the following information:

- Project identification, including Site name, BCP Site number, Site address
- Sample identification;
- Date and time of collection;
- Analysis(es) to be performed;
- Sample preservative, if any; and
- Sampler's initials.

Once the samples are collected and labeled, they will be placed in chilled coolers (except for sub-slab soil vapor or indoor air samples) and stored in a cool area away from direct sunlight to await shipment to the laboratory. All samples will be shipped to the laboratory at least twice per week. At the start and end of each workday, field personnel will add ice to the cooler(s) as needed.

The samples will be prepared for shipment by placing each sample in laboratory-supplied glassware, then wrapping each container in bubble wrap to prevent breakage, and adding freezer packs and/or fresh ice in sealable plastic bags. The COC form will be properly completed by the sampler in ink, and all sample shipment transactions will be documented with signatures, and the date and time of custody transfer. Samples will be shipped overnight (e.g., Federal Express) or transported by a laboratory courier. All coolers shipped to the laboratory will be sealed with mailing tape and a COC seal to ensure that the samples remain under strict COC protocol.

### 4.6.3 Sample Custody

Field personnel will be responsible for maintaining the sample coolers in a secured location until they are picked up and/or sent to the laboratory. The record of possession of samples from the time they are obtained in the field to the time they are delivered to the laboratory or shipped off-site will be documented on COC forms. The COC forms will contain the following information: project name; names of sampling personnel; sample number; date and time of collection and matrix; and signatures of individuals involved in sample transfer, and the dates and times of transfers. Laboratory personnel will note the condition of the custody seal and sample containers at sample check-in.

## 4.7 Field Instrumentation

Field personnel will be trained in the proper operation of all field instruments at the start of the field program. Instruction manuals for the equipment will be on file at the Site for referencing proper operation, maintenance, and calibration procedures. The equipment will be calibrated according to manufacturer specifications at the start of each day of fieldwork. If an instrument fails calibration, the project manager or QA/QC Officer will be contacted immediately to obtain a replacement instrument. A calibration log will be maintained to record the date of each calibration, any failure to calibrate and corrective actions taken. The PID will be equipped with a 10.6 eV lamp and will be calibrated each day using 100 parts per million (ppm) isobutylene standard gas in accordance with the manufacturer's standards.

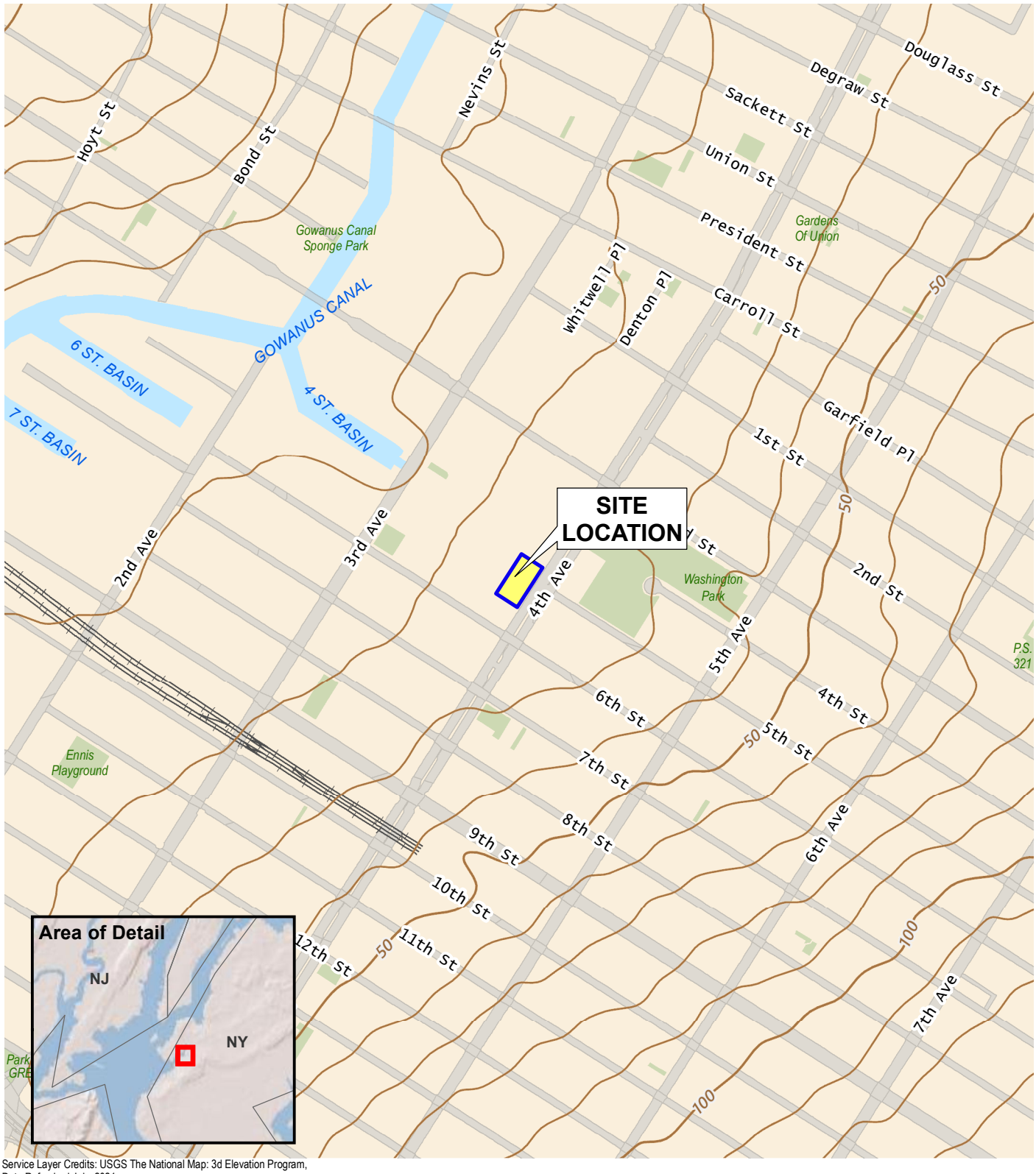
## 4.8 Quality Assurance

All soil and groundwater laboratory analytical data will be reviewed by a third-party validator and a Data Usability Summary Report (DUSR) will be prepared to document the usability and validity of the data. The objective of the third-party validator is to provide an unbiased review to confirm that the laboratory followed all method and reporting requirements, and to provide a basis for making decisions about the minimum quality of environmental data that is sufficient to support risk assessment remedial performance decisions. The quarterly reports will include a detailed description of sampling activities, data summary tables, concentration map showing sample locations and concentrations, DUSR, and laboratory reports.

## 4.9 Reporting of Data

All data generated during the monitoring activities will be submitted in the appropriate EQuIS™ EDD format.

# FIGURES




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

0 600 1,200

SCALE IN FEET

AKRF

440 Park Avenue South, New York, NY 10016

**380 4th Avenue**

Brooklyn, New York

**BCP SITE LOCATION**

DATE
**5/2/2022**

PROJECT NO.
**210226**

FIGURE
**1**

# ATTACHMENT A

## RESUMES OF REMEDIAL ENGINEER, QA/QC OFFICER, PROJECT MANAGER, AND FIELD TEAM LEADERS

# MICHELLE LAPIN, PE

## SENIOR VICE PRESIDENT

Michelle Lapin, PE is a Senior Vice President with experience in the assessment and remediation of hazardous waste issues. She leads the firm's Hazardous Materials group and offers extensive experience providing strategic planning and management for clients. Michelle has been responsible for the administration of technical solutions to contaminated soil, groundwater, air and geotechnical problems. Her other duties have included technical and report review, proposal writing, scheduling, budgeting, and acting as liaison between clients and regulatory agencies, and project coordination with federal, state, and local authorities.

Michelle's hydrogeologic experience includes groundwater investigations, formulation and administration of groundwater monitoring programs and remediation throughout the Northeast. Her experience with groundwater contamination includes Level B hazardous waste site investigations; leaking underground storage tank studies, including hazardous soil removal and disposal and associated soil and water issues; soil gas/vapor intrusion surveys; and wetlands issues. Michelle is experienced in coordinating and monitoring field programs concerning hazardous waste cell closures. She has directed hundreds of Phase I, Phase II, and Phase III investigations and remediations, many of them in conjunction with developers, law firms, lending institutions, and national retail chains. Michelle is also experienced in the cleanup of contaminated properties under Brownfield Cleanup Program (BCP) and Voluntary Cleanup Program (VCP) regulations.

## BACKGROUND

### Education

MS, Syracuse University, Civil Engineering, 1985
BS, Clarkson University, Civil Engineering, 1983

### Licenses/Certifications

Professional Engineer, CT - PEN.0018603
Professional Engineer, NY - 16 073934
OSHA 40 Hour HAZWOPER
OSHA 8 Hour Refresher,

### Professional Memberships

Member, National Society of Professional Engineers
Member, American Society of Civil Engineers
Member; Council Member, Connecticut Business & Industry Association, Environmental Policies Council
Board Member, New York City Brownfield Partnership,

### Years of Experience

36 years in the industry
28 years with AKRF

## RELEVANT EXPERIENCE

**YMCA of Greater New York, Northeast Bronx YMCA, Bronx, NY**

AKRF was retained by YMCA of Greater New York to assist the YMCA of Greater New York in its response to a request for proposals by the Economic Development Corporation for the development of a site in the Edenwald section of the Bronx into a community center. AKRF provided site assessment and remediation services and site-civil engineering due diligence services on the site. The YMCA was successful in winning the development rights, and AKRF prepared an Environmental Assessment for the site. AKRF continued assisting the YMCA in their development with site assessment and remediation services and geotechnical services for the new development at 1250 East 229th Street in

the Bronx for the construction of the two-story, 30,000-square foot building. Michelle Lapin is leading the efforts for the Site Assessment and Remediation services, which includes a Remedial Action Plan and Construction Health and Safety Plan, field monitoring and subsequent Closure Report submitted to the New York City Department of Environmental Protection.

**Atlantic Chestnut, Brooklyn, NY**

AKRF was retained by Phipps Houses to provide environmental consulting services in connection with the purchase and development of former burned manufacturing buildings encompassing an entire city block in Brooklyn, New York. As part of due diligence, AKRF prepared a Phase I Environmental Site Assessment (ESA) Report for the property. After acquisition, the property was divided into three separate sites (3264 Fulton Street, 235 Chestnut Street, and 3301 Atlantic Avenue). AKRF prepared a Subsurface (Phase II) Investigation Work Plans and conducted Phase IIs at each of the sites, which included the collection and analysis of soil, soil vapor, and groundwater samples. Based on the results of the Phase IIs, documented in Subsurface (Phase II) Reports, New York State Brownfield Cleanup Program (NYSBCP) applications were prepared for each of the sites. After acceptance into the NYSBCP, AKRF prepared Citizen Participation Plans (CPPs) and distributed public notices. AKRF prepared Remedial Investigation (RI) Work Plans (RIWPs) for each of the sites to further investigate contaminated media prior to redevelopment, conducted the RIs, and is in the process of preparing the RI Reports (RIRs). Michelle Lapin is the Remedial Engineer for the project and oversees all remedial activities.

**West 61st Street Rezoning/Residential Development, New York, NY**

Michelle Lapin directed the firm's hazardous materials work for this mixed-use development in Manhattan. The Algin Management Company hired AKRF to prepare an environmental impact statement (EIS) for the proposed rezoning of the western portion of the block between West 60th and 61st Streets, between Amsterdam and West End Avenues. The purpose of the proposed action was to facilitate the development of two 30-story residential towers with accessory parking spaces, and landscaped open space. The EIS examined a "worst case" condition for rezoning the block, which allowed Algin to build a residential building of approximately 375,000 square feet at their site. The building now contains 475 apartments, 200 accessory parking spaces, a health club, and community facility space. This site, with the services of AKRF, entered into New York State's Brownfield Cleanup Program (BCP). On-site issues included underground storage tanks remaining from previous on-site buildings, petroleum contamination from these tanks and possibly from off-site sources, and other soil contaminants (metals, semi-volatile organic compounds, etc.) from fill materials and previous on-site buildings. AKRF oversaw the adherence to the Construction Health and Safety Plan (HASP), which was submitted to and approved by the New York State Department of Environmental Conservation (NYSDEC), and monitored the waste streams, to ensure that the different types of waste were disposed of at the correct receiving facilities. This oversight also included confirmation and characteristic soil sampling for the receiving facilities and NYSDEC. A "Track 1" Clean up of the majority of the property (the portion including the buildings) was completed and the final Engineering Report was approved by the NYSDEC. AKRF has also completed a smaller portion of the property as a "Track 4" cleanup, which includes a tennis court and landscaped areas. Ms. Lapin continues to manage the annual inspections for the property owner in accordance with the Brownfield Cleanup Agreement.

**2477 Third Avenue, Bronx, NY**

AKRF conducted the investigation and remediation of the former 2477 Third Avenue gasoline station property under the New York State Department of Environmental Conservation's (NYSDEC's) Brownfield Cleanup Program (BCP). The work included shallow and deep aquifer groundwater testing, delineation of known areas of soil contamination, soil vapor analyses, and investigation and delineation of non-aqueous phase liquid (DNAPL) from past industrial activities. Upon NYSDEC approval of the Remedial Action Work Plan (RAWP), AKRF conducted the removal of the nine on-

site underground storage tanks (USTs) and 1,100 tons of petroleum-contaminated soil, the application of six in-situ chemical oxidation (ISCO) groundwater treatments, and the implementation of four Enhanced Fluid Recovery (EFR) events to remove desorbed gasoline-related hydrocarbons in the groundwater. The site received a Certificate of Completion (COC) from the BCP and a Notice of Satisfaction (NOS) from the Mayor's Office of Environmental Remediation (OER) in connection with the hazardous materials E-Designation assigned to the property. Michelle Lapin was the professional engineer of record, responsible for the remediation design elements and overall adherence to the NYSDEC and New York City Office of Environmental Remediation (OER) regulations and continues to manage the required inspections and reporting for the property owner in accordance with the Brownfield Cleanup Agreement..

**443 Greenwich Street, Manhattan, NY**

This Site was assigned an E-Designation for hazardous materials (and air quality and noise) during the North Tribeca Rezoning in 2010, which requires environmental testing and, if necessary, remediation to the satisfaction of the New York City Mayor's Office of Environmental Remediation (OER). After years of public opposition to the original redevelopment scheme calling for a boutique hotel, this former manufacturing building and its current developer gained acceptance through the Department of City Planning and the Landmarks Preservation Commission to move forward with redevelopment as residential lofts. The redevelopment process began in 2012 and led to initial re-occupancy in 2016 after overcoming several regulatory challenges while seeking LEED® certification.

Once trichloroethene (TCE) was identified on-site, the typically straight forward assignment of delineating contaminant sources for AKRF became much more complex following the identification of an off-site TCE groundwater plume. Based on the completion of several rounds of additional sampling and investigation activities including a compound specific isotopic analysis (CSIA) of the chlorinated volatile organic compounds (VOCs) detected in the central portion of the Site and the off-site monitor wells south of the Site, the presence of two separate releases (one originating on-site and one originating off-site) of TCE was confirmed. Based on the confirmation that the Site was not the contamination source associated with the off-site plume, the redevelopment of the Site proceeded under the review of the OER, and did not require direct or continued oversight from the New York State Department of Environmental Conservation (NYSDEC). Furthermore, the developer of the Site, who had become the owner, was not deemed responsible to complete additional off-site investigation or remediation associated with the separate, off-site TCE groundwater plume. For this project, AKRF utilized forensic-based analysis of chlorinated VOC plumes and was one of the first projects that included a groundwater treatment technology managed by the OER in its E-Designation program. The Site also includes an engineered cap to prevent exposure to underlying soil/fill, a vapor barrier/waterproofing system beneath the building slab and along foundation sidewalls, and the operation of an active sub-slab depressurization (SSD) system. The project was awarded the 2017 Environmental Protection award by the New York City Brownfield Partnership. Michelle Lapin was the professional engineer of record, responsible for the remediation design and adherence of the remediation and remediation systems installation and ongoing operation.

**Larkin Plaza, Yonkers, NY – Remedial Investigation, Construction Oversight**

AKRF assisted RXR Realty with enrolling the 1.1-acre Larkin Plaza site in the New York State Department of Environmental Conservation's (NYSDEC's) Brownfield Cleanup Program (BCP). Since being accepted into the program, AKRF conducted an extensive remedial investigation, prepared the necessary remedial action plans, managed the citizen participation tasks, and is in the process of conducting the remediation in conjunction with NYSDEC oversight. To date, the remedial work has included in-situ chemical oxidation (ISCO) treatments, contaminated soil removal, and petroleum product recovery. AKRF also assisted RXR with various construction-related services, including dewatering discharge permitting, soil disposal characterization testing, and stormwater pollution prevention plan (SWPPP) preparation. AKRF's Cultural Resources department is in the process of preparing a submission to the State Historic Preservation Office (SHPO) on behalf of RXR related to the acquisition of additional public funding sources.

# MICHELLE LAPIN, PE

**SENIOR VICE PRESIDENT**

Michelle Lapin is the professional engineer of record, responsible for the remediation design elements and adherence to the NYSDEC-approved work plans and remediation design.

**Memorial Sloan Kettering Cancer Center-CUNY 74th Street EIS, New York, NY**

AKRF was engaged by Memorial Sloan-Kettering Cancer Center (MSK) to prepare an EIS for a proposed joint facility located on a New York City-owned parcel located between East 73rd Street and East 74th Street adjacent to the FDR Drive in Manhattan. The property, formerly occupied by the Department of Sanitation with over 41 underground storage tanks, now includes an ambulatory medical care center for MSK.

Michelle Lapin led the site assessment and remediation work, which included the preparation of the Phase I and II environmental site assessments, remedial action work plans (RAWPs), and construction health and safety plans (CHASPs) for submission to the New York City Office of Environmental Remediation (OER) for the Voluntary Cleanup Program (VCP) and to the New York State Department of Environmental Conservation (NYSDEC) for remediation of a petroleum spill. The RAWPs and CHASPs included provisions for excavation of contaminated soil and rock, removal of tanks and environmental monitoring during the construction activities. AKRF also performed a pre-demolition asbestos survey of the Department of Sanitation's remaining concrete foundation structures and prepared specifications for asbestos abatement, soil management and underground storage tank removal and disposal.

The remediation was completed in compliance with the OER-approved RAWP and the spill was closed by the NYSDEC. The project received a Notice of Satisfaction from the OER.

# STEPHEN T. MALINOWSKI, QEP

**SENIOR VICE PRESIDENT- SITE ASSESSMENT AND REMEDIATION**

Stephen Malinowski is a Senior Vice President with more than 25 years of professional experience in assessment, investigation, and remediation of environmental contamination-related issues. Steve has managed all aspects of environmental projects with multi-disciplinary teams, including public agencies, developers, property owners, architects, and construction managers to navigate regulatory programs efficiently and achieve project objectives. His projects fall under the regulatory oversight of the USEPA, NYSDEC, NYCDEP and NYCOER including the Federal and New York State Superfund, New York State Brownfield Cleanup Program (BCP) and petroleum spills, RCRA/IUC closures, New York City Voluntary Cleanup Program (VCP) and E-Designation program, and Nassau and Suffolk County regulatory programs. His proficiency in the development of custom scopes of work and accurate cost estimates coupled with his field-experience, knowledge of regulations, and excellent rapport with regulatory personnel allow him to provide turnkey environmental consulting for remediation, development, infrastructure improvement, and coastal resiliency projects.

Mr. Malinowski's experience includes the design, implementation, and management of environmental assessment, investigation and remediation projects in the New York Metropolitan Area and across Long Island. These projects have involved soil, soil vapor and groundwater investigation, monitoring, and sampling programs, Brownfield and hazardous waste site investigations, and underground storage tank studies, including soil contamination delineation, classification, waste removal and disposal. He has overseen and conducted hundreds of Phase I Environmental Site Assessments (ESAs) and Phase II investigations in a variety of environmental settings, ranging from industrial sites to sites in challenging urban areas, many of them in conjunction with site redevelopment and property transaction-related activities. In addition, he has designed and implemented indoor air and soil vapor intrusion surveys at industrial, commercial and residential properties in accordance with NYSDOH protocols, some requiring sub-slab depressurization systems.

## BACKGROUND

### Education

B.A., Environmental Science, State University of New York at Plattsburgh

### Licenses/Certifications

Qualified Environmental Professional from the Institute of Professional Environmental Practice (IPEP)
New York State Professional Geologist #000422
Certified Brownfield Professional by New York City Office of Environmental Remediation
Health and Safety Operations at Hazardous Materials Sites 29 CFR 1910.120
OSHA 10 Hour Occupational Construction Safety and Health

### Professional Memberships

Member, Long Island Association of Professional Geologists (LIAPG)
Member, Institute of Professional Environmental Practice (IPEP)

### Awards

Big Apple Brownfield Award recipient as part of the 4697 Third Avenue redevelopment team 2021
Big Apple Brownfield Award recipient as part of the Front and York redevelopment team 2020
Big Apple Brownfield Award recipient as part of the Third Avenue redevelopment team 2018
Big Apple Brownfield Award recipient as part of the Flushing Commons redevelopment team 2017
Big Apple Brownfield Award recipient as part of the Jamaica 94th Avenue redevelopment team 2017

Big Apple Brownfield Award recipient as part of the Cornerstone B1 (LaTerraza) redevelopment team 2011

**Years of Experience**

28 years in the industry
8 years with AKRF

## RELEVANT EXPERIENCE

**J2 147-07 94th Avenue LLC, Queens, NY**
This historical meat refrigeration facility is enrolled in the Brownfield Cleanup Program to remediate the property and construct a 23-story affordable residential building. Although the site has an E-Designation for hazardous materials, noise, and air quality, AKRF assisted with applying for entry into the NYSDEC Brownfield Cleanup Program, due to the presence of contaminated soil and soil vapor beneath the site.

Mr. Malinowski directed all Phases of this NYS Brownfield Cleanup Program (BCP) project located within the Jamaica Brownfield Opportunity Area. Mr. Malinowski has been responsible for overseeing the implementation of a Phase I Environmental Site Assessment and asbestos survey of this former industrial property adjacent to the Long Island Rail Road tracks. Since the site had an E-Designation for hazardous materials, noise and air quality, Mr. Malinowski coordinated with the New York City Office of Environmental Remediation (NYCOER) to ensure that all technical deliverables would also satisfy NYCOER's predevelopment requirements in order to obtain a Notice to Proceed from the NYC Department of Buildings. In doing so, he designed a scope of work for the Remedial Investigation that would satisfy both OER and the NYSDEC BCP.

Upon the receipt of results indicating the presence of contaminated soil and soil vapor beneath the site, the client decided to apply for the NYS BCP. Mr. Malinowski was responsible for preparation and submission of a BCP Application simultaneously with the Remedial Investigation Report and a Remedial Action Work Plan (RAWP) to expedite the approval process and enable implementation of the remediation concurrently with construction. Mr. Malinowski prepared a remedial estimate for the activities required by the RAWP, allowing the client to obtain financing for construction. Mr. Malinowski designed a testing program to pre-characterize approximately 15,000 cubic yards of soil underlying the existing building for disposal during the remedial excavation. The disposal testing identified a hotspot containing hazardous levels of lead, which Mr. Malinowski coordinated with the EPA to remediate at the onset of construction. The remedial excavation was completed during the height of the COVID outbreak with Mr. Malinowski's team providing environmental oversight, community air monitoring with NYSDEC. Upon completion of the work, Mr. Malinowski prepared a Final Engineering report and the Client received a Certificate of Completion from NYSDEC in 2020. A Notice of Satisfaction is anticipated from NYCOER after installation of the windows and façade are complete.

**Front and York at 85 Jay Street, Brooklyn, NY**
AKRF provided environmental consulting services for Front and York at 85 Jay Street in Brooklyn, a Brownfield redevelopment project bringing 728 apartments and 150,000 square feet of amenities to the neighborhood. Mr. Malinowski was responsible for preparation and implementation of a NYSDEC-approved Remedial Action Work Plan for this approximately three-acre former industrial site that encompasses an entire city-block. The remediation was conducted under the NYSDEC Brownfield Cleanup Program, primarily due to high levels of lead associated with former smelting operations. His responsibilities included overseeing an in-situ soil pre-characterization testing program to obtain pre-approval from the disposal of approximately 170,000 cubic yards of soil during the foundation excavation. Stephen assisted with the review and procurement of bids for the off-site transport and disposal of multiple soil waste streams. As part of the approval process, he oversaw extensive testing to delineate the extent of lead and other hot spot areas of contamination.

Mr. Malinowski was responsible for preparation and implementation of a NYSDEC-approved Remedial Action Work Plan for this approximately three-acre former industrial site that encompasses an entire city-block. The remediation is being conducted under the NYSDEC Brownfield Cleanup Program, primarily due to high levels of lead associated with former smelting operations. His responsibilities included overseeing an in-situ soil pre-characterization testing program to obtain pre-approval from the disposal of approximately 170,000 cubic yards of soil during the foundation excavation. As part of the approval process, Mr. Malinowski oversaw extensive testing to delineate the extent of lead and other hot spot areas of contamination.

The testing program included the development of a bench-scale study to condition the lead in-situ with a patented product to reduce its leachability from the soil and lower disposal costs. Based on the results of the bench tests, a Soil Stabilization Plan detailing an in-situ pilot study followed by wide-scale implementation was prepared and approved by NYSDEC. Upon receipt of the pilot test results, the soil conditioning program was approved for implementation for 40,000 tons of lead contaminated material. Mr. Malinowski assisted with the review and procurement of bids for the off-site transport and disposal of multiple soil waste streams and oversaw a soil conditioning program, the excavation monitoring with community and work-zone air monitoring, and the daily and monthly reporting obligation to NYSDEC. Mr. Malinowski was responsible for preparation of the Final Engineering Report (FER). The FER was approved by NYSDEC and the project received a certificate of completion in December 2019 for a Track I cleanup.

**Alvista Towers (94-02 148th Street), Jamaica, NY**
Mr. Malinowski was responsible for directing the assessment and preconstruction investigation activities for a former industrial property with an E-Designation for Hazardous Materials and Noise located within the Jamaica Brownfield Opportunity Area (BOA). Mr. Malinowski was responsible for designing the scope of the Remedial Investigation to satisfy the hazardous materials E-Designation, as well as for coordinating the pre-demolition asbestos survey and the noise survey to obtain the Notice to Proceed from the New York City Mayor's Office of Environmental Remediation's (NYCOER).

The Remedial Investigation revealed the presence of contaminated soil and soil vapor beneath the site, and the developer entered the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) through NYCOER's JumpStart program. The remediation consisted of soil excavation and the removal of seven underground storage tanks. The site achieved an unrestricted use Track 2 cleanup and was the first project to receive a Certificate of Completion under the post-2015 amendment BCP.

**Elton Crossing - Melrose Commons North Site C, Bronx, NY**
AKRF provided environmental consulting services in connection with the purchase and redevelopment of the Elton Crossing site at 899 Elton Avenue in the Bronx, NY. The work initially involved the preparation of a Phase II subsurface investigation including soil and soil vapor testing to determine if the site would be eligible for the New York State Brownfield Cleanup Program (NYSBCP). Upon completion of the investigation, AKRF prepared a NYCBCP Application and the site was accepted into the NYSBCP. AKRF managed all aspects of the brownfield cleanup including; development of Investigation Work Plans, performing Remedial Investigations and Reports, preparation of Phase I ESAs, preparation of a Citizen Participation Plan, distribution of public notices, preparation and implementation of a Remedial Action Work Plan (RAWP), design of a sub-slab depressurization system, preparation of the Final Engineering Report and Site Management Plan, and sampling and management of soil disposal. AKRF is in the midst of implementing the Site Management Plan.

Mr. Malinowski was responsible for overseeing the implementation of the NYSDEC-approved Remedial Action Work Plan for this former industrial property. His responsibilities included the in-situ testing of all site soil to obtain pre-approval from facilities for 15,000 tons of soil disposal during the foundation excavation. Mr. Malinowski secured approval and procured bids for the off-site transport and disposal for six different

classifications of soil. During excavation, Mr. Malinowski coordinated the transport and disposal of excavated material with the foundation contractor, while on-site personnel working under his direction managed the excavation and manifests for each truckload leaving the site. Mr. Malinowski was the regulatory and technical lead for the remediation, which involved providing guidance for the closure of two petroleum spills; the registration, removal, and closure of five petroleum storage tanks encountered during excavation; and the delineation of soil contaminants, including hazardous lead, petroleum, and pesticides. His efforts prior to construction and his strong communication skills allowed the foundation excavation to advance with minimal delays from environmental matters.

Additionally, Mr. Malinowski oversaw the implementation of the Community Air Monitoring Program (CAMP) during soil excavation activities and developed a soil-testing program that allowed the client to reuse certain material on-site, avoiding delays and soil import fees. The site was remediated to achieve Track 4 site-specific cleanup criteria and received a Certificate of Completion in 2016.

**5 Manhattan West (450 West 33rd Street), New York, NY**
AKRF is providing environmental consulting services to Brookfield Office Properties in connection with the Manhattan West development site, which encompasses an entire city-block above the Amtrak approach to Penn Station. The four towers that comprise the Manhattan west development site are being remediated as four different sites under the New York City Mayor's Office of Environmental Remediation (OER), due to an E-Designation for hazardous materials, air quality, and noise attenuation. 5 Manhattan West is a 15-story, 1.7-million-square-foot office tower.

Mr. Malinowski oversaw the preparation of Remedial Investigation work plans and the initiation and reporting of the Remedial Investigations (RIs). Each RI included soil, groundwater, and soil vapor sampling to identify potential contamination. Based on the results of each RI, Mr. Malinowski oversaw the preparation of a site-specific Remedial Action Work Plan (RAWP) for building foundation elements located within a subterranean railroad and active Amtrak rail lines. The RAWP included site-wide soil excavation, the removal of underground oil tanks, and the installation of a vapor barrier beneath the entire building. Due to the presence of PCBs, the subterranean work was conducted under a Self-Implementing Cleanup Plan prepared by AKRF and approved by the USEPA. Upon approval of the remedial plans, Mr. Malinowski oversaw the remediation activities to ensure compliance with the OER RAPs. Mr. Malinowski also designed and conducted an extensive in-situ testing of soil to pre-classify the material for disposal. He continues to work with the USEPA as the foundation for the Southeast Tower is completed. Mr. Malinowski managed all aspects of the work required for the OER E-Designation at the Southwest Tower site to achieve a Notice of Satisfaction (NOS ), and is currently managing the OER-related work for the Northwest and Southeast Towers.

**13th and 14th Street Realty, NYS Brownfield Redevelopment, New York, NY**
Mr. Malinowski directed all phases of this NYS Brownfield project, including the initial investigation as well as the submittal of a BCP Application simultaneously with a Remedial Investigation Work Plan and an Interim Remedial Measures Work Plan, which enabled the investigation and remediation to be implemented concurrently with planned site redevelopment activities. The site consisted of an approximately 20,000 square foot property in Manhattan comprised of 100 year old dilapidated buildings. The presence of perchloroethene (PCE) contamination associated with a former dry cleaner prevented the property owner from selling. The developer applied to the New York State Brownfield Cleanup Program (BCP) as a "Volunteer" to eliminate off-site liability. Prior to the client securing its construction loan, all plans were approved by NYSDEC and a detailed remedial estimate was approved for financing by the client's lending institutions.

The investigation included soil and soil vapor testing as well as the installation and sampling of groundwater monitoring wells. The remediation activities included the removal of underground oil tanks, soil waste classification testing, and removal of approximately 15,000 tons of non-hazardous petroleum and lead

contaminated soil as well as 200 tons of hazardous soil containing PCE. A water-proofing membrane was installed beneath the entire building to eliminate the exposure pathway for PCE into the new eight-story residential building. The investigation and remedial work was performed under a construction health and safety plan that included a community air monitoring program. The client received approximately $6,000,000 in tax credits from NYS for the Track 2 cleanup of this underutilized contaminated property.

**New York City Department of Design and Construction, East Side Coastal Resiliency, Manhattan, NY**
Mr. Malinowski leads the environmental investigation and related support for a multidisciplinary design team selected by the New York City agency partnership of DDC, DPR, and ORR for the Feasibility Study and Pre-Scoping Services for the East Side Coastal Resiliency (ESCR) project. The AKRF Team is providing design services for 100+ year storm protection and for the anticipated sea level rise along the east side of Lower Manhattan. The ESCR subsurface exploration programs involved a review of available utility plans and environmental reports concerning manufactured gas plant (MGP) and potential petroleum-related contamination along a 2.5 mile study area from Montgomery Street to East 25th Street in order to develop a Subsurface Investigation Work Plan to investigate soil and groundwater quality in areas of disturbance.

The testing program were conducted under the regulatory oversight of the NYCDEP and included both public and private utility mark-out services across vast areas of the project site containing critical infrastructure in order to enable the installation of numerous soil borings and groundwater wells. Mr. Malinowski was in charge of all aspects of management and implementation of the investigation program. As the design of the flood protection project was advanced, Mr. Malinowski designed a supplemental subsurface testing program to evaluate subsurface conditions for infrastructure improvements and to further define areas impacted with MPG-related wastes. He was also responsible for interpreting the wide-range of chemical parameters to evaluate critical cost and environmental impacts for the City and design team, and to prepare technical reports for submission and approval by the NYCDEP to satisfy City Environmental Quality Review (CEQR) requirements.

In addition, he continues to support the design and environmental review team by preparing the Hazmat Chapter for the Environmental Impact Statement, overseeing a hydrogeological study, developing interim remedial measures for MGP-contamination, developing estimating cost impacts to the project for design and cost recovery purposes, developing a Soil Management Plan and preparing presentations to the NYC team as well as OER, NYSDEC, and Con Edison.

# TIMOTHY G. LARIGAN

**PROFESSIONAL II**

Timothy G. Larigan is an environmental scientist with 5 years of experience in environmental remediation/compliance, Phase I/Phase II Environmental Assessments; project management; technical reporting; data analysis; field sampling; contractor oversight; wetlands delineation and permitting. He has directed environmental remediation, due diligence, asbestos, and wetlands projects and completed them within the proposed timeframe and budget. Mr. Larigan has also managed client and regulatory agency interactions. He has performed various field activities such as soil, groundwater, and vapor sampling and wetlands delineation. He has a working knowledge of GIS software and SAS statistical software.

## BACKGROUND

**Education**
BS, Stockton University, Environmental Science, 2015

**Licenses/Certifications**
Regulatory Training in Underground Storage Tanks Certificate
Wetlands Delineation Certificate
OSHA 40 Hour HAZWOPER
OSHA 30 Hour Construction

**Years of Experience**
5 years in the industry
<1 year with AKRF

## RELEVANT EXPERIENCE

**J2 147-07 94th Avenue LLC, Alvista Towers, Queens, NY**

Environmental Scientist. This historical meat refrigeration facility is enrolled in the Brownfield Cleanup Program to remediate the property and construct a 23-story affordable residential building. Although the site has an E-Designation for hazardous materials, noise, and air quality, AKRF assisted with applying for entry into the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program, due to the presence of contaminated soil and soil vapor beneath the site. AKRF is providing environmental consulting services throughout the project. Mr. Larigan is responsible for performing a Phase I Environmental Site Assessment (ESA) and preparing a Phase I ESA Report.

**Site 9 DSA Owner LLC, Essex Crossing Site 9, New York, NY**

Environmental Scientist. This approximately 20,300 square foot property has been developed with mixed-use residential and commercial/industrial buildings (e.g. printer shop, machine shop, photo shop) since the late-1800s. The site was later redeveloped as the Essex Street Market, which operated until 2019. Mr. Larigan is responsible for performing a Phase I Environmental Site Assessment (ESA) and preparing a Phase I ESA Report, along with preparing a Phase II Work Plan and Health and Safety Plan (HASP) for a proposed Phase II subsurface investigation. Mr. Larigan is also responsible for performing a limited subsurface investigation, consisting of soil sample collection, for due diligence purposes.

# TIMOTHY G. LARIGAN

**PROFESSIONAL II**

**4NYCHousing Inc., 201-207 Seventh Avenue, New York, NY**

Environmental Scientist. This historical mixed-use residential and commercial/industrial property was developed in the late-1800s, and has been vacant since 2018. Mr. Larigan is responsible for conducting soil, groundwater, and vapor sample collection as part of a Phase II investigation, along with preparing a subsurface investigation report, documenting the findings of the Phase II investigation.

**DLANDstudio Architecture + Landscape Architecture pllc, Stapleton Playground, Staten Island, NY**

Environmental Scientist. This public park and historical gasoline filling station has been closed to the public and undergoing renovations since 2019. During excavation for park improvements, petroleum-contaminated soil was discovered and spill was reported to the New York State Department of Environmental Conservation (NYSDEC). Mr. Larigan is responsible for overseeing the installation of groundwater monitoring wells, performing quarterly groundwater monitoring/sampling events, and preparing quarterly groundwater evaluation reports as part of an environmental investigation at the site related to the spill.

## PREVIOUS EXPERIENCE

**Atlantic Environmental Solutions, Inc., Hoboken, NJ**
Project Manager/Senior Environmental Scientist
While at another firm, Mr. Larigan was responsible for the following:

- Managed site remediation projects, underground storage tank removal projects, and Phase I/Phase II environment assessments
- Directed asbestos surveys, mold assessments, and wetlands delineation/permitting projects
- Prepared proposals, bids, and work authorizations for environmental services with detailed scopes of work, schedules, and cost estimates
- Performed technical review, data analysis, and problem solving for site remediation projects and managed client and regulatory agency interactions

**Brinkerhoff Environmental Services, Inc., Manasquan, NJ**
Environmental Scientist
While at another firm, Mr. Larigan was responsible for the following:

- Performed soil, groundwater, and vapor sampling in accordance with State technical requirements;
- Prepared environmental reports, including Phase I/Phase II ESAs, Remedial Investigation and Remedial Action reports, and environmental permit applications in accordance with State requirements;
- Directed and oversaw in-situ chemical oxidation (ISCO) treatments, and installation of sub-slab vapor mitigation systems and other presumptive remedies/engineering controls in accordance with State technical requirements
- Performed geophysical surveys utilizing Ground Penetrating Radar (GPR) and Electromagnetic technology.

# MADELYN FLEMING

## GEOLOGIST/PROFESSIONAL II

Madelyn Fleming is a Geologist/Professional II in the AKRF, Inc. Site Assessment and Remediation department with experience in remedial oversight, community air monitoring (CAMP), soil sampling, groundwater sampling, and technical reporting.

## BACKGROUND

**Role in Project**
Field Technician

**Education**

B.S., Geology, Clemson University, May 2020

**Certifications**
OSHA 40-hour HAZWOPER Certified
OSHA 30-hour Construction Safety Training

**Years of experience**
AKRF: November 2022 - present (1 year and 7 months)
Prior industry experiences: Intern at Vineyard Engineering and Environmental Services (Summer 2019)

## RELEVANT EXPERIENCE

**Phase I Environmental Site Assessment – Various Projects**

Ms. Fleming has drafted Phase I reports for various projects and completed the site research and reconnaissance as part of the assessments.

**Phase II Subsurface Investigation and Remedial Investigation – Various Projects**

Ms. Fleming conducted subsurface and remedial investigations on various project sites in the Bronx, Manhattan, Brooklyn, and Queens, including the oversight of drilling activities, as well as low-flow groundwater sampling, soil sampling, and soil vapor sampling.

**Remediation Oversight and Community Air Monitoring - 380 4th Avenue, Brooklyn, NY**

Ms. Fleming performed oversight and conducted community air monitoring during removal of contaminated soil/municipal waste and import of fill materials, to ensure adherence to project specifications for construction projects at 380 4th Avenue in the Gowanus neighborhood of Brooklyn. As part of her duties, Ms. Fleming also prepared daily reports for client and agency review and participated in the NYSDEC-approved endpoint sampling program.

**Remediation Oversight and Community Air Monitoring - 57 Alexander Street, Yonkers, NY**

AKRF is providing ongoing remedial oversight of this NYSDEC Brownfield Cleanup Site on the Yonkers, New York waterfront. The Site, which was contaminated with PCBs, is being remediated under an NYSDEC-approved Remedial Action Work Plan (RAWP) and a USEPA-approved Self Implementation Plan (SIP). Ms. Fleming performed environmental oversight during site remediation and redevelopment activities, including community air

monitoring, and documentation of off-site disposal of excavated soil, import of environmentally clean fill material, and collection of endpoint samples. Ms. Fleming also prepared daily reports for submission to the NYSDEC.

**Remediation Oversight and Community Air Monitoring – Fresh Kills Landfill, Staten Island, NY**

Ms. Fleming performed oversight and conducted community air monitoring during removal of contaminated soil/municipal waste and import of fill materials, to ensure adherence to project specifications for construction projects at several NYC Department of Sanitation (DSNY) facilities located on/near the Fresh Kills Landfill. As part of her duties, Ms. Fleming also prepared daily reports for client and agency review.

**Remediation Oversight and Community Air Monitoring – Harlem Hospital, Manhattan, NY**

Through an on-call contract with the New York City Economic Development Corporation, AKRF is providing construction support and environmental monitoring services during construction of a new public health laboratory on the Harlem Hospital campus to ensure compliance with the NYCDEP-approved Remediation Action Work Plan (RAWP). Ms. Fleming served as an on-site environmental monitor during earthwork for the building construction. Her duties included community and work zone air monitoring, overseeing excavation and export of urban fill and petroleum-contaminated soil, documenting the import/placement of environmentally clean backfill, and preparation of daily reports for submission to the client.

## PREVIOUS EXPERIENCE

**Vineyard Engineering and Environmental Services – Stoneham, MA**

As an environmental technician intern, Ms. Fleming conducted monitoring well sampling, soil gas sampling, and oversight of remediation projects. She also helped to review data and prepare environmental reports.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

*Personnel Resume*

**Carl Armbruster**
**QA Manager**

## Qualifications Summary

Mr. Armbruster has over 30 years of experience in the environmental laboratory and engineering industry that includes extensive technical, management/leadership experience in all aspects of the laboratory business. He is an action-oriented manager dedicated to ensuring the laboratory maintains a quality program that holds the highest credentials in PT scores, accreditations and customer satisfaction. His unique experience lends itself to working successfully with employees, managers and clients at all levels.

## Professional Experience

**Quality Assurance Manager – TestAmerica Edison - 2005 to Present**

Mr. Armbruster is responsible for establishing and implementing the quality assurance program at the Edison facility; and for interfacing with the corporate Quality Assurance Director to ensure adherence with the overall Quality Management Plan. He is also responsible for monitoring implementation and compliance with NELAC and TestAmerica's QMP, conducting annual management system audits and data audits, as well as providing regulatory updates and technical support to the Laboratory Director, Operations Manager, Client Services and Sales department.

**Project Manager/Assistant Technical Director – STL Edison --2000 to 2005**

**Laboratory Director − STL Whippany − 1998 to 2000**

**Account Manager − Clean Harbors Environmental Services − 1997 to 1998**

**Laboratory Manager − Waste Management Inc., and Chemical Waste Management Inc − 1988 to 1997**

**Environmental Scientist − ICF Technology − 1987 to 1988**

**Analytical Chemist − IT Corporation – 1985 to 1987**

**Analytical Chemist − Hess Environmental Laboratories – 1983 to 1985**

## Education

- MS in Biology – East Stroudsburg University, 1984
- BS in Environmental Studies - East Stroudsburg University, 1980

**L.A.B. Validation Corp., 14 West Point Drive, East Northport, New York 11731**

# Lori A. Beyer

**SUMMARY:** General Manager/Laboratory Director with a solid technical background combined with Management experience in environmental testing industry. Outstanding organizational, leadership, communication and technical skills. Customer focused, quality oriented professional with consistently high marks in customer/employee satisfaction.

## EXPERIENCE:

1998-Present L.A.B. Validation Corporation, 14 West Point Drive, East Northport, NY
**President**

- Perform Data Validation activities relating to laboratory generated Organic and Inorganic Environmental Data.

1998-Present American Analytical Laboratories, LLC. 56 Toledo Street, Farmingdale, NY
**Laboratory Director/Technical Director**

- Plan, direct and control the operation, development and implementation of programs for the entire laboratory in order to meet AAL's financial and operational performance standards.
- Ensures that all operations are in compliance with AAL's QA manual and other appropriate regulatory requirements.
- Actively maintains a safe and healthy working environmental that is demanded by local laws/regulations.
- Monitors and manages group's performance with respect to data quality, on time delivery, safety, analyst development/goal achievement and any other key performance indices.
- Reviews work for accuracy and completeness prior to release of results to customers.

1996-1998 Nytest Environmental, Inc. (NEI) Port Washington, New York
**General Manager**

- Responsible for controlling the operation of an 18,000 square foot facility to meet NEI's financial and operational performance standards.
- Management of 65 FTEs including Sales and Operations
- Ensure that all operations are in compliance with NEI's QA procedures
- Ensures that productivity indicators, staffing levels and other cost factors are held within established guidelines
- Maintains a quantified model of laboratory's capacity and uses this model as the basis for controlling the flow of work into and through the lab so as to ensure that customer requirements and lab's revenue and contribution targets are achieved.

1994-1996 Nytest Environmental, Inc. (NEI) Port Washington, New York
**Technical Project Manager**

- Responsible for the coordination and implementation of environmental testing programs requirements between NEI and their customers
- Supervise Customer Service Department
- Assist in the development of major proposals
- Complete management of all Federal and State Contracts and assigned commercial contracts
- Provide technical assistance to the customer, including data validation and interpretation
- Review and implement Project specific QAPP's.

1995-1996 Nytest Environmental, Inc. (NEI) Port Washington, New York
**Corporate QA/QC Officer**

- Responsible for the implementation of QA practices as required in the NJDEP and EPA Contracts
- Primary contact for NJDEP QA/QC issues including SOP preparation, review and approval
- Responsible for review, verification and adherence to the Contract requirements and NEI QA Plan

1992-1994 Nytest Environmental, Inc. (NEI) Port Washington, New York
**Data Review Manager**

- Responsible for the accurate compilation, review and delivery of analytical data to the company's customers. Directly and effectively supervised a department of 22 personnel.
- Managed activities of the data processing software including method development, form creation, and production
- Implement new protocol requirements for report and data management formats
- Maintained control of data storage/archival areas as EPA/CLP document control officer

1987-1991 Nytest Environmental, Inc. (NEI) Port Washington, New York
**Data Review Specialist**

- Responsible for the review of GC, GC/MS, Metals and Wet Chemistry data in accordance with regulatory requirements
- Proficient with USEPA, NYSDEC, NJDEP and NEESA requirements
- Review data generated in accordance with SW846, NYSDEC ASP, EPA/CLP and 40 CFR Methodologies

1986-1987 Nytest Environmental, Inc (NEI) Port Washington, New York
**GC/MS VOA Analyst**

## EDUCATION:

**1982-1985 State University of New York at Stony Brook, New York; BS Biology/Biochemistry**
**1981-1982 University of Delaware; Biology/Chemistry**
**5/91 Rutgers University; Mass Spectral Data Interpretation Course, GC/MS Training**
**8/92 Westchester Community College; Organic Data Validation Course**
**9/93 Westchester Community College; Inorganic Data Validation Course**

Form **W-9**
(Rev. December 2011)
Department of the Treasury
Internal Revenue Service

# Request for Taxpayer Identification Number and Certification

**Give Form to the requester. Do not send to the IRS.**

Print or type
See Specific Instructions on page 2.

Name (as shown on your income tax return)
L.A.B VALIOATION CORP

Business name/disregarded entity name, if different from above

Check appropriate box for federal tax classification:
☐ Individual/sole proprietor ☐ C Corporation ☒ S Corporation ☐ Partnership ☐ Trust/estate

☐ Limited liabilty company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶

☐ Other (see instructions) ▶

☐ Exempt payee

Address (number, street, and apt. or suite no.)
14 WEST POINT DRIVE

Requester's name and address (optional)

City, state, and ZIP code
EAST NORTHPORT, New York 11731

List account number(s) here (optional)

## Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on the "Name" line to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

**Note.** If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

**Social security number**
[ ][ ][ ] - [ ][ ] - [ ][ ][ ][ ]

**Employer identification number**
5 8 - 2 3 8 1 7 1 4

## Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
3. I am a U.S. citizen or other U.S. person (defined below).

**Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 4.

**Sign Here** Signature of U.S. person ▶ Lou A. Bey Date ▶ 01/18/13

## General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

## Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

**Note.** If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

**Definition of a U.S. person.** For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

**Special rules for partnerships.** Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

# Westchester Community College

## Professional Development Center

### Awards this Certificate of Achievement To

LORI BEYER

### for Successfully Completing

ORGANIC DATA VALIDATION COURSE (35 HOURS)

Dr. John Samuelian

Date AUGUST 1992

Assistant Dean
Professional Development Center

President

The Professional
Development Center

SUNY
WESTCHESTER COMMUNITY COLLEGE
Valhalla, New York 10595

# Westchester Community College

## Professional Development Center

### Awards this Certificate of Achievement To

LORI BEYER

### for Successfully Completing

INORGANIC DATA VALIDATION

Instructor: Dale Boshart

Date MARCH 1993

Assistant Dean
Professional Development Center

President

The Professional
Development Center

SUNY
WESTCHESTER COMMUNITY COLLEGE
Valhalla, New York 10595

**New York State Department of Environmental Conservation**
**50 Wolf Road, Albany, New York 12233**

**Thomas C. Jorling**
**Commissioner**

July 8, 1992

Ms. Elaine Sall
Program Coordinator
Westchester Community College
Valhalla, NY 10595-1698

Dear Elaine,

Thank you for your letter of June 29, 1992. I have reviewed the course outline for organic data validation, qualifications for teachers and qualifications for students. The course that you propose to offer would be deemed equivalent to that which is offered by EPA. The individuals who successfully complete the course and pass the final written exam would be acceptable to perform the task of organic data validation for the Department of Environmental Conservation, Division of Hazardous Waste Remediation.

As we have discussed in our conversation of July 7, 1992, you will forward to me prior to the August course deadline, the differences between the EPA SOW/90 and the NYSDEC ASP 12/91. You stated these differences will be compiled by Mr. John Samulian.

I strongly encourage you to offer an inorganic data validation course. I anticipate the same list of candidates would be interested in an inorganic validation course as well, since most of the data to be validated consists of both organic and inorganic data.

Thank you for you efforts and please contact me if I can be of any further assistance.

Sincerely,

Maureen P. Serafini

Maureen P. Serafini
Environmental Chemist II
Division of Hazardous Waste
Remediation

The Professional
Development Center
AT
WESTCHESTER COMMUNITY COLLEGE

914 285-6619

October 2, 1992

Ms. Lori Beyer
3 sparkill Drive
East Northport, NY 11731

Dear Ms. Beyer:

Congratulations upon successful completion of the Organic Data Validation course held August 17 - 21, 1992, through Westchester Community College, Professional Development Center. This course has been deemed by New York State Department of Environmental Conservation as equivalent to EPA's Organic Data Validation Course.

Enclosed is your Certificate. Holders of this Certificate are deemed competent to perform organic data validation for the New York State DEC Division of Hazardous Waste Remediation.

The Professional Development Center at Westchester Community College plans to continue to offer courses and seminars which will be valuable to environmental engineers, chemists and related personnel. Current plans include a TCLP seminar on November 17th and a conference on Environmental Monitoring Regulations on November 18th.

We look forward to seeing you again soon at another environmental program or event. Again, congratulations.

Very truly yours,

Passing Grade is 70%
Your Grade is 99%

Elaine Sall
Program Coordinator

ES/bf

SUNY
WESTCHESTER COMMUNITY COLLEGE
Valhalla, New York 10595

The Professional
Development Center
AT
WESTCHESTER COMMUNITY COLLEGE

914 285-6619

June 21, 1993

Dear Ms. Beyer:

Enclosed is your graded final examination in the Inorganic Data Validation course you completed this past March. A score of 70% was required in order to receive a certificate of satisfactory completion. Persons holding this certificate are deemed acceptable to perform Inorganic Data Validation for the New York State Department of Environmental Conservation, Division of Hazardous Waste Remediation.

I am also enclosing a course evaluation for you to complete if you have not already done so. The information you provide will greatly aid us in structuring further courses. We wish to make these course offerings as relevant, targeted and comprehensive as possible. Your evaluation is vital to that end.

Congratulations on your achievement. I look forward to seeing you again at another professional conference or course. We will be co-sponsoring an environmental monitoring conference on October 21, 1993 with the New York Water Pollution Control Association, Lower Hudson Chapter, at IBM's Yorktown Heights, NY site. Information regarding this event will be going out in August.

Very truly yours,

Elaine Sall

Elaine Sall
Program Coordinator

ES/bf

Enclosures

SUNY
WESTCHESTER COMMUNITY COLLEGE
Valhalla, New York 10595

# ATTACHMENT B
# SAMPLE CHAIN OF CUSTODY

**>> Select a Laboratory or Service Center <<**

#N/A
#N/A
#N/A
#N/A

# Chain of Custody Record

eurofins | Environment Testing TestAmerica

**Regulatory Program:** ☐DW ☐NPDES ☐RCRA ☐Other:

**TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica**

| | | | |
|---|---|---|---|
| | **Project Manager:** | | COC No: |
| **Client Contact** | **Email:** | **Site Contact:** | **Date:** | _____ of _____ COCs |
| Your Company Name here | **Tel/Fax:** | **Lab Contact:** | **Carrier:** | TALS Project #: |
| Address | **Analysis Turnaround Time** | | | Sampler: |
| City/State/Zip | ☐ CALENDAR DAYS ☐ WORKING DAYS | | | **For Lab Use Only:** |
| (xxx) xxx-xxxx Phone | TAT if different from Below _____ | | | Walk-in Client: |
| (xxx) xxx-xxxx FAX | ☐ 2 weeks | | | Lab Sampling: |
| Project Name: | ☐ 1 week | | | |
| Site: | ☐ 2 days | | | Job / SDG No.: |
| P O # | ☐ 1 day | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample ( Y / N ) | Perform MS / MSD ( Y / N ) | | | | | | | | | | | | | | | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
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**Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other** _____

**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☐Unknown

**Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)**

☐Return to Client ☐Disposal by Lab ☐Archive for_____ Months

**Special Instructions/QC Requirements & Comments:**

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

| | | | | | |
|---|---|---|---|---|---|
| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
| Relinquished by: | Company: | Date/Time: | Received in Laboratory by: | Company: | Date/Time: |

# APPENDIX G
# HEALTH AND SAFETY PLAN

# 380 4TH AVENUE
**BROOKLYN, NEW YORK**

# Health and Safety Plan

## For

## Site Management Plan

**BCP Site No.: C224358**
**AKRF Project Number: 210226**

**Prepared for:**

New York State Department of Environmental Conservation
Division of Environmental Remediation, Remedial Bureau B
625 Broadway, 12th Floor
Albany, New York 12233

**Prepared On Behalf Of:**

380 4th Avenue Owner, LLC
157 Columbus Avenue, Suite 2E
New York, NY 10023

**Prepared by:**

**AKRF, Inc.**
440 Park Avenue South
New York, New York 10016
(212) 696-0670

**DECEMBER 2024**

# TABLE OF CONTENTS



## FIGURES



## TABLES



## ATTACHMENTS

# 1.0 INTRODUCTION

This environmental Health and Safety Plan (HASP) was prepared by AKRF, Inc. (AKRF) on behalf of 380 4th Avenue Owner, LLC for the 380 4th Avenue Brownfield Cleanup Program (BCP) site located in the Gowanus neighborhood of Brooklyn, New York (hereinafter referred to as the "Site"). The Site is an approximately 0.46-acre parcel identified on the New York City (NYC) Tax Map as Block 980, Lot 77. Figure 1 shows the Site location.

The Site was remediated to Track 2 New York State Department of Environmental Conservation (NYSDEC) Part 375 Restricted Residential Soil Cleanup Objectives (RRSCOs) and additionally for Protection of Groundwater Soil Cleanup Objectives (PGWSCOs) for petroleum-related volatile organic compounds (VOCs) in accordance with the April 2023 NYSDEC-approved Remedial Action Work Plan (RAWP) and Decision Document.

After completion of the remedial work in accordance with the RAWP, some contamination was left at the Site. Institutional Controls (ICs), which place restrictions on Site uses, and Engineering Controls (ECs) were incorporated into the Site remedy to control exposure to remaining contamination to ensure protection of public health and the environment. An Environmental Easement, granted to the NYSDEC, and recorded with the NYC Office of the City Register, requires compliance with a Site Management Plan (SMP) and all ICs/ECs placed on the Site. The SMP specifies the methods necessary to ensure compliance with all ICs/ECs required by the Environmental Easement for remaining contamination. Upon approval of the SMP by NYSDEC, compliance with the plan is required by the grantor of the Environmental Easement and the grantor's successors and assigns. The SMP may be revised only with the approval of NYSDEC.

This HASP, which is an appendix to the SMP, details the procedures required to manage known or potential residual contamination following completion of the Remedial Action at the Site. The purpose of this HASP is to assign responsibilities, establish personnel protection standards and mandatory safety practices and procedures, and provide contingency plans for situations that may arise during site management inspections, periodic sampling activities, and any soil/fill disturbance activities conducted at the Site. This HASP takes into account the specific hazards inherent to the Site, and presents procedures to be followed by AKRF and contractors to avoid, and if necessary, protect against, health and/or safety hazards. Application of this HASP should be considered on a task-by-task basis, as not all measures are applicable or necessary for all activities on-site. On-site work activities should comply with applicable parts of the United States Occupational Safety and Health Administration (OSHA) regulations, primarily 29 Code of Federal Regulations (CFR) Parts 1910 and 1926. A copy of this HASP will be maintained on-site during all work performed under the SMP.

All workers who participate in remediation-related activities at the Site that are under the direction of AKRF and/or the Site owner are required to comply with the provisions specified in this HASP. All Site visitors who enter designated work zones must also comply with this HASP. Refusal or failure to comply with this HASP or violation of any safety procedures by field personnel and/or subcontractors performing work covered by this HASP may result in immediate removal from the Site following consultation with the Site owner's representative. No personnel are permitted to enter permit confined spaces under this HASP.

# 2.0 HEALTH AND SAFETY GUIDELINES AND PROCEDURES

## 2.1 Hazard Evaluation

### 2.1.1 Hazards of Concern

**Table 1**
**Hazards of Concern**

| **Check all that apply** | | |
|---|---|---|
| (**X**) Organic Chemicals | (**X**) Inorganic Chemicals | ( ) Radiological |
| ( ) Biological | ( ) Explosive/Flammable | ( ) Oxygen Deficient Atm |
| (**X**) Heat Stress | (**X**) Cold Stress | ( ) Carbon Monoxide |
| Comments:<br>No personnel are permitted to enter permit confined spaces. | | |

### 2.1.2 Physical Characteristics

**Table 2**
**Physical Characteristics**

| **Check all that apply** | | |
|---|---|---|
| (**X**) Liquid | (**X**) Solid | (**X**) Sludge |
| (**X**) Vapors | ( ) Unknown | ( ) Other |
| Comments: | | |

### 2.1.3 Hazardous Materials

**Table 3**
**Hazardous Materials**

| **Check all that apply** | | | | |
|---|---|---|---|---|
| **Chemicals** | **Solids** | **Solvents** | **Oils** | **Other** |
| ( ) Acids | (**X**) Ash | ( ) Halogens | ( ) Transformer | ( ) Lab |
| ( ) Caustics | ( ) Asbestos | (**X**) Petroleum | ( ) Other DF | ( ) Pharm |
| ( ) Pesticides | ( ) Tailings | (**X**) Chlorinated Solvents | (**X**) Motor or Hydraulic Oil | ( ) Hospital |
| (**X**) Petroleum | (**X**) Other | (**X**) Other | (**X**) Gasoline | ( ) Rad |
| ( ) Inks | (**X**) Fill Material | | ( ) Fuel Oil | ( ) MGP |
| ( ) PCBs | | | | ( ) Mold |
| (**X**) Metals | | | | ( ) Cyanide |
| (**X**) Other:<br>VOCs, SVOCs, and Metals | | | | |

### 2.1.4 Chemicals of Concern

**Table 4**
**Chemicals of Concern**

| Chemical | REL/PEL/STEL | Health Hazards |
|---|---|---|
| Arsenic | REL C: 0.002 mg/m$^3$<br>PEL: 0.010 mg/m$^3$ | Ulceration of nasal septum, dermatitis, gastrointestinal disturbances, peripheral neuropathy, resp irritation, hyperpigmentation of skin, [potential occupational carcinogen]. |
| Copper | REL: 1 mg/m$^3$<br>PEL: 1 mg/m$^3$ | Irritation eyes, nose, pharynx; nasal septum perforation; metallic taste; dermatitis; In Animals: lung, liver, kidney damage; anemia. |
| Cyanide | PEL: 5 mg/m$^3$ | Asphyxia and death can occur, preceded by seizures, coma with abolished deep reflexes and dilated pupils, weakness; paralysis; dizziness; numbness; anxiety; chest tightness; irregular heartbeat; shortness of breath; confusion; headache; sore throat; nausea, vomiting; eye irritation; rash, chemical burns on skin; enlargement of thyroid gland. |
| Fuel Oils | REL: 100 mg/m$^3$ | Irritation eyes, skin, nose, throat; burning sensation in chest; headache, nausea, lassitude (weakness, exhaustion), restlessness, incoordination, confusion, drowsiness; vomiting, diarrhea; dermatitis; chemical pneumonitis (aspiration liquid). |
| Lead | REL: 0.050 mg/m$^3$<br>PEL:0.050 mg/m$^3$ | Lassitude (weakness, exhaustion), insomnia; facial pallor; anorexia, weight loss, malnutrition; constipation, abdominal pain, colic; anemia; gingival lead line; tremor; paralysis wrist, ankles; encephalopathy; kidney disease; irritation eyes; hypertension. |
| Mercury | REL: 0.05 mg/m$^3$<br>REL C: 0.1 mg/m$^3$<br>PEL: 0.1 mg/m$^3$ | Irritation eyes, skin; cough, chest pain, dyspnea (breathing difficulty), bronchitis, pneumonitis; tremor, insomnia, irritability, indecision, headache, lassitude (weakness, exhaustion); stomatitis, salivation; gastrointestinal disturbance, anorexia, weight loss; proteinuria. |
| Naphthalene | REL: 10 ppm<br>N STEL: 15 ppm<br>PEL: 10 ppm | Irritation eyes; headache, confusion, excitement, malaise (vague feeling of discomfort); nausea, vomiting, abdominal pain; irritation bladder; profuse sweating; jaundice; hematuria (blood in the urine), renal shutdown; dermatitis, optical neuritis, corneal damage. |
| PAHs | REL: 0.1 mg/m$^3$<br>PEL: 0.2 mg/m$^3$ | Effects reported from occupational exposure to PAHs include chronic bronchitis, chronic cough irritation, bronchogenic cancer, dermatitis, cutaneous photosensitization, and pilosebaceous reactions. Reported health effects associated with chronic exposure to coal tar and its by-products (e.g., PAHs): Skin: erythema, burns, and warts on sun-exposed areas with progression to cancer. The toxic effects of coal tar are enhanced by exposure to ultraviolet light. Eyes: irritation and photosensitivity. Respiratory system: cough, bronchitis, and bronchogenic cancer. Gastrointestinal system: leukoplakia, buccal-pharyngeal cancer, and cancer of the lip. Hematopoietic system: leukemia (inconclusive) and lymphoma. Genitourinary system: hematuria and kidney and bladder cancers. |

| Chemical | REL/PEL/STEL | Health Hazards |
|---|---|---|
| Selenium | REL: 0.2 mg/m$^3$<br>PEL: 0.2 mg/m$^3$ | Irritation eyes, skin, nose, throat; visual disturbance; headache; chills, fever; dyspnea (breathing difficulty), bronchitis; metallic taste, garlic breath, gastrointestinal disturbance; dermatitis; eye, skin burns; In Animals: anemia; liver necrosis, cirrhosis; kidney, spleen damage. |
| Silver | REL: 0.01 mg/m$^3$<br>PEL: 0.01 mg/m$^3$ | Blue-gray eyes, nasal septum, throat, skin; irritation, ulceration skin; gastrointestinal disturbance. |
| Tetrachloroethylene | PEL: 100 ppm<br>PEL C: 200 ppm; max peak: 300 ppm | Irritation eyes, skin, nose, throat, respiratory system; nausea; flush face, neck; dizziness, incoordination; headache, drowsiness; skin erythema (skin redness); liver damage; [potential occupational carcinogen]. |
| Trichloroethylene | PEL: 100 ppm<br>PEL C: 200 ppm; 5-min max peak: 300 ppm | Irritation eyes, skin; headache, visual disturbance, lassitude (weakness, exhaustion), dizziness, tremor, drowsiness, nausea, vomiting; dermatitis; cardiac arrhythmias, paresthesia; liver injury; [potential occupational carcinogen]. |
| Notes:<br>REL: Recommended exposure limit (NIOSH)<br>PEL: Permissible exposure limits (OSHA)<br>STEL: Short-term exposure limit<br>N: NIOSH<br>O: OSHA<br>C: Ceiling | | |

The potential health effects from the on-site contaminants listed above are further described in Attachment A.

## 2.2 Designated Personnel

AKRF will appoint one of its on-site personnel as the Site Safety Officer (SSO). This individual will be responsible for the implementation of this HASP. The SSO will work under the direction of a Qualified Environmental Professional (QEP) and will be experienced in the implementation of air monitoring and hazardous materials sampling programs. Health and safety training required for the SSO and all field personnel is outlined in Section 2.3 of this HASP.

## 2.3 Training

All personnel who enter the "work zone" (defined as the area on-site where remedial construction activities are occurring) while intrusive activities are being performed will have completed a 40-hour training course that meets OSHA requirements of 29 CFR Part 1910, Occupational Safety and Health Standards. In addition, all personnel will have up-to-date 8-hour refresher training. The training will allow personnel to recognize and understand the potential hazards to health and safety. All field personnel must attend a training program, whose purpose is to:

- Make them aware of the potential hazards they may encounter;
- Provide the knowledge and skills necessary for them to perform the work with minimal risk to health and safety;
- Make them aware of the purpose and limitations of safety equipment; and
- Ensure that they can safely avoid or escape from emergencies.

Each member of the field crew will be instructed in these objectives before he/she goes onto the Site. A Site safety meeting will be conducted at the start of the project. Additional meetings shall be conducted, as necessary, for new personnel working at the Site.

## 2.4 Medical Surveillance Program

All AKRF and subcontractor personnel performing field work involving subsurface disturbance at the Site are required to have passed a complete medical surveillance examination in accordance with 29 CFR 1910.120 (f). A physician's medical release for work will be confirmed by the SSO before an employee can begin Site activities. The medical release shall consider the type of work to be performed and the required personal protective equipment (PPE). The medical examination will, at a minimum, be provided annually and upon termination of hazardous waste Site work.

## 2.5 Site Work Zones

During any activities involving subsurface disturbance, the work area must be divided into various zones to prevent the spread of contamination, ensure that proper protective equipment is donned, and provide an area for decontamination.

The Exclusion Zone is defined as the area where exposure to impacted media could be encountered. The Contamination Reduction Zone (CRZ) is the area where decontamination procedures take place and is located next to the Exclusion Zone. The Support Zone is the area where support facilities such as vehicles, fire extinguisher, and first aid supplies are located. The emergency staging area (part of the Support Zone) is the area where all workers on-site would assemble in the event of an emergency. A summary of these areas is provided below. These zones may be changed by the SSO, depending on that day's activities. All field personnel will be informed of the location of these zones before work begins.

Appropriate barriers will be set up to secure the area and prevent any unauthorized personnel from approaching within 15 feet of the work area.

**Table 5**
**Site Work Zones**

| Task | Exclusion Zone | CRZ | Support Zone |
|---|---|---|---|
| Soil Excavation (as needed) | 15 feet from excavation border and excavation equipment or vehicles | 15 feet from excavation border and excavation equipment or vehicles | As Needed |
| Groundwater Well Installation | 15 feet from drilling equipment or vehicles | 15 feet from drilling equipment or vehicles | As Needed |
| Groundwater Sampling | 15 feet from active sampling location | 15 feet from active sampling location | As Needed |
| Soil Vapor Intrusion Evaluation | 15 feet from active sampling location | 15 feet from active sampling location | As Needed |

## 2.6 Personal Protection Equipment

The PPE required for various kinds of Site investigation tasks is based on 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response, Appendix B, "General Description and Discussion of the Levels of Protection and Protective Gear."

AKRF field personnel and other Site personnel shall wear, at a minimum, Level D PPE. The protection will be based on the air monitoring described in this section.

**Table 6**
**Personal Protection Equipment Requirements**

| LEVEL OF PROTECTION & PPE | | All Tasks |
|---|---|---|
| **Level D**<br>(**X**) Steel Toe Shoes | (**X**) Safety Glasses<br>( ) Face Shield | Yes |

**Table 6**
**Personal Protection Equipment Requirements**

| LEVEL OF PROTECTION & PPE | | All Tasks |
|---|---|---|
| (**X**) Hard Hat<br>(within 25 ft. of excavator)<br>(**X**) Work Gloves | (**X**) Ear Plugs (within 25 ft. of excavator)<br>(**X**) Nitrile Gloves<br>(**X**) Tyvek for tank contractor if NAPL present | |
| **Level C *(in addition to Level D)***<br>(**X**) Half-Face Respirator<br>(**X**) Full Face Respirator<br>( ) Full-Face PAPR | ( ) Particulate Cartridge<br>( ) Organic Cartridge<br>(**X**) Dual Organic/Particulate Cartridge | If PID > 10 ppm or particulate > 150 µg/m$^3$ in breathing zone |
| Comments:<br>Cartridges to be changed out at least once per shift unless warranted beforehand (e.g., more difficult to breath or any odors detected).<br>PAPR = powered air purifying respirator | | |

## 2.7 General Work Practices

To protect their health and safety, all field personnel will adhere to the guidelines listed below during activities involving subsurface disturbance:

- Eating, drinking, chewing gum or tobacco, and smoking are prohibited except in designated areas on the Site. These areas will be designated by the SSO.
- Workers must wash their hands thoroughly on leaving the work area and before eating, drinking, or any other such activity.
- The workers should shower as soon as possible after leaving the Site. Contact with contaminated or suspected surfaces should be avoided.
- The buddy system should always be used; each buddy should watch for signs of fatigue, exposure, and heat/cold stress.

# 3.0 EMERGENCY PROCEDURES AND EMERGENCY RESPONSE PLAN

The field crew will be equipped with emergency equipment, such as a first aid kit and disposable eye washes. In the case of a medical emergency, the SSO will determine the nature of the emergency and he/she will have someone call for an ambulance, if needed. If the nature of the injury is not serious, i.e., the person can be moved without expert emergency medical personnel, he/she should be driven to the New York – Presbyterian Brooklyn Methodist Hospital by on-site personnel. Directions to the hospital are provided below, and a hospital route map is provided as Figure 2. Report forms are provided in Attachment B. Emergency hand signals are provided in Attachment C.

## 3.1 Hospital Information

**Table 7**
**Hospital Directions**

| | |
|---|---|
| **Hospital Name:** | New York – Presbyterian Brooklyn Methodist Hospital |
| **Phone Number:** | (718) 780-3000 |
| **Address/Location:** | 506 6th Street, Brooklyn, NY 11215 |
| **Directions:** | 1. Head RIGHT (southwest) on 4th Avenue.<br>2. Turn LEFT onto 7th Street.<br>3. Turn LEFT onto 8th Avenue.<br>4. Turn LEFT onto 6th Street.<br>5. The entrance to the Emergency Room will be on the LEFT. |

## 3.2 Emergency Contacts

**Table 8**
**Emergency Contacts**

| Company | Individual Name | Title | Contact Number |
|---|---|---|---|
| AKRF | Stephen Malinowski | Quality Assurance/Quality Control Officer | (631) 574-3724 (Office) |
| | Tim Larigan | Project Manager | (646) 388-9508 (Office) |
| | Madelyn Fleming | Field Team Leader, Field Technician, and Site Safety Officer | (781) 258-7107 (Cell) |
| 380 4th Avenue Owner, LLC | Kyle Cohen | Volunteer's Representative | (914) 886-3056 (Office) |
| NYSDEC | Michael Sollecito | BCP Project Manager | (518) 402-2198 (Office) |
| Ambulance, Fire Department & Police Department | - | - | 911 |
| NYSDEC Spill Hotline | - | - | 800-457-7362 |

# 4.0 APPROVAL & ACKNOWLEDGMENTS OF HASP

Signed: _____ Date: _____

AKRF Project Manager

Signed: _____ Date: _____

AKRF Health and Safety Officer

Below is an affidavit that must be signed by all workers who enter the Site. A copy of the HASP must be on-site at all times and will be kept by the SSO.

**AFFIDAVIT**

I,_____(name), of_____(company name), have read the Health and Safety Plan (HASP) for 380 4th Avenue located in Brooklyn, New York. I agree to conduct all on-site work in accordance with the requirements set forth in this HASP and understand that failure to comply with this HASP could lead to my removal from the Site.

Signed: _____ Company: _____ Date: _____
Signed: _____ Company: _____ Date: _____
Signed: _____ Company: _____ Date: _____
Signed: _____ Company: _____ Date: _____
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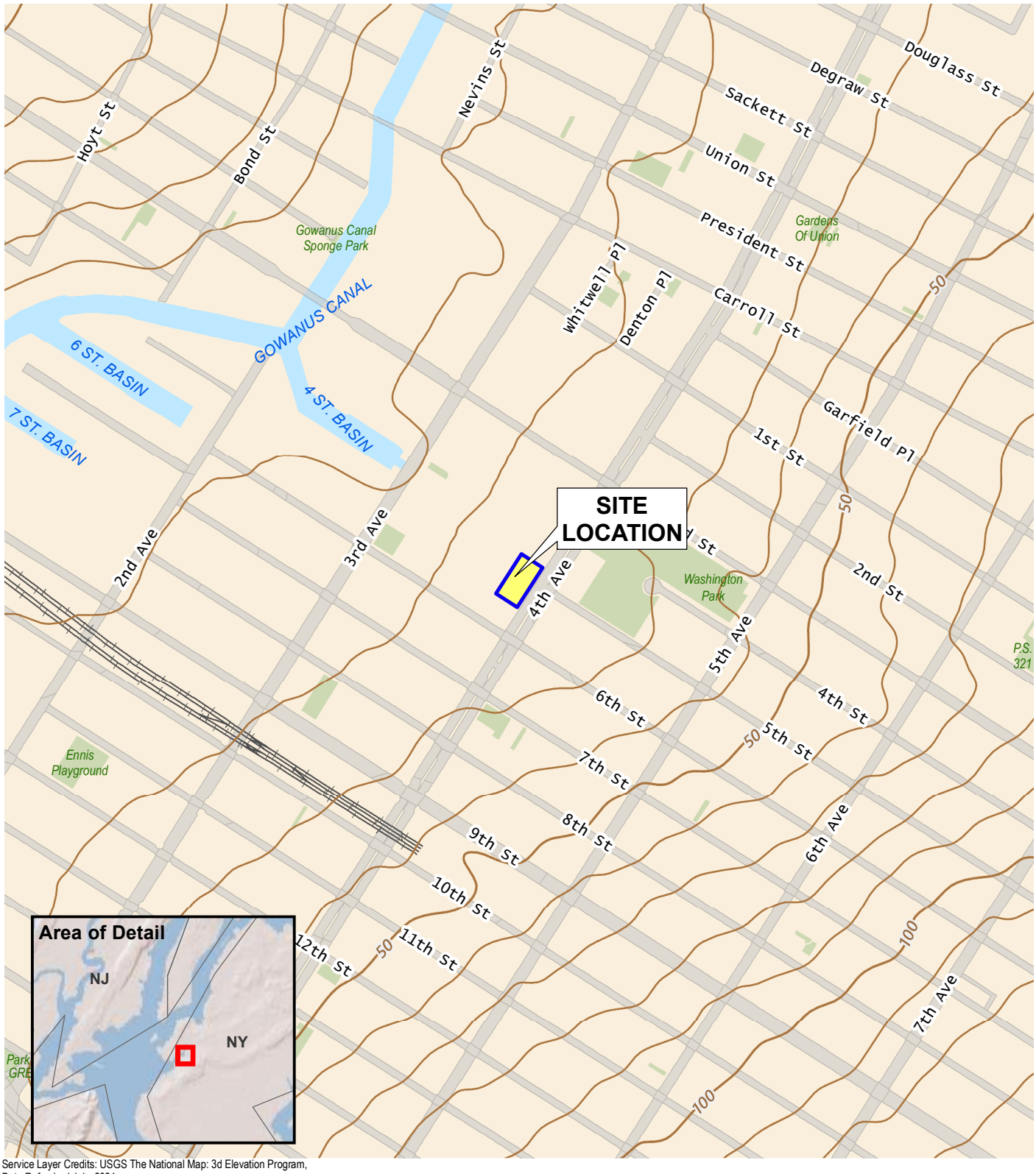
# FIGURES




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

0 600 1,200

SCALE IN FEET

AKRF

440 Park Avenue South, New York, NY 10016

**380 4th Avenue**

Brooklyn, New York

**BCP SITE LOCATION**

DATE
**5/2/2022**

PROJECT NO.
**210226**

FIGURE
**1**


*Service Layer Credits: ESRI World Street Map 2021*

**LEGEND**

- PROJECT SITE BOUNDARY
- ROUTE TO HOSPITAL
- HOSPITAL LOCATION

NewYork-Presbyterian
Brooklyn Methodist Hospital
NewYork-Presbyterian Brooklyn
Methodist Hospital
506 6th St, Brooklyn, NY 11215

0 500 1,000
SCALE IN FEET

AKRF
440 Park Avenue South, New York, NY 10016

**374 4th Avenue**
Brooklyn, New York

**HOSPITAL ROUTE MAP**

DATE
**7/20/2021**

PROJECT NO.
**210226**

FIGURE
**2**

# ATTACHMENT A

## POTENTIAL HEALTH EFFECTS FROM ON-SITE CONTAMINANTS

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

# ARSENIC
## CAS # 7440-38-2

Division of Toxicology ToxFAQs™ December 2003

**This fact sheet answers the most frequently asked health questions (FAQs) about arsenic. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.**

**HIGHLIGHTS: Exposure to higher than average levels of arsenic occurs mostly in the workplace, near hazardous waste sites, or in areas with high natural levels. At high levels, inorganic arsenic can cause death. Exposure to lower levels for a long time can cause a discoloration of the skin and the appearance of small corns or warts. Arsenic has been found at 1,014 of the 1,598 National Priority List sites identified by the Environmental Protection Agency (EPA).**

### What is arsenic?

Arsenic is a naturally occurring element widely distributed in the earth's crust. In the environment, arsenic is combined with oxygen, chlorine, and sulfur to form inorganic arsenic compounds. Arsenic in animals and plants combines with carbon and hydrogen to form organic arsenic compounds.

Inorganic arsenic compounds are mainly used to preserve wood. Organic arsenic compounds are used as pesticides, primarily on cotton plants.

### What happens to arsenic when it enters the environment?

❑ Arsenic cannot be destroyed in the environment. It can only change its form.
❑ Arsenic in air will settle to the ground or is washed out of the air by rain.
❑ Many arsenic compounds can dissolve in water.
❑ Fish and shellfish can accumulate arsenic, but the arsenic in fish is mostly in a form that is not harmful.

### How might I be exposed to arsenic?

❑ Eating food, drinking water, or breathing air containing arsenic.
❑ Breathing contaminated workplace air.
❑ Breathing sawdust or burning smoke from wood treated with arsenic.
❑ Living near uncontrolled hazardous waste sites containing arsenic.
❑ Living in areas with unusually high natural levels of arsenic in rock.

### How can arsenic affect my health?

Breathing high levels of inorganic arsenic can give you a sore throat or irritated lungs. Ingesting high levels of inorganic arsenic can result in death. Lower levels of arsenic can cause nausea and vomiting, decreased production of red and white blood cells, abnormal heart rhythm, damage to blood vessels, and a sensation of "pins and needles" in hands and feet.

Ingesting or breathing low levels of inorganic arsenic for a long time can cause a darkening of the skin and the

appearance of small "corns" or "warts" on the palms, soles, and torso.

Skin contact with inorganic arsenic may cause redness and swelling.

Organic arsenic compounds are less toxic than inorganic arsenic compounds. Exposure to high levels of some organic arsenic compounds may cause similar effects as inorganic arsenic.

## How likely is arsenic to cause cancer?

Several studies have shown that inorganic arsenic can increase the risk of lung cancer, skin cancer, bladder cancer, liver cancer, kidney cancer, and prostate cancer. The World Health Organization (WHO), the Department of Health and Human Services (DHHS), and the EPA have determined that inorganic arsenic is a human carcinogen.

## How can arsenic affect children?

We do not know if exposure to arsenic will result in birth defects or other developmental effects in people. Birth defects have been observed in animals exposed to inorganic arsenic.

It is likely that health effects seen in children exposed to high amounts of arsenic will be similar to the effects seen in adults.

## How can families reduce the risk of exposure to arsenic?

❑ If you use arsenic-treated wood in home projects, you should wear dust masks, gloves, and protective clothing to decrease exposure to sawdust.
❑ If you live in an area with high levels of arsenic in water or soil, you should use cleaner sources of water and limit contact with soil.

## Is there a medical test to show whether I've been exposed to arsenic?

There are tests to measure the level of arsenic in blood, urine, hair, or fingernails. The urine test is the most reliable test for arsenic exposure within the last few days. Tests on hair and fingernails can measure exposure to high levels or arsenic over the past 6-12 months. These tests can determine if you have been exposed to above-average levels of arsenic. They cannot predict how the arsenic levels in your body will affect your health.

## Has the federal government made recommendations to protect human health?

EPA has set limits on the amount of arsenic that industrial sources can release to the environment and has restricted or canceled many uses of arsenic in pesticides. EPA has set a limit of 0.01 parts per million (ppm) for arsenic in drinking water.

The Occupational Safety and Health Administration has set limits of 10 μg arsenic per cubic meter of workplace air (10 $\mu g/m^3$) for 8 hour shifts and 40 hour work weeks.

## Source of Information

Agency for Toxic Substances and Disease Registry (ATSDR). 2000. Toxicological Profile for Arsenic. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

**Where can I get more information?** For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs™ Internet address is http://www.atsdr.cdc.gov/toxfaq.html . ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

# COPPER

## CAS # 7440-50-8

Division of Toxicology ToxFAQs™ September 2002

**This fact sheet answers the most frequently asked health questions (FAQs) about copper. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It is important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.**

**HIGHLIGHTS: Copper is a reddish metal that occurs naturally in the environment. It also occurs naturally in plants and animals. Low levels of copper are essential for maintaining good health. High levels can cause harmful effects such as irritation of the nose, mouth and eyes, vomiting, diarrhea, stomach crumps, and nausea. Copper has been found in at least 884 of the 1,613 National Priorities List sites identified by the Environmental Protection Agency (EPA).**

### What is copper?

Copper is a reddish metal that occurs naturally in rocks, soil, water, and air. Copper also occurs naturally in plants and animals.

Metallic copper can be easily molded or shaped. Metallic copper can be found in the U.S. penny, electrical wiring, and some water pipes. Metallic copper is also found in mixtures (called alloys) with other metals such as brass and bronze. Copper is also found as part of other compounds forming salts. Copper salts occur naturally, but are also manufactured. The most common copper salt is copper sulfate. Most copper compounds are blue-green in color. Copper compounds are commonly used in agriculture to treat plant diseases like mildew, for water treatment and, as preservatives for wood, leather, and fabrics.

### What happens to copper when it enters the environment?

❑ Copper can enter the environment from the mining of copper and other metals and from factories that make or use metallic copper or copper compounds.

❑ It can also enter the environment through domestic waste water, combustion of fossil fuels and wastes, wood production, phosphate fertilizer production, and natural sources (e.g., windblown dust from soils, volcanoes, decaying vegetation, forest fires, and sea spray).

❑ Copper in soil strongly attaches to organic material and minerals.

❑ Copper that dissolves in water becomes rapidly bound to particles suspended in the water.

❑ Copper does not typically enter groundwater.

❑ Copper carried by particles emitted from smelters and ore processing plants is carried back to the ground by gravity or in rain or snow.

❑ Copper does not break down in the environment.

### How might I be exposed to copper?

❑ Breathing air, drinking water, eating food, and by skin contact with soil, water, or other copper-containing substances.

❑ Some copper in the environment can be taken up by plants and animals.

❑ Higher exposure may occur if your water is corrosive and you have copper plumbing and brass water fixtures. ❑ You may be exposed to higher amounts of copper if you drink water or swim in lakes or reservoirs recently treated with copper to control algae or receive cooling water from a power plant that may have high amounts of dissolved copper.

❑ Using some garden products (e.g., fungicides) to control plant diseases.

❑ Living near bronze and brass production facilities may expose you to higher copper levels in soil.

❑ You may breathe copper-containing dust or have skin contact if you work in the industry of mining copper or

processing the ore. You may breathe high levels if you grind or weld copper metal.

## How can copper affect my health?

Copper is essential for good health, but high amounts can be harmful. Long-term exposure to copper dust can irritate your nose, mouth, and eyes, and cause headaches, dizziness, nausea, and diarrhea.

Drinking water with higher than normal levels of copper may cause vomiting, diarrhea, stomach cramps, and nausea. Intentionally high intakes of copper can cause liver and kidney damage and even death.

## How likely is copper to cause cancer?

We do not know whether copper can cause cancer in humans. The EPA has determined that copper is not classifiable as to carcinogenicity.

## How can copper affect children?

Exposure to high levels of copper will result in the same type of effects in children and adults. Studies in animals suggest that the young children may have more severe effects than adults; we do not know if this would also be true in humans. There is a very small percentage of infants and children who are unusually sensitive to copper.

We do not know if copper can cause birth defects or other developmental effects in humans. Studies in animals suggest that ingestion of high levels of copper may cause a decrease in fetal growth.

## How can families reduce the risk of exposure to copper?

❑ The greatest potential source of copper exposure is through drinking water, especially in water that is first drawn in the morning after sitting in copper pipes and brass faucets overnight.

❑ To reduce exposure, run the water for at least 15-30 seconds before using it.

❑ If you are exposed to copper at work, you may carry copper home on your skin, clothes, or tools. You can avoid this by showering, and changing clothing before leaving work, and your work clothes should be kept separate from other clothes and laundered separately.

## Is there a medical test to show whether I've been exposed to copper?

Copper is normally found in all tissues of the body, blood, urine, feces, hair, and nails. High levels of copper in these samples can show that you have been exposed to higher than normal levels of copper. Tests to measure copper levels in the body are not routinely available at the doctor's office because they require special equipment. These tests cannot tell the extent of exposure or whether you will experience harmful effects.

## Has the federal government made recommendations to protect human health?

The EPA has determined that drinking water should not contain more than 1.3 milligrams of copper per liter of water (1.3 mg/L).

The Occupational Safety and Health Administration (OSHA) has set a limit of 0.1 mg per cubic meter (0.1 $mg/m^3$) of copper fumes (vapor generated from heating copper) and 1 $mg/m^3$ of copper dusts (fine metallic copper particles) and mists (aerosol of soluble copper) in workroom air during an 8-hour work shift, 40-hour workweek.

The Food and Nutrition Board of the Institute of Medicine recommends dietary allowances (RDAs) of 340 micrograms (340 µg) of copper per day for children aged 1-3 years, 440 µg/day for children aged 4-8 years, 700 µg/day for children aged 9-13 years, 890 µg/day for children aged 14-18 years, and 900 µg/day for adults.

## References

Agency for Toxic Substances and Disease Registry (ATSDR). 2002. Toxicological Profile for Copper (Draft for Public Comment). Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

**Where can I get more information?** For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs Internet address via WWW is http://www.atsdr.cdc.gov/toxfaq.html. ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

# CYANIDE

**CAS# 74-90-8, 143-33-9, 151-50-8, 592-01-8, 544-92-3, 506-61-6, 460-19-5, 506-77-4**

**Division of Toxicology and Environmental Medicine ToxFAQs™** **July 2006**

**This fact sheet answers the most frequently asked health questions (FAQs) about cyanide. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It is important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.**

**HIGHLIGHTS: Exposure to high levels of cyanide harms the brain and heart, and may cause coma and death. Exposure to lower levels may result in breathing difficulties, heart pains, vomiting, blood changes, headaches, and enlargement of the thyroid gland. Cyanide has been found in at least 471 of the 1,662 National Priorities List sites identified by the Environmental Protection Agency (EPA).**

## What is cyanide?

Cyanide is usually found joined with other chemicals to form compounds. Examples of simple cyanide compounds are hydrogen cyanide, sodium cyanide and potassium cyanide. Certain bacteria, fungi, and algae can produce cyanide, and cyanide is found in a number of foods and plants. In certain plant foods, including almonds, millet sprouts, lima beans, soy, spinach, bamboo shoots, and cassava roots (which are a major source of food in tropical countries), cyanides occur naturally as part of sugars or other naturally-occurring compounds. However, the edible parts of plants that are eaten in the United States, including tapioca which is made from cassava roots, contain relatively low amounts of cyanide.

Hydrogen cyanide is a colorless gas with a faint, bitter, almond-like odor. Sodium cyanide and potassium cyanide are both white solids with a bitter, almond-like odor in damp air. Cyanide and hydrogen cyanide are used in electroplating, metallurgy, organic chemicals production, photographic developing, manufacture of plastics, fumigation of ships, and some mining processes.

## What happens to cyanide when it enters the environment?

❑ Cyanide enters air, water, and soil from both natural processes and industrial activities.

❑ In air, cyanide is mainly found as gaseous hydrogen cyanide; a small amount is present as fine dust particles.

❑ The half-life (the time needed for half of the material to be removed) of hydrogen cyanide in the atmosphere is about 1–3 years.

❑ Most cyanide in surface water will form hydrogen cyanide and evaporate.

❑ Cyanide in water does not build up in the bodies of fish.

❑ Cyanides are fairly mobile in soil. Once in soil, cyanide can be removed through several processes. Some cyanide compounds in soil can form hydrogen cyanide and evaporate, whereas some cyanide compounds will be transformed into other chemical forms by microorganisms in soil. At the high concentrations, cyanide becomes toxic to soil microorganisms. Because these microorganisms can no longer change cyanide to other chemical forms, cyanide is able to passes through soil into underground water.

## How might I be exposed to cyanide?

❑ Breathing air, drinking water, touching soil, or eating foods that contain cyanide.

❑ Smoking cigarettes and breathing smoke-filled air during fires are major sources of cyanide exposure.

❑ Breathing air near a hazardous waste site containing cyanide.

❑ Eating foods naturally containing cyanide compounds, such as tapioca (made from cassava roots), lima beans, and almonds. However, the portions of these plants that are eaten in the United States contain relatively low amounts of cyanide.

## How can cyanide affect my health?

You are not likely to be exposed to large enough amounts of cyanide in the environment to cause adverse health effects. The severity of the harmful effects following cyanide exposure

depends in part on the form of cyanide, such as hydrogen cyanide gas or cyanide salts. Exposure to high levels of cyanide for a short time harms the brain and heart and can even cause coma and death. Workers who inhaled low levels of hydrogen cyanide over a period of years had breathing difficulties, chest pain, vomiting, blood changes, headaches, and enlargement of the thyroid gland.

Some of the first indications of cyanide poisoning are rapid, deep breathing and shortness of breath, followed by convulsions (seizures) and loss of consciousness. These symptoms can occur rapidly, depending on the amount eaten. The health effects of large amounts of cyanide are similar, whether you eat, drink, or breathe it; cyanide uptake into the body through the skin is slower than these other means of exposure. Skin contact with hydrogen cyanide or cyanide salts can irritate and produce sores.

## How likely is cyanide to cause cancer?

There are no reports that cyanide can cause cancer in people or animals. EPA has determined that cyanide is not classifiable as to its human carcinogenicity.

## How can cyanide affect children?

Effects reported in exposed children are like those seen in exposed adults. Children who ate large quantities of apricot pits, which naturally contain cyanide as part of complex sugars, had rapid breathing, low blood pressure, headaches, and coma, and some died. Cyanide has not been reported to directly cause birth defects in people. However, among people in the tropics who eat cassava root, children have been born with thyroid disease because of the mothers' exposure to cyanide and thiocyanate during pregnancy. Birth defects occurred in rats that ate cassava root diets, and harmful effects on the reproductive system occurred in rats and mice that drank water containing sodium cyanide.

## How can families reduce the risk of exposure to cyanide?

Families can reduce their exposure to cyanide by not breathing in tobacco smoke, which is the most common source of cyanide exposure for the general population. In the event of a building fire, families should evacuate the building immediately, because smoke from burning plastics contains cyanide (and carbon monoxide). Breathing this smoke can lead to unconsciousness or death. Cyanide in smoke can arise from the combustion of certain plastics (e.g., polyacrylamines, polyacrylics, polyurethane, etc.).

Compounds that release cyanide are naturally present in plants. The amounts are usually low in the edible portion but are higher in cassava. Pits and seeds of common fruits, such as apricots, apples, and peaches, may have substantial amounts of cyanide-releasing chemicals, so people should avoid eating these pits and seeds to prevent accidental cyanide poisoning.

## Is there a medical test to show whether I've been exposed to cyanide?

There are medical tests to measure blood and urine levels of cyanide; however, small amounts of cyanide are always detectable in blood and urine. Tissue levels of cyanide can be measured if cyanide poisoning is suspected, but cyanide is rapidly cleared from the body, so the tests must be done soon after the exposure. An almond-like odor in the breath may alert a physician that a person was exposed to cyanide.

## Has the federal government made recommendations to protect human health?

EPA regulates the levels of cyanide that are allowable in drinking water. The highest level of cyanide allowed in drinking water is 0.2 parts cyanide per 1 million parts of water (0.2 ppm).

The Occupational Safety and Health Administration (OSHA) has set a limit for hydrogen cyanide and most cyanide salts of 10 parts cyanide per 1 million parts of air (10 ppm) in the workplace.

## Reference

Agency for Toxic Substances and Disease Registry (ATSDR). 2006. Toxicological Profile for Cyanide (Update). Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

**Where can I get more information?** For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology and Environmental Medicine, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs Internet address via WWW is http://www.atsdr.cdc.gov/toxfaq.html. ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

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# FUEL OILS

## CAS # 8008-20-6, 70892-10-3, 68476-30-2, 68476-34-6, 68476-31-3



**This fact sheet answers the most frequently asked health questions (FAQs) about fuel oils. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.**

**SUMMARY: Fuel oils are liquid mixtures produced from petroleum, and their use mostly involves burning them as fuels. Drinking or breathing fuel oils may cause nausea or nervous system effects. However, exposure under normal use conditions is not likely to be harmful. Fuel oils have been found in at least 26 of the 1,430 National Priorities List sites identified by the Environmental Protection Agency (EPA).**

### What are fuel oils?

(Pronounced fyo͞o′əl oilz)

Fuel oils are a variety of yellowish to light brown liquid mixtures that come from crude petroleum. Some chemicals found in fuel oils may evaporate easily, while others may more easily dissolve in water.

Fuel oils are produced by different petroleum refining processes, depending on their intended uses. Fuel oils may be used as fuel for engines, lamps, heaters, furnaces, and stoves, or as solvents.

Some commonly found fuel oils include kerosene, diesel fuel, jet fuel, range oil, and home heating oil. These fuel oils differ from one another by their hydrocarbon compositions, boiling point ranges, chemical additives, and uses.

### What happens to fuel oils when they enter the environment?

- Some chemicals found in fuel oils may evaporate into the air from open containers or contaminated soil or water.
- Some chemicals found in fuel oils may dissolve in water after spills to surface waters or leaks from underground storage tanks.
- Some chemicals found in fuel oils may stick to particles in water, which will eventually cause them to settle to the bottom sediment.
- Some of the chemicals found in fuel oils may be broken down slowly in air, water, and soil by sunlight or small organisms.
- Some of the chemicals found in fuel oils may build up significantly in plants and animals.

### How might I be exposed to fuel oils?

- Using a home kerosene heater or stove, or using fuel oils at work.
- Breathing air in home or building basements that has been contaminated with fuel oil vapors entering from the soil.
- Drinking or swimming in water that has been contaminated with fuel oils from a spill or a leaking underground storage tank.
- Touching soil contaminated with fuel oils.
- Using fuel oils to wash paint or grease from skin or equipment.

### How can fuel oils affect my health?

Little information is available about the health effects that may be caused by fuel oils. People who use kerosene

stoves for cooking do not seem to have any health problems related to their exposure.

Breathing some fuel oils for short periods may cause nausea, eye irritation, increased blood pressure, headache, lightheadedness, loss of appetite, poor coordination, and difficulty concentrating. Breathing diesel fuel vapors for long periods may cause kidney damage and lower your blood's ability to clot.

Drinking small amounts of kerosene may cause vomiting, diarrhea, coughing, stomach swelling and cramps, drowsiness, restlessness, painful breathing, irritability, and unconsciousness. Drinking large amounts of kerosene may cause convulsions, coma, or death. Skin contact with kerosene for short periods may cause itchy, red, sore, or peeling skin.

## How likely are fuel oils to cause cancer?

The International Agency for Research on Cancer (IARC) has determined that some fuel oils (heavy) may possibly cause cancer in humans, but for other fuel oils (light) there is not enough information to make a determination. IARC has also determined that occupational exposures to fuel oils during petroleum refining are probably carcinogenic in humans.

Some studies with mice have suggested that repeated contact with fuel oils may cause liver or skin cancer. However, other mouse studies have found this not to be the case. No studies are available in other animals or in people on the carcinogenic effects of fuel oils.

## Is there a medical test to show whether I've been exposed to fuel oils?

There is no medical test that shows if you have been exposed to fuel oils. Tests are available to determine if some of the chemicals commonly found in fuel oils are in your blood. However, the presence of these chemicals in blood may not necessarily mean that you have been exposed to fuel oils.

## Has the federal government made recommendations to protect human health?

The Occupational Safety and Health Administration (OSHA) and the Air Force Office of Safety and Health (AFOSH) have set a permissible exposure level (PEL) of 400 parts of petroleum distillates per million parts of air (400 ppm) for an 8-hour workday, 40-hour workweek.

The National Institute for Occupational Safety and Health (NIOSH) recommends that average workplace air levels not exceed 350 milligrams of petroleum distillates per cubic meter of air (350 $mg/m^3$) for a 40-hour workweek.

The Department of Transportation (DOT) lists fuel oils as hazardous materials and, therefore, regulates their transportation.

## Glossary

Carcinogenic: Able to cause cancer.

CAS: Chemical Abstracts Service.

Evaporate: To change into a vapor or a gas.

Hydrocarbon: Any compound made up of hydrogen and carbon.

Milligram (mg): One thousandth of a gram.

ppm: Parts per million.

Sediment: Mud and debris that have settled to the bottom of a body of water.

## References

Agency for Toxic Substances and Disease Registry (ATSDR). 1995. Toxicological profile for fuel oils. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

**Where can I get more information?** For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop E-29, Atlanta, GA 30333. Phone:1-888-422-8737, FAX: 404-498-0093. ToxFAQs Internet address via WWW is http://www.atsdr.cdc.gov/toxfaq.html ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

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# LEAD

## CAS # 7439-92-1

**Division of Toxicology and Environmental Medicine ToxFAQs™** **August 2007**

**This fact sheet answers the most frequently asked health questions (FAQs) about lead. For more information, call the ATSDR Information Center at 1-800-232-4636. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It is important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.**

**HIGHLIGHTS: Exposure to lead can happen from breathing workplace air or dust, eating contaminated foods, or drinking contaminated water. Children can be exposed from eating lead-based paint chips or playing in contaminated soil. Lead can damage the nervous system, kidneys, and reproductive system. Lead has been found in at least 1,272 of the 1,684 National Priority List sites identified by the Environmental Protection Agency (EPA).**

### What is lead?

Lead is a naturally occurring bluish-gray metal found in small amounts in the earth's crust. Lead can be found in all parts of our environment. Much of it comes from human activities including burning fossil fuels, mining, and manufacturing.

Lead has many different uses. It is used in the production of batteries, ammunition, metal products (solder and pipes), and devices to shield X-rays. Because of health concerns, lead from paints and ceramic products, caulking, and pipe solder has been dramatically reduced in recent years. The use of lead as an additive to gasoline was banned in 1996 in the United States.

### What happens to lead when it enters the environment?

- ❏ Lead itself does not break down, but lead compounds are changed by sunlight, air, and water.
- ❏ When lead is released to the air, it may travel long distances before settling to the ground.
- ❏ Once lead falls onto soil, it usually sticks to soil particles.
- ❏ Movement of lead from soil into groundwater will depend on the type of lead compound and the characteristics of the soil.

### How might I be exposed to lead?

- ❏ Eating food or drinking water that contains lead. Water pipes in some older homes may contain lead solder. Lead can leach out into the water.
- ❏ Spending time in areas where lead-based paints have been used and are deteriorating. Deteriorating lead paint can contribute to lead dust.
- ❏ Working in a job where lead is used or engaging in certain hobbies in which lead is used, such as making stained glass.
- ❏ Using health-care products or folk remedies that contain lead.

### How can lead affect my health?

The effects of lead are the same whether it enters the body through breathing or swallowing. Lead can affect almost every organ and system in your body. The main target for lead toxicity is the nervous system, both in adults and children. Long-term exposure of adults can result in decreased performance in some tests that measure functions of the nervous system. It may also cause weakness in fingers, wrists, or ankles. Lead exposure also causes small increases in blood pressure, particularly in middle-aged and older people and can cause anemia. Exposure to high lead levels can severely damage the brain and kidneys in adults or children and ultimately cause death. In pregnant women, high levels of exposure to lead may cause miscarriage. High-level exposure in men can damage the organs responsible for sperm production.

### How likely is lead to cause cancer?

We have no conclusive proof that lead causes cancer in humans. Kidney tumors have developed in rats and mice that had been given large doses of some kind of lead compounds. The Department of Health and Human Services

(DHHS) has determined that lead and lead compounds are reasonably anticipated to be human carcinogens and the EPA has determined that lead is a probable human carcinogen. The International Agency for Research on Cancer (IARC) has determined that inorganic lead is probably carcinogenic to humans and that there is insufficient information to determine whether organic lead compounds will cause cancer in humans.

## How can lead affect children?

Small children can be exposed by eating lead-based paint chips, chewing on objects painted with lead-based paint, or swallowing house dust or soil that contains lead.

Children are more vulnerable to lead poisoning than adults. A child who swallows large amounts of lead may develop blood anemia, severe stomachache, muscle weakness, and brain damage. If a child swallows smaller amounts of lead, much less severe effects on blood and brain function may occur. Even at much lower levels of exposure, lead can affect a child's mental and physical growth.

Exposure to lead is more dangerous for young and unborn children. Unborn children can be exposed to lead through their mothers. Harmful effects include premature births, smaller babies, decreased mental ability in the infant, learning difficulties, and reduced growth in young children. These effects are more common if the mother or baby was exposed to high levels of lead. Some of these effects may persist beyond childhood.

## How can families reduce the risks of exposure to lead?

❑ Avoid exposure to sources of lead.

❑ Do not allow children to chew or mouth surfaces that may have been painted with lead-based paint.

❑ If you have a water lead problem, run or flush water that has been standing overnight before drinking or cooking with it.

❑ Some types of paints and pigments that are used as make-up or hair coloring contain lead. Keep these kinds of products away from children

❑ If your home contains lead-based paint or you live in an area contaminated with lead, wash children's hands and faces often to remove lead dusts and soil, and regularly clean the house of dust and tracked in soil.

## Is there a medical test to determine whether I've been exposed to lead?

A blood test is available to measure the amount of lead in your blood and to estimate the amount of your recent exposure to lead. Blood tests are commonly used to screen children for lead poisoning. Lead in teeth or bones can be measured by X-ray techniques, but these methods are not widely available. Exposure to lead also can be evaluated by measuring erythrocyte protoporphyrin (EP) in blood samples. EP is a part of red blood cells known to increase when the amount of lead in the blood is high. However, the EP level is not sensitive enough to identify children with elevated blood lead levels below about 25 micrograms per deciliter (μg/dL). These tests usually require special analytical equipment that is not available in a doctor's office. However, your doctor can draw blood samples and send them to appropriate laboratories for analysis.

## Has the federal government made recommendations to protect human health?

The Centers for Disease Control and Prevention (CDC) recommends that states test children at ages 1 and 2 years. Children should be tested at ages 3–6 years if they have never been tested for lead, if they receive services from public assistance programs for the poor such as Medicaid or the Supplemental Food Program for Women, Infants, and Children, if they live in a building or frequently visit a house built before 1950; if they visit a home (house or apartment) built before 1978 that has been recently remodeled; and/or if they have a brother, sister, or playmate who has had lead poisoning. CDC considers a blood lead level of 10 μg/dL to be a level of concern for children.

EPA limits lead in drinking water to 15 μg per liter.

## References

Agency for Toxic Substances and Disease Registry (ATSDR). 2007. Toxicological Profile for lead (Update). Atlanta, GA: U.S. Department of Public Health and Human Services, Public Health Service.

**Where can I get more information?** For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology and Environmental Medicine, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-800-232-4636, FAX: 770-488-4178. ToxFAQs Internet address via WWW is http://www.atsdr.cdc.gov/toxfaq.html. ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

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# MERCURY
# CAS # 7439-97-6



**This fact sheet answers the most frequently asked health questions (FAQs) about mercury. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.**

**HIGHLIGHTS: Exposure to mercury occurs from breathing contaminated air, ingesting contaminated water and food, and having dental and medical treatments. Mercury, at high levels, may damage the brain, kidneys, and developing fetus. This chemical has been found in at least 714 of 1,467 National Priorities List sites identified by the Environmental Protection Agency.**

## What is mercury?

(Pronounced mŭr′kyə-rē)

Mercury is a naturally occurring metal which has several forms. The metallic mercury is a shiny, silver-white, odorless liquid. If heated, it is a colorless, odorless gas.

Mercury combines with other elements, such as chlorine, sulfur, or oxygen, to form inorganic mercury compounds or "salts," which are usually white powders or crystals. Mercury also combines with carbon to make organic mercury compounds. The most common one, methylmercury, is produced mainly by microscopic organisms in the water and soil. More mercury in the environment can increase the amounts of methylmercury that these small organisms make.

Metallic mercury is used to produce chlorine gas and caustic soda, and is also used in thermometers, dental fillings, and batteries. Mercury salts are sometimes used in skin lightening creams and as antiseptic creams and ointments.

## What happens to mercury when it enters the environment?

- Inorganic mercury (metallic mercury and inorganic mercury compounds) enters the air from mining ore deposits, burning coal and waste, and from manufacturing plants.
- It enters the water or soil from natural deposits, disposal of wastes, and volcanic activity.
- Methylmercury may be formed in water and soil by small organisms called bacteria.
- Methylmercury builds up in the tissues of fish. Larger and older fish tend to have the highest levels of mercury.

## How might I be exposed to mercury?

- Eating fish or shellfish contaminated with methylmercury.
- Breathing vapors in air from spills, incinerators, and industries that burn mercury-containing fuels.
- Release of mercury from dental work and medical treatments.
- Breathing contaminated workplace air or skin contact during use in the workplace (dental, health services, chemical, and other industries that use mercury).
- Practicing rituals that include mercury.

## How can mercury affect my health?

The nervous system is very sensitive to all forms of mercury. Methylmercury and metallic mercury vapors are more harmful than other forms, because more mercury in these forms reaches the brain. Exposure to high levels of metallic, inorganic, or organic mercury can permanently damage the brain, kidneys, and developing fetus. Effects on brain functioning may result in irritability, shyness, tremors, changes in vision or hearing, and memory problems.

Short-term exposure to high levels of metallic mercury vapors may cause effects including lung damage, nausea,

vomiting, diarrhea, increases in blood pressure or heart rate, skin rashes, and eye irritation.

## How likely is mercury to cause cancer?

There are inadequate human cancer data available for all forms of mercury. Mercuric chloride has caused increases in several types of tumors in rats and mice, and methylmercury has caused kidney tumors in male mice. The EPA has determined that mercuric chloride and methylmercury are possible human carcinogens.

## How can mercury affect children?

Very young children are more sensitive to mercury than adults. Mercury in the mother's body passes to the fetus and may accumulate there. It can also can pass to a nursing infant through breast milk. However, the benefits of breast feeding may be greater than the possible adverse effects of mercury in breast milk.

Mercury's harmful effects that may be passed from the mother to the fetus include brain damage, mental retardation, incoordination, blindness, seizures, and inability to speak. Children poisoned by mercury may develop problems of their nervous and digestive systems, and kidney damage.

## How can families reduce the risk of exposure to mercury?

Carefully handle and dispose of products that contain mercury, such as thermometers or fluorescent light bulbs. Do not vacuum up spilled mercury, because it will vaporize and increase exposure. If a large amount of mercury has been spilled, contact your health department. Teach children not to play with shiny, silver liquids.

Properly dispose of older medicines that contain mercury. Keep all mercury-containing medicines away from children.

Pregnant women and children should keep away from rooms where liquid mercury has been used.

Learn about wildlife and fish advisories in your area from your public health or natural resources department.

## Is there a medical test to show whether I've been exposed to mercury?

Tests are available to measure mercury levels in the body. Blood or urine samples are used to test for exposure to metallic mercury and to inorganic forms of mercury. Mercury in whole blood or in scalp hair is measured to determine exposure to methylmercury. Your doctor can take samples and send them to a testing laboratory.

## Has the federal government made recommendations to protect human health?

The EPA has set a limit of 2 parts of mercury per billion parts of drinking water (2 ppb).

The Food and Drug Administration (FDA) has set a maximum permissible level of 1 part of methylmercury in a million parts of seafood (1 ppm).

The Occupational Safety and Health Administration (OSHA) has set limits of 0.1 milligram of organic mercury per cubic meter of workplace air (0.1 $mg/m^3$) and 0.05 $mg/m^3$ of metallic mercury vapor for 8-hour shifts and 40-hour work weeks.

## References

Agency for Toxic Substances and Disease Registry (ATSDR). 1999. Toxicological profile for mercury. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

**Where can I get more information?** For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs Internet address via WWW is http://www.atsdr.cdc.gov/toxfaq.html ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

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# NAPHTHALENE
**CAS # 91-20-3**

# 1-METHYLNAPHTHALENE
**CAS # 90-12-0**

# 2-METHYLNAPHTHALENE
**CAS # 91-57-6**

**Division of Toxicology ToxFAQs™** **August 2005**

**This fact sheet answers the most frequently asked health questions (FAQs) about naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It is important you understand this information because these substances may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.**

**HIGHLIGHTS: Exposure to naphthalene, 1-methylnaphthalene, or 2-methylnaphthalene happens mostly from breathing air contaminated from the burning of wood, tobacco, or fossil fuels, industrial discharges, or moth repellents. Exposure to large amounts of naphthalene may damage or destroy some of your red blood cells. Naphthalene has caused cancer in animals. Naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene have been found in at least 687, 36, and 412, respectively, of the 1,662 National Priority List sites identified by the Environmental Protection Agency (EPA).**

## What are naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene?

Naphthalene is a white solid that evaporates easily. Fuels such as petroleum and coal contain naphthalene. It is also called white tar, and tar camphor, and has been used in mothballs and moth flakes. Burning tobacco or wood produces naphthalene. It has a strong, but not unpleasant smell. The major commercial use of naphthalene is in the manufacture of polyvinyl chloride (PVC) plastics. Its major consumer use is in moth repellents and toilet deodorant blocks.

1-Methylnaphthalene and 2-methylnaphthalene are naphthalene-related compounds. 1-Methylnaphthalene is a clear liquid and 2-methylnaphthalene is a solid; both can be smelled in air and in water at very low concentrations.

1-Methylnaphthalene and 2-methylnaphthalene are used to make other chemicals such as dyes and resins. 2-Methylnaphthalene is also used to make vitamin K.

## What happens to naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene when they enter the environment?

- ❏ Naphthalene enters the environment from industrial and domestic sources, and from accidental spills.
- ❏ Naphthalene can dissolve in water to a limited degree and may be present in drinking water from wells close to hazardous waste sites and landfills.
- ❏ Naphthalene can become weakly attached to soil or pass through soil into underground water.
- ❏ In air, moisture and sunlight break it down within 1 day. In water, bacteria break it down or it evaporates into the air.
- ❏ Naphthalene does not accumulate in the flesh of animals or fish that you might eat.
- ❏ 1-Methylnaphthalene and 2-methylnaphthalene are expected to act like naphthalene in air, water, or soil because they have similar chemical and physical properties.

## How might I be exposed to naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene?

- ❏ Breathing low levels in outdoor air.
- ❏ Breathing air contaminated from industrial discharges or smoke from burning wood, tobacco, or fossil fuels.
- ❏ Using or making moth repellents, coal tar products, dyes or inks could expose you to these chemicals in the air.
- ❏ Drinking water from contaminated wells.
- ❏ Touching fabrics that are treated with moth repellents containing naphthalene.
- ❏ Exposure to naphthalene, 1-methylnaphthalene and 2-methylnaphthalene from eating foods or drinking beverages is unlikely.

## How can naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene affect my health?

Exposure to large amounts of naphthalene may damage or destroy some of your red blood cells. This could cause you to have too few red blood cells until your body replaces the destroyed cells. This condition is called hemolytic anemia. Some symptoms of hemolytic anemia are fatigue, lack of appetite, restlessness, and pale skin. Exposure to large amounts of naphthalene may also cause nausea, vomiting, diarrhea, blood in the urine, and a yellow color to the skin. Animals sometimes develop cloudiness in their eyes after swallowing high amounts of naphthalene. It is not clear whether this also develops in people. Rats and mice that breathed naphthalene vapors daily for a lifetime developed irritation and inflammation of their nose and lungs. It is unclear if naphthalene

causes reproductive effects in animals; most evidence says it does not.

There are no studies of humans exposed to 1-methylnaphthalene or 2-methylnaphthalene.

Mice fed food containing 1-methylnaphthalene and 2-methylnaphthalene for most of their lives had part of their lungs filled with an abnormal material.

## How likely are naphthalene, 1-methylnaphthalene, or 2-methylnaphthalene to cause cancer?

There is no direct evidence in humans that naphthalene, 1-methylnaphthalene, or 2-methylnaphthalene cause cancer. However, cancer from naphthalene exposure has been seen in animal studies. Some female mice that breathed naphthalene vapors daily for a lifetime developed lung tumors. Some male and female rats exposed to naphthalene in a similar manner also developed nose tumors.

Based on the results from animal studies, the Department of Health and Humans Services (DHHS) concluded that naphthalene is reasonably anticipated to be a human carcinogen. The International Agency for Research on Cancer (IARC) concluded that naphthalene is possibly carcinogenic to humans. The EPA determined that naphthalene is a possible human carcinogen (Group C) and that the data are inadequate to assess the human carcinogenic potential of 2-methylnaphthalene.

## How can naphthalene, 1-methylnaphthalene, or 2-methylnaphthalene affect children?

Hospitals have reported many cases of hemolytic anemia in children, including newborns and infants, who either ate naphthalene mothballs or deodorants cakes or who were in close contact with clothing or blankets stored in naphthalene mothballs. Naphthalene can move from a pregnant woman's blood to the unborn baby's blood. Naphthalene has been detected in some samples of breast milk from the general U.S. population, but not at levels that are expected to be of concern.

There is no information on whether naphthalene has affected development in humans. No developmental abnormalities were observed in the offspring from rats, mice, and rabbits fed naphthalene during pregnancy.

We do not have any information on possible health effects of 1-methylnaphthalene or 2-methylnaphthalene on children.

## How can families reduce the risks of exposure to naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene?

❑ Families can reduce the risks of exposure to naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene by avoiding smoking tobacco, generating smoke during cooking, or using fireplaces or heating appliances in the their homes.

❑ If families use naphthalene-containing moth repellents, the material should be enclosed in containers that prevent vapors from escaping, and kept out of the reach from children.

❑ Blankets and clothing stored with naphthalene moth repellents should be aired outdoors to remove naphthalene odors and washed before they are used.

❑ Families should inform themselves of the contents of air deodorizers that are used in their homes and refrain from using deodorizers with naphthalene.

## Is there a medical test to determine whether I've been exposed to naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene?

Tests are available that measure levels of these chemicals and their breakdown products in samples of urine, feces, blood, maternal milk, or body fat. These tests are not routinely available in a doctor's office because they require special equipment, but samples can be sent to special testing laboratories. These tests cannot determine exactly how much naphthalene, 1-methylnaphthalene, or 2-methylnaphthalene you were exposed to or predict whether harmful effects will occur. If the samples are collected within a day or two of exposure, then the tests can show if you were exposed to a large or small amount of naphthalene, 1-methylnaphthalene, or 2-methylnaphthalene.

## Has the federal government made recommendations to protect human health?

The EPA recommends that children not drink water with over 0.5 parts per million (0.5 ppm) naphthalene for more than 10 days or over 0.4 ppm for any longer than 7 years. Adults should not drink water with more than 1 ppm for more than 7 years. For water consumed over a lifetime (70 years), the EPA suggests that it contain no more than 0.1 ppm naphthalene.

The Occupational Safety and Health Administration (OSHA) set a limit of 10 ppm for the level of naphthalene in workplace air during an 8-hour workday, 40-hour workweek. The National Institute for Occupational Safety and Health (NIOSH) considers more than 500 ppm of naphthalene in air to be immediately dangerous to life or health. This is the exposure level of a chemical that is likely to impair a worker's ability to leave a contaminate area and therefore, results in permanent health problems or death.

## References

Agency for Toxic Substances and Disease Registry (ATSDR). 2005. Toxicological Profile for Naphthalene, 1-Methylnaphthalene, and 2-Methylnaphthalene (Update). Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

**Where can I get more information?** For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs Internet address via WWW is http://www.atsdr.cdc.gov/toxfaq.html. ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

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# POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)

**Agency for Toxic Substances and Disease Registry ToxFAQs** **September 1996**

**This fact sheet answers the most frequently asked health questions (FAQs) about polycyclic aromatic hydrocarbons (PAHs). For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. This information is important because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.**

**SUMMARY: Exposure to polycyclic aromatic hydrocarbons usually occurs by breathing air contaminated by wild fires or coal tar, or by eating foods that have been grilled. PAHs have been found in at least 600 of the 1,430 National Priorities List sites identified by the Environmental Protection Agency (EPA).**

## What are polycyclic aromatic hydrocarbons?

(Pronounced pŏl′ĭ-sī′klĭk ăr′ə-măt′ĭk hī′drə-kar′bənz)

Polycyclic aromatic hydrocarbons (PAHs) are a group of over 100 different chemicals that are formed during the incomplete burning of coal, oil and gas, garbage, or other organic substances like tobacco or charbroiled meat. PAHs are usually found as a mixture containing two or more of these compounds, such as soot.

Some PAHs are manufactured. These pure PAHs usually exist as colorless, white, or pale yellow-green solids. PAHs are found in coal tar, crude oil, creosote, and roofing tar, but a few are used in medicines or to make dyes, plastics, and pesticides.

## What happens to PAHs when they enter the environment?

- PAHs enter the air mostly as releases from volcanoes, forest fires, burning coal, and automobile exhaust.
- PAHs can occur in air attached to dust particles.
- Some PAH particles can readily evaporate into the air from soil or surface waters.
- PAHs can break down by reacting with sunlight and other chemicals in the air, over a period of days to weeks.
- PAHs enter water through discharges from industrial and wastewater treatment plants.
- Most PAHs do not dissolve easily in water. They stick to solid particles and settle to the bottoms of lakes or rivers.
- Microorganisms can break down PAHs in soil or water after a period of weeks to months.
- In soils, PAHs are most likely to stick tightly to particles; certain PAHs move through soil to contaminate underground water.
- PAH contents of plants and animals may be much higher than PAH contents of soil or water in which they live.

## How might I be exposed to PAHs?

- Breathing air containing PAHs in the workplace of coking, coal-tar, and asphalt production plants; smokehouses; and municipal trash incineration facilities.
- Breathing air containing PAHs from cigarette smoke, wood smoke, vehicle exhausts, asphalt roads, or agricultural burn smoke.
- Coming in contact with air, water, or soil near hazardous waste sites.
- Eating grilled or charred meats; contaminated cereals, flour, bread, vegetables, fruits, meats; and processed or pickled foods.
- Drinking contaminated water or cow's milk.

- Nursing infants of mothers living near hazardous waste sites may be exposed to PAHs through their mother's milk.

## How can PAHs affect my health?

Mice that were fed high levels of one PAH during pregnancy had difficulty reproducing and so did their offspring. These offspring also had higher rates of birth defects and lower body weights. It is not known whether these effects occur in people.

Animal studies have also shown that PAHs can cause harmful effects on the skin, body fluids, and ability to fight disease after both short- and long-term exposure. But these effects have not been seen in people.

## How likely are PAHs to cause cancer?

The Department of Health and Human Services (DHHS) has determined that some PAHs may reasonably be expected to be carcinogens.

Some people who have breathed or touched mixtures of PAHs and other chemicals for long periods of time have developed cancer. Some PAHs have caused cancer in laboratory animals when they breathed air containing them (lung cancer), ingested them in food (stomach cancer), or had them applied to their skin (skin cancer).

## Is there a medical test to show whether I've been exposed to PAHs?

In the body, PAHs are changed into chemicals that can attach to substances within the body. There are special tests that can detect PAHs attached to these substances in body tissues or blood. However, these tests cannot tell whether any health effects will occur or find out the extent or source of your exposure to the PAHs. The tests aren't usually available in your doctor's office because special equipment is needed to conduct them.

## Has the federal government made recommendations to protect human health?

The Occupational Safety and Health Administration (OSHA) has set a limit of 0.2 milligrams of PAHs per cubic meter of air (0.2 $mg/m^3$). The OSHA Permissible Exposure Limit (PEL) for mineral oil mist that contains PAHs is 5 $mg/m^3$ averaged over an 8-hour exposure period.

The National Institute for Occupational Safety and Health (NIOSH) recommends that the average workplace air levels for coal tar products not exceed 0.1 $mg/m^3$ for a 10-hour workday, within a 40-hour workweek. There are other limits for workplace exposure for things that contain PAHs, such as coal, coal tar, and mineral oil.

## Glossary

Carcinogen: A substance that can cause cancer.

Ingest: Take food or drink into your body.

## References

Agency for Toxic Substances and Disease Registry (ATSDR). 1995. Toxicological profile for polycyclic aromatic hydrocarbons. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

**Where can I get more information?** For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs Internet address via WWW is http://www.atsdr.cdc.gov/toxfaq.html ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

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# SELENIUM

## CAS # 7782-49-2

**Division of Toxicology ToxFAQs™** **September 2003**

**This fact sheet answers the most frequently asked health questions (FAQs) about selenium. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It is important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.**

**HIGHLIGHTS: People may be exposed to low levels of selenium daily through food and water. Selenium is a trace mineral needed in small amounts for good health, but exposure to much higher levels can result in neurological effects and brittle hair and deformed nails. Occupational inhalation exposure to selenium vapors may cause dizziness, fatigue, irritation of mucous membranes, and respiratory effects. This substance has been found in at least 508 of the 1,636 National Priorities List sites identified by the Environmental Protection Agency (EPA).**

### What is selenium?

Selenium is a naturally occurring mineral element that is distributed widely in nature in most rocks and soils. In its pure form, it exists as metallic gray to black hexagonal crystals, but in nature it is usually combined with sulfide or with silver, copper, lead, and nickel minerals. Most processed selenium is used in the electronics industry, but it is also used: as a nutritional supplement; in the glass industry; as a component of pigments in plastics, paints, enamels, inks, and rubber; in the preparation of pharmaceuticals; as a nutritional feed additive for poultry and livestock; in pesticide formulations; in rubber production; as an ingredient in antidandruff shampoos; and as a constituent of fungicides. Radioactive selenium is used in diagnostic medicine.

### What happens to selenium when it enters the environment?

❏ Selenium occurs naturally in the environment and can be released by both natural and manufacturing processes.
❏ Selenium dust can enter the air from burning coal and oil. This selenium dust will eventually settle over the land and water.
❏ It also enters water from rocks and soil, and from agricultural and industrial waste. Some selenium compounds will dissolve in water, and some will settle to the bottom as particles.
❏ Insoluble forms of selenium will remain in soil, but soluble forms are very mobile and may enter surface water from soils.
❏ Selenium may accumulate up the food chain.

### How might I be exposed to selenium?

❏ The general population is exposed to very low levels of selenium in air, food, and water. The majority of the daily intake comes from food.
❏ People working in or living near industries where selenium is produced, processed, or converted into commercial products may be exposed to higher levels of selenium in the air.
❏ People living in the vicinity of hazardous waste sites or coal burning plants may also be exposed to higher levels of selenium.

### How can selenium affect my health?

Selenium has both beneficial and harmful effects. Low doses of selenium are needed to maintain good health. However, exposure to high levels can cause adverse health effects. Short-term oral exposure to high concentrations of selenium may cause nausea, vomiting, and diarrhea. Chronic oral exposure to high concentrations of selenium compounds can produce a disease called selenosis. The major signs of selenosis are hair loss, nail brittleness, and neurological abnormalities (such as numbness and other odd sensations

in the extremities).
Brief exposures to high levels of elemental selenium or selenium dioxide in air can result in respiratory tract irritation, bronchitis, difficulty breathing, and stomach pains. Longer-term exposure to either of these air-borne forms can cause respiratory irritation, bronchial spasms, and coughing.
Levels of these forms of selenium that would be necessary to produce such effects are normally not seen outside of the workplace.
Animal studies have shown that very high amounts of selenium can affect sperm production and the female reproductive cycle. We do not know if similar effects would occur in humans.

## How likely is selenium to cause cancer?

Studies of laboratory animals and people show that most selenium compounds probably do not cause cancer. In fact, studies in humans suggest that lower-than-normal selenium levels in the diet might increase the risk of cancer.
The International Agency for Research on Cancer (IARC) has determined that selenium and selenium compounds are not classifiable as to their carcinogenicity to humans.
The EPA has determined that one specific form of selenium, selenium sulfide, is a probable human carcinogen. Selenium sulfide is not present in foods and is a very different chemical from the organic and inorganic selenium compounds found in foods and in the environment.

## How can selenium affect children?

It is likely that the health effects seen in children exposed to selenium will be similar to the effects seen in adults.
However, one study found that children may be less susceptible to the health effects of selenium than adults.
Selenium compounds have not been shown to cause birth defects in humans or in other mammals.

## How can families reduce the risk of exposure to selenium?

❑ Certain dietary supplements and shampoos contain selenium; these should be used according to the manufacturer's directions.
❑ Children living near waste sites that contain selenium or coal burning plants should be encouraged to wash their hands before eating and to avoid putting their unwashed hands in their mouths.

## Is there a medical test to show whether I've been exposed to selenium?

Low levels of selenium are normally found in body tissues and urine. Blood and urine tests for selenium are most useful for people who have recently been exposed to high levels. Toenail clippings can be used to determine longer-term exposure. These tests are not usually available at your doctor's office, but your doctor can send the samples to a laboratory that can perform the tests. None of these tests, however, can predict whether you will experience any health effects.

## Has the federal government made recommendations to protect human health?

The EPA restricts the amount of selenium allowed in public water supplies to 50 parts total selenium per billion parts of water (50 ppb).
The Occupational Safety and Health Administration (OSHA) sets a limit of 0.2 mg selenium/$m^3$ of workroom air for an 8-hour work shift.
ATSDR and the EPA have determined that 5 micrograms of selenium per kilogram of body weight taken daily would not be expected to cause any adverse health effects over a lifetime of such intake.

## References

Agency for Toxic Substances and Disease Registry (ATSDR). 2003. Toxicological Profile for Selenium (Update) Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

**Where can I get more information?** For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs Internet address via WWW is http://www.atsdr.cdc.gov/toxfaq.html. ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

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# SILVER
# CAS # 7440-22-4



**This fact sheet answers the most frequently asked health questions (FAQs) about silver. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.**

**HIGHLIGHTS: Silver is an element found naturally in the environment. At very high levels, it may cause argyria, a blue-gray discoloration of the skin and other organs. This chemical has been found in at least 27 of the 1,177 National Priorities List sites identified by the Environmental Protection Agency (EPA).**

## What is silver?

(Pronounced sĭl′vər)

Silver is a naturally occurring element. It is found in the environment combined with other elements such as sulfide, chloride, and nitrate. Pure silver is "silver" colored, but silver nitrate and silver chloride are powdery white and silver sulfide and silver oxide are dark-gray to black. Silver is often found as a by-product during the retrieval of copper, lead, zinc, and gold ores.

Silver is used to make jewelry, silverware, electronic equipment, and dental fillings. It is also used to make photographs, in brazing alloys and solders, to disinfect drinking water and water in swimming pools, and as an antibacterial agent. Silver has also been used in lozenges and chewing gum to help people stop smoking.

## What happens to silver when is enters the environment?

- Silver may be released into the air and water through natural processes such as the weathering of rocks.
- Human activities such as the processing of ores, cement manufacture, and the burning of fossil fuel may release silver into the air.
- It may be released into water from photographic processing.
- Rain may wash silver out of soil into the groundwater.
- Silver does not appear to concentrate to a significant extent in aquatic animals.

## How might I be exposed to silver?

- Breathing low levels in air.
- Swallowing it in food or drinking water.
- Carrying out activities such as jewelry-making, soldering, and photography.
- Using anti-smoking lozenges or other medicines containing it.

## How can silver affect my health?

Exposure to high levels of silver for a long period of time may result in a condition called arygria, a blue-gray discoloration of the skin and other body tissues. Lower-level exposures to silver may also cause silver to be deposited in the skin and other parts of the body; however, this is not known to be harmful. Argyria is a permanent effect, but it appears to be a cosmetic problem that may not be otherwise harmful to health.

Exposure to high levels of silver in the air has resulted in breathing problems, lung and throat irritation, and stomach pains. Skin contact with silver can cause mild allergic reactions such as rash, swelling, and inflammation in some people.

Animal studies have shown that swallowing silver results in the deposit of silver in the skin. One study in mice found that the animals exposed to silver in drinking water were less active than unexposed animals.

No studies are available on whether silver affects reproduction or causes developmental problems in people.

## How likely is silver to cause cancer?

No studies are available on whether silver may cause cancer in people. The only available animal studies showed both positive and negative results when silver was implanted under the skin.

The EPA has determined that silver is not classifiable as to human carcinogenicity.

## Is there a medical test to show whether I've been exposed to silver?

Silver can be measured in the blood, urine, feces, and body tissues of exposed people. Silver builds up in the body, and the best way to learn if past exposure has occurred is to look for silver in samples of skin. Tests for silver are not commonly done at a doctor's office because they require special equipment. Although doctors can find out if a person has been exposed to silver by doing these tests, they cannot tell whether any health effects will occur.

## Has the federal government made recommendations to protect human health?

The EPA recommends that the concentration of silver in drinking water not exceed 0.10 milligrams per liter of water (0.10 mg/L) because of the skin discoloration that may occur.

The EPA requires that spills or accidental releases of 1,000 pounds or more of silver be reported to the EPA.

The Occupational Safety and Health Administration (OSHA) limits silver in workplace air to 0.01 milligrams per cubic meter (0.01 $mg/m^3$) for an 8-hour workday, 40-hour workweek. The National Institute of Occupational Safety and Health (NIOSH) also recommends that workplace air contain no more that 0.01 $mg/m^3$ silver.

The American Conference of Governmental Industrial Hygienists (ACGIH) recommends that workplace air contain no more than 0.1 $mg/m^3$ silver metal and 0.01 $mg/m^3$ soluble silver compounds.

The federal recommendations have been updated as of July 1999.

## Glossary

Carcinogenicity: Ability to cause cancer.

CAS: Chemcial Abstracts Service.

Milligram (mg): One thousandth of a gram.

National Priorities List: A list of the nation's worst hazardous waste sites.

Soluble: Capable of being dissolved in water.

## References

Agency for Toxic Substances and Disease Registry (ATSDR). 1990. Toxicological profile for silver. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

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# TETRACHLOROETHYLENE
## CAS # 127-18-4



**This fact sheet answers the most frequently asked health questions (FAQs) about tetrachloroethylene. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.**

**HIGHLIGHTS: Tetrachloroethylene is a manufactured chemical used for dry cleaning and metal degreasing. Exposure to very high concentrations of tetrachloroethylene can cause dizziness, headaches, sleepiness, confusion, nausea, difficulty in speaking and walking, unconsciousness, and death. Tetrachloroethylene has been found in at least 771 of the 1,430 National Priorities List sites identified by the Environmental Protection Agency (EPA).**

### What is tetrachloroethylene?

(Pronounced tĕt′rə-klôr′ ō-ĕth′ə-lēn′)

Tetrachloroethylene is a manufactured chemical that is widely used for dry cleaning of fabrics and for metal-degreasing. It is also used to make other chemicals and is used in some consumer products.

Other names for tetrachloroethylene include perchloroethylene, PCE, and tetrachloroethene. It is a nonflammable liquid at room temperature. It evaporates easily into the air and has a sharp, sweet odor. Most people can smell tetrachloroethylene when it is present in the air at a level of 1 part tetrachloroethylene per million parts of air (1 ppm) or more, although some can smell it at even lower levels.

### What happens to tetrachloroethylene when it enters the environment?

- Much of the tetrachloroethylene that gets into water or soil evaporates into the air.
- Microorganisms can break down some of the tetrachloroethylene in soil or underground water.
- In the air, it is broken down by sunlight into other chemicals or brought back to the soil and water by rain.
- It does not appear to collect in fish or other animals that live in water.

### How might I be exposed to tetrachloroethylene?

- When you bring clothes from the dry cleaners, they will release small amounts of tetrachloroethylene into the air.
- When you drink water containing tetrachloroethylene, you are exposed to it.

### How can tetrachloroethylene affect my health?

High concentrations of tetrachloroethylene (particularly in closed, poorly ventilated areas) can cause dizziness, headache, sleepiness, confusion, nausea, difficulty in speaking and walking, unconsciousness, and death.

Irritation may result from repeated or extended skin contact with it. These symptoms occur almost entirely in work (or hobby) environments when people have been accidentally exposed to high concentrations or have intentionally used tetrachloroethylene to get a "high."

In industry, most workers are exposed to levels lower than those causing obvious nervous system effects. The health effects of breathing in air or drinking water with low levels of tetrachloroethylene are not known.

Results from some studies suggest that women who work in dry cleaning industries where exposures to tetrachloroethyl-

ene can be quite high may have more menstrual problems and spontaneous abortions than women who are not exposed. However, it is not known if tetrachloroethylene was responsible for these problems because other possible causes were not considered.

Results of animal studies, conducted with amounts much higher than those that most people are exposed to, show that tetrachloroethylene can cause liver and kidney damage. Exposure to very high levels of tetrachloroethylene can be toxic to the unborn pups of pregnant rats and mice. Changes in behavior were observed in the offspring of rats that breathed high levels of the chemical while they were pregnant.

## How likely is tetrachloroethylene to cause cancer?

The Department of Health and Human Services (DHHS) has determined that tetrachloroethylene may reasonably be anticipated to be a carcinogen. Tetrachloroethylene has been shown to cause liver tumors in mice and kidney tumors in male rats.

## Is there a medical test to show whether I've been exposed to tetrachloroethylene?

One way of testing for tetrachloroethylene exposure is to measure the amount of the chemical in the breath, much the same way breath-alcohol measurements are used to determine the amount of alcohol in the blood.

Because it is stored in the body's fat and slowly released into the bloodstream, tetrachloroethylene can be detected in the breath for weeks following a heavy exposure.

Tetrachloroethylene and trichloroacetic acid (TCA), a breakdown product of tetrachloroethylene, can be detected in the blood. These tests are relatively simple to perform. These tests aren't available at most doctors' offices, but can be performed at special laboratories that have the right equipment.

Because exposure to other chemicals can produce the same breakdown products in the urine and blood, the tests for breakdown products cannot determine if you have been exposed to tetrachloroethylene or the other chemicals.

## Has the federal government made recommendations to protect human health?

The EPA maximum contaminant level for the amount of tetrachloroethylene that can be in drinking water is 0.005 milligrams tetrachloroethylene per liter of water (0.005 mg/L).

The Occupational Safety and Health Administration (OSHA) has set a limit of 100 ppm for an 8-hour workday over a 40-hour workweek.

The National Institute for Occupational Safety and Health (NIOSH) recommends that tetrachloroethylene be handled as a potential carcinogen and recommends that levels in workplace air should be as low as possible.

## Glossary

Carcinogen: A substance with the ability to cause cancer.

CAS: Chemical Abstracts Service.

Milligram (mg): One thousandth of a gram.

Nonflammable: Will not burn.

## References

This ToxFAQs information is taken from the 1997 Toxicological Profile for Tetrachloroethylene (update) produced by the Agency for Toxic Substances and Disease Registry, Public Health Service, U.S. Department of Health and Human Services, Public Health Service in Atlanta, GA.

**Where can I get more information?** For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone:1-888-422-8737, FAX: 770-488-4178. ToxFAQs Internet address via WWW is http://www.atsdr.cdc.gov/toxfaq.html ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

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# TRICHLOROETHYLENE

## CAS # 79-01-6

**Division of Toxicology ToxFAQs™** **July 2003**

**This fact sheet answers the most frequently asked health questions (FAQs) about trichloroethylene. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. This information is important because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.**

**HIGHLIGHTS: Trichloroethylene is a colorless liquid which is used as a solvent for cleaning metal parts. Drinking or breathing high levels of trichloroethylene may cause nervous system effects, liver and lung damage, abnormal heartbeat, coma, and possibly death. Trichloroethylene has been found in at least 852 of the 1,430 National Priorities List sites identified by the Environmental Protection Agency (EPA).**

### What is trichloroethylene?

Trichloroethylene (TCE) is a nonflammable, colorless liquid with a somewhat sweet odor and a sweet, burning taste. It is used mainly as a solvent to remove grease from metal parts, but it is also an ingredient in adhesives, paint removers, typewriter correction fluids, and spot removers.

Trichloroethylene is not thought to occur naturally in the environment. However, it has been found in underground water sources and many surface waters as a result of the manufacture, use, and disposal of the chemical.

### What happens to trichloroethylene when it enters the environment?

- Trichloroethylene dissolves a little in water, but it can remain in ground water for a long time.
- Trichloroethylene quickly evaporates from surface water, so it is commonly found as a vapor in the air.
- Trichloroethylene evaporates less easily from the soil than from surface water. It may stick to particles and remain for a long time.
- Trichloroethylene may stick to particles in water, which will cause it to eventually settle to the bottom sediment.
- Trichloroethylene does not build up significantly in plants and animals.

### How might I be exposed to trichloroethylene?

- Breathing air in and around the home which has been contaminated with trichloroethylene vapors from shower water or household products such as spot removers and typewriter correction fluid.
- Drinking, swimming, or showering in water that has been contaminated with trichloroethylene.
- Contact with soil contaminated with trichloroethylene, such as near a hazardous waste site.
- Contact with the skin or breathing contaminated air while manufacturing trichloroethylene or using it at work to wash paint or grease from skin or equipment.

### How can trichloroethylene affect my health?

Breathing small amounts may cause headaches, lung irritation, dizziness, poor coordination, and difficulty concentrating.

Breathing large amounts of trichloroethylene may cause impaired heart function, unconsciousness, and death. Breathing it for long periods may cause nerve, kidney, and liver damage.

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Drinking large amounts of trichloroethylene may cause nausea, liver damage, unconsciousness, impaired heart function, or death.

Drinking small amounts of trichloroethylene for long periods may cause liver and kidney damage, impaired immune system function, and impaired fetal development in pregnant women, although the extent of some of these effects is not yet clear.

Skin contact with trichloroethylene for short periods may cause skin rashes.

## How likely is trichloroethylene to cause cancer?

Some studies with mice and rats have suggested that high levels of trichloroethylene may cause liver, kidney, or lung cancer. Some studies of people exposed over long periods to high levels of trichloroethylene in drinking water or in workplace air have found evidence of increased cancer. Although, there are some concerns about the studies of people who were exposed to trichloroethylene, some of the effects found in people were similar to effects in animals.

In its 9th Report on Carcinogens, the National Toxicology Program (NTP) determined that trichloroethylene is "reasonably anticipated to be a human carcinogen." The International Agency for Research on Cancer (IARC) has determined that trichloroethylene is "probably carcinogenic to humans."

## Is there a medical test to show whether I've been exposed to trichloroethylene?

If you have recently been exposed to trichloroethylene, it can be detected in your breath, blood, or urine. The breath test, if it is performed soon after exposure, can tell if you have been exposed to even a small amount of trichloroethylene.

Exposure to larger amounts is assessed by blood and urine tests, which can detect trichloroethylene and many of its breakdown products for up to a week after exposure. However, exposure to other similar chemicals can produce the same breakdown products, so their detection is not absolute proof of exposure to trichloroethylene. This test isn't available at most doctors' offices, but can be done at special laboratories that have the right equipment.

## Has the federal government made recommendations to protect human health?

The EPA has set a maximum contaminant level for trichloroethylene in drinking water at 0.005 milligrams per liter (0.005 mg/L) or 5 parts of TCE per billion parts water.

The EPA has also developed regulations for the handling and disposal of trichloroethylene.

The Occupational Safety and Health Administration (OSHA) has set an exposure limit of 100 parts of trichloroethylene per million parts of air (100 ppm) for an 8-hour workday, 40-hour workweek.

## Glossary

Carcinogenicity: The ability of a substance to cause cancer.
CAS: Chemical Abstracts Service.
Evaporate: To change into a vapor or gas.
Milligram (mg): One thousandth of a gram.
Nonflammable: Will not burn.
ppm: Parts per million.
Sediment: Mud and debris that have settled to the bottom of a body of water.
Solvent: A chemical that dissolves other substances.

## References

This ToxFAQs information is taken from the 1997 Toxicological Profile for Trichloroethylene (update) produced by the Agency for Toxic Substances and Disease Registry, Public Health Service, U.S. Department of Health and Human Services, Public Health Service in Atlanta, GA.

**Where can I get more information?** For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs™ Internet address is http://www.atsdr.cdc.gov/toxfaq.html . ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

**ATTACHMENT B**

**REPORT FORMS**

# WEEKLY SAFETY REPORT FORM

Week Ending: _____ Project Name/Number: _____

Report Date: _____ Project Manager Name: _____

Summary of any violations of procedures occurring that week:

_____

_____

_____

Summary of any job related injuries, illnesses, or near misses that week:

_____

_____

_____

_____

Summary of air monitoring data that week (include and sample analyses, action levels exceeded, and actions taken):

_____

_____

_____

Comments:

_____

_____

_____

Name: _____ Company: _____

Signature: _____ Title: _____

# INCIDENT REPORT FORM

Date of Report: _____

Injured: _____

Employer: _____

Site: _____ Site Location: _____

Report Prepared By: _____ _____
Signature Title

**ACCIDENT/INCIDENT CATEGORY** (check all that applies)

| | | |
|---|---|---|
| ___Injury | ___ Illness | ___ Near Miss |
| __ Property Damage | ___ Fire | ___ Chemical Exposure |
| __ On-site Equipment | ___ Motor Vehicle | ___ Electrical |
| __ Mechanical | ___ Spill | ___ Other |

**DATE AND TIME OF ACCIDENT/INCIDENT:** Narrative report of accident/incident: Identify: 1) actions leading to or contributing to the accident/incident; 2) the accident/incident occurrence; and 3) actions following the accident/incident.

_____

_____

_____

_____

_____

_____

_____

_____

_____

**WITNESS TO ACCIDENT/INCIDENT:**

| | | | |
|---|---|---|---|
| Name: | _____ | Company: | _____ |
| Address: | _____ | Address: | _____ |
| Phone No.: | _____ | Phone No.: | _____ |
| Name: | _____ | Company: | _____ |
| Address: | _____ | Address: | _____ |
| Phone No.: | _____ | Phone No.: | _____ |

**INJURED - ILL:**

Name: _____ SSN: _____

Address: _____ Age: _____

Length of Service: _____ Time on Present Job: _____

Time/Classification: _____

**SEVERITY OF INJURY OR ILLNESS**:

____ Disabling ___ Non-disabling ___ Fatality

____ Medical Treatment ___ First Aid Only

**ESTIMATED NUMBER OF DAYS AWAY FROM JOB:** _____

**NATURE OF INJURY OR ILLNESS:** _____

_____

_____

_____

**CLASSIFICATION OF INJURY:**

__ Abrasions _____ Dislocations ____ Punctures

__ Bites _____ Faint/Dizziness ____ Radiation Burns

__ Blisters _____ Fractures ____ Respiratory Allergy

__ Bruises _____ Frostbite ____ Sprains

__ Chemical Burns _____ Heat Burns ____ Toxic Resp. Exposure

__ Cold Exposure _____ Heat Exhaustion ____ Toxic Ingestion

__ Concussion _____ Heat Stroke ____ Dermal Allergy

__ Lacerations

Part of Body Affected: _____

Degree of Disability: _____

Date Medical Care was Received: _____

Where Medical Care was Received: _____

Address (if off-site): _____

(If two or more injuries, record on separate sheets)

**PROPERTY DAMAGE:**

Description of Damage: _____

_____

Cost of Damage: $ _____

**ACCIDENT/INCIDENT LOCATION:** _____

**ACCIDENT/INCIDENT ANALYSIS:** Causative agent most directly related to accident/incident (Object, substance, material, machinery, equipment, conditions)

_____

_____

_____

_____

Was weather a factor?:_____

_____

Unsafe mechanical/physical/environmental condition at time of accident/incident (Be specific):

_____

_____

_____

Personal factors (Attitude, knowledge or skill, reaction time, fatigue):

_____

_____

**ON-SITE ACCIDENTS/INCIDENTS:**

Level of personal protection equipment required in Site Safety Plan:

_____

_____

Modifications:

_____

Was injured using required equipment?:

_____

_____

If not, how did actual equipment use differ from plan?:

_____

_____

ACTION TAKEN TO PREVENT RECURRENCE: (Be specific. What has or will be done? When will it be done? Who is the responsible party to insure that the correction is made?

_____

_____

_____

_____

_____

**ACCIDENT/INCIDENT REPORT REVIEWED BY:**

_____ _____

SSO Name Printed SSO Signature

**OTHERS PARTICIPATING IN INVESTIGATION:**

_____ _____

Signature Title

_____ _____

Signature Title

_____ _____

Signature Title

**ACCIDENT/INCIDENT FOLLOW-UP**: Date: _____

Outcome of accident/incident: _____

_____

_____

_____

Physician's recommendations: _____

_____

_____

_____

Date injured returned to work: _____

Follow-up performed by:

_____ _____

Signature Title

**ATTACH ANY ADDITIONAL INFORMATION TO THIS FORM**

# ATTACHMENT C
# EMERGENCY HAND SIGNALS

# EMERGENCY SIGNALS

In most cases, field personnel will carry cell phones for communication. If this is the case, cell phones will be used to communicate an emergency, which will take priority over all other transmissions.

Where cell phone communication is not available, the following air-horn and/or hand signals will be used:

## EMERGENCY HAND SIGNALS

**OUT OF AIR, CAN'T BREATH!**

**Hand gripping throat**

**LEAVE AREA IMMEDIATELY, NO DEBATE!**

**( No Picture) Grip partner's wrist or place both hands around waist**

**NEED ASSISTANCE!**

**Hands on top of head**

**OKAY! – I'M ALL RIGHT!**

**- I UNDERSTAND!**

**Thumbs up**

**NO! - NEGATIVE!**

**Thumbs down**

# APPENDIX H
# COMMUNITY AIR MONITORING PLAN

# 380 4TH AVENUE
**BROOKLYN, NEW YORK**

# Community Air Monitoring Plan

## For

## Site Management Plan

**NYSDEC BCP Site Number: C224358**
**AKRF Project Number: 210226**

**Prepared for:**

New York State Department of Environmental Conservation
Division of Environmental Remediation, Remedial Bureau B
625 Broadway, 12th Floor
Albany, New York 12233

**On Behalf Of:**

380 4th Avenue Owner, LLC
157 Columbus Avenue, Suite 2E
New York, NY 10023

**Prepared by:**

**AKRF, Inc.**
440 Park Avenue South
New York, New York 10016
(212) 696-0670

**DECEMBER 2024**

# TABLE OF CONTENTS



# FIGURE



# ATTACHMENT

# 1.0 INTRODUCTION

This Community Air Monitoring Plan (CAMP) was prepared by AKRF, Inc. (AKRF) on behalf of 380 4th Avenue Owner, LLC for the 380 4th Avenue Brownfield Cleanup Program (BCP) site located in the Gowanus neighborhood of Brooklyn, New York (hereinafter referred to as the "Site"). The Site is an approximately 0.46-acre parcel identified on the New York City Tax Map as Block 980, Lot 77. Figure 1 shows the Site location.

The Site was remediated to Track 2 New York State Department of Environmental Conservation (NYSDEC) Part 375 Restricted Residential Soil Cleanup Objectives (RRSCOs) and additionally for Protection of Groundwater Soil Cleanup Objectives (PGWSCOs) for petroleum-related volatile organic compounds (VOCs) in accordance with the April 2023 NYSDEC-approved Remedial Action Work Plan (RAWP) and Decision Document.

After completion of the remedial work in accordance with the RAWP, some contamination was left at the Site. Institutional Controls (ICs), which place restrictions on Site uses, and Engineering Controls (ECs) were incorporated into the Site remedy to control exposure to remaining contamination to ensure protection of public health and the environment. An Environmental Easement, granted to the NYSDEC, and recorded with the NYC Office of the City Register, requires compliance with a Site Management Plan (SMP) and all ICs/ECs placed on the Site. The SMP specifies the methods necessary to ensure compliance with all ICs/ECs required by the Environmental Easement for remaining contamination. Upon approval of the SMP by NYSDEC, compliance with the plan is required by the grantor of the Environmental Easement and the grantor's successors and assigns. The SMP may be revised only with the approval of NYSDEC.

This CAMP, which is an attachment to the SMP, details the procedures required for monitoring workspace air quality during any activities performed at the Site under the SMP that require management of residual contamination. All workers who participate in remediation-related activities at the Site that are under the direction of AKRF and/or the Site owner are required to comply with the provisions specified in this CAMP.

# 2.0 AIR MONITORING PROGRAM

Community air monitoring will be conducted during all intrusive Site activities in compliance with the New York State Department of Health (NYSDOH) Generic CAMP and this Site-specific CAMP. The NYSDOH Generic CAMP is included as Attachment A. Real-time air monitoring for VOCs and dust at the perimeter of the exclusion zone will be performed as described below. Exceedances of CAMP action levels will be immediately reported to the NYSDEC and NYSDOH project managers, and CAMP reports will be included in the daily reports submitted to NYSDEC and NYSDOH.

## 2.1 Community Air Monitoring Plan

*VOC Monitoring*

Continuous monitoring for VOCs will be conducted during all ground intrusive activities, including excavation activities. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background concentrations. VOCs will be monitored continuously at the downwind perimeter of the exclusion zone. Monitoring will be conducted with a PID equipped with a 10.6 electron Volt (eV) lamp capable of calculating 15-minute running average concentrations.

Periodic monitoring for VOCs will be conducted during any non-intrusive activities. Periodic monitoring may include obtaining measurements upon arrival at a location and upon leaving the location.

More frequent intervals of monitoring will be conducted if required, as determined by the Site Manager (SM), Project Environmental and Safety Manager (PESM), Project Director (PD), and/or Remedial Engineer (RE). All PID readings will be recorded and available for NYSDEC and NYSDOH personnel to review. Instantaneous readings, if any, will be recorded.

*Particulate Monitoring*

Continuous monitoring for particulates will be conducted during all ground intrusive activities and will involve the measurement of respirable dust. Community air monitoring for dust particulates will be conducted using an TSI 8530 DustTrak™ II Aerosol Monitor or equivalent to measure the concentration of airborne respirable particulates less than 10 micrometers in size ($PM_{10}$). The dust monitor will be capable of calculating 15-minute running average concentrations and equipped with an audible alarm to indicate an exceedance of action levels. Background readings and any readings that trigger response actions will be recorded in the project logbook, which will be available on-site for NYSDOH and/or NYSDEC review.

## 2.2 Fixed Air Monitoring Stations

Two fixed air monitoring stations will be utilized at the Site during soil disturbing activities. The fixed monitoring stations will be set up at the upwind and downwind perimeters of the exclusion zone during all ground intrusive activities and will continuously log VOC and particulate levels. Each fixed monitoring station will be fully enclosed and equipped with the following:

- A PID equipped with a 10.6 eV lamp capable of calculating 15-minute running average VOC concentrations;
- A TSI 8530 DustTrak™ I or equivalent dust monitor capable of measuring the concentration of airborne respirable particulates less than 10 micrometers in size ($PM_{10}$) and calculating 15-minute running average particulate concentrations; and

- A Netronix™ Thiamus™ ICU-820 or equivalent Global System for Mobile Communication (GSM)/Global Positioning System (GPS) device capable of recording air monitoring and location data.

Each monitoring station will be capable of sending e-mail alerts to the SSO to indicate an exceedance of action levels. Additionally, the SSO will conduct an inspection of the monitoring stations on at least an hourly basis. Upon completion of Site activities, all air monitoring data will be available to download via the Environet® website.

## 2.3 Community Air Monitoring Action Levels

*VOC Action Levels*

The following actions will be taken based on organic vapor levels measured:

- If total organic vapor levels exceed 5 parts per million (ppm) above background for the 15-minute average at the exclusion zone perimeter, work activities will be temporarily halted and monitoring continued. If levels readily decrease (per instantaneous readings) below 5 ppm above background, work activities will resume with continued monitoring.
- If total organic vapor levels at the exclusion zone perimeter persist at levels above 5 ppm above background but less than 25 ppm, work activities will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities will resume provided that the total organic vapor level 200 feet downwind of the hot zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less – but in no case less than 20 feet – is below 5 ppm above background for the 15-minute average.
- If the total organic vapor level is above 25 ppm at the perimeter of the exclusion zone, activities will be shutdown.

*Particulate Action Levels*

The following actions will be taken based on particulate levels measured:

- If the particulate concentrations are greater than 100 micrograms per cubic meter ($\mu g/m^3$) above background, and no other obvious source is apparent, then it will be assumed that the elevated particulate concentrations are a result of site activities. In such instances, dust suppression measures will be implemented, and monitoring will be continued. Work will be allowed to continue with dust suppression if particulate levels do not exceed 150 $\mu g/m^3$ above the background and provided that no visible dust is migrating from the work area.
- If particulate levels persist at 150 $\mu g/m^3$ above the background, work must be stopped until dust suppression measures bring particulate levels to below 150 $\mu g/m^3$ above background.

*Major Vapor Emission Response Plan*

If any organic levels greater than 5 ppm over background are identified 200 feet downwind from the work Site, or half the distance to the nearest residential or commercial property, whichever is less, all work activities must be halted or vapor controls must be implemented.

If, following the cessation of the work activities, or as the result of an emergency, organic levels persist above 5 ppm above background 200 feet downwind or half the distance to the nearest residential or commercial property from the exclusion zone, then the air quality must be monitored within 20 feet of the perimeter of the nearest residential or commercial structure (20 Foot Zone).

If either of the following criteria is exceeded in the 20 Foot Zone, then the Major Vapor Emission Response Plan shall automatically be implemented:

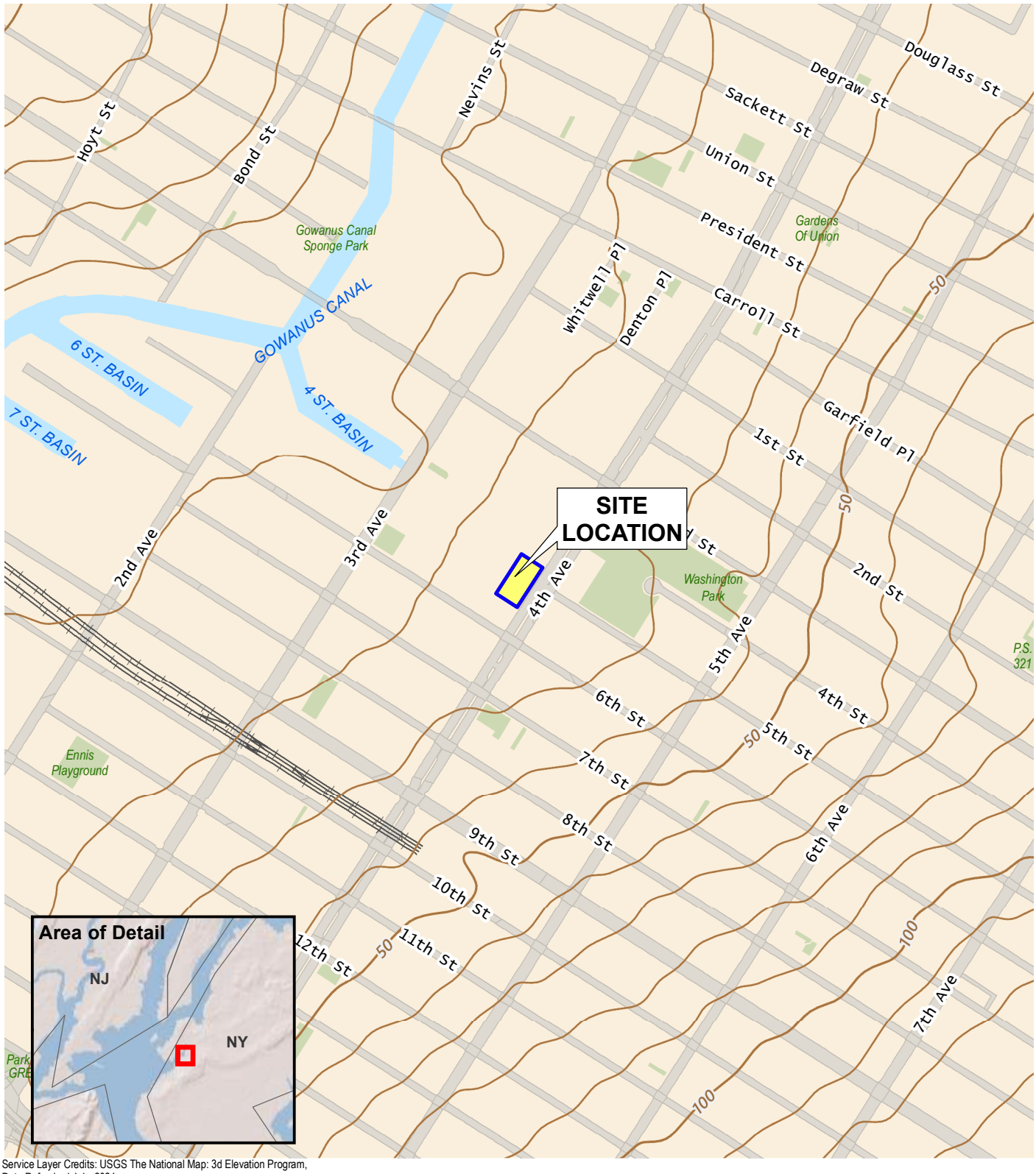
- Sustained organic vapor levels approaching 1 ppm above background for a period of more than 30 minutes; or
- Organic vapor levels greater than 5 ppm above background for any time period.

Upon activation, the following activities shall be undertaken as part of the Major Vapor Emission Response Plan:

- The NYSDEC, NYSDOH, and local police authorities will be immediately contacted by the SSO and advised of the situation;
- Frequent air monitoring will be conducted at 30-minute intervals within the 20 Foot Zone. If two successive readings below action levels are measured, air monitoring may be halted or modified by the Site Health and Safety Officer; and
- All Emergency contacts will go into effect as appropriate.

All readings will be recorded and be available for NYSDEC and NYSDOH personnel to review.

**FIGURE**




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

0 600 1,200

SCALE IN FEET

AKRF

440 Park Avenue South, New York, NY 10016

**380 4th Avenue**

Brooklyn, New York

**BCP SITE LOCATION**

DATE
**5/2/2022**

PROJECT NO.
**210226**

FIGURE
**1**

**ATTACHMENT A**

**NEW YORK STATE DEPARTMENT OF HEALTH GENERIC CAMP**

## Appendix 1A
## New York State Department of Health
## Generic Community Air Monitoring Plan

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

**Continuous monitoring** will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

**Periodic monitoring** for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. “Periodic” monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or

overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/$m^3$) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/$m^3$ above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/$m^3$ above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/$m^3$ of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

## Appendix 1B
## Fugitive Dust and Particulate Monitoring

A program for suppressing fugitive dust and particulate matter monitoring at hazardous waste sites is a responsibility on the remedial party performing the work. These procedures must be incorporated into appropriate intrusive work plans. The following fugitive dust suppression and particulate monitoring program should be employed at sites during construction and other intrusive activities which warrant its use:

1. Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.

2. Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Remedial activities may also include the excavation, grading, or placement of clean fill. These control measures should not be considered necessary for these activities.

3. Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM10) with the following minimum performance standards:

(a) Objects to be measured: Dust, mists or aerosols;
(b) Measurement Ranges: 0.001 to 400 mg/m3 (1 to 400,000 :ug/m3);
(c) Precision (2-sigma) at constant temperature: +/- 10 :g/m3 for one second averaging; and +/- 1.5 g/m3 for sixty second averaging;
(d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized);
(e) Resolution: 0.1% of reading or 1g/m3, whichever is larger;
(f) Particle Size Range of Maximum Response: 0.1-10;
(g) Total Number of Data Points in Memory: 10,000;
(h) Logged Data: Each data point with average concentration, time/date and data point number
(i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number;
(j) Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required;
(k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger;
(l) Operating Temperature: -10 to 50$^{o}$ C (14 to 122$^{o}$ F);
(m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.

4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the remedial party to adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record keeping plan.

5. The action level will be established at 150 ug/m3 (15 minutes average). While conservative,

this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m3, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m3 above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m3 continue to be exceeded work must stop and DER must be notified as provided in the site design or remedial work plan. The notification shall include a description of the control measures implemented to prevent further exceedances.

6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM10 at or above the action level. Since this situation has the potential to allow for the migration of contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed. Activities that have a high dusting potential--such as solidification and treatment involving materials like kiln dust and lime--will require the need for special measures to be considered.

7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:

(a) Applying water on haul roads;
(b) Wetting equipment and excavation faces;
(c) Spraying water on buckets during excavation and dumping;
(d) Hauling materials in properly tarped or watertight containers;
(e) Restricting vehicle speeds to 10 mph;
(f) Covering excavated areas and material after excavation activity ceases; and
(g) Reducing the excavation size and/or number of excavations.

Experience has shown that the chance of exceeding the 150ug/m3 action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

8. The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended. There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require additional monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate suppression and monitoring requirements are established for protection of health and the environment.