HALEY ALDRICH

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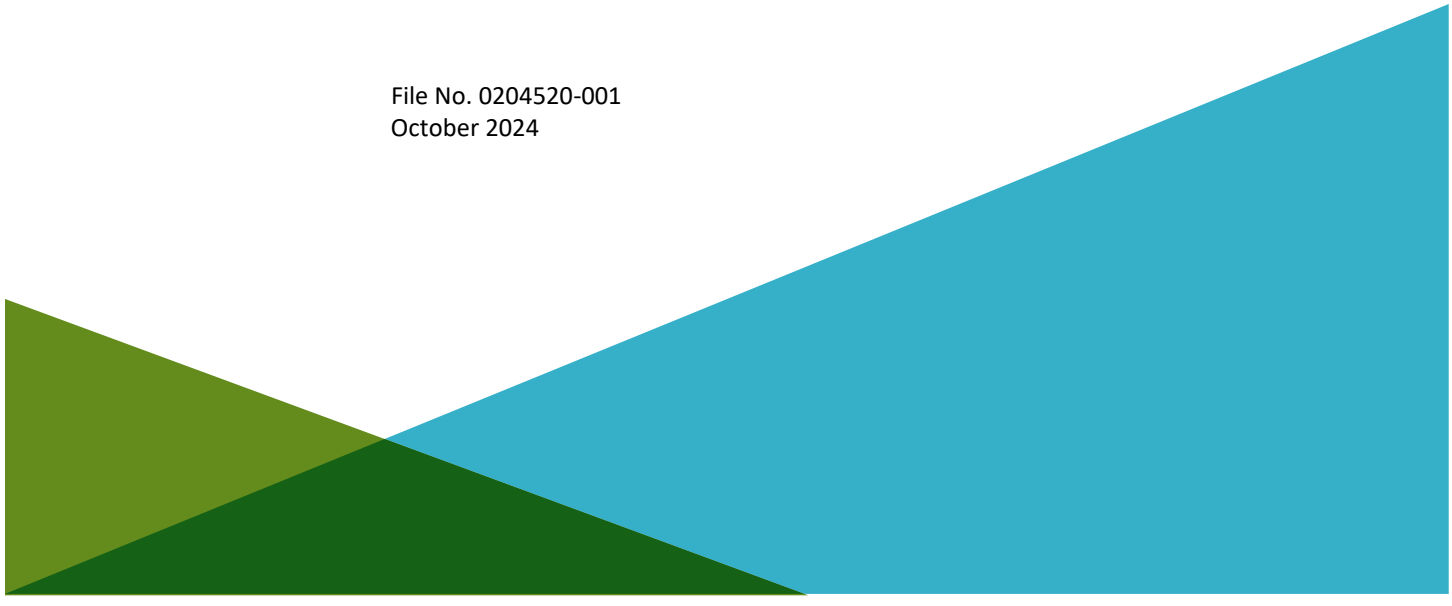
REPORT ON

SITE MANAGEMENT PLAN
FORMER FIEDLER WATERPROOFING & MASONRY SITE
91 BRUCKNER BOULEVARD (BLOCK 2278, LOT 1)
BRONX, NEW YORK
NYSDEC BCP SITE C203160

by
H & A of New York Engineering and Geology, LLP
New York, New York

for
91 Bruckner Blvd LLC
Brooklyn, New York

File No. 0204520-001
October 2024



H & A OF NEW YORK ENGINEERING
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213 W. 35th Street
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11 October 2024
File No. 0204520-001

New York State Department of Environmental Conservation
Division of Environmental Remediation
47-40 21st Street
Long Island City, New York 11101

Attention: Mr. Shawn Roberts

Subject: Site Management Plan
Former Fiedler Waterproofing & Masonry Site
91 Bruckner Boulevard (Block 2278, Lot 1)
Bronx, New York
NYSDEC BCP Site No. C203160

Dear Mr. Roberts:

On behalf of 91 Bruckner Blvd LLC, H & A of New York Engineering and Geology, LLP (Haley & Aldrich of New York) is submitting this *Site Management Plan* (SMP) for the Former Fiedler Waterproofing and Masonry Site (C203160), located at 91 Bruckner Boulevard in the Mott Haven neighborhood of Brooklyn, New York (Site) for the review and approval of the New York State Department of Environmental Conservation (NYSDEC).

This SMP was developed at the completion of remediation under the assumption that a Track 2 will be achieved conditional to completion of a soil vapor intrusion (SVI) Evaluation. This SMP was developed in accordance with the NYSDEC (6 NYCRR) Part 375 Brownfield Cleanup Regulations dated December 2006, the "Technical Guidance for Site Investigation and Remediation" (DER-10, dated May 2010), and other relevant NYSDEC technical and administrative guidance). Please contact the undersigned if you have any questions or require additional information regarding this SMP.

Sincerely yours,
H & A OF NEW YORK ENGINEERING AND GEOLOGY, LLP

Luke J. McCartney, P.G.
Project Manager

Suzanne M. Bell, P.E.
Remediation Engineer

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SIGNATURE PAGE FOR

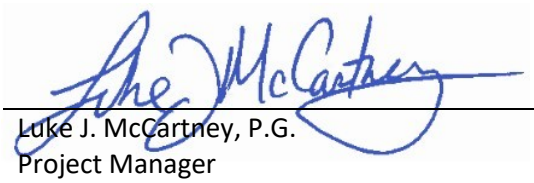
REPORT ON

SITE MANAGEMENT PLAN
FORMER FIEDLER WATERPROOFING AND MASONRY SITE
91 BRUCKNER BOULEVARD
BRONX, NEW YORK

PREPARED FOR

91 BRUCKNER BLVD LLC
BROOKLYN, NEW YORK

PREPARED BY:



Luke J. McCartney, P.G.
Project Manager
H & A of New York Engineering and Geology, LLP

REVIEWED AND APPROVED BY:

Suzanne M. Bell, P.E.
Remediation Engineer
H & A of New York Engineering and Geology, LLP

Certification Statement

This report documents the Site Management Plan for 91 Bruckner Boulevard, Bronx, New York.

I, Suzanne M. Bell, 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 DER Technical Guidance for Site Investigation and Remediation (DER-10).

11 October 2024

Suzanne M. Bell, P.E. *Date*
NYS Professional Engineer #106301

Executive Summary

91 Bruckner Blvd LLC (the Volunteer) has remediated the 0.3329-acre (14,500-square-foot) property known as the Former Fiedler Waterproofing & Masonry Site, designated under Brownfield Cleanup Program (BCP) Site No. C203160. The Former Fiedler Waterproofing & Masonry Site (hereinafter referred to as "the Site") is situated at 91 Bruckner Boulevard in Bronx, New York on Block 2278, Lot 1 of the New York City Tax Map. Initial remedial investigation (RI) activities were implemented per the January 2023 approved *Remedial Investigation Work Plan* (RIWP). Subsequent Site remediation addressing soil, soil vapor, and groundwater was conducted per the October 2023 Decision Document (DD).

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

Site Identification:	BCP Site #: C203160 Former Fiedler Waterproofing & Masonry Site 91 Bruckner Boulevard Bronx, New York 10454
Institutional Controls:	1. The property may be used for Restricted Residential use as defined in 6 NYCRR Part 375-1.8(g)(2)(ii), Commercial use as defined in 6 NYCRR Part 375-1.8(g)(2)(iii), and Industrial use as defined in 6 NYCRR Part 375-1.8(g)(2)(ii) pending results of the Soil Vapor Intrusion Evaluation, although land use is subject to local zoning.
	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 (NYSDOH) or New York City Department of Health and Mental Hygiene (NYCDOHMH) and without prior approval. Furthermore, groundwater in Bronx County is not used for consumption.
	3. Institutional Controls include an Environmental Easement (EE) and this Site Management Plan (SMP).
	4. Vegetable gardens and farming in remaining Site soils are prohibited. All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP.
	5. Site access 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 EE.
Engineering Controls:	None.

Monitoring:	
1. Soil Vapor Intrusion Evaluation	Prior to building occupancy.
Reporting:	
1. Soil Vapor Intrusion Evaluation	Prior to building occupancy.
2. Periodic Review Report	First report submitted 16 months after the Certificate of Completion (COC) is issued, then submitted annually.

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

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List of Acronyms and Abbreviations

AGS	Advanced Geological Services, Inc.
AST	aboveground storage tank
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
CAMP	Community Air Monitoring Plan
CHASP	Construction Health and Safety Plan
COC	Certificate of Completion
CVOC	chlorinated volatile organic compound
CP	Commissioner Policy
CPP	Citizen Participation Plan
DER	Division of Environmental Remediation
DD	Decision Document
EC	Engineering Control
ECL	Environmental Conservation Law
EE	Environmental Easement
ESA	Environmental Site Assessment
ESI	Environmental Site Investigation
EWP	Excavation Work Plan
ft bgs	feet below ground surface
FSP	Field Sampling Plan
Haley & Aldrich of New York	H & A of New York Engineering and Geology, LLP
HREC	historical recognized environmental condition
IC	Institutional Control
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYCDOHMH	New York City Department of Health and Mental Hygiene
NYCRR	New York Codes, Rules, and Regulations
NYS	New York State
NYSDEC GV	New York State Ambient Water Quality Standards and Guidance Value
P.E. or PE	Professional Engineer
PAH	polycyclic aromatic hydrocarbon

PCB	polychlorinated biphenyl
PCE	tetrachloroethene
PFAS	per- and polyfluoroalkyl substances
PFOA	perfluorooctanoic acid
PFOS	perfluorooctane sulfonic acid
PID	photoionization detector
ppm	parts per million
ppt	parts per trillion
PRR	Periodic Review Report
PWGC	P.W. Grosser Consulting Inc.
QAPP	Quality Assurance Project Plan
QEP	Qualified Environmental Professional
RAO	Remedial Action Objective
RAWP	Remedial Action Work Plan
RCA	recycled concrete aggregate
REC	Recognized Environmental Condition
RI	remedial investigation
RIR	Remedial Investigation Report
RIWP	Remedial Investigation Work Plan
RP	Remedial Party
RRSCO	Restricted Residential Soil Cleanup Objective
RSO	Remedial System Optimization
SCG	Standards, Criteria, and Guidelines
SCO	Soil Cleanup Objective
Site	Former Fiedler Waterproofing & Masonry site, 91 Bruckner Boulevard, Bronx, New York
SMP	Site Management Plan
SOE	support of excavation
sq ft	square foot
SVI	soil vapor intrusion
SVOC	semi volatile organic compound
USEPA	United States Environmental Protection Agency
UST	underground storage tank
UUSCO	Unrestricted Use Soil Cleanup Objective

VOC	volatile organic compound
Volunteer	91 Bruckner Blvd LLC

1. Introduction

1.1 GENERAL

This Site Management Plan (SMP), on behalf of 91 Bruckner Blvd LLC (the Volunteer), is a required element of the remedial program for the Former Fiedler Waterproofing & Masonry site located in Bronx, New York (hereinafter referred to as the "Site"). The Site is currently in the New York State (NYS) Brownfield Cleanup Program (BCP), Site No. C203160, which is administrated by the New York State Department of Environmental Conservation (NYSDEC). The Site is located at 91 Bruckner Boulevard, Bronx, New York, 10454, identified on the New York City Tax Map as Bronx Borough Tax Block 2278, Lot 1.

The Volunteer entered into a Brownfield Cleanup Agreement (BCA) with the NYSDEC on 17 January 2023 to remediate the Site as a Volunteer. A Project Locus map is provided as Figure 1. A Site plan map showing the boundaries of this Site is provided in 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 (EE) provided in Appendix A.

After completion of the remedial work, post-remedial sampling will occur to evaluate potential for vapor intrusion into the on-Site building, which is hereafter referred to as "remaining contamination." Institutional Controls (ICs) have been incorporated into the Site remedy to control exposure to remaining contamination to ensure protection of public health and the environment. An EE package was submitted to NYSDEC on 14 May 2024 and recorded with City Register File No. (CRFN) 2024000181394 by the Bronx County Clerk on 16 July 2024. The EE requires compliance with this SMP.

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

It is important to note that:

- This SMP details the Site-specific implementation procedures that are required by the EE. Failure to properly implement the SMP is a violation of the EE, which is grounds for revocation of the Certificate of Completion (COC); and
- 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 # C203160-03-22; Site No. C203160) for the Site, and thereby subject to applicable penalties.

All reports associated with the Site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State. A list of contacts for persons involved with the Site is provided in In-Text Tables I and II of this SMP.

This SMP was prepared by H & A of New York Engineering and Geology, LLP (Haley & Aldrich of New York), on behalf of the Volunteer in accordance with the requirements of the NYSDEC's DER-10 ("Technical Guidance for Site Investigation and Remediation"), dated May 2010, and the guidelines

provided by the NYSDEC. This SMP addresses the means for implementing the ICs that are required by the EE for the site.

1.2 REVISIONS

Revisions to this plan will be proposed in writing to the NYSDEC's project manager. The NYSDEC can also make changes to the SMP or request revisions from the remedial party (RP). Revisions will be necessary upon, but not limited to, the following occurring: a change in media monitoring requirements, upgrades to or shutdown of a remedial system, post-remedial removal of contaminated sediment or soil, or other significant change to the Site conditions. All approved alterations must conform with Article 145 Section 7209 of the Education Law regarding the application of professional seals and alterations. For example, any changes to as-built drawings must be stamped by a New York State Professional Engineer (P.E.). In accordance with the EE 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 the NYSDEC, as needed, in accordance with NYSDEC's DER-10 for the following reasons:

1. 60-day advance notice of any proposed changes in Site use that are required under the terms of the BCA, 6 NYCRR Part 375 and/or ECL.
2. 7-day advance notice of any field activity associated with the remedial program.
3. 15-day advance notice of any proposed ground-intrusive activity pursuant to the Excavation Work Plan (EWP). 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.
4. Notice within 48 hours of any damage or defect to the foundation, structures, or engineering control (EC) that reduces or has the potential to reduce the effectiveness of an EC, and likewise, any action to be taken to mitigate the damage or defect.
5. Notice within 48 hours of any non-routine maintenance activities.
6. 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 ECs 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.
7. 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 ECs.

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

8. At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser/RP has been provided with a copy of the BCA, and all approved work plans and reports, including this SMP.
9. 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 the NYSDEC.

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

In-Text Table I: Notifications*

Regulator	Contact Name	Contact Title	Required Notification **	Contact Number	Contact Email
NYSDEC	Shawn Roberts	Project Manager	All Notifications	518.402.9799	shawn.roberts@dec.ny.gov
	Jane O'Connell	Regional HW Engineer	All Notifications	718.482.4599	jane.oconnell@dec.ny.gov
	David Gardner	Section Chief	All Notifications	518.402.9818	david.gardner@dec.ny.gov
	Kelly Lewandowski	Chief, Site Control	Notifications 1 and 8	518.402.9569	kelly.lewandowski@dec.ny.gov
NYSDOH	Christopher Budd	Project Manager	Notifications 4, 6, and 7	518.402.1769	christopher.budd@health.ny.gov

** Note: Notifications are subject to change and will be updated as necessary.*
*** Note: Numbers in this column reference the numbered bullets in the notification list in this section.*

In-Text Table II: Site Contact List

Company	Contact Name	Title	Contact Number	Contact Email
Haley & Aldrich of New York	Mari Conlon, P.G.	Senior Associate/Qualified Environmental Professional (QEP)	646.277.5688	mconlon@haleyaldrich.com
	Suzanne Bell, P.E.	Remediation Engineer	332.240.0935	sbell@haleyaldrich.com
	Luke McCartney, P.G.	Project Manager	646.568.9357	lmccartney@haleyaldrich.com
	Philip DiNardo	Field Lead	646.568.9370	pdinardo@haleyaldrich.com
91 Bruckner Blvd LLC	Yoel Barminka	Member	917.627.3013	barminyc@gmail.com
Connell Foley	George C. D. Duke	Attorney	201.521.1000	gduke@connellfoley.com

2. Summary of Previous Investigations and Remedial Actions

2.1 SITE LOCATION AND DESCRIPTION

The Site is located in the Mott Haven neighborhood of the Bronx and is identified as Block 2278, Lot 1 on the New York City tax map. The Site is an approximately 14,500-square-foot (sq ft) (approximately 0.3329-acre) lot. The Site is bounded by mixed-use and residential properties to the north, a warehouse designated as parking to the west, Bruckner Boulevard, followed by Pulaski Park to the south, and Willis Avenue, followed by a commercial restaurant to the west. The Site is currently located within a residential and manufacturing (R6A/M1-2) zoning district, part of a Special Mixed-Use (MX-1) district. The Site is located in a mixed-use area characterized by warehouses, open space, commercial, industrial, and residential buildings and is served by municipal water and sewer.

A boundary map is attached to the BCA, as required by ECL Title 14 Section 27-1419. The Site is fully described in the Site survey, provided as Appendix A. A Project Locus map is provided as Figure 1 and a Site Plan is provided as Figure 2.

The Site was developed in the early 1900s with two five-story dwellings with storefronts on the western portion of the Site, while the eastern portion of the Site remained vacant. The Site was listed as an alcohol denaturing plant in the 1927 City Directory. By the mid-1930s, the eastern portion of the Site began to be utilized as a "Universal Car Loading Freight Station," and an additional store was developed on the southwest corner of the Site. By the mid-1940s, the "Universal Car Loading Freight Station" was no longer in use and this portion of the Site began to be utilized for wine storage and bottling. The Site remained relatively unchanged until the early 1950s, when the portion of the building utilized for wine storage and bottling began to be utilized as a garage. Historical sources identified three gasoline tanks of unknown capacity on the southeastern portion of the Site from 1951 to 2007. Since the 1970s, Fiedler Waterproofing & Masonry Company began operating at the Site and continued operations through the early 2000s. In the early 1980s, the three storefronts were demolished and redeveloped with a one-story building in 1985. The one-story warehouse previously encompassing the Site was razed in 2022.

Properties immediately surrounding the Site are zoned for mixed residential and/or commercial land use.

The owner of the site parcel at the time of issuance of this SMP is 91 Bruckner Blvd LLC.

2.2 PHYSICAL SETTING

2.2.1 Land Use

The Site is currently under construction, and the planned project consists of a seven-story residential building with a full cellar encompassing a majority of the Site footprint (approximately 10,714 sq ft). The new development's one-level cellar will extend to approximately 12 feet below ground surface (ft bgs) and 15 ft bgs for an elevator pit located on the western portion of the Site. The development use is consistent with existing zoning for the property.

2.2.2 Geology

Based on field observations from the remedial investigation (RI), the Site is underlain by a layer of fill material consisting of brown silty sand with brick, concrete, and glass fragments. Fill extends to a depth of 8 ft bgs. Brown silty sand with varying amounts of gravel, sand, and weathered rock underlie the fill layer. The bedrock beneath the Site is identified as the Fordham Gneiss which consists of garnet-biotite-quartz-plagioclase gneiss and amphibolite. Geologic cross sections of the Site based on borings conducted during the RI are provided in Figure 3.

2.2.3 Hydrogeology

Based on Site-specific groundwater measurements, groundwater was encountered at approximately 13.78 to 16.07 ft bgs, and groundwater flow beneath the Site is from north to south. Regional groundwater flow is based on review of information at nearby sites and local topographical and hydrological features; generally, the flow direction is assumed to be to the south toward the Harlem River. A groundwater elevation contour map from the RI is provided as Figure 4.

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 8 – References.

The following reports were prepared for the Site:

1. Phase I Environmental Site Assessment (ESA) (P.W. Grosser Consulting Inc. [PWGC], September 2021)
2. Phase II ESA (PWGC, October 2021)
3. Limited Phase II Environmental Site Investigation (ESI) (Haley & Aldrich of New York, March 2022)
4. RIWP (Haley & Aldrich of New York, January 2023)
5. Citizen Participation Plan (CPP) (NYSDEC, January 2023)
6. Remedial Investigation Report (RIR) (Haley & Aldrich of New York, October 2023)
7. RAWP (Haley & Aldrich of New York, October 2023)
8. Decision Document (DD) (NYSDEC, October 2023)

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

September 2021 Phase I ESA
Prepared by PWGC

A Phase I ESA was performed by PWGC in September 2021 for the purpose of identifying Recognized Environmental Conditions (RECs) in connection with the Site.

The Phase I identified the following RECs at the Site:

- The Site formerly operated as an alcohol denaturing plant and is listed as such in the 1927 City Directory.
- The Site was formerly utilized as a private garage since at least 1951. Three gasoline tanks of unknown capacity were identified on Sanborn maps from 1951 through 2007. During a Site walk, no evidence of the presence of tanks was observed; however, no closure documentation is available.
- The Site is listed in the LTANKS database and there are two closed NYSDEC spill cases (1008706 and 0511553) at the Site associated with a closed-in-place underground storage tank (UST). The spill cases were reported due to tank tightness failures of the same UST at the Site. The USTs were reportedly abandoned-in-place and replaced with two 275-gallon aboveground storage tanks (ASTs). A tank abandonment report stated that the USTs were purged, cut open, and cleaned out, then filled with sand and concrete. Confirmation soil samples were collected and indicated that there were no exceedances of soil cleanup standards. The LTANKS listing is considered a historical recognized environmental condition (HREC).
- NYSDEC Spill Incident 1400544 – A NYSDEC Spill Incident was reported at the east-adjacent property, 95 Bruckner Boulevard, on 16 April 2014 due to light fuel oil encountered in soil in an excavation in the road in front of the property. Approximately 78 cubic yards of impacted soil were removed, and the spill case was closed on 15 May 2014. This is considered a REC since impacted soil was not delineated and residual contamination may be present.

October 2021 Phase II ESA
Prepared by PWGC

PWGC completed a geophysical survey of the Site to determine the presence of any subsurface anomalies. During the geophysical survey, PWGC and Advanced Geological Services, Inc. (AGS) identified the previously closed-in-place UST within the partial basement, as well as a prior excavation in the eastern warehouse. AGS did not identify any other anomalies or USTs at the Site. Following the survey, PWGC collected soil and soil vapor samples at the Site to investigate soil quality beneath the Site and evaluate the potential for vapor intrusion. Historic fill material was observed from surface grade to approximately 5 to 8 ft bgs, followed by silty sands with gravel to the terminal depth of each soil boring. Odors were not observed, and the photoionization detector (PID) readings ranged from 0.0 parts per million (ppm) to 1.6 ppm throughout the boring intervals. Refusal/bedrock was encountered at approximately 13 to 15 ft bgs. Groundwater was not encountered.

Field observations and analytical results identified shallow soil impacted with heavy metals and semi-volatile organic compounds (SVOCs) at concentrations consistent with characteristics of urban fill found throughout the New York City area. SVOCs exceeding Unrestricted Use Soil Cleanup Objectives (UUSCOs) were detected in one shallow soil boring (SB002[0-2']). Additionally, total metals were observed widely distributed throughout the Site in urban fill, from the surface to a maximum depth of 8 ft bgs.

March 2022 Limited Phase II ESI Report
Prepared by Haley & Aldrich of New York

Haley & Aldrich of New York completed a limited sampling event at the Site to investigate soil and soil vapor quality at the Site. Urban fill generally consisted of brown to dark brown to light gray sand with

varying amounts of gravel, brick, asphalt, glass, ceramic, and silt from surface grade to approximately 5 to 15 ft bgs in each soil boring. The urban fill layer was underlain by brown to light brown sand with varying amounts of silt, gravel, and intermittent clay lenses (clay observed in HA-05 only). Soil samples were collected continuously, characterized, and screened for visual and olfactory evidence of contamination, such as staining and odors. Instrumental screening for the presence of organic vapors was performed using a PID. No apparent subsurface impacts were observed, including odors and staining, and PID readings of non-detect at 0.0 ppm were recorded. Groundwater was not encountered and is therefore not included as part of this investigation.

Field observations and analytical results identified historical urban fill contaminated with heavy metals and several SVOCs (specifically polycyclic aromatic hydrocarbons [PAHs]) at concentrations consistent with characteristics of urban fill found throughout the New York City area. SVOCs and total metals exceeding Restricted Residential Soil Cleanup Objectives (RRSCOs) were observed widely distributed throughout the Site in urban fill, up to 10 ft bgs. A lead hotspot was identified in soil collected from boring HA-06 from immediately below the concrete slab to a depth of 2 ft bgs in the north-central region of the Site. Sub-slab soil vapor is impacted with chlorinated volatile organic compounds (CVOCs); specifically, perchloroethene/tetrachloroethene (PCE) which was identified in one soil vapor sample in the southeast region of the Site.

Haley & Aldrich of New York concluded that further delineation may be required to determine the extent of hazardous lead in soils in the north-central region of the Site. Considering PCE was identified in Site soil and soil vapor, an on-Site source may exist.

October 2022 RIR
Prepared by Haley & Aldrich of New York

Haley & Aldrich of New York completed an RI in February 2023 in accordance with Title 6 of the New York Codes, Rules, and Regulations (6 NYCRR) Part 375, DER-10 and the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006 and subsequent updates). The objective of the RI was to determine the nature and extent of contamination in soil, groundwater, and soil vapor. The Site's stratigraphy, from the current ground surface down, consists of contaminated fill consisting of brown silty sand with brick, concrete, and glass fragments to depths as great as 8 ft bgs. Brown silty sand with varying amounts of gravel, sand, and weathered rock underlie the fill layer. Groundwater was encountered at depths ranging from approximately 13 to 16 ft bgs, and groundwater beneath the Site generally flows to the south toward the Harlem River.

Based on the results of this RI, the following conclusions have been identified:

- Contaminants of concern at the Site are primarily metals, pesticides, and SVOCs (including PAHs) in soil; SVOCs (including PAHs), volatile organic compounds (VOCs), and metals in groundwater; and petroleum-related VOCs and CVOCs in soil vapor.
- Shallow soils impacted with elevated concentrations of SVOCs, including PAHs, metals, and in some areas, pesticides, are consistent with characteristics of fill found throughout the New York City area. Contaminated soil and fill extend to approximately 5 to 8 ft bgs. Shallow soils will be excavated and removed as part of remedial action.
- Elevated levels of SVOCs, including PAHs, metals, and VOCs are present in groundwater. The source of PAH and metal impacts to groundwater is likely attributed to contaminated fill material. The source of VOCs is likely attributed to former operations at the Site.

- The source of CVOCs and petroleum-related VOCs in soil vapor is likely attributed to former industrial operations.

2.4 EMERGING CONTAMINANTS

Emerging contaminants perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) were compared to the February 2023 New York State Ambient Water Quality Standards and Guidance Values (NYSDEC GVs) for per- and polyfluoroalkyl substances (PFAS), including PFOA and PFOS. PFOA was detected above the NYSDEC GV for protection of human health in a raw water source of 6.7 parts per trillion (ppt) in five groundwater samples at a maximum concentration of 248 ppt in MW-06. PFOS was detected above the NYSDEC GV for protection of human health in a raw water source of 2.7 ppt in five groundwater samples at a maximum concentration of 38 ppt in MW-11.

2.5 REMEDIAL ACTION OBJECTIVES

The Remedial Action Objectives (RAOs) for the Site based on results of the RI and established in the DD are as follows:

2.5.1 Soil

RAOs for Public Health Protection:

- Prevent ingestion/direct contact with contaminated soil.

RAOs for Environmental Protection:

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

2.5.2 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 ground or surface water contamination.

2.5.3 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.

2.6 SUMMARY OF REMEDIAL ACTIONS

Remedial actions were performed at the Site in accordance with the DD dated 30 October 2023, and all applicable federal, state, and local rules and regulations. Remedial activities were completed on 30 May 2024.

The Remedial Actions performed at the Site included:

- Development and implementation of a Construction Health and Safety Plan (CHASP) and Community Air Monitoring Plan (CAMP) for the protection of on-Site workers, community/residents, and the environment during remediation and construction activities.
- Design and construction of a Support of Excavation (SOE) system to support the Track 2 remediation.
- Implementation of soil erosion, pollution, and sediment control measures in compliance with applicable laws and regulations.
- Removal of the existing pavement and miscellaneous debris from the Site.
- Decommissioning of on-Site monitoring wells, as necessary, in accordance with NYSDEC CP-43 Policy.
- Implementation of a preliminary and supplemental waste characterizations to facilitate off-Site disposal of excavated soil/fill.
- Excavation, stockpiling, off-Site transport, and disposal of approximately 3,300 cubic yards of contaminated fill material and soil that exceeded RRSCOs as defined by 6 NYCRR Part 375-6.8. Remedial excavations ranged from 8 to 10 ft bgs within the building footprint, including a 10 ft by 10 ft hotspot to 10 ft bgs centered on soil boring SB-4, and 2 to 6 ft within the portions of the Site outside of the building footprint.
- Removal of seven USTs and/or associated appurtenances (e.g., fill lines, vent line, and electrical conduit) and decommissioning and off-Site disposal during redevelopment in accordance with DER-10, 6 NYCRR Part 613.9, NYSDEC Commissioners Policy-51 (CP-51), and other applicable NYSDEC UST closure requirements.
- Screening for indications of contamination (by visual means, odor, and monitoring PIDs) of excavated material during intrusive Site work.
- Appropriate off-Site disposal of material removed from the Site in accordance with federal, state, and local rules and regulations for handling, transport, and disposal.
- Backfilling beneath building slab sub-grade with NYSDEC-approved recycled concrete aggregate (RCA) and remedial excavations with RCA-blend.
- Collection and analysis of confirmation soil samples at the proposed remediation depths in accordance with DER-10 to confirm a Track 2 remedy was achieved. Over-excavation and additional confirmation sampling were performed to ensure all impacted material above Track 2 RRSCOs was removed from the Site.
- Completion of a Soil Vapor Intrusion (SVI) Evaluation in accordance with DER-10 and NYSDOH Final Guidance on Soil Vapor Intrusion following remedial excavation activities and prior to occupancy.
- Recording of an EE to restrict use of the Site.

2.7 REMAINING CONTAMINATION

The achieved remedy is a Track 2 cleanup achieving RRSCOs; soil contamination above UUSCOs remains in the subsurface at the Site. Prior to building occupancy, an SVI Evaluation will be conducted at the Site to evaluate the potential for vapor intrusion into the on-Site building. Results will be submitted to the NYSDEC and NYSDOH.

2.7.1 Soil

Site-wide remedial excavation was completed to between 2 to 4 ft bgs in areas outside the building footprint to between 8 to 12 ft bgs within the building footprint to remove historic fill and contaminated materials within the Site boundary. Documentation endpoint sample results indicate that remaining contamination consists of SVOCs, specifically PAHs, metals, polychlorinated biphenyls (PCBs), and pesticides.

Table 1 and Figure 5 summarize the results of confirmation endpoint soil samples collected at the Site at the bottom of the remedial depths that exceed UUSCOs.

2.7.2 Soil Vapor

Soil vapor analytical results from the RI completed prior to remediation identified elevated concentrations of four CVOCs, including vinyl chloride, methylene chloride, 1,1,1-trichloroethane, and PCE, and petroleum-related VOCs. The routes of exposure have been mitigated by removal of potential source material through soil excavation, proper installation of a Site capping system foundation, and implementation of ICs, such as land use and groundwater use restrictions.

VOCs that have partitioned to the vapor phase from impacted soil and groundwater were likely attributed to former industrial operations conducted at the Site; therefore, an SVI evaluation was required by the NYSDEC-issued DD. Following the completion of remedial actions and prior to building occupancy, an SVI Evaluation will be conducted at the Site and will include indoor air sampling.

2.7.3 Groundwater

Groundwater quality was characterized during the RI conducted, which identified slightly elevated levels of PAHs, dissolved/total metals, and VOCs in groundwater. The source of impacts to groundwater is attributed to fill material which was removed during implementation of the preferred remedial alternative.

Groundwater use at the Site is subject to the ICs documented within the EE and is restricted for use as a source of potable or process water without necessary water quality treatment as determined by NYSDOH.

3. Institutional Control Plan

3.1 GENERAL

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

This plan provides:

- A description of all ICs on the Site;
- The basic implementation and intended role of each IC;
- A description of the key components of the IC set forth in the EE;
- 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 IC, such as the implementation of the EWP (as provided in Appendix B) 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 IC required by the Site remedy, as determined by the NYSDEC project manager.

3.2 INSTITUTIONAL CONTROLS

An IC in the form of an EE was required by the DD which will: (1) require the RP or Site owner to complete and submit to the NYSDEC a periodic certification of ICs in accordance with Part 375-1.8 (h)(3); (2) limit the use and development of the Site to restricted residential, commercial, and industrial use, 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 the NYSDOH or NYCDOHMH, and; (4) require compliance with the NYSDEC-approved SMP. Adherence to these ICs on the Site is required by the EE and will be implemented under this SMP. ICs identified in the EE may not be discontinued without an amendment to or extinguishment of the EE. The IC boundaries are shown on Figure 2. These ICs are:

- The property may be used for: restricted residential, commercial, and industrial use pending the completion of the SVI evaluation;
- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or NYCDOHMH and without prior approval. Furthermore, groundwater in Bronx County is not used for consumption, and consumable water is supplied from aquifers that originate in upstate New York;
- Other environmental or public health monitoring must be performed as defined in this SMP;
- Data and information pertinent to Site management must be reported at the frequency and in a manner as defined in this SMP;

- All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- Monitoring to assess the performance and effectiveness of the remedy must 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 EE;
- The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries, and any potential impacts that are identified must be monitored or mitigated; and
- An evaluation shall be performed to determine the need for further investigation and remediation should large-scale redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible.

4. 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 Field Sampling Plan (FSP) and Quality Assurance Project Plan (QAPP) provided in Appendix C.

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

- Sampling and analysis of all appropriate media;
- Assessing compliance with applicable NYSDEC Standards, Criteria, And Guidance (SCGs); 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;
- Inspection and maintenance requirements; and
- Annual inspection and periodic certification.

Reporting requirements are provided in Section 7.0 of this SMP.

4.2 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 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. Modification to the frequency or duration of the inspections will require approval from the NYSDEC project manager. Site-wide inspections will also be performed after all severe weather conditions that may affect site management. During these inspections, an inspection form will be completed as provided in Appendix D – Site Management Forms. The form will compile sufficient information to assess the following:

- Compliance with all short-term ICs, including Site usage;
- An evaluation of the condition and continued effectiveness of short-term ICs;
- 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; and
- Confirm that Site records are up to date.

Inspections of all remedial components installed at the Site will be conducted. 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). The inspections will determine and document the following:

- Compliance with requirements of Section 7.2 of this SMP and the EE;
- Achievement of remedial performance criteria; and
- If Site records are complete and up to date.

Reporting requirements are outlined in Section 7.0 of this plan.

4.3 POST-REMEDIATION MEDIA SAMPLING

For the SVI Evaluation, an indoor air sample shall be collected from the building interior within the proposed gym space upon completion of the building foundation and first floor deck. The sample shall be collected prior to occupancy and during normal operating conditions without interference from construction activities, including interior work (e.g., painting and epoxy coating). Required sampling locations and analytical parameters are provided in In-Text Table III below. Modification to the frequency or sampling requirements will require approval from the NYSDEC project manager.

In-Text Table III: Post-Remediation Indoor Air Sampling Requirements

Sampling ID	Sampling Location	Analytical Parameters
		VOCs (EPA Method TO-15)
IA-01	Cellar Level - Gym	X

Field activities will be conducted as detailed in the FSP and QAPP, included as Appendix C. All sampling activities will be recorded in a field book and associated sampling log as provided in Appendix D – Site Management Forms. Deliverables for the SVI Evaluation are specified in Section 7.0 – Reporting Requirements.

5. Operations and Maintenance Plan

5.1 GENERAL

The Site remedy does not rely on any mechanical systems to protect public health and the environment. Therefore, the operations and maintenance of such components are not included in this SMP.

6. Periodic Assessments/Evaluations

6.1 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 performance, effectiveness, and protectiveness of a given site and associated remedial systems. Vulnerability assessments provide information so that the Site and associated remedial systems are prepared for the impacts of the increasing frequency and intensity of severe storms/weather events and associated flooding.

6.2 GREEN REMEDIATION EVALUATION

NYSDEC's DER-31 Green Remediation requires that green remediation concepts and techniques be considered during all stages of the remedial program, including site management, with the goal of improving the sustainability of the cleanup and summarizing the net environmental benefit of any implemented green technology. This SMP does not require any Green Remediation evaluations to be completed for the Site during site management. Any updates or related Site improvements will be incorporated in the PRR.

6.2.1 Timing of Green Remediation Evaluations

No remedial systems are included in this remedy. However, for major remedial system components, Green Remediation evaluations and corresponding modifications will be undertaken as part of a formal Remedial System Optimization (RSO), or at any time that the NYSDEC project manager feels appropriate; e.g., during significant maintenance events or in conjunction with storm recovery activities.

6.2.2 Remedial Systems

No remedial systems are included in this remedy. However, in the event remedial systems are required in the future, they will be operated properly considering the current Site conditions to conserve materials and resources to the greatest extent possible. Consideration will be given to operating rates and use of reagents and consumables. Spent materials will be sent for recycling, as appropriate.

6.2.3 Building Operations

Structures including buildings and sheds will be operated and maintained to provide for the most efficient operation of the remedy, while minimizing energy, waste generation and water consumption.

6.2.4 Frequency of System Checks, Sampling and Other Periodic Activities

Transportation to and from the Site, use of consumables in relation to visiting the Site in order to conduct system checks and/or collect samples, and shipping samples to a laboratory for analyses have direct and/or inherent energy costs. The schedule and/or means of these periodic activities have been prepared so that these tasks can be accomplished in a manner that does not impact remedy protectiveness, yet reduces expenditure of energy or resources.

6.2.5 Metrics and Reporting

As discussed in Section 7.0 and as shown in Appendix D – Site Management Forms, where applicable information on energy usage, solid waste generation, transportation and shipping, water usage, and land use and ecosystems will be recorded to facilitate and document consistent implementation of Green Remediation during Site management and to identify corresponding benefits. A set of metrics has been developed.

6.3 REMEDIAL SYSTEM OPTIMIZATION

No remedial systems are included in this remedy. However, in the event remedial systems are required in the future, an RSO study will be conducted any time that the NYSDEC project manager or the RP requests in writing that an in-depth evaluation of the remedy is needed. An RSO may be appropriate if any of the following occur:

- The remedial actions have not met or are not expected to meet RAOs in the time frame estimated in the DD;
- The management and operation of the remedial system is exceeding the estimated costs;
- The remedial system is not performing as expected or as designed;
- Previously unidentified source material may be suspected;
- Plume shift has potentially occurred;
- Site conditions change due to development, change of use, change in groundwater use, etc.;
- There is an anticipated transfer of the site management to another RP or agency; and
- A new and applicable remedial technology becomes available.

An RSO will provide a critique of a Site's conceptual model, give a summary of past performance, document current cleanup practices, summarize progress made toward the Site's cleanup goals, gather additional performance- or media-specific data and information, and provide recommendations for improvements to enhance the ability of the present system to reach RAOs or to provide a basis for changing the remedial strategy.

7. Reporting Requirements

7.1 SITE MANAGEMENT REPORTS

All Site management inspection, maintenance, and monitoring events will be recorded on the appropriate field logbook. 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 records, including media sampling data and system maintenance reports, generated for the Site during the reporting period will be provided in electronic format to the NYSDEC in accordance with the requirements of Table IV below and summarized in the PRR.

In-Text Table IV: Schedule of Interim Monitoring/Inspection Reports

Task/Report	Reporting Frequency*
Soil Vapor Intrusion Evaluation	One time, upon the completion of the building envelope
First Periodic Review Report	16 Months after the COC
Follow-on Periodic Review Reports	Annually after submittal of the First PRR
** The frequency of events will be conducted as specified until otherwise approved by the NYSDEC project manager.*	

All monitoring/inspection 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);
- If applicable, type of samples collected (e.g., sub-slab vapor, indoor air, and/or outdoor air);
- Copies of all field forms completed (e.g., well sampling logs, and chain of custody documentation);
- If applicable, sampling results in comparison to appropriate standards/criteria;
- If applicable, a figure illustrating sample type and sampling locations;
- If applicable, 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.

If applicable, 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.

7.2 PERIODIC REVIEW REPORT

A PRR will be submitted to the NYSDEC project manager beginning 16 months after the COC is issued. After submittal of the initial PRR, the next PRR shall be submitted annually to the NYSDEC project manager, if needed, or at another frequency as may be required by the NYSDEC project manager. 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 and Site Survey. The report will be prepared in accordance with NYSDEC's DER-10 and submitted within 30 days of the end of each certification period. The report will include (where applicable):

- Identification, assessment, and certification of all ECs/ICs required by the remedy for the Site.
- Results of the required annual Site inspections, fire inspections, and severe condition inspections, 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.
- A summary of any discharge 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, soil vapor, 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.
- 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 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 evaluation of trends in contaminant levels in the affected media to determine if the remedy continues to be effective in achieving remedial goals as specified by the DD; and
  - The overall performance and effectiveness of the remedy.

7.2.1 Certification of Institutional Controls

Certification of ICs will be included in the PRR.

Following the last inspection of the reporting period, a QEP or P.E. licensed to practice and registered in NYS will prepare, and include in the PRR, the following certification as per the requirements of NYSDEC DER-10:

"For each institutional or engineering control identified for the site, I certify that all of the following statements are true:

- The inspection of the Site to confirm the effectiveness of the IC required by the remedial program was performed under my direction;
- The IC employed at this Site is unchanged from the date the control was put in place, or last approved by the Department;
- 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 Department 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 EE;
- To the best of my 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
- 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/Remedial Party or Owner's/Remedial Party's Designated Site Representative] 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 signed certification will be included in the PRR.

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

7.3 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 failure to conduct Site management activities, a Corrective Measures Work Plan will be submitted to the NYSDEC project manager 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 the NYSDEC project manager.

7.4 REMEDIAL SYSTEM OPTIMIZATION REPORT

No remedial systems are included in this remedy. However, in the event remedial systems are required in the future and if an RSO is to be performed (see Section 6.3), then upon completion of an RSO, an RSO report will be submitted to the NYSDEC project manager for approval. The RSO report will document the research/investigation and data gathering that was conducted, evaluate the results and facts obtained, present a revised conceptual Site model, and present recommendations. RSO recommendations are to be implemented upon approval from the NYSDEC. Additional work plans, design documents, health and safety plans, etc., may still be required to implement the recommendations, based upon the actions that need to be taken. A Final Engineering Report and update to the SMP may also be required.

RSO reports will be submitted, in electronic format, to the NYSDEC project manager and the NYSDOH project manager.

8. References

1. Haley & Aldrich of New York, 2022. Draft Limited Phase II Environmental Site Investigation Report. 91 Bruckner Boulevard, Bronx, New York. Prepared for Artist Construction C/O Manhattan Management Realty. March.
2. Haley & Aldrich of New York, 2023a. Remedial Action Work Plan. Former Fiedler Waterproofing & Masonry Site, 91 Bruckner Boulevard, Bronx New York. Prepared for 91 Bruckner Blvd LLC. October.
3. Haley & Aldrich of New York, 2023b. Remedial Investigation Report. Former Fiedler Waterproofing & Masonry Site, 91 Bruckner Boulevard, Bronx New York. Prepared for 91 Bruckner Blvd LLC. October.
4. New York State Department of Environmental Conservation, 1998. Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1. June 1998 (April 2000 addendum).
5. New York State Department of Environmental Conservation, 2006. 6 NYCRR Part 375, Environmental Remediation Programs. 14 December.
6. New York State Department of Environmental Conservation, 2010. Program Policy DER-10, "Technical Guidance for Site Investigation and Remediation." May.
7. New York State Department of Environmental Conservation, 2011. Program Policy DER-31, "Green Remediation." January.
8. New York State Department of Environmental Conservation, 2023a. Brownfield Cleanup Agreement. Former Fiedler Waterproofing & Masonry Site (Index No C203160-12-22), 91 Bruckner Boulevard, Bronx, NY. Prepared for 91 Bruckner Blvd, LLC. January.
9. New York State Department of Environmental Conservation, 2023b. Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under New York State Department of Environmental Conservation's Part 375 Remedial Programs. April.
10. New York State Department of Environmental Conservation, 2023c. Decision Document. Former Fiedler Waterproofing & Masonry Site (Site No. C203160), 91 Bruckner Boulevard, Bronx, NY. October.
11. P.W. Grosser Consulting Inc., 2021a. Phase I Environmental Site Assessment. Vacant Warehouses, 91 Bruckner Blvd; 402 E 134th Street, Bronx, New York. Prepared for Artist Construction. September.
12. P.W. Grosser Consulting Inc., 2021b. Phase II Environmental Site Assessment. Vacant Warehouse, 91 Bruckner Boulevard, Bronx, New York. Prepared for Artist Construction. October.

TABLE

TABLE 1
SUMMARY OF SOIL QUALITY DATA
FORMER FIEDLER WATERPROOFING & MASONRY SITE
91 BRUCKNER BOULEVARD
BRONX, NEW YORK

Location Name / Sample Name / Sample Date / Lab Sample ID / Sample Depth (bgs)	Action Level: Restricted Use Soil Cleanup Objectives - Protection of Groundwater	Action Level: NY Part 375 Restricted Residential Use Soil Cleanup Objectives	Action Level: NY Part 375 Unrestricted Use Soil Cleanup Objectives	EP-01 EP-1_2 02/23/2024 460-298712-1 460-298714-1 2 - 2.5 (ft)	EP-02 EP-2_2 02/23/2024 460-298712-2 460-298714-2 2 - 2.5 (ft)	EP-03 EP-03_2 02/16/2024 460-298298-4 460-298299-4 2 - 2.5 (ft)	EP-04 EP-04_2 01/08/2024 460-296104-1 2 - 2.5 (ft)	EP-04 EP-04_4 01/08/2024 460-296103-1 4 - 4.5 (ft)	EP-04 EP-04_2_PFAS 01/15/2024 460-296510-1 2 - 2.5 (ft)	EP-04 EP-4-_6 03/13/2024 460-299993-1 6 - 6.5 (ft)	EP-05 EP-5_2 02/19/2024 460-298392-3 460-298395-4 2 - 2.5 (ft)	EP-05 EP-5_4 02/19/2024 460-298393-3 4 - 4.5 (ft)	EP-06 EP-06_2 02/16/2024 460-298298-3 460-298299-3 2 - 2.5 (ft)	EP-06 EP-06_4 02/16/2024 460-298296-3 4 - 4.5 (ft)	EP-07 EP-07_2 02/16/2024 460-298298-2 460-298299-2 2 - 2.5 (ft)	EP-08 EP-08_2 02/16/2024 460-298298-1 460-298299-1 2 - 2.5 (ft)	EP-08 EP-08_4 02/16/2024 460-298296-1 4 - 4.5 (ft)	EP-09 EP-9_8 02/21/2024 460-298552-2 460-298554-2 8 - 8.5 (ft)	EP-10 EP-10_8 02/22/2024 460-298633-1 460-298635-1 8 - 8.5 (ft)	EP-10 EP-10_10 02/22/2024 460-298632-1 10 - 10.5 (ft)	EP-11 EP-11_8 02/22/2024 460-298633-2 460-298635-2 8 - 8.5 (ft)
Volatile Organic Compounds (mg/kg)																							
1,1,1-Trichloroethane	NA	100	0.68	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
1,1,2,2-Tetrachloroethane	NA	NA	NA	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
1,1,2-Trichloroethane	NA	NA	NA	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
1,1-Dichloroethane	NA	26	0.27	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
1,1-Dichloroethene	NA	100	0.33	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
1,2,3-Trichlorobenzene	NA	NA	NA	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
1,2,4-Trichlorobenzene	NA	NA	NA	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
1,2,4-Trimethylbenzene	NA	52	3.6	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
1,2-Dibromo-3-chloropropane (DBCP)	NA	NA	NA	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
1,2-Dibromoethane (Ethylene Dibromide)	NA	NA	NA	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
1,2-Dichlorobenzene	NA	100	1.1	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
1,2-Dichloroethane	NA	3.1	0.02	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
1,2-Dichloropropane	NA	NA	NA	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
1,3,5-Trimethylbenzene	NA	52	8.4	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
1,3-Dichlorobenzene	NA	49	2.4	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
1,4-Dichlorobenzene	NA	13	1.8	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
2-Butanone (Methyl Ethyl Ketone)	NA	100	0.12	ND (0.0047)	ND (0.0056)	ND (0.0038)	ND (0.0061)	-	-	-	ND (0.0051)	-	ND (0.0041)	-	ND (0.0049)	ND (0.0056)	-	ND (0.004)	ND (0.0041)	-	ND (0.0035)
2-Hexanone (Methyl Butyl Ketone)	NA	NA	NA	ND (0.0047)	ND (0.0056)	ND (0.0038)	ND (0.0061)	-	-	-	ND (0.0051)	-	ND (0.0041)	-	ND (0.0049)	ND (0.0056)	-	ND (0.004)	ND (0.0041)	-	ND (0.0035)
2-Phenylbutane (sec-Butylbenzene)	NA	100	11	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	NA	NA	NA	ND (0.0047)	ND (0.0056)	ND (0.0038)	ND (0.0061)	-	-	-	ND (0.0051)	-	ND (0.0041)	-	ND (0.0049)	ND (0.0056)	-	ND (0.004)	ND (0.0041)	-	ND (0.0035)
Acetone	NA	100	0.05	ND (0.0057)	ND (0.0067)	ND (0.0046)	ND (0.0073)	-	-	-	0.045 J+	-	ND (0.0049)	-	ND (0.0058)	ND (0.0067)	-	ND (0.0048)	ND (0.0049)	-	ND (0.0042)
Benzene	NA	4.8	0.06	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
Bromodichloromethane	NA	NA	NA	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
Bromoform	NA	NA	NA	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
Bromomethane (Methyl Bromide)	NA	NA	NA	ND (0.0019)	ND (0.0022)	ND (0.0015)	ND (0.0024)	-	-	-	ND (0.0021)	-	ND (0.0016)	-	ND (0.0019)	ND (0.0022)	-	ND (0.0016)	ND (0.0016)	-	ND (0.0014)
Carbon disulfide	NA	NA	NA	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	0.00021 J	ND (0.00082)	-	ND (0.0007)
Carbon tetrachloride	NA	2.4	0.76	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
Chlorobenzene	NA	100	1.1	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
Chlorobromomethane	NA	NA	NA	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
Chloroethane	NA	NA	NA	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
Chloroform (Trichloromethane)	NA	49	0.37	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
Chloromethane (Methyl Chloride)	NA	NA	NA	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
cis-1,2-Dichloroethene	NA	100	0.25	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
cis-1,3-Dichloropropene	NA	NA	NA	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
Cyclohexane	NA	NA	NA	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
Dibromochloromethane	NA	NA	NA	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
Dichlorodifluoromethane (CFC-12)	NA	NA	NA	ND (0.00094)	ND (0.0011)	ND (0.00076)	0.0081	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
Ethylbenzene	NA	41	1	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	0.00036 J	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
Isopropylbenzene (Cumene)	NA	NA	NA	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
m,p-Xylenes	NA	NA	NA	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	0.00047 J	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
Methyl acetate	NA	NA	NA	ND (0.0047)	ND (0.0056)	ND (0.0038)	ND (0.0061)	-	-	-	ND (0.0051)	-	ND (0.0041)	-	ND (0.0049)	ND (0.0056)	-	ND (0.004)	ND (0.0041)	-	ND (0.0035)
Methyl Tert Butyl Ether (MTBE)	NA	100	0.93	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
Methylcyclohexane	NA	NA	NA	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
Methylene chloride (Dichloromethane)	NA	100	0.05	ND (0.0019)	ND (0.0022)	ND (0.0015)	ND (0.0024)	-	-	-	ND (0.0021)	-	ND (0.0016)	-	ND (0.0019)	ND (0.0022)	-	ND (0.0016)	ND (0.0016)	-	ND (0.0014)
n-Butylbenzene	NA	100	12	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
n-Propylbenzene	NA	100	3.9	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
o-Xylene	NA	NA	NA	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	0.00025 J	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
Styrene	NA	NA	NA	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
tert-Butylbenzene	NA	100	5.9	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
Tetrachloroethene	NA	19	1.3	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	0.0015	-	0.004	-	0.0009 J	0.0015	-	ND (0.0008)	0.0014	-	ND (0.0007)
Toluene	NA	100	0.7	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
trans-1,2-Dichloroethene	NA	100	0.19	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
trans-1,3-Dichloropropene	NA	NA	NA	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
Trichloroethene	NA	21	0.47	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
Trichlorofluoromethane (CFC-11)	NA	NA	NA	ND (0.00094)	ND (0.0011)	ND (0.00076)	0.067	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
Trifluorotrichloroethane (Freon 113)	NA	NA	NA	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
Vinyl chloride	NA	0.9	0.02	ND (0.00094)	ND (0.0011)	ND (0.00076)	ND (0.0012)	-	-	-	ND (0.001)	-	ND (0.00082)	-	ND (0.00097)	ND (0.0011)	-	ND (0.0008)	ND (0.00082)	-	ND (0.0007)
Xylene (Total)	NA	100	0.26	ND (0.0019)	ND (0.0022)	ND (0.0015)	ND (0.0024)	-	-	-	ND (0.0021)	-	ND (0.0016)	-	ND (0.0019)	ND (0.0022)	-	ND (0.0016)	ND (0.0016)	-	ND (0.0014)

TABLE 1
SUMMARY OF SOIL QUALITY DATA
FORMER FIEDLER WATERPROOFING & MASONRY SITE
91 BRUCKNER BOULEVARD
BRONX, NEW YORK

Location Name / Sample Name / Sample Date / Lab Sample ID / Sample Depth (bgs)	Action Level: Restricted Use Soil Cleanup Objectives - Protection of Groundwater	Action Level: NY Part 375 Restricted Residential Use Soil Cleanup Objectives	Action Level: NY Part 375 Unrestricted Use Soil Cleanup Objectives	EP-01 EP-1_2 02/23/2024 460-298712-1 460-298714-1 2 - 2.5 (ft)	EP-02 EP-2_2 02/23/2024 460-298712-2 460-298714-2 2 - 2.5 (ft)	EP-03 EP-03_2 02/16/2024 460-298298-4 460-298299-4 2 - 2.5 (ft)	EP-04 EP-04_2 01/08/2024 460-296104-1 2 - 2.5 (ft)	EP-04 EP-04_4 01/08/2024 460-296103-1 4 - 4.5 (ft)	EP-04 EP-04_2_PFAS 01/15/2024 460-296510-1 2 - 2.5 (ft)	EP-04 EP-4-_6 03/13/2024 460-299993-1 6 - 6.5 (ft)	EP-05 EP-5_2 02/19/2024 460-298392-3 460-298395-4 2 - 2.5 (ft)	EP-05 EP-5_4 02/19/2024 460-298393-3 4 - 4.5 (ft)	EP-06 EP-06_2 02/16/2024 460-298298-3 460-298299-3 2 - 2.5 (ft)	EP-06 EP-06_4 02/16/2024 460-298296-3 4 - 4.5 (ft)	EP-07 EP-07_2 02/16/2024 460-298298-2 460-298299-2 2 - 2.5 (ft)	EP-08 EP-08_2 02/16/2024 460-298298-1 460-298299-1 2 - 2.5 (ft)	EP-08 EP-08_4 02/16/2024 460-298296-1 4 - 4.5 (ft)	EP-09 EP-9_8 02/21/2024 460-298552-2 460-298554-2 8 - 8.5 (ft)	EP-10 EP-10_8 02/22/2024 460-298633-1 460-298635-1 8 - 8.5 (ft)	EP-10 EP-10_10 02/22/2024 460-298632-1 10 - 10.5 (ft)	EP-11 EP-11_8 02/22/2024 460-298633-2 460-298635-2 8 - 8.5 (ft)
Semi-Volatile Organic Compounds (mg/kg)																							
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	0.015 J	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
1,4-Dioxane	NA	13	0.1	ND (0.036)	ND (0.036)	ND (0.038)	ND (0.041)	-	-	-	ND (0.037)	-	ND (0.04)	-	ND (0.038)	ND (0.037)	-	ND (0.033)	ND (0.033)	-	ND (0.033)
2,2'-oxybis(1-Chloropropane)	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	ND (0.41)	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
2,3,4,6-Tetrachlorophenol	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	ND (0.41)	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
2,4,5-Trichlorophenol	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	ND (0.41)	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
2,4,6-Trichlorophenol	NA	NA	NA	ND (0.15)	ND (0.14)	ND (0.15)	ND (0.17)	-	-	-	ND (0.15)	-	ND (0.16)	-	ND (0.15)	ND (0.15)	-	ND (0.13)	ND (0.13)	-	ND (0.13)
2,4-Dichlorophenol	NA	NA	NA	ND (0.15)	ND (0.14)	ND (0.15)	ND (0.17)	-	-	-	ND (0.15)	-	ND (0.16)	-	ND (0.15)	ND (0.15)	-	ND (0.13)	ND (0.13)	-	ND (0.13)
2,4-Dimethylphenol	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	ND (0.41)	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
2,4-Dinitrophenol	NA	NA	NA	ND (0.29)	ND (0.29)	ND (0.31)	ND (0.33)	-	-	-	ND (0.3)	-	ND (0.32)	-	ND (0.31)	ND (0.3)	-	ND (0.27)	ND (0.27)	-	ND (0.27)
2,4-Dinitrotoluene	NA	NA	NA	ND (0.074)	ND (0.072)	ND (0.077)	ND (0.083)	-	-	-	ND (0.075)	-	ND (0.082)	-	ND (0.077)	ND (0.075)	-	ND (0.067)	ND (0.067)	-	ND (0.067)
2,6-Dinitrotoluene	NA	NA	NA	ND (0.074)	ND (0.072)	ND (0.077)	ND (0.083)	-	-	-	ND (0.075)	-	ND (0.082)	-	ND (0.077)	ND (0.075)	-	ND (0.067)	ND (0.067)	-	ND (0.067)
2-Chloronaphthalene	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	0.051 J	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
2-Chlorophenol	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	ND (0.41)	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
2-Methylnaphthalene	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	0.32 J	-	-	-	0.022 J	-	0.017 J	-	ND (0.38)	0.019 J	-	ND (0.33)	ND (0.33)	-	ND (0.33)
2-Methylphenol (o-Cresol)	NA	100	0.33	ND (0.36)	ND (0.36)	ND (0.38)	ND (0.41)	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
2-Nitroaniline	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	ND (0.41)	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
2-Nitrophenol	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	ND (0.41)	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
3&4-Methylphenol	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	ND (0.41)	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
3,3'-Dichlorobenzidine	NA	NA	NA	ND (0.15)	ND (0.14)	ND (0.15)	ND (0.17)	-	-	-	ND (0.15)	-	ND (0.16)	-	ND (0.15)	ND (0.15)	-	ND (0.13)	ND (0.13)	-	ND (0.13)
3-Nitroaniline	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	ND (0.41)	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
4,6-Dinitro-2-methylphenol	NA	NA	NA	ND (0.29)	ND (0.29)	ND (0.31)	ND (0.33)	-	-	-	ND (0.3)	-	ND (0.32)	-	ND (0.31)	ND (0.3)	-	ND (0.27)	ND (0.27)	-	ND (0.27)
4-Bromophenyl phenyl ether (BDE-3)	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	ND (0.41)	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
4-Chloro-3-methylphenol	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	ND (0.41)	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
4-Chloroaniline	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	ND (0.41)	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
4-Chlorophenyl phenyl ether	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	ND (0.41)	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
4-Methylphenol	NA	100	0.33	ND (0.36)	ND (0.36)	ND (0.38)	ND (0.41)	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
4-Nitroaniline	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	ND (0.41)	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
4-Nitrophenol	NA	NA	NA	ND (0.74)	ND (0.72)	ND (0.77)	ND (0.83)	-	-	-	ND (0.75)	-	ND (0.82)	-	ND (0.77)	ND (0.75)	-	ND (0.67)	ND (0.67)	-	ND (0.67)
Acenaphthene	NA	100	20	ND (0.36)	ND (0.36)	ND (0.38)	1.3	-	-	-	0.14 J	-	0.075 J	-	ND (0.38)	0.03 J	-	0.028 J	ND (0.33)	-	ND (0.33)
Acenaphthylene	NA	100	100	ND (0.36)	ND (0.36)	ND (0.38)	0.37 J	-	-	-	0.024 J	-	0.028 J	-	ND (0.38)	0.047 J	-	ND (0.33)	ND (0.33)	-	ND (0.33)
Acetophenone	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	ND (0.41)	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
Anthracene	NA	100	100	ND (0.36)	ND (0.36)	ND (0.38)	2.2	-	-	-	0.23 J	-	0.15 J	-	ND (0.38)	0.11 J	-	0.05 J	ND (0.33)	-	ND (0.33)
Atrazine	NA	NA	NA	ND (0.15)	ND (0.14)	ND (0.15)	ND (0.17)	-	-	-	ND (0.15)	-	ND (0.16)	-	ND (0.15)	ND (0.15)	-	ND (0.13)	ND (0.13)	-	ND (0.13)
Benzaldehyde	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	ND (0.41)	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
Benzo(a)anthracene	NA	1	1	ND (0.036)	ND (0.036)	ND (0.038)	5.9	1.5	-	ND (0.034)	1.1	0.12	0.52	-	0.043	0.62	-	0.14	0.038	-	0.026 J
Benzo(a)pyrene	NA	1	1	ND (0.036)	ND (0.036)	ND (0.038)	6.4	1.6	-	ND (0.034)	1.7	0.11	0.52	-	0.032 J	0.61	-	0.12	0.028 J	-	0.018 J
Benzo(b)fluoranthene	NA	1	1	ND (0.036)	ND (0.036)	ND (0.038)	7.4	2	-	ND (0.034)	1.7	0.12	0.63	-	0.036 J	0.69	-	0.15	ND (0.033)	-	0.025 J
Benzo(g,h,i)perylene	NA	100	100	ND (0.36)	ND (0.36)	ND (0.38)	3.4	-	-	-	1.5	-	0.32 J	-	0.019 J	0.39	-	0.079 J	ND (0.33)	-	ND (0.33)
Benzo(k)fluoranthene	NA	3.9	0.8	ND (0.036)	ND (0.036)	ND (0.038)	3	-	-	-	0.55	-	0.25	-	0.017 J	0.27	-	0.065	ND (0.033)	-	ND (0.033)
Biphenyl	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	0.089 J	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
bis(2-Chloroethoxy)methane	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	ND (0.41)	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
bis(2-Chloroethyl)ether	NA	NA	NA	ND (0.036)	ND (0.036)	ND (0.038)	ND (0.041)	-	-	-	ND (0.037)	-	ND (0.04)	-	ND (0.038)	ND (0.037)	-	ND (0.033)	ND (0.033)	-	ND (0.033)
bis(2-Ethylhexyl)phthalate	NA	NA	NA	ND (0.36)	ND (0.36)	0.041 J	0.59	-	-	-	ND (0.37)	-	0.056 J	-	ND (0.38)	0.047 J	-	ND (0.33)	ND (0.33)	-	ND (0.33)
Butyl benzylphthalate (BBP)	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	0.025 J	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
Caprolactam	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	ND (0.41)	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
Carbazole	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	1.4	-	-	-	0.098 J	-	0.099 J	-	ND (0.38)	0.051 J	-	0.025 J	ND (0.33)	-	ND (0.33)
Chrysene	NA	3.9	1	ND (0.36)	ND (0.36)	ND (0.38)	5.6	1.5	-	ND (0.34)	1.1	-	0.53	-	0.032 J	0.62	-	0.14 J	0.035 J	-	0.021 J
Dibenz(a,h)anthracene	NA	0.33	0.33	ND (0.036)	ND (0.036)	ND (0.038)	1.2	0.28	-	-	0.31	-	0.097	-	ND (0.038)	0.12	-	0.015 J	ND (0.033)	-	ND (0.033)
Dibenzofuran	NA	59	7	ND (0.36)	ND (0.36)	ND (0.38)	0.64	-	-	-	0.052 J	-	0.041 J	-	ND (0.38)	0.021 J	-	0.015 J	ND (0.33)	-	ND (0.33)
Diethyl phthalate	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	ND (0.41)	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
Dimethyl phthalate	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	ND (0.41)	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
Di-n-butylphthalate (DBP)	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	0.033 J	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
Di-n-octyl phthalate (DnOP)	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	ND (0.41)	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
Fluoranthene	NA	100	100	ND (0.36)	ND (0.36)	ND (0.38)	11	-	-	-	1.6	-	1	-	0.063 J	0.95	-	0.29 J	0.059 J	-	0.037 J
Fluorene	NA	100	30	ND (0.36)	ND (0.36)	ND (0.38)	1	-	-	-	0.08 J	-	0.061 J	-	ND (0.38)	0.03 J	-	0.021 J	ND (0.33)	-	ND (0.33)
Hexachlorobenzene	NA	1.2	0.33	ND (0.036)	ND (0.036)	ND (0.038)	ND (0.041)	-	-	-	ND (0.037)	-	ND (0.04)	-	ND (0.038)	ND (0.037)	-	ND (0.033)	ND (0.033)	-	ND (0.033)
Hexachlorobutadiene	NA	NA	NA	ND (0.074)	ND (0.072)	ND (0.077)	ND (0.083)	-	-	-	ND (0.075)	-	ND (0.082)	-	ND (0.077)	ND (0.075)	-	ND (0.067)	ND (0.067)	-	ND (0.067)
Hexachlorocyclopentadiene	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	ND (0.41)	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
Hexachloroethane	NA	NA	NA	ND (0.036)	ND (0.036)	ND (0.038)	ND (0.041)	-	-	-	ND (0.037)	-	ND (0.04)	-	ND (0.038)	ND (0.037)	-	ND (0.033)	ND (0.033)	-	ND (0.033)
Indeno(1,2,3-cd)pyrene	NA	0.5	0.5	ND (0.036)	ND (0.036)	ND (0.038)	4.4	1.3	-	ND (0.034)	1.7	0.077	0.39	-	0.023 J	0.47	-	0.085	ND (0.033)	-	ND (0.033)
Isophorone	NA	NA	NA	ND (0.15)	ND (0.14)	ND (0.15)	ND (0.17)	-	-	-	ND (0.15)	-	ND (0.16)	-	ND (0.15)	ND (0.15)	-	ND (0.13)	ND (0.13)	-	ND (0.13)
Naphthalene	NA	100	12	ND (0.36)	ND (0.36)	ND (0.38)	0.86	-	-	-	0.027 J	-	0.048 J	-	ND (0.38)	0.032 J	-	0.013 J	ND (0.33)	-	ND (0.33)
Nitrobenzene	NA	NA	NA	ND (0.036)	ND (0.036)	ND (0.038)	ND (0.041)	-	-	-	ND (0.037)	-	ND (0.04)	-	ND (0.038)	ND (0.037)	-	ND (0.033)	ND (0.033)	-	ND (0.033)
N-Nitrosodi-n-propylamine	NA	NA	NA	ND (0.036)	ND (0.036)	ND (0.038)	ND (0.041)	-	-	-	ND (0.037)	-	ND (0.04)	-	ND (0.038)	ND (0.037)	-	ND (0.033)	ND (0.033)	-	ND (0.033)
N-Nitrosodiphenylamine	NA	NA	NA	ND (0.36)	ND (0.36)	ND (0.38)	ND (0.41)	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
Pentachlorophenol	NA	6.7	0.8	ND (0.29)	ND (0.29)	ND (0.31)	ND (0.33)	-	-	-	ND (0.3)	-	ND (0.32)	-	ND (0.31)	ND (0.3)	-	ND (0.27)	ND (0.27)	-	ND (0.27)
Phenanthrene	NA	100	100	ND (0.36)	ND (0.36)	ND (0.38)	8.4	-	-	-	1.4	-	0.67	-	0.041 J	0.53	-	0.25 J	0.051 J	-	0.027 J
Phenol	NA	100	0.33	ND (0.36)	ND (0.36)	ND (0.38)	ND (0.41)	-	-	-	ND (0.37)	-	ND (0.4)	-	ND (0.38)	ND (0.37)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
Pyrene	NA	100	100	ND (0.36)	ND (0.36)	ND (0.38)	8.6	-	-	-	1.9	-	0.87	-	0.062 J	1.1	-	0.28 J	0.075 J	-	0.04 J

TABLE 1
SUMMARY OF SOIL QUALITY DATA
FORMER FIEDLER WATERPROOFING & MASONRY SITE
91 BRUCKNER BOULEVARD
BRONX, NEW YORK

Location Name / Sample Name / Sample Date / Lab Sample ID / Sample Depth (bgs)	Action Level: Restricted Use Soil Cleanup Objectives - Protection of Groundwater	Action Level: NY Part 375 Restricted Residential Use Soil Cleanup Objectives	Action Level: NY Part 375 Unrestricted Use Soil Cleanup Objectives	EP-01 EP-1_2 02/23/2024 460-298712-1 460-298714-1 2 - 2.5 (ft)	EP-02 EP-2_2 02/23/2024 460-298712-2 460-298714-2 2 - 2.5 (ft)	EP-03 EP-03_2 02/16/2024 460-298298-4 460-298299-4 2 - 2.5 (ft)	EP-04 EP-04_2 01/08/2024 460-296104-1 2 - 2.5 (ft)	EP-04 EP-04_4 01/08/2024 460-296103-1 4 - 4.5 (ft)	EP-04 EP-04_2_PFAS 01/15/2024 460-296510-1 2 - 2.5 (ft)	EP-04 EP-4-_6 03/13/2024 460-299993-1 6 - 6.5 (ft)	EP-05 EP-5_2 02/19/2024 460-298392-3 460-298395-4 2 - 2.5 (ft)	EP-05 EP-5_4 02/19/2024 460-298393-3 4 - 4.5 (ft)	EP-06 EP-06_2 02/16/2024 460-298298-3 460-298299-3 2 - 2.5 (ft)	EP-06 EP-06_4 02/16/2024 460-298296-3 4 - 4.5 (ft)	EP-07 EP-07_2 02/16/2024 460-298298-2 460-298299-2 2 - 2.5 (ft)	EP-08 EP-08_2 02/16/2024 460-298298-1 460-298299-1 2 - 2.5 (ft)	EP-08 EP-08_4 02/16/2024 460-298296-1 4 - 4.5 (ft)	EP-09 EP-9_8 02/21/2024 460-298552-2 460-298554-2 8 - 8.5 (ft)	EP-10 EP-10_8 02/22/2024 460-298633-1 460-298635-1 8 - 8.5 (ft)	EP-10 EP-10_10 02/22/2024 460-298632-1 10 - 10.5 (ft)	EP-11 EP-11_8 02/22/2024 460-298633-2 460-298635-2 8 - 8.5 (ft)
Inorganic Compounds (mg/kg)																							
Aluminum	NA	NA	NA	6610	5800	11600	4240	-	-	-	6270	-	8160	-	5750	7380	-	5540	3960	-	6540
Antimony	NA	NA	NA	ND (0.97)	ND (1)	ND (1)	5.2 J	-	-	-	1.8 J	-	0.45 J	-	ND (1)	0.35 J	-	ND (0.96)	0.22 J	-	ND (0.83)
Arsenic	NA	16	13	0.71 J	1.2	1.9	46.9	1.5	-	-	39.4 J	1.9	2.4	-	0.75 J	3.6	-	2.9	2.8	-	1.5
Barium	NA	400	350	40.1	42	37	1540	130	-	-	232 J	-	427	40	37.8	434	93	325	107	-	188
Beryllium	NA	72	7.2	0.31 J	0.29 J	0.48	ND (2.2)	-	-	-	0.33 J	-	0.47	-	0.31 J	0.39 J	-	0.25 J	0.18 J	-	0.26 J
Cadmium	NA	4.3	2.5	ND (0.97)	ND (1)	ND (1)	1 J	-	-	-	4.9 J	0.23 J	0.45 J	-	ND (1)	0.4 J	-	0.34 J	0.38 J	-	0.26 J
Calcium	NA	NA	NA	44600	52000	58600	57100	-	-	-	44600 J	-	73100	-	57700	58900	-	54400	35800	-	28700
Chromium	NA	NA	NA	11.4	10.8	15.6	166	-	-	-	22.2	-	16.9	-	10.9	15.4	-	13.3	17.5	-	14
Chromium III (Trivalent)	NA	180	30	11.4	10.8	15.6	164	-	-	-	18.8	-	16.9	-	10.9	15.4	-	13.3	17.5	-	14
Chromium VI (Hexavalent)	19	110	1	ND (2.2)	ND (2.1)	ND (2.3)	2.1 J	-	-	-	3.3	-	ND (2.4)	-	ND (2.3)	ND (2.2)	-	ND (2)	ND (2)	-	ND (2)
Cobalt	NA	NA	NA	5.8	5.2	4.5	9.8 J	-	-	-	9.5	-	5.8	-	5.2	5.9	-	5.1	3.6	-	5.4
Copper	NA	270	50	12.7	12.3	11.6	272	65.8	-	-	80.3 J	-	22.3	-	13.1	44.8	-	20.2	23.7	-	17.5
Iron	NA	NA	NA	10700	9510	11400	58100	-	-	-	69100 J	-	11600	-	9720	12400	-	10100	19300	-	10400
Lead	NA	400	63	3.5	28.5	36.1	701	3.8	-	-	359 J	-	263	-	7.2	259	-	167	265	-	102
Magnesium	NA	NA	NA	31300	29500	37900	14400	-	-	-	25100 J	-	34400	-	32700	25800	-	23600	20100	-	17800
Manganese	NA	2000	1600	241	238	239	1460	-	-	-	434 J	-	272	-	219	250	-	255	189	-	241
Mercury	NA	0.81	0.18	ND (0.018)	0.12	ND (0.019)	2.2	2.2	-	ND (0.016)	0.67	-	0.19	-	ND (0.019)	0.2	-	0.25	10.8	0.17	0.36
Nickel	NA	310	30	11.9	9.7	9.6	117	-	-	-	17.1	-	12.6	-	10.4	13.2	-	11.8	7.6	-	11.9
Potassium	NA	NA	NA	1860	1650	1240	1070	-	-	-	1520	-	2110	-	1670	1840	-	1490	1140	-	1850
Selenium	4	180	3.9	ND (1.2)	ND (1.3)	0.13 J	ND (6.8)	-	-	-	0.99 J	-	0.35 J	-	ND (1.3)	0.74 J	-	0.32 J	0.24 J	-	0.16 J
Silver	NA	180	2	ND (0.39)	ND (0.42)	ND (0.41)	ND (2.2)	-	-	-	ND (1.7)	-	ND (0.4)	-	ND (0.42)	0.31 J	-	0.13 J	0.11 J	-	ND (0.33)
Sodium	NA	NA	NA	170	137	108	ND (547)	-	-	-	252 J	-	261	-	209	328	-	259	123	-	143
Thallium	NA	NA	NA	0.13 J	0.12 J	0.086 J	ND (2.2)	-	-	-	0.22 J	-	0.15 J	-	0.14 J	0.12 J	-	0.14 J	0.1 J	-	0.13 J
Vanadium	NA	NA	NA	17.3	17.5	24.5	20.3	-	-	-	18.1	-	24	-	17.5	22.7	-	18.6	11.2	-	19.5
Zinc	NA	10000	109	47.4	51.7	46.2	1460	-	-	-	1190 J	-	252	-	41.5	298	-	267	211	-	161
PCBs (mg/kg)																					
Aroclor-1016 (PCB-1016)	NA	NA	NA	ND (0.074)	ND (0.072)	ND (0.077)	ND (0.084)	-	-	-	ND (0.075)	-	ND (0.082)	-	ND (0.077)	ND (0.075)	-	ND (0.067)	ND (0.067)	-	ND (0.067)
Aroclor-1221 (PCB-1221)	NA	NA	NA	ND (0.074)	ND (0.072)	ND (0.077)	ND (0.084)	-	-	-	ND (0.075)	-	ND (0.082)	-	ND (0.077)	ND (0.075)	-	ND (0.067)	ND (0.067)	-	ND (0.067)
Aroclor-1232 (PCB-1232)	NA	NA	NA	ND (0.074)	ND (0.072)	ND (0.077)	ND (0.084)	-	-	-	ND (0.075)	-	ND (0.082)	-	ND (0.077)	ND (0.075)	-	ND (0.067)	ND (0.067)	-	ND (0.067)
Aroclor-1242 (PCB-1242)	NA	NA	NA	ND (0.074)	ND (0.072)	ND (0.077)	ND (0.084)	-	-	-	ND (0.075)	-	ND (0.082)	-	ND (0.077)	ND (0.075)	-	ND (0.067)	ND (0.067)	-	ND (0.067)
Aroclor-1248 (PCB-1248)	NA	NA	NA	ND (0.074)	ND (0.072)	ND (0.077)	ND (0.084)	-	-	-	ND (0.075)	-	ND (0.082)	-	ND (0.077)	ND (0.075)	-	ND (0.067)	ND (0.067)	-	ND (0.067)
Aroclor-1254 (PCB-1254)	NA	NA	NA	ND (0.074)	ND (0.072)	ND (0.077)	ND (0.084)	-	-	-	0.37	-	ND (0.082)	-	ND (0.077)	ND (0.075)	-	ND (0.067)	ND (0.067)	-	ND (0.067)
Aroclor-1260 (PCB-1260)	NA	NA	NA	ND (0.074)	ND (0.072)	ND (0.077)	ND (0.084)	-	-	-	ND (0.075)	-	ND (0.082)	-	ND (0.077)	ND (0.075)	-	ND (0.067)	ND (0.067)	-	ND (0.067)
Aroclor-1262 (PCB-1262)	NA	NA	NA	ND (0.074)	ND (0.072)	ND (0.077)	ND (0.084)	-	-	-	ND (0.075)	-	ND (0.082)	-	ND (0.077)	ND (0.075)	-	ND (0.067)	ND (0.067)	-	ND (0.067)
Aroclor-1268 (PCB-1268)	NA	NA	NA	ND (0.074)	ND (0.072)	ND (0.077)	ND (0.084)	-	-	-	ND (0.075)	-	ND (0.082)	-	ND (0.077)	ND (0.075)	-	ND (0.067)	ND (0.067)	-	ND (0.067)
Polychlorinated biphenyls (PCBs)	NA	1	0.1	ND (0.074)	ND (0.072)	ND (0.077)	ND (0.084)	-	-	-	0.37	-	ND (0.082)	-	ND (0.077)	ND (0.075)	-	ND (0.067)	ND (0.067)	-	ND (0.067)
Pesticides (mg/kg)																					
4,4'-DDD	NA	13	0.0033	ND (0.0073)	ND (0.0072)	ND (0.0077)	0.0053 J	ND (0.0077)	-	-	ND (0.0075)	-	0.014	-	ND (0.0077)	0.0032 J	-	ND (0.0067)	ND (0.0067)	-	ND (0.0067)
4,4'-DDE	NA	8.9	0.0033	ND (0.0073)	ND (0.0072)	ND (0.0077)	0.026	ND (0.0077)	-	-	ND (0.0075)	-	0.064	-	ND (0.0077)	0.015	-	0.0032 J	ND (0.0067)	-	0.0056 J
4,4'-DDT	NA	7.9	0.0033	ND (0.0073)	ND (0.0072)	ND (0.0077)	0.13	ND (0.0077)	-	-	ND (0.0075)	-	0.28	-	ND (0.0077)	0.066	-	0.012	ND (0.0067)	-	0.02
Aldrin	NA	0.097	0.005	ND (0.0073)	ND (0.0072)	ND (0.0077)	ND (0.0084)	-	-	-	ND (0.0075)	-	ND (0.0082)	-	ND (0.0077)	ND (0.0075)	-	ND (0.0067)	ND (0.0067)	-	ND (0.0067)
alpha-BHC	NA	0.48	0.02	ND (0.0022)	ND (0.0022)	ND (0.0023)	ND (0.0025)	-	-	-	ND (0.0022)	-	ND (0.0024)	-	ND (0.0023)	ND (0.0022)	-	ND (0.002)	ND (0.002)	-	ND (0.002)
alpha-Chlordane (cis)	NA	4.2	0.094	ND (0.0073)	ND (0.0072)	ND (0.0077)	0.018	-	-	-	ND (0.0075)	-	0.0055 J	-	ND (0.0077)	0.002 J	-	ND (0.0067)	ND (0.0067)	-	ND (0.0067)
beta-BHC	NA	0.36	0.036	ND (0.0022)	ND (0.0022)	ND (0.0023)	ND (0.0025)	-	-	-	ND (0.0022)	-	ND (0.0024)	-	ND (0.0023)	ND (0.0022)	-	ND (0.002)	ND (0.002)	-	ND (0.002)
Chlordane	NA	NA	NA	ND (0.073)	ND (0.072)	ND (0.077)	ND (0.084)	-	-	-	ND (0.075)	-	ND (0.082)	-	ND (0.077)	ND (0.075)	-	ND (0.067)	ND (0.067)	-	ND (0.067)
delta-BHC	NA	100	0.04	ND (0.0022)	ND (0.0022)	ND (0.0023)	ND (0.0025)	-	-	-	ND (0.0022)	-	ND (0.0024)	-	ND (0.0023)	ND (0.0022)	-	ND (0.002)	ND (0.002)	-	ND (0.002)
Dieldrin	NA	0.2	0.005	ND (0.0022)	ND (0.0022)	ND (0.0023)	0.0083	ND (0.0023)	-	-	ND (0.0022)	-	ND (0.0024)	-	ND (0.0023)	ND (0.0022)	-	ND (0.002)	ND (0.002)	-	ND (0.002)
Endosulfan I	NA	24	2.4	ND (0.0073)	ND (0.0072)	ND (0.0077)	ND (0.0084)	-	-	-	ND (0.0075)	-	ND (0.0082)	-	ND (0.0077)	ND (0.0075)	-	ND (0.0067)	ND (0.0067)	-	ND (0.0067)
Endosulfan II	NA	24	2.4	ND (0.0073)	ND (0.0072)	ND (0.0077)	ND (0.0084)	-	-	-	ND (0.0075)	-	ND (0.0082)	-	ND (0.0077)	ND (0.0075)	-	ND (0.0067)	ND (0.0067)	-	ND (0.0067)
Endosulfan sulfate	NA	24	2.4	ND (0.0073)	ND (0.0072)	ND (0.0077)	ND (0.0084)	-	-	-	ND (0.0075)	-	ND (0.0082)	-	ND (0.0077)	ND (0.0075)	-	ND (0.0067)	ND (0.0067)	-	ND (0.0067)
Endrin	NA	11	0.014	ND (0.0073)	ND (0.0072)	ND (0.0077)	ND (0.0084)	-	-	-	ND (0.0075)	-	ND (0.0082)	-	ND (0.0077)	ND (0.0075)	-	ND (0.0067)	ND (0.0067)	-	ND (0.0067)
Endrin aldehyde	NA	NA	NA	ND (0.0073)	ND (0.0072)	ND (0.0077)	ND (0.0084)	-	-	-	ND (0.0075)	-	ND (0.0082)	-	ND (0.0077)	ND (0.0075)	-	ND (0.0067)	ND (0.0067)	-	ND (0.0067)
Endrin ketone	NA	NA	NA	ND (0.0073)	ND (0.0072)	ND (0.0077)	ND (0.0084)	-	-	-	ND (0.0075)	-	ND (0.0082)	-	ND (0.0077)	ND (0.0075)	-	ND (0.0067)	ND (0.0067)	-	ND (0.0067)
gamma-BHC (Lindane)	NA	1.3	0.1	ND (0.0022)	ND (0.0022)	ND (0.0023)	ND (0.0025)	-	-	-	ND (0.0022)	-	ND (0.0024)	-	ND (0.0023)	ND (0.0022)	-	ND (0.002)	ND (0.002)	-	ND (0.002)
Heptachlor	NA	2.1	0.042	ND (0.0073)	ND (0.0072)	ND (0.0077)	ND (0.0084)	-	-	-	ND (0.0075)	-	ND (0.0082)	-	ND (0.0077)	ND (0.0075)	-	ND (0.0067)	ND (0.0067)	-	ND (0.0067)
Heptachlor epoxide	NA	NA	NA	ND (0.0073)	ND (0.0072)	ND (0.0077)	ND (0.0084)	-	-	-	ND (0.0075)	-	ND (0.0082)	-	ND (0.0077)	ND (0.0075)	-	ND (0.0067)	ND (0.0067)	-	ND (0.0067)
Methoxychlor	NA	NA	NA	ND (0.0073)	ND (0.0072)	ND (0.0077)	ND (0.0084)	-	-	-	ND (0.0075)	-	ND (0.0082)	-	ND (0.0077)	ND (0.0075)	-	ND (0.0067)	ND (0.0067)	-	ND (0.0067)
Toxaphene	NA	NA	NA	ND (0.073)	ND (0.072)	ND (0.077)	ND (0.084)	-	-	-	ND (0.075)	-	ND (0.082)	-	ND (0.077)	ND (0.075)	-	ND (0.067)	ND (0.067)	-	ND (0.067)

TABLE 1
SUMMARY OF SOIL QUALITY DATA
FORMER FIEDLER WATERPROOFING & MASONRY SITE
91 BRUCKNER BOULEVARD
BRONX, NEW YORK

Location Name	Action Level			EP-01	EP-02	EP-03	EP-04	EP-04	EP-04	EP-04	EP-05	EP-05	EP-06	EP-06	EP-07	EP-08	EP-08	EP-09	EP-10	EP-10	EP-11
Sample Name	Restricted Use Soil Cleanup Objectives - Protection of Groundwater	NY Part 375 Restricted Residential Use Soil Cleanup Objectives	NY Part 375 Unrestricted Use Soil Cleanup Objectives	EP-1_2	EP-2_2	EP-03_2	EP-04_2	EP-04_4	EP-04_2_PFAS	EP-4-_6	EP-5_2	EP-5_4	EP-06_2	EP-06_4	EP-07_2	EP-08_2	EP-08_4	EP-9_8	EP-10_8	EP-10_10	EP-11_8
Sample Date				02/23/2024	02/23/2024	02/16/2024	01/08/2024	01/08/2024	01/15/2024	03/13/2024	02/19/2024	02/19/2024	02/16/2024	02/16/2024	02/16/2024	02/16/2024	02/16/2024	02/21/2024	02/22/2024	02/22/2024	02/22/2024
Lab Sample ID				460-298712-1	460-298712-2	460-298298-4					460-298392-3		460-298298-3		460-298298-2	460-298298-1		460-298552-2	460-298633-1		460-298633-2
Sample Depth (bgs)				460-298714-1 2 - 2.5 (ft)	460-298714-2 2 - 2.5 (ft)	460-298299-4 2 - 2.5 (ft)	460-296104-1 2 - 2.5 (ft)	460-296103-1 4 - 4.5 (ft)	460-296510-1 2 - 2.5 (ft)	460-299993-1 6 - 6.5 (ft)	460-298395-4 2 - 2.5 (ft)	460-298393-3 4 - 4.5 (ft)	460-298299-3 2 - 2.5 (ft)	460-298296-3 4 - 4.5 (ft)	460-298299-2 2 - 2.5 (ft)	460-298299-1 2 - 2.5 (ft)	460-298296-1 4 - 4.5 (ft)	460-298554-2 8 - 8.5 (ft)	460-298635-1 8 - 8.5 (ft)	460-298632-1 10 - 10.5 (ft)	460-298635-2 8 - 8.5 (ft)
PFAS (mg/kg)																					
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	NA	NA	NA	ND (0.00086)	ND (0.00088)	ND (0.0009)	-	-	ND (0.00092)	-	ND (0.00087)	-	ND (0.00086)	-	ND (0.00088)	ND (0.00085)	-	ND (0.00086)	ND (0.00089)	-	ND (0.00081)
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	NA	NA	NA	ND (0.00539)	ND (0.00547)	ND (0.00564)	-	-	ND (0.00576)	-	ND (0.00542)	-	ND (0.00537)	-	ND (0.00552)	ND (0.00531)	-	ND (0.0054)	ND (0.00557)	-	ND (0.00507)
3-(Perfluoroheptyl)propanoic acid (7:3 FTCA)	NA	NA	NA	ND (0.00539)	ND (0.00547)	ND (0.00564)	-	-	ND (0.00576)	-	ND (0.00542)	-	ND (0.00537)	-	ND (0.00552)	ND (0.00531)	-	ND (0.0054)	ND (0.00557)	-	ND (0.00507)
3:3 Fluorotelomer carboxylic acid (3:3 FTCA)	NA	NA	NA	ND (0.00108)	ND (0.00109)	ND (0.00113)	-	-	ND (0.00115)	-	ND (0.00108)	-	ND (0.00107)	-	ND (0.0011)	ND (0.00106)	-	ND (0.00108)	ND (0.00111)	-	ND (0.00101)
4,8-Dioxa-3H-Perfluorononanoic Acid (ADONA)	NA	NA	NA	ND (0.00086)	ND (0.00088)	ND (0.0009)	-	-	ND (0.00092)	-	ND (0.00087)	-	ND (0.00086)	-	ND (0.00088)	ND (0.00085)	-	ND (0.00086)	ND (0.00089)	-	ND (0.00081)
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	NA	NA	NA	ND (0.00086)	ND (0.00088)	ND (0.0009)	-	-	ND (0.00092)	-	ND (0.00087)	-	ND (0.00086)	-	ND (0.00088)	ND (0.00085)	-	ND (0.00086)	ND (0.00089)	-	ND (0.00081)
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NA	NA	NA	ND (0.00086)	ND (0.00088)	ND (0.0009)	-	-	ND (0.00092)	-	ND (0.00087)	-	ND (0.00086)	-	ND (0.00088)	ND (0.00085)	-	ND (0.00086)	ND (0.00089)	-	ND (0.00081)
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NA	NA	NA	ND (0.00086)	ND (0.00088)	ND (0.0009)	-	-	ND (0.00092)	-	ND (0.00087)	-	ND (0.00086)	-	ND (0.00088)	ND (0.00085)	-	ND (0.00086)	ND (0.00089)	-	ND (0.00081)
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	NA	NA	NA	ND (0.00086)	ND (0.00088)	ND (0.0009)	-	-	ND (0.00092)	-	ND (0.00087)	-	ND (0.00086)	-	ND (0.00088)	ND (0.00085)	-	ND (0.00086)	ND (0.00089)	-	ND (0.00081)
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00023)	-	-	0.00272	-	ND (0.00022)	-	ND (0.00021)	-	ND (0.00022)	0.00007 J	-	ND (0.00022)	ND (0.00022)	-	ND (0.0002)
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00023) J	-	-	ND (0.00023)	-	ND (0.00022) J	-	ND (0.00021) J	-	ND (0.00022) J	ND (0.00021) J	-	ND (0.00022) J	0.000063 J	-	ND (0.0002)
N-Ethylperfluorooctane sulfonamidoethanol (N-EtFOSE)	NA	NA	NA	ND (0.00216)	ND (0.00219)	ND (0.00225) J	-	-	ND (0.0023)	-	ND (0.00217) J	-	ND (0.00215) J	-	ND (0.00221) J	ND (0.00212) J	-	ND (0.00216) J	ND (0.00223)	-	ND (0.00203)
N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00023)	-	-	ND (0.00023)	-	ND (0.00022)	-	ND (0.00021)	-	ND (0.00022)	ND (0.00021)	-	ND (0.00022)	ND (0.00022)	-	ND (0.0002)
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00023) J	-	-	ND (0.00023)	-	ND (0.00022) J	-	ND (0.00021) J	-	ND (0.00022) J	ND (0.00021) J	-	ND (0.00022)	ND (0.00022)	-	ND (0.0002)
N-Methylperfluorooctane sulfonamidoethanol (N-MeFOSE)	NA	NA	NA	ND (0.00216)	ND (0.00219)	ND (0.00225) J	-	-	ND (0.0023)	-	ND (0.00217) J	-	ND (0.00215) J	-	ND (0.00221) J	ND (0.00212) J	-	ND (0.00216)	ND (0.00223)	-	ND (0.00203)
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NA	NA	NA	ND (0.00043)	ND (0.00044)	ND (0.00045)	-	-	ND (0.00046)	-	ND (0.00043)	-	ND (0.00043)	-	ND (0.00044)	ND (0.00042)	-	ND (0.00043)	ND (0.00045)	-	ND (0.00041)
Perfluoro(2-ethoxyethane) sulphonic acid (PFEESA)	NA	NA	NA	ND (0.00043)	ND (0.00044)	ND (0.00045)	-	-	ND (0.00046)	-	ND (0.00043)	-	ND (0.00043)	-	ND (0.00044)	ND (0.00042)	-	ND (0.00043)	ND (0.00045)	-	ND (0.00041)
Perfluoro(4-methoxybutanoic) acid (PFMBA)	NA	NA	NA	ND (0.00043)	ND (0.00044)	ND (0.00045)	-	-	ND (0.00046)	-	ND (0.00043)	-	ND (0.00043)	-	ND (0.00044)	ND (0.00042)	-	ND (0.00043)	ND (0.00045)	-	ND (0.00041)
Perfluoro-2-propoxypropanoic acid (PFPrOPrA)(GenX) (HFPO-DA)	NA	NA	NA	ND (0.00086)	ND (0.00088)	ND (0.0009)	-	-	ND (0.00092)	-	ND (0.00087)	-	ND (0.00086)	-	ND (0.00088)	ND (0.00085)	-	ND (0.00086)	ND (0.00089)	-	ND (0.00081)
Perfluoro-3-methoxypropanoic acid (PFMPA)	NA	NA	NA	ND (0.00043)	ND (0.00044)	ND (0.00045)	-	-	ND (0.00046)	-	ND (0.00043)	-	ND (0.00043)	-	ND (0.00044)	ND (0.00042)	-	ND (0.00043)	ND (0.00045)	-	ND (0.00041)
Perfluorobutanesulfonic acid (PFBS)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00023)	-	-	ND (0.00023)	-	ND (0.00022)	-	ND (0.00021)	-	ND (0.00022)	ND (0.00021)	-	ND (0.00022)	ND (0.00022)	-	ND (0.0002)
Perfluorobutanoic acid (PFBA)	NA	NA	NA	ND (0.00086)	ND (0.00088)	ND (0.0009)	-	-	ND (0.00092)	-	ND (0.00087)	-	ND (0.00086)	-	ND (0.00088)	ND (0.00085)	-	ND (0.00086) J	ND (0.00089)	-	ND (0.00081)
Perfluorodecanesulfonic acid (PFDS)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00023)	-	-	ND (0.00023)	-	ND (0.00022)	-	ND (0.00021) J	-	ND (0.00022)	ND (0.00021)	-	ND (0.00022)	ND (0.00022)	-	ND (0.0002)
Perfluorodecanoic acid (PFDA)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00023)	-	-	ND (0.00023)	-	ND (0.00022)	-	ND (0.00021) J	-	ND (0.00022)	ND (0.00021)	-	ND (0.00022)	ND (0.00022)	-	ND (0.0002)
Perfluorododecane sulfonic acid (PFDoDS)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00023)	-	-	ND (0.00023)	-	ND (0.00022)	-	ND (0.00021) J	-	ND (0.00022)	ND (0.00021)	-	ND (0.00022)	ND (0.00022)	-	ND (0.0002)
Perfluorododecanoic acid (PFDoDA)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00023) J	-	-	ND (0.00023)	-	ND (0.00022)	-	ND (0.00021) J	-	ND (0.00022) J	ND (0.00021)	-	ND (0.00022)	ND (0.00022)	-	ND (0.0002)
Perfluoroheptanesulfonic acid (PFHpS)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00023)	-	-	ND (0.00023)	-	ND (0.00022)	-	ND (0.00021)	-	ND (0.00022)	ND (0.00021)	-	ND (0.00022)	ND (0.00022)	-	ND (0.0002)
Perfluoroheptanoic acid (PFHpA)	NA	NA	NA	0.000041 J	ND (0.00022)	ND (0.00023)	-	-	ND (0.00023)	-	ND (0.00022)	-	ND (0.00021)	-	ND (0.00022)	ND (0.00021)	-	ND (0.00022)	ND (0.00022)	-	ND (0.0002)
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00023)	-	-	0.000041 J	-	ND (0.00022)	-	ND (0.00021)	-	ND (0.00022)	ND (0.00021)	-	ND (0.00022)	ND (0.00022)	-	0.000043 J
Perfluorohexanoic acid (PFHxA)	NA	NA	NA	0.000051 J	ND (0.00022)	ND (0.00023)	-	-	ND (0.00023)	-	ND (0.00022)	-	ND (0.00021)	-	ND (0.00022)	ND (0.00021)	-	ND (0.00022)	ND (0.00022)	-	ND (0.0002)
Perfluorononane sulfonic acid (PFNS)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00023)	-	-	ND (0.00023)	-	ND (0.00022)	-	ND (0.00021) J	-	ND (0.00022)	ND (0.00021)	-	ND (0.00022)	ND (0.00022)	-	ND (0.0002)
Perfluorononanoic acid (PFNA)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00023)	-	-	ND (0.00023)	-	ND (0.00022)	-	ND (0.00021)	-	ND (0.00022)	ND (0.00021)	-	ND (0.00022)	ND (0.00022)	-	0.000024 J
Perfluorooctane sulfonamide (PFOSA)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00023)	-	-	0.00009 J	-	ND (0.00022)	-	ND (0.00021)	-	ND (0.00022)	ND (0.00021)	-	ND (0.00022)	ND (0.00022)	-	0.000029 J
Perfluorooctanesulfonic acid (PFOS)	NA	0.044	0.00088	ND (0.00022)	0.000083 J	ND (0.00023)	-	-	0.00267	-	0.000099 J	-	0.00052 J+	-	ND (0.00022)	0.0002 J	-	0.00023	0.00015 J	-	0.00361
Perfluorooctanoic acid (PFOA)	NA	0.033	0.00066	0.00018 J	0.00014 J	0.00009 J	-	-	0.00011 J	-	0.0001 J	-	0.000084 J	-	ND (0.00022)	ND (0.00021)	-	0.000051 J	0.000057 J	-	0.00014 J
Perfluoropentanesulfonic acid (PFPeS)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00023)	-	-	ND (0.00023)	-	ND (0.00022)	-	ND (0.00021)	-	ND (0.00022)	ND (0.00021)	-	ND (0.00022)	ND (0.00022)	-	ND (0.0002)
Perfluoropentanoic acid (PFPeA)	NA	NA	NA	0.000068 J	ND (0.00044)	ND (0.00045)	-	-	ND (0.00046)	-	ND (0.00043)	-	ND (0.00043)	-	ND (0.00044)	ND (0.00042)	-	ND (0.00043)	ND (0.00045)	-	ND (0.00041)
Perfluorotetradecanoic acid (PFTeDA)	NA	NA	NA	ND (0.00022)	ND (0.00022) J	ND (0.00023) J	-	-	ND (0.00023)	-	ND (0.00022) J	-	ND (0.00021) J	-	ND (0.00022) J	ND (0.00021) J	-	ND (0.00022) J	ND (0.00022)	-	ND (0.0002)
Perfluorotridecanoic acid (PFTrDA)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00023)	-	-	ND (0.00023)	-	ND (0.00022)	-	ND (0.00021)	-	ND (0.00022)	ND (0.00021)	-	ND (0.00022)	ND (0.00022)	-	ND (0.0002)
Perfluoroundecanoic acid (PFUnDA)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00023)	-	-	ND (0.00023)	-	ND (0.00022)	-	ND (0.00021)	-	ND (0.00022)	ND (0.00021)	-	ND (0.00022)	ND (0.00022)	-	ND (0.0002)

Notes:

mg/kg: milligram per kilogram
µg/kg: microgram per kilogram

**: Laboratory control sample or laboratory control sample duplicate is outside acceptance limits*
-: Not Analyzed
B: Compound was found in the blank and the associated sample.
P: The RPD between the results for the two columns exceeds the method-specified criteria.
bgs: below ground surface
ft: feet
J: Value is estimated.
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

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

TABLE 1
SUMMARY OF SOIL QUALITY DATA
FORMER FIEDLER WATERPROOFING & MASONRY SITE
91 BRUCKNER BOULEVARD
BRONX, NEW YORK

Location Name	Action Level			EP-12	EP-13	EP-13	EP-13	EP-14	EP-14	EP-15	EP-16	EP-16	EP-17	EP-18	EP-19	EP-19_SW-01	EP-19_SW-02	EP-19_SW-03	EP-19_SW-04
Sample Name	Restricted Use Soil Cleanup Objectives - Protection of Groundwater	NY Part 375 Restricted Residential Use Soil Cleanup Objectives	NY Part 375 Unrestricted Use Soil Cleanup Objectives	EP-12_8	EP-13_8	DUP-01_20240219	EP-13_10	DUP-02_20240417	EP-14_8	EP-15_8	EP-16_8	EP-16_10	EP-17_8	EP-18_8	EP-19_10	EP-19_SW-01	EP-19_SW-02	EP-19_SW-03	EP-19_SW-04
Sample Date				02/21/2024	02/19/2024	02/19/2024	02/19/2024	04/17/2024	04/17/2024	03/13/2024	02/27/2024	02/27/2024	02/19/2024	02/27/2024	03/14/2024	03/14/2024	03/14/2024	03/14/2024	03/14/2024
Lab Sample ID				460-298552-1	460-298392-1	460-298392-4		460-302258-2	460-302258-1	460-299966-1	460-298917-1		460-298392-2	460-298917-2	460-300032-1				
Sample Depth (bgs)				460-298554-1 8 - 8.5 (ft)	460-298395-1 8 - 8.5 (ft)	460-298395-2 8 - 8.5 (ft)	460-298393-1 10 - 10.5 (ft)	460-302349-2 8 - 8.5 (ft)	460-302349-1 8 - 8.5 (ft)	460-299993-2 6 - 8 (ft)	460-298918-1 8 - 8.5 (ft)	460-298916-1 10 - 10.5 (ft)	460-298395-3 8 - 8.5 (ft)	460-298918-2 8 - 8.5 (ft)	460-300136-1 10 - 10.5 (ft)	460-300032-2 -	460-300032-3 -	460-300032-4 -	460-300032-5 -
Volatile Organic Compounds (mg/kg)																			
1,1,1-Trichloroethane	NA	100	0.68	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072) J	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
1,1,2,2-Tetrachloroethane	NA	NA	NA	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
1,1,2-Trichloroethane	NA	NA	NA	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072) J	ND (0.00076)	ND (0.00093)	-	ND (0.00081) J	ND (0.0009)	ND (0.00087)	-	-	-	-
1,1-Dichloroethane	NA	26	0.27	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
1,1-Dichloroethene	NA	100	0.33	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
1,2,3-Trichlorobenzene	NA	NA	NA	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081) J	ND (0.0009)	ND (0.00087)	-	-	-	-
1,2,4-Trichlorobenzene	NA	NA	NA	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
1,2,4-Trimethylbenzene	NA	52	3.6	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	0.00058 J	0.0012	ND (0.00076)	ND (0.00093)	-	ND (0.00081) J	ND (0.0009)	ND (0.00087)	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	NA	NA	NA	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081) J	ND (0.0009)	ND (0.00087)	-	-	-	-
1,2-Dibromoethane (Ethylene Dibromide)	NA	NA	NA	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
1,2-Dichlorobenzene	NA	100	1.1	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081) J	ND (0.0009)	ND (0.00087)	-	-	-	-
1,2-Dichloroethane	NA	3.1	0.02	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081) J	ND (0.0009)	ND (0.00087)	-	-	-	-
1,2-Dichloropropane	NA	NA	NA	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
1,3,5-Trimethylbenzene	NA	52	8.4	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	0.00024 J	0.0012 J	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
1,3-Dichlorobenzene	NA	49	2.4	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081) J	ND (0.0009)	ND (0.00087)	-	-	-	-
1,4-Dichlorobenzene	NA	13	1.8	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081) J	ND (0.0009)	ND (0.00087)	-	-	-	-
2-Butanone (Methyl Ethyl Ketone)	NA	100	0.12	ND (0.0037)	ND (0.0036)	ND (0.0061)	-	ND (0.0035)	ND (0.0036)	ND (0.0038)	ND (0.0046)	-	ND (0.0041)	ND (0.0045)	ND (0.0043)	-	-	-	-
2-Hexanone (Methyl Butyl Ketone)	NA	NA	NA	ND (0.0037)	ND (0.0036)	ND (0.0061)	-	ND (0.0035)	ND (0.0036)	ND (0.0038)	ND (0.0046)	-	ND (0.0041)	ND (0.0045)	ND (0.0043)	-	-	-	-
2-Phenylbutane (sec-Butylbenzene)	NA	100	11	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	NA	NA	NA	ND (0.0037)	ND (0.0036)	ND (0.0061)	-	ND (0.0035)	ND (0.0036)	ND (0.0038)	ND (0.0046)	-	ND (0.0041) J	ND (0.0045)	ND (0.0043)	-	-	-	-
Acetone	NA	100	0.05	ND (0.0044)	ND (0.0043)	ND (0.0073)	-	ND (0.0042)	ND (0.0043)	ND (0.0046)	ND (0.0056)	-	ND (0.0049)	ND (0.0054)	ND (0.0052)	-	-	-	-
Benzene	NA	4.8	0.06	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
Bromodichloromethane	NA	NA	NA	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
Bromoform	NA	NA	NA	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
Bromomethane (Methyl Bromide)	NA	NA	NA	ND (0.0015)	ND (0.0014)	ND (0.0024)	-	ND (0.0014)	ND (0.0014)	ND (0.0015)	ND (0.0019)	-	ND (0.0016)	ND (0.0018)	ND (0.0017)	-	-	-	-
Carbon disulfide	NA	NA	NA	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
Carbon tetrachloride	NA	2.4	0.76	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
Chlorobenzene	NA	100	1.1	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081) J	ND (0.0009)	ND (0.00087)	-	-	-	-
Chlorobromomethane	NA	NA	NA	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081) J	ND (0.0009)	ND (0.00087)	-	-	-	-
Chloroethane	NA	NA	NA	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081) J	ND (0.0009)	ND (0.00087)	-	-	-	-
Chloroform (Trichloromethane)	NA	49	0.37	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
Chloromethane (Methyl Chloride)	NA	NA	NA	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
cis-1,2-Dichloroethene	NA	100	0.25	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081) J	ND (0.0009)	ND (0.00087)	-	-	-	-
cis-1,3-Dichloropropene	NA	NA	NA	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
Cyclohexane	NA	NA	NA	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
Dibromochloromethane	NA	NA	NA	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
Dichlorodifluoromethane (CFC-12)	NA	NA	NA	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
Ethylbenzene	NA	41	1	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	0.00017 J	ND (0.00076)	ND (0.00093)	-	ND (0.00081) J	ND (0.0009)	ND (0.00087)	-	-	-	-
Isopropylbenzene (Cumene)	NA	NA	NA	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081) J	ND (0.0009)	ND (0.00087)	-	-	-	-
m,p-Xylenes	NA	NA	NA	ND (0.00016)	0.00013 J	ND (0.0012)	-	0.00019 J	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	0.00017 J	ND (0.0009)	ND (0.00087)	-	-	-	-
Methyl acetate	NA	NA	NA	ND (0.0037)	ND (0.0036)	ND (0.0061)	-	ND (0.0035)	ND (0.0036)	ND (0.0038)	ND (0.0046)	-	ND (0.0041)	ND (0.0045)	ND (0.0043)	-	-	-	-
Methyl Tert Butyl Ether (MTBE)	NA	100	0.93	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
Methylcyclohexane	NA	NA	NA	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
Methylene chloride (Dichloromethane)	NA	100	0.05	ND (0.0015)	ND (0.0014)	ND (0.0024)	-	ND (0.0014)	ND (0.0014)	ND (0.0015)	ND (0.0019)	-	ND (0.0016)	ND (0.0018)	ND (0.0017)	-	-	-	-
n-Butylbenzene	NA	100	12	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081) J	ND (0.0009)	ND (0.00087)	-	-	-	-
n-Propylbenzene	NA	100	3.9	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
o-Xylene	NA	NA	NA	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	0.00014 J	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081) J	ND (0.0009)	ND (0.00087)	-	-	-	-
Styrene	NA	NA	NA	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081) J	ND (0.0009)	ND (0.00087)	-	-	-	-
tert-Butylbenzene	NA	100	5.9	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
Tetrachloroethene	NA	19	1.3	ND (0.00074)	0.0023	0.0019	-	0.00032 J	0.0003 J	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	0.00091	-	-	-	-
Toluene	NA	100	0.7	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081) J	ND (0.0009)	ND (0.00087)	-	-	-	-
trans-1,2-Dichloroethene	NA	100	0.19	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081) J	ND (0.0009)	ND (0.00087)	-	-	-	-
trans-1,3-Dichloropropene	NA	NA	NA	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
Trichloroethene	NA	21	0.47	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081) J	ND (0.0009)	ND (0.00087)	-	-	-	-
Trichlorofluoromethane (CFC-11)	NA	NA	NA	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081) J	ND (0.0009)	ND (0.00087)	-	-	-	-
Trifluorotrichloroethane (Freon 113)	NA	NA	NA	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
Vinyl chloride	NA	0.9	0.02	ND (0.00074)	ND (0.00072)	ND (0.0012)	-	ND (0.0007)	ND (0.00072)	ND (0.00076)	ND (0.00093)	-	ND (0.00081)	ND (0.0009)	ND (0.00087)	-	-	-	-
Xylene (Total)	NA	100	0.26	ND (0.0015)	ND (0.0014)	ND (0.0024)	-	0.00033 J	ND (0.0014)	ND (0.0015)	ND (0.0019)	-	ND (0.0016)	ND (0.0018)	ND (0.0017)	-	-	-	-

TABLE 1
SUMMARY OF SOIL QUALITY DATA
FORMER FIEDLER WATERPROOFING & MASONRY SITE
91 BRUCKNER BOULEVARD
BRONX, NEW YORK

Location Name	Action Level			EP-12	EP-13	EP-13	EP-13	EP-14	EP-14	EP-15	EP-16	EP-16	EP-17	EP-18	EP-19	EP-19_SW-01	EP-19_SW-02	EP-19_SW-03	EP-19_SW-04
Sample Name	Restricted Use Soil Cleanup Objectives - Protection of Groundwater	NY Part 375 Restricted Residential Use Soil Cleanup Objectives	NY Part 375 Unrestricted Use Soil Cleanup Objectives	EP-12_8	EP-13_8	DUP-01_20240219	EP-13_10	DUP-02_20240417	EP-14_8	EP-15_8	EP-16_8	EP-16_10	EP-17_8	EP-18_8	EP-19_10	EP-19_SW-01	EP-19_SW-02	EP-19_SW-03	EP-19_SW-04
Sample Date				02/21/2024	02/19/2024	02/19/2024	02/19/2024	04/17/2024	04/17/2024	03/13/2024	02/27/2024	02/27/2024	02/19/2024	02/27/2024	03/14/2024	03/14/2024	03/14/2024	03/14/2024	03/14/2024
Lab Sample ID				460-298552-1	460-298392-1	460-298392-4	460-298393-1	460-302258-2	460-302258-1	460-299966-1	460-298917-1	460-298916-1	460-298392-2	460-298917-2	460-300032-1	460-300032-2	460-300032-3	460-300032-4	460-300032-5
Sample Depth (bgs)				460-298554-1	460-298395-1	460-298395-2	460-302349-2	460-302349-1	460-299993-2	460-298918-1	460-298916-1	460-298395-3	460-298918-2	460-300136-1	-	-	-	-	
				8 - 8.5 (ft)	8 - 8.5 (ft)	8 - 8.5 (ft)	10 - 10.5 (ft)	8 - 8.5 (ft)	8 - 8.5 (ft)	6 - 8 (ft)	8 - 8.5 (ft)	10 - 10.5 (ft)	8 - 8.5 (ft)	8 - 8.5 (ft)	10 - 10.5 (ft)				
Semi-Volatile Organic Compounds (mg/kg)																			
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
1,4-Dioxane	NA	13	0.1	ND (0.033)	ND (0.035)	ND (0.037)	-	ND (0.033)	ND (0.033)	ND (0.034)	ND (0.037)	-	ND (0.037)	ND (0.034)	ND (0.034)	ND (0.037)	ND (0.037)	ND (0.07)	ND (0.037)
2,2'-oxybis(1-Chloropropane)	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
2,3,4,6-Tetrachlorophenol	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
2,4,5-Trichlorophenol	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
2,4,6-Trichlorophenol	NA	NA	NA	ND (0.13)	ND (0.14)	ND (0.15)	-	ND (0.13)	ND (0.13)	ND (0.14)	ND (0.15)	-	ND (0.15)	ND (0.14)	ND (0.14)	ND (0.15)	ND (0.15)	ND (0.28)	ND (0.15)
2,4-Dichlorophenol	NA	NA	NA	ND (0.13)	ND (0.14)	ND (0.15)	-	ND (0.13)	ND (0.13)	ND (0.14)	ND (0.15)	-	ND (0.15)	ND (0.14)	ND (0.14)	ND (0.15)	ND (0.15)	ND (0.28)	ND (0.15)
2,4-Dimethylphenol	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
2,4-Dinitrophenol	NA	NA	NA	ND (0.27)	ND (0.28)	ND (0.29)	-	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.3)	-	ND (0.3)	ND (0.28)	ND (0.28)	ND (0.3)	ND (0.3)	ND (0.57)	ND (0.3)
2,4-Dinitrotoluene	NA	NA	NA	ND (0.067)	ND (0.07)	ND (0.074)	-	ND (0.068)	ND (0.068)	ND (0.068)	ND (0.074)	-	ND (0.075)	ND (0.07)	ND (0.069)	ND (0.075)	ND (0.075)	ND (0.14)	ND (0.075)
2,6-Dinitrotoluene	NA	NA	NA	ND (0.067)	ND (0.07)	ND (0.074)	-	ND (0.068)	ND (0.068)	ND (0.068)	ND (0.074)	-	ND (0.075)	ND (0.07)	ND (0.069)	ND (0.075)	ND (0.075)	ND (0.14)	ND (0.075)
2-Chloronaphthalene	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
2-Chlorophenol	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
2-Methylnaphthalene	NA	NA	NA	ND (0.33)	0.017 J	0.082 J	-	0.0095 J	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
2-Methylphenol (o-Cresol)	NA	100	0.33	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
2-Nitroaniline	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
2-Nitrophenol	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
3&4-Methylphenol	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
3,3'-Dichlorobenzidine	NA	NA	NA	ND (0.13)	ND (0.14)	ND (0.15)	-	ND (0.13)	ND (0.13)	ND (0.14)	ND (0.15)	-	ND (0.15)	ND (0.14)	ND (0.14)	ND (0.15)	ND (0.15)	ND (0.28)	ND (0.15)
3-Nitroaniline	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
4,6-Dinitro-2-methylphenol	NA	NA	NA	ND (0.27)	ND (0.28)	ND (0.29)	-	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.3)	-	ND (0.3)	ND (0.28)	ND (0.28)	ND (0.3)	ND (0.3)	ND (0.57)	ND (0.3)
4-Bromophenyl phenyl ether (BDE-3)	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
4-Chloro-3-methylphenol	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
4-Chloroaniline	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
4-Chlorophenyl phenyl ether	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
4-Methylphenol	NA	100	0.33	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
4-Nitroaniline	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
4-Nitrophenol	NA	NA	NA	ND (0.67)	ND (0.7)	ND (0.74)	-	ND (0.68)	ND (0.68)	ND (0.68)	ND (0.74)	-	ND (0.75)	ND (0.7)	ND (0.69)	ND (0.75)	ND (0.75)	ND (1.4)	ND (0.75)
Acenaphthene	NA	100	20	ND (0.33)	0.057 J	0.39	-	0.013 J	ND (0.33)	ND (0.34)	ND (0.37)	-	0.036 J	ND (0.34)	0.033 J	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
Acenaphthylene	NA	100	100	ND (0.33)	0.093 J	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	0.057 J	0.039 J	ND (0.37)	ND (0.7)	0.013 J
Acetophenone	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
Anthracene	NA	100	100	ND (0.33)	0.2 J	0.84 J	-	0.024 J	ND (0.33)	ND (0.34)	ND (0.37)	-	0.088 J	ND (0.34)	0.091 J	0.018 J	ND (0.37)	ND (0.7)	ND (0.37)
Atrazine	NA	NA	NA	ND (0.13)	ND (0.14)	ND (0.15)	-	ND (0.13)	ND (0.13)	ND (0.14)	ND (0.15)	-	ND (0.15)	ND (0.14)	ND (0.14)	ND (0.15)	ND (0.15)	ND (0.28)	ND (0.15)
Benzaldehyde	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
Benzo(a)anthracene	NA	1	1	ND (0.033)	1.4	1.1	0.19	0.076	ND (0.033) J	ND (0.034)	0.032 J	-	0.29	ND (0.034)	0.33	0.066	0.039	0.072	0.041
Benzo(a)pyrene	NA	1	1	ND (0.033)	1.6	0.98	0.17	0.078	0.012 J	ND (0.034)	0.021 J	-	0.25	ND (0.034)	0.37	0.083	0.035 J	0.087	0.046
Benzo(b)fluoranthene	NA	1	1	ND (0.033)	1.7	1.1	0.2	0.087	0.015 J	ND (0.034)	0.032 J	-	0.29	ND (0.034)	0.42	0.096	0.043	0.1	0.059
Benzo(g,h,i)perylene	NA	100	100	ND (0.33)	1	0.64	-	0.057 J	ND (0.33)	ND (0.34)	0.014 J	-	0.17 J	ND (0.34)	0.28 J	0.14 J	ND (0.37)	0.066 J	0.046 J
Benzo(k)fluoranthene	NA	3.9	0.8	ND (0.033)	0.69 J	0.41 J	-	0.031 J	ND (0.033)	ND (0.034)	0.01 J	-	0.12	ND (0.034)	0.15	0.036 J	0.016 J	0.035 J	0.022 J
Biphenyl	NA	NA	NA	ND (0.33)	ND (0.35)	0.034 J	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
bis(2-Chloroethoxy)methane	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
bis(2-Chloroethyl)ether	NA	NA	NA	ND (0.033)	ND (0.035)	ND (0.037)	-	ND (0.033)	ND (0.033)	ND (0.034)	ND (0.037)	-	ND (0.037)	ND (0.034)	ND (0.034)	ND (0.037)	ND (0.037)	ND (0.07)	ND (0.037)
bis(2-Ethylhexyl)phthalate	NA	NA	NA	ND (0.33)	0.021 J	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
Butyl benzylphthalate (BBP)	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
Caprolactam	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
Carbazole	NA	NA	NA	ND (0.33)	0.064 J	0.2 J	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	0.026 J	ND (0.34)	0.045 J	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
Chrysene	NA	3.9	1	ND (0.33)	1.3	1	-	0.086 J	0.015 J	ND (0.34)	0.026 J	-	0.27 J	ND (0.34)	0.37	0.071 J	0.032 J	0.064 J	0.04 J
Dibenz(a,h)anthracene	NA	0.33	0.33	ND (0.033)	0.3 J	0.11 J	-	ND (0.033)	ND (0.033)	ND (0.034)	ND (0.037)	-	0.034 J	ND (0.034)	0.054	0.02 J	ND (0.037)	ND (0.07)	ND (0.037)
Dibenzofuran	NA	59	7	ND (0.33)	0.031 J	0.24 J	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	0.015 J	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
Diethyl phthalate	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33) J	ND (0.33) J	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
Dimethyl phthalate	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33) J	ND (0.33) J	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
Di-n-butylphthalate (DBP)	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	0.023 J	0.019 J	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
Di-n-octyl phthalate (DnOP)	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
Fluoranthene	NA	100	100	ND (0.33)	2	3	-	0.16 J	0.028 J	ND (0.34)	0.038 J	-	0.54	ND (0.34)	0.69	0.11 J	0.051 J	0.11 J	0.06 J
Fluorene	NA	100	30	ND (0.33)	0.049 J	0.26 J	-	0.012 J-	ND (0.33) J	ND (0.34)	ND (0.37)	-	0.016 J	ND (0.34)	0.026 J	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
Hexachlorobenzene	NA	1.2	0.33	ND (0.033)	ND (0.035)	ND (0.037)	-	ND (0.033)	ND (0.033)	ND (0.034)	ND (0.037)	-	ND (0.037)	ND (0.034)	ND (0.034)	ND (0.037)	ND (0.037)	ND (0.07)	ND (0.037)
Hexachlorobutadiene	NA	NA	NA	ND (0.067)	ND (0.07)	ND (0.074)	-	ND (0.068)	ND (0.068)	ND (0.068)	ND (0.074)	-	ND (0.075)	ND (0.07)	ND (0.069)	ND (0.075)	ND (0.075)	ND (0.14)	ND (0.075)
Hexachlorocyclopentadiene	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
Hexachloroethane	NA	NA	NA	ND (0.033)	ND (0.035)	ND (0.037)	-	ND (0.033)	ND (0.033)	ND (0.034)	ND (0.037)	-	ND (0.037)	ND (0.034)	ND (0.034)	ND (0.037)	ND (0.037)	ND (0.07)	ND (0.037)
Indeno(1,2,3-cd)pyrene	NA	0.5	0.5	ND (0.033)	1.2	0.72	0.12	0.064	ND (0.033)	ND (0.034)	0.017 J	-	0.18	ND (0.034)	0.33	0.12	0.026 J	0.072	0.054
Isophorone	NA	NA	NA	ND (0.13)	ND (0.14)	ND (0.15)	-	ND (0.13)	ND (0.13)	ND (0.14)	ND (0.15)	-	ND (0.15)	ND (0.14)	ND (0.14)	ND (0.15)	ND (0.15)	ND (0.28)	ND (0.15)
Naphthalene	NA	100	12	ND (0.33)	0.041 J	0.093 J	-	0.0078 J	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	0.023 J	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
Nitrobenzene	NA	NA	NA	ND (0.033)	ND (0.035)	ND (0.037)	-	ND (0.033)	ND (0.033)	ND (0.034)	ND (0.037)	-	ND (0.037)	ND (0.034)	ND (0.034)	ND (0.037)	ND (0.037)	ND (0.07)	ND (0.037)
N-Nitrosodi-n-propylamine	NA	NA	NA	ND (0.033)	ND (0.035)	ND (0.037)	-	ND (0.033)	ND (0.033)	ND (0.034)	ND (0.037)	-	ND (0.037)	ND (0.034)	ND (0.034)	ND (0.037)	ND (0.037)	ND (0.07)	ND (0.037)
N-Nitrosodiphenylamine	NA	NA	NA	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
Pentachlorophenol	NA	6.7	0.8	ND (0.27)	ND (0.28)	ND (0.29)	-	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.3)	-	ND (0.3)	ND (0.28)	ND (0.28)	ND (0.3)	ND (0.3)	ND (0.57)	ND (0.3)
Phenanthrene	NA	100	100	ND (0.33)	0.82 J	3.5 J	-	0.14 J	0.024 J	ND (0.34)	ND (0.37)	-	0.4	ND (0.34)	0.45	0.057 J	0.032 J	0.075 J	0.036 J
Phenol	NA	100	0.33	ND (0.33)	ND (0.35)	ND (0.37)	-	ND (0.33)	ND (0.33)	ND (0.34)	ND (0.37)	-	ND (0.37)	ND (0.34)	ND (0.34)	ND (0.37)	ND (0.37)	ND (0.7)	ND (0.37)
Pyrene	NA	100	100	ND (0.33)	2.3	3	-	0.18 J	0.033 J	ND (0.34)	0.041 J	-	0.6	ND (0.34)	0.7	0.11 J	0.05 J	0.11 J	0.061 J

TABLE 1
SUMMARY OF SOIL QUALITY DATA
FORMER FIEDLER WATERPROOFING & MASONRY SITE
91 BRUCKNER BOULEVARD
BRONX, NEW YORK

Location Name	Action Level			EP-12	EP-13	EP-13	EP-13	EP-14	EP-14	EP-15	EP-16	EP-16	EP-17	EP-18	EP-19	EP-19_SW-01	EP-19_SW-02	EP-19_SW-03	EP-19_SW-04
Sample Name	Restricted Use Soil Cleanup Objectives - Protection of Groundwater	NY Part 375 Restricted Residential Use Soil Cleanup Objectives	NY Part 375 Unrestricted Use Soil Cleanup Objectives	EP-12_8	EP-13_8	DUP-01_20240219	EP-13_10	DUP-02_20240417	EP-14_8	EP-15_8	EP-16_8	EP-16_10	EP-17_8	EP-18_8	EP-19_10	EP-19_SW-01	EP-19_SW-02	EP-19_SW-03	EP-19_SW-04
Sample Date				02/21/2024	02/19/2024	02/19/2024	02/19/2024	04/17/2024	04/17/2024	03/13/2024	02/27/2024	02/27/2024	02/19/2024	02/27/2024	03/14/2024	03/14/2024	03/14/2024	03/14/2024	03/14/2024
Lab Sample ID				460-298552-1	460-298392-1	460-298392-4	460-298393-1	460-302258-2	460-302258-1	460-299966-1	460-298917-1		460-298392-2	460-298917-2	460-300032-1				
Sample Depth (bgs)				460-298554-1 8 - 8.5 (ft)	460-298395-1 8 - 8.5 (ft)	460-298395-2 8 - 8.5 (ft)	10 - 10.5 (ft)	460-302349-2 8 - 8.5 (ft)	460-302349-1 8 - 8.5 (ft)	460-299993-2 6 - 8 (ft)	460-298918-1 8 - 8.5 (ft)	460-298916-1 10 - 10.5 (ft)	460-298395-3 8 - 8.5 (ft)	460-298918-2 8 - 8.5 (ft)	460-300136-1 10 - 10.5 (ft)	460-300032-2 -	460-300032-3 -	460-300032-4 -	460-300032-5 -
Inorganic Compounds (mg/kg)																			
Aluminum	NA	NA	NA	4440	6140	6010	-	4710	5470	4910	11000	-	4640	5360	5520	5840	5890	10900	6370
Antimony	NA	NA	NA	ND (0.76)	0.16 J	0.29 J	-	ND (0.94)	ND (1)	ND (0.79)	0.15 J	-	0.29 J	ND (0.77)	0.28 J	0.18 J	0.44 J	ND (1.7)	ND (0.91)
Arsenic	NA	16	13	0.78	2.5 J	2.3 J	-	0.88 J	0.86 J	0.68 J	2.8	-	3 J	0.72 J	1.2	1	1.3	1.6 J	0.94
Barium	NA	400	350	27.6	128 J	137 J	-	35.1	41.9	28.3	66.7	-	32.3 J	33.6	221	159	169	164	67.7
Beryllium	NA	72	7.2	0.2 J	0.33 J	0.31 J	-	0.26 J	0.27 J	0.27 J	0.48	-	0.2 J	0.26 J	0.28 J	0.32 J	0.27 J	0.54 J	0.33 J
Cadmium	NA	4.3	2.5	ND (0.76)	0.63 J	0.28 J	-	ND (0.94)	ND (1)	ND (0.79)	0.35 J	-	3.2 J	0.087 J	0.15 J	0.14 J	0.15 J	ND (1.7)	0.1 J
Calcium	NA	NA	NA	58700	53700 J	51700 J	-	66400	81000	46800	29700	-	36200 J	56600	52100	51700	50600	113000	58500
Chromium	NA	NA	NA	8.7	16	13.7	-	8.8	10	10.2	19.9	-	9.8	10.9	12	15.8	13.9	23.4	13.6
Chromium III (Trivalent)	NA	180	30	8.7	16	13.7	-	8.8	10	10.2	19.9	-	9.8	10.9	12	15.8	13.9	23.4	13.6
Chromium VI (Hexavalent)	19	110	1	ND (1.9)	ND (2)	ND (2.2)	-	ND (2)	ND (2)	ND (2)	ND (2.2)	-	ND (2.2)	ND (2)	ND (2.1)	ND (2.2)	ND (2.2)	ND (4.2)	ND (2.2)
Cobalt	NA	NA	NA	3.8	5.5	5.2	-	4.1	4.1	4.3	8.3	-	4.7 J	4.6	4.8	5.2	4.8	10	5.3
Copper	NA	270	50	9.4	31.2 J	28.9 J	-	10.3	10.1	9.7	27.6	-	29.4 J	10.8	15.7	12	15.4	22.2	12.5
Iron	NA	NA	NA	8430	13700 J	11200 J	-	8070	8640	9050	15200	-	19500 J	9480	10100	12800	10500	20000	11300
Lead	NA	400	63	3.5	159 J	135 J	-	15.6	16.1 J	3.9	26.9	-	71.2 J	3.4	72	46.2	78.6	46.4	18.2
Magnesium	NA	NA	NA	30900	28800 J	27700 J	-	35600	42800	26100	25100	-	23700 J	32000	28500	26300	26500	59100	32200
Manganese	NA	2000	1600	197	254 J	329 J	-	194	213	225	393	-	281 J	222	248	252	206	479	245
Mercury	NA	0.81	0.18	0.029	0.59 J	0.24 J	-	0.068	ND (0.017) J	ND (0.017)	1.1	0.29	0.14 J	ND (0.017)	0.36	0.092	0.16	0.044	0.02
Nickel	NA	310	30	7.9	12	11.2	-	8.1	8.5	9	17.1	-	8.7	9.5	10.3	10.9	10.2	22	11.6
Potassium	NA	NA	NA	1300	1780	1810	-	1150	1390	1170	2550	-	920	1420	1500	1670	1490	3110	1660
Selenium	4	180	3.9	ND (0.95)	0.2 J	0.22 J	-	ND (1.2)	ND (1.3)	ND (0.98)	0.12 J	-	0.35 J	ND (0.96)	ND (1)	ND (1.2)	ND (1.1)	ND (2.2)	ND (1.1)
Silver	NA	180	2	ND (0.3)	0.11 J	0.11 J	-	ND (0.37)	ND (0.4)	ND (0.31)	ND (0.34)	-	ND (0.45)	ND (0.31)	ND (0.32)	ND (0.37)	ND (0.34)	ND (0.69)	ND (0.36)
Sodium	NA	NA	NA	141	217	174	-	162	175	170	267	-	199	187	173	167	168	353	224
Thallium	NA	NA	NA	0.094 J	0.15 J	0.15 J	-	0.11 J	0.12 J	0.099 J	0.22 J	-	0.12 J	0.11 J	0.14 J	0.12 J	0.12 J	0.24 J	0.13 J
Vanadium	NA	NA	NA	14.1	18.7	18.4	-	14.2	15 J	17.1	28.4	-	14	18.2	18.7	23	20.8	37.8	21.5
Zinc	NA	10000	109	27.9	297 J	151 J	-	49.7	55.7	30.2	98.4	-	700 J	44.2	116	118	108	102	52.5
PCBs (mg/kg)																			
Aroclor-1016 (PCB-1016)	NA	NA	NA	ND (0.067)	ND (0.07)	ND (0.074)	-	ND (0.067)	ND (0.067) J	ND (0.068)	ND (0.074)	-	ND (0.074)	ND (0.07)	ND (0.069)	-	-	-	-
Aroclor-1221 (PCB-1221)	NA	NA	NA	ND (0.067)	ND (0.07)	ND (0.074)	-	ND (0.067)	ND (0.067)	ND (0.068)	ND (0.074)	-	ND (0.074)	ND (0.07)	ND (0.069)	-	-	-	-
Aroclor-1232 (PCB-1232)	NA	NA	NA	ND (0.067)	ND (0.07)	ND (0.074)	-	ND (0.067)	ND (0.067)	ND (0.068)	ND (0.074)	-	ND (0.074)	ND (0.07)	ND (0.069)	-	-	-	-
Aroclor-1242 (PCB-1242)	NA	NA	NA	ND (0.067)	ND (0.07)	ND (0.074)	-	ND (0.067)	ND (0.067)	ND (0.068)	ND (0.074)	-	ND (0.074)	ND (0.07)	ND (0.069)	-	-	-	-
Aroclor-1248 (PCB-1248)	NA	NA	NA	ND (0.067)	ND (0.07)	ND (0.074)	-	ND (0.067)	ND (0.067)	ND (0.068)	ND (0.074)	-	ND (0.074)	ND (0.07)	ND (0.069)	-	-	-	-
Aroclor-1254 (PCB-1254)	NA	NA	NA	ND (0.067)	ND (0.07)	ND (0.074)	-	ND (0.067)	ND (0.067)	ND (0.068)	ND (0.074)	-	ND (0.074)	ND (0.07)	ND (0.069)	-	-	-	-
Aroclor-1260 (PCB-1260)	NA	NA	NA	ND (0.067)	ND (0.07)	ND (0.074)	-	ND (0.067)	ND (0.067) J	ND (0.068)	ND (0.074)	-	ND (0.074)	ND (0.07)	ND (0.069)	-	-	-	-
Aroclor-1262 (PCB-1262)	NA	NA	NA	ND (0.067)	ND (0.07)	ND (0.074)	-	ND (0.067)	ND (0.067)	ND (0.068)	ND (0.074)	-	ND (0.074)	ND (0.07)	ND (0.069)	-	-	-	-
Aroclor-1268 (PCB-1268)	NA	NA	NA	ND (0.067)	ND (0.07)	ND (0.074)	-	ND (0.067)	ND (0.067)	ND (0.068)	ND (0.074)	-	ND (0.074)	ND (0.07)	ND (0.069)	-	-	-	-
Polychlorinated biphenyls (PCBs)	NA	1	0.1	ND (0.067)	ND (0.07)	ND (0.074)	-	ND (0.067)	ND (0.067)	ND (0.068)	ND (0.074)	-	ND (0.074)	ND (0.07)	ND (0.069)	-	-	-	-
Pesticides (mg/kg)																			
4,4'-DDD	NA	13	0.0033	ND (0.0067)	ND (0.007)	ND (0.0074)	-	ND (0.0067)	ND (0.0067)	ND (0.0068)	ND (0.0074)	-	ND (0.0074)	ND (0.007)	ND (0.0069)	-	-	-	-
4,4'-DDE	NA	8.9	0.0033	ND (0.0067)	ND (0.007)	ND (0.0074)	-	ND (0.0067)	ND (0.0067)	ND (0.0068)	ND (0.0074)	-	ND (0.0074)	ND (0.007)	0.0032 J	-	-	-	-
4,4'-DDT	NA	7.9	0.0033	ND (0.0067)	0.0034 J	0.0029 J	-	ND (0.0067)	ND (0.0067)	ND (0.0068)	ND (0.0074)	-	ND (0.0074)	ND (0.007)	0.014	-	-	-	-
Aldrin	NA	0.097	0.005	ND (0.0067)	ND (0.007)	ND (0.0074)	-	ND (0.0067)	ND (0.0067)	ND (0.0068)	ND (0.0074)	-	ND (0.0074)	ND (0.007)	ND (0.0069)	-	-	-	-
alpha-BHC	NA	0.48	0.02	ND (0.002)	ND (0.0021)	ND (0.0022)	-	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.0022)	-	ND (0.0022)	ND (0.0021)	ND (0.0021)	-	-	-	-
alpha-Chlordane (cis)	NA	4.2	0.094	ND (0.0067)	ND (0.007)	ND (0.0074)	-	ND (0.0067)	ND (0.0067)	ND (0.0068)	ND (0.0074)	-	ND (0.0074)	ND (0.007)	ND (0.0069)	-	-	-	-
beta-BHC	NA	0.36	0.036	ND (0.002)	ND (0.0021)	ND (0.0022)	-	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.0022)	-	ND (0.0022)	ND (0.0021)	ND (0.0021)	-	-	-	-
Chlordane	NA	NA	NA	ND (0.067)	ND (0.07)	ND (0.074)	-	ND (0.067)	ND (0.067)	ND (0.068)	ND (0.074)	-	ND (0.074)	ND (0.07)	ND (0.069)	-	-	-	-
delta-BHC	NA	100	0.04	ND (0.002)	ND (0.0021)	ND (0.0022)	-	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.0022)	-	ND (0.0022)	ND (0.0021)	ND (0.0021)	-	-	-	-
Dieldrin	NA	0.2	0.005	ND (0.002)	ND (0.0021)	ND (0.0022)	-	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.0022)	-	ND (0.0022)	ND (0.0021)	ND (0.0021)	-	-	-	-
Endosulfan I	NA	24	2.4	ND (0.0067)	ND (0.007)	ND (0.0074)	-	ND (0.0067)	ND (0.0067)	ND (0.0068)	ND (0.0074)	-	ND (0.0074)	ND (0.007)	ND (0.0069)	-	-	-	-
Endosulfan II	NA	24	2.4	ND (0.0067)	ND (0.007)	ND (0.0074)	-	ND (0.0067)	ND (0.0067)	ND (0.0068)	ND (0.0074)	-	ND (0.0074)	ND (0.007)	ND (0.0069)	-	-	-	-
Endosulfan sulfate	NA	24	2.4	ND (0.0067)	ND (0.007)	ND (0.0074)	-	ND (0.0067)	ND (0.0067)	ND (0.0068)	ND (0.0074)	-	ND (0.0074)	ND (0.007)	ND (0.0069)	-	-	-	-
Endrin	NA	11	0.014	ND (0.0067)	ND (0.007)	ND (0.0074)	-	ND (0.0067)	ND (0.0067)	ND (0.0068)	ND (0.0074)	-	ND (0.0074)	ND (0.007)	ND (0.0069)	-	-	-	-
Endrin aldehyde	NA	NA	NA	ND (0.0067)	ND (0.007)	ND (0.0074)	-	ND (0.0067)	ND (0.0067)	ND (0.0068)	ND (0.0074)	-	ND (0.0074)	ND (0.007)	ND (0.0069)	-	-	-	-
Endrin ketone	NA	NA	NA	ND (0.0067)	ND (0.007)	ND (0.0074)	-	ND (0.0067)	ND (0.0067)	ND (0.0068)	ND (0.0074)	-	ND (0.0074)	ND (0.007)	ND (0.0069)	-	-	-	-
gamma-BHC (Lindane)	NA	1.3	0.1	ND (0.002)	ND (0.0021)	ND (0.0022)	-	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.0022)	-	ND (0.0022)	ND (0.0021)	ND (0.0021)	-	-	-	-
Heptachlor	NA	2.1	0.042	ND (0.0067)	ND (0.007)	ND (0.0074)	-	ND (0.0067)	ND (0.0067)	ND (0.0068)	ND (0.0074)	-	ND (0.0074)	ND (0.007)	ND (0.0069)	-	-	-	-
Heptachlor epoxide	NA	NA	NA	ND (0.0067)	ND (0.007)	ND (0.0074)	-	ND (0.0067)	ND (0.0067)	ND (0.0068)	ND (0.0074)	-	ND (0.0074)	ND (0.007)	ND (0.0069)	-	-	-	-
Methoxychlor	NA	NA	NA	ND (0.0067)	ND (0.007)	ND (0.0074)	-	ND (0.0067)	ND (0.0067)	ND (0.0068)	ND (0.0074)	-	ND (0.0074)	ND (0.007)	ND (0.0069)	-	-	-	-
Toxaphene	NA	NA	NA	ND (0.067)	ND (0.07)	ND (0.074)	-	ND (0.067)	ND (0.067)	ND (0.068)	ND (0.074)	-	ND (0.074)	ND (0.07)	ND (0.069)	-	-	-	-

TABLE 1
SUMMARY OF SOIL QUALITY DATA
FORMER FIEDLER WATERPROOFING & MASONRY SITE
91 BRUCKNER BOULEVARD
BRONX, NEW YORK

Location Name	Action Level			EP-12	EP-13	EP-13	EP-13	EP-14	EP-14	EP-15	EP-16	EP-16	EP-17	EP-18	EP-19	EP-19_SW-01	EP-19_SW-02	EP-19_SW-03	EP-19_SW-04
Sample Name	Restricted Use Soil Cleanup Objectives - Protection of Groundwater	NY Part 375 Restricted Residential Use Soil Cleanup Objectives	NY Part 375 Unrestricted Use Soil Cleanup Objectives	EP-12_8	EP-13_8	DUP-01_20240219	EP-13_10	DUP-02_20240417	EP-14_8	EP-15_8	EP-16_8	EP-16_10	EP-17_8	EP-18_8	EP-19_10	EP-19_SW-01	EP-19_SW-02	EP-19_SW-03	EP-19_SW-04
Sample Date				02/21/2024	02/19/2024	02/19/2024	02/19/2024	04/17/2024	04/17/2024	03/13/2024	02/27/2024	02/27/2024	02/19/2024	02/27/2024	03/14/2024	03/14/2024	03/14/2024	03/14/2024	03/14/2024
Lab Sample ID				460-298552-1	460-298392-1	460-298392-4		460-302258-2	460-302258-1	460-299966-1	460-298917-1		460-298392-2	460-298917-2	460-300032-1				
Sample Depth (bgs)				460-298554-1 8 - 8.5 (ft)	460-298395-1 8 - 8.5 (ft)	460-298395-2 8 - 8.5 (ft)	460-298393-1 10 - 10.5 (ft)	460-302349-2 8 - 8.5 (ft)	460-302349-1 8 - 8.5 (ft)	460-299993-2 6 - 8 (ft)	460-298918-1 8 - 8.5 (ft)	460-298916-1 10 - 10.5 (ft)	460-298395-3 8 - 8.5 (ft)	460-298918-2 8 - 8.5 (ft)	460-300136-1 10 - 10.5 (ft)	460-300032-2 -	460-300032-3 -	460-300032-4 -	460-300032-5 -
PFAS (mg/kg)																			
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	NA	NA	NA	ND (0.00087)	ND (0.00086)	ND (0.00086)	-	ND (0.00078)	ND (0.00098)	ND (0.00086)	ND (0.00089)	-	ND (0.00089)	ND (0.00087)	ND (0.00083)	-	-	-	-
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	NA	NA	NA	ND (0.00543)	ND (0.00539)	ND (0.0054)	-	ND (0.00491)	ND (0.00615)	ND (0.00538)	ND (0.00556)	-	ND (0.00557)	ND (0.00543)	ND (0.00517)	-	-	-	-
3-(Perfluoroheptyl)propanoic acid (7:3 FTCA)	NA	NA	NA	ND (0.00543)	ND (0.00539)	ND (0.0054)	-	ND (0.00491)	ND (0.00615)	ND (0.00538)	ND (0.00556)	-	ND (0.00557)	ND (0.00543)	ND (0.00517)	-	-	-	-
3:3 Fluorotelomer carboxylic acid (3:3 FTCA)	NA	NA	NA	ND (0.00109)	ND (0.00108)	ND (0.00108)	-	ND (0.00098)	ND (0.00123)	ND (0.00108)	ND (0.00111)	-	ND (0.00111)	ND (0.00109)	ND (0.00103)	-	-	-	-
4,8-Dioxa-3H-Perfluorononanoic Acid (ADONA)	NA	NA	NA	ND (0.00087)	ND (0.00086)	ND (0.00086)	-	ND (0.00078)	ND (0.00098)	ND (0.00086)	ND (0.00089)	-	ND (0.00089)	ND (0.00087)	ND (0.00083)	-	-	-	-
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	NA	NA	NA	ND (0.00087)	ND (0.00086)	ND (0.00086)	-	ND (0.00078)	ND (0.00098)	ND (0.00086)	ND (0.00089)	-	ND (0.00089)	ND (0.00087)	ND (0.00083)	-	-	-	-
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NA	NA	NA	ND (0.00087)	ND (0.00086)	ND (0.00086)	-	ND (0.00078)	ND (0.00098)	ND (0.00086)	ND (0.00089)	-	ND (0.00089)	ND (0.00087)	ND (0.00083)	-	-	-	-
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NA	NA	NA	ND (0.00087)	ND (0.00086)	ND (0.00086)	-	ND (0.00078)	ND (0.00098)	ND (0.00086)	ND (0.00089)	-	ND (0.00089)	ND (0.00087)	ND (0.00083)	-	-	-	-
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	NA	NA	NA	ND (0.00087)	ND (0.00086)	ND (0.00086)	-	ND (0.00078)	ND (0.00098)	ND (0.00086)	ND (0.00089)	-	ND (0.00089)	ND (0.00087)	ND (0.00083)	-	-	-	-
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	NA	NA	NA	ND (0.00022) J	ND (0.00022)	ND (0.00022)	-	ND (0.0002)	0.000034 J	ND (0.00022)	ND (0.00022)	-	ND (0.00022)	ND (0.00022)	ND (0.00021)	-	-	-	-
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	NA	NA	NA	ND (0.00022) J	ND (0.00022) J	ND (0.00022) J	-	ND (0.0002) J	ND (0.00025) J	ND (0.00022)	ND (0.00022)	-	ND (0.00022) J	ND (0.00022)	ND (0.00021)	-	-	-	-
N-Ethylperfluorooctane sulfonamidoethanol (N-EtFOSE)	NA	NA	NA	ND (0.00217) J	ND (0.00216)	ND (0.00216)	-	ND (0.00196) J	ND (0.00246)	ND (0.00215)	ND (0.00222) J	-	ND (0.00223) J	ND (0.00217)	ND (0.00207)	-	-	-	-
N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00022)	-	ND (0.0002)	ND (0.00025)	ND (0.00022)	ND (0.00022)	-	ND (0.00022)	ND (0.00022)	ND (0.00021)	-	-	-	-
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	NA	NA	NA	ND (0.00022) J	ND (0.00022)	ND (0.00022)	-	ND (0.0002)	ND (0.00025)	ND (0.00022)	ND (0.00022)	-	ND (0.00022) J	ND (0.00022)	ND (0.00021)	-	-	-	-
N-Methylperfluorooctane sulfonamidoethanol (N-MeFOSE)	NA	NA	NA	ND (0.00217) J	ND (0.00216)	ND (0.00216)	-	ND (0.00196) J	ND (0.00246)	ND (0.00215)	ND (0.00222) J	-	ND (0.00223) J	ND (0.00217)	ND (0.00207)	-	-	-	-
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NA	NA	NA	ND (0.00043)	ND (0.00043)	ND (0.00043)	-	ND (0.00039)	ND (0.00049)	ND (0.00043)	ND (0.00044)	-	ND (0.00045)	ND (0.00043)	ND (0.00041)	-	-	-	-
Perfluoro(2-ethoxyethane) sulphonic acid (PFEESA)	NA	NA	NA	ND (0.00043)	ND (0.00043)	ND (0.00043)	-	ND (0.00039)	ND (0.00049)	ND (0.00043)	ND (0.00044)	-	ND (0.00045)	ND (0.00043)	ND (0.00041)	-	-	-	-
Perfluoro(4-methoxybutanoic) acid (PFMBA)	NA	NA	NA	ND (0.00043)	ND (0.00043)	ND (0.00043)	-	ND (0.00039)	ND (0.00049)	ND (0.00043)	ND (0.00044)	-	ND (0.00045)	ND (0.00043)	ND (0.00041)	-	-	-	-
Perfluoro-2-propoxypropanoic acid (PFPrOPrA)(GenX) (HFPO-DA)	NA	NA	NA	ND (0.00087)	ND (0.00086)	ND (0.00086)	-	ND (0.00078)	ND (0.00098)	ND (0.00086)	ND (0.00089)	-	ND (0.00089)	ND (0.00087)	ND (0.00083)	-	-	-	-
Perfluoro-3-methoxypropanoic acid (PFMPA)	NA	NA	NA	ND (0.00043)	ND (0.00043)	ND (0.00043)	-	ND (0.00039)	ND (0.00049)	ND (0.00043)	ND (0.00044)	-	ND (0.00045)	ND (0.00043)	ND (0.00041)	-	-	-	-
Perfluorobutanesulfonic acid (PFBS)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00022)	-	ND (0.0002)	ND (0.00025)	ND (0.00022)	ND (0.00022)	-	ND (0.00022)	ND (0.00022)	ND (0.00021)	-	-	-	-
Perfluorobutanoic acid (PFBA)	NA	NA	NA	ND (0.00087) J	ND (0.00086) J	ND (0.00086) J	-	ND (0.00078)	ND (0.00098)	ND (0.00086)	ND (0.00089)	-	ND (0.00089) J	ND (0.00087)	ND (0.00083)	-	-	-	-
Perfluorodecanesulfonic acid (PFDS)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00022)	-	ND (0.0002)	ND (0.00025)	ND (0.00022)	ND (0.00022)	-	ND (0.00022)	ND (0.00022)	ND (0.00021)	-	-	-	-
Perfluorodecanoic acid (PFDA)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00022)	-	ND (0.0002)	ND (0.00025)	ND (0.00022)	ND (0.00022)	-	ND (0.00022)	ND (0.00022)	ND (0.00021)	-	-	-	-
Perfluorododecane sulfonic acid (PFDoDS)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00022)	-	ND (0.0002)	ND (0.00025)	ND (0.00022)	ND (0.00022)	-	ND (0.00022)	ND (0.00022)	ND (0.00021)	-	-	-	-
Perfluorododecanoic acid (PFDoDA)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00022)	-	ND (0.0002)	ND (0.00025)	ND (0.00022)	ND (0.00022)	-	ND (0.00022)	ND (0.00022)	ND (0.00021)	-	-	-	-
Perfluoroheptanesulfonic acid (PFHpS)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00022)	-	ND (0.0002)	ND (0.00025)	ND (0.00022)	ND (0.00022)	-	ND (0.00022)	ND (0.00022)	ND (0.00021)	-	-	-	-
Perfluoroheptanoic acid (PFHpA)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00022)	-	ND (0.0002)	ND (0.00025)	ND (0.00022)	0.000042 J	-	ND (0.00022)	ND (0.00022)	ND (0.00021)	-	-	-	-
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00022)	-	ND (0.0002)	ND (0.00025)	ND (0.00022)	ND (0.00022)	-	ND (0.00022)	ND (0.00022)	ND (0.00021)	-	-	-	-
Perfluorohexanoic acid (PFHxA)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00022)	-	ND (0.0002)	ND (0.00025)	ND (0.00022)	ND (0.00022)	-	ND (0.00022)	ND (0.00022)	ND (0.00021)	-	-	-	-
Perfluorononane sulfonic acid (PFNS)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00022)	-	ND (0.0002)	ND (0.00025)	ND (0.00022)	ND (0.00022)	-	ND (0.00022)	ND (0.00022)	ND (0.00021)	-	-	-	-
Perfluorononanoic acid (PFNA)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00022)	-	ND (0.0002)	ND (0.00025)	ND (0.00022)	ND (0.00022)	-	ND (0.00022)	ND (0.00022)	ND (0.00021)	-	-	-	-
Perfluorooctane sulfonamide (PFOSA)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00022)	-	ND (0.0002)	0.000023 J	ND (0.00022)	ND (0.00022)	-	ND (0.00022)	ND (0.00022)	ND (0.00021)	-	-	-	-
Perfluorooctanesulfonic acid (PFOS)	NA	0.044	0.00088	0.0003	0.00015 J	0.000092 J	-	ND (0.0002)	0.00034	0.00011 J	0.00041	-	ND (0.00022)	ND (0.00022)	0.00016 J	-	-	-	-
Perfluorooctanoic acid (PFOA)	NA	0.033	0.00066	0.000072 J	0.000056 J	ND (0.00022)	-	ND (0.0002)	ND (0.00025)	ND (0.00022)	0.00014 J	-	ND (0.00022)	ND (0.00022)	ND (0.00021)	-	-	-	-
Perfluoropentanesulfonic acid (PFPeS)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00022)	-	ND (0.0002)	ND (0.00025)	ND (0.00022)	ND (0.00022)	-	ND (0.00022)	ND (0.00022)	ND (0.00021)	-	-	-	-
Perfluoropentanoic acid (PFPeA)	NA	NA	NA	0.00003 J	ND (0.00043)	ND (0.00043)	-	ND (0.00039)	ND (0.00049)	ND (0.00043)	0.00005 J	-	0.000028 J	ND (0.00043)	ND (0.00041)	-	-	-	-
Perfluorotetradecanoic acid (PFTeDA)	NA	NA	NA	ND (0.00022) J	ND (0.00022)	ND (0.00022)	-	ND (0.0002)	ND (0.00025) J	ND (0.00022)	ND (0.00022) J	-	ND (0.00022) J	ND (0.00022)	ND (0.00021)	-	-	-	-
Perfluorotridecanoic acid (PFTrDA)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00022)	-	ND (0.0002)	ND (0.00025)	ND (0.00022)	ND (0.00022)	-	ND (0.00022)	ND (0.00022)	ND (0.00021)	-	-	-	-
Perfluoroundecanoic acid (PFUnDA)	NA	NA	NA	ND (0.00022)	ND (0.00022)	ND (0.00022)	-	ND (0.0002)	ND (0.00025)	ND (0.00022)	ND (0.00022)	-	ND (0.00022)	ND (0.00022)	ND (0.00021)	-	-	-	-

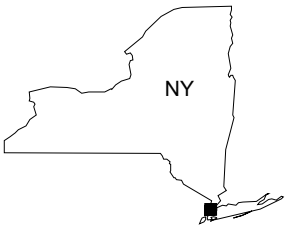
Notes:

mg/kg: milligram per kilogram
µg/kg: microgram per kilogram

**: Laboratory control sample or laboratory control sample duplicate is outside acceptance limits*
-: Not Analyzed
B: Compound was found in the blank and the associated sample.
P: The RPD between the results for the two columns exceeds the method-specified criteria.
bgs: below ground surface
ft: feet
J: Value is estimated.
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit

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

FIGURES



HALEY ALDRICH

91 BRUCKNER BOULEVARD
BRONX, NY

PROJECT LOCUS

MAP SOURCE: USGS
SITE COORDINATES: 40°48'20"N, 73°55'27"W

APPROXIMATE SCALE: 1 IN = 2000 FT
OCTOBER 2024

FIGURE 1

GIS FILE PATH: \\haleyaldrich.com\share\CF\Projects\020157\GIS\Maps\2022_08_20452020045520_000_0001_PROJECT_LOCUS.mxd — USER: hwadholz — LAST SAVED: 8/5/2022 12:22:09 PM

LEGEND

PARCEL BOUNDARY

SITE BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.

2. ASSESSOR PARCEL DATA SOURCE: NYC DEPARTMENT OF CITY PLANNING

3. AERIAL IMAGERY SOURCE: ESRI

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SCALE IN FEET

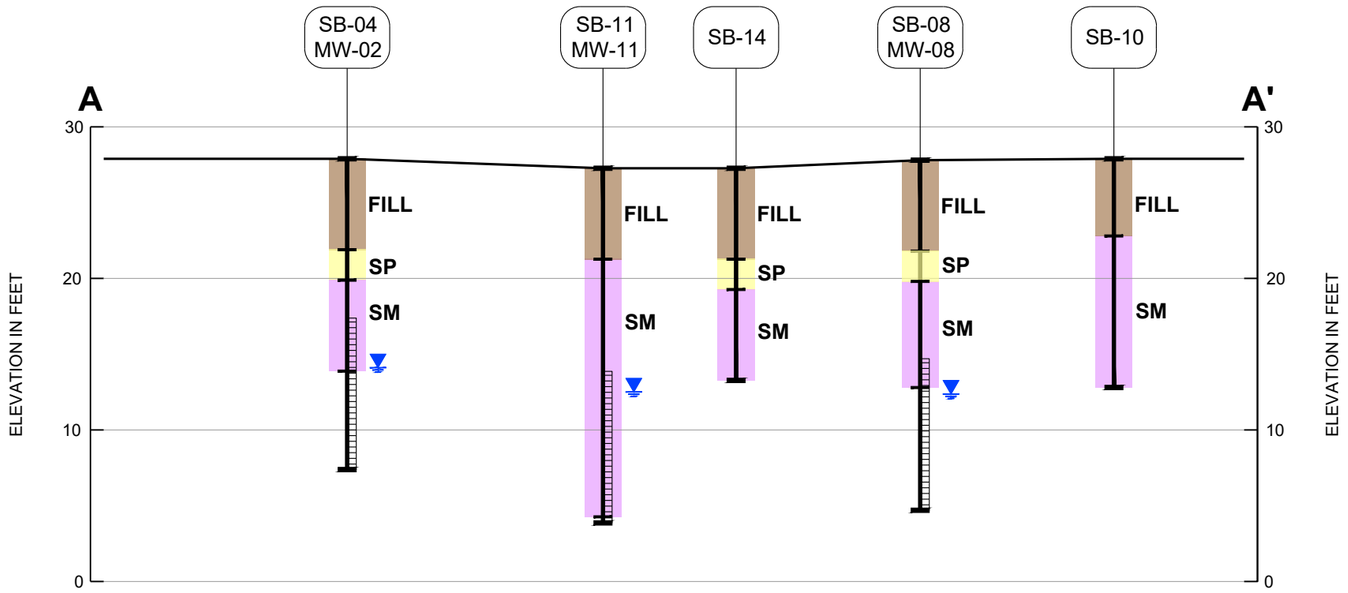
HALEY ALDRICH

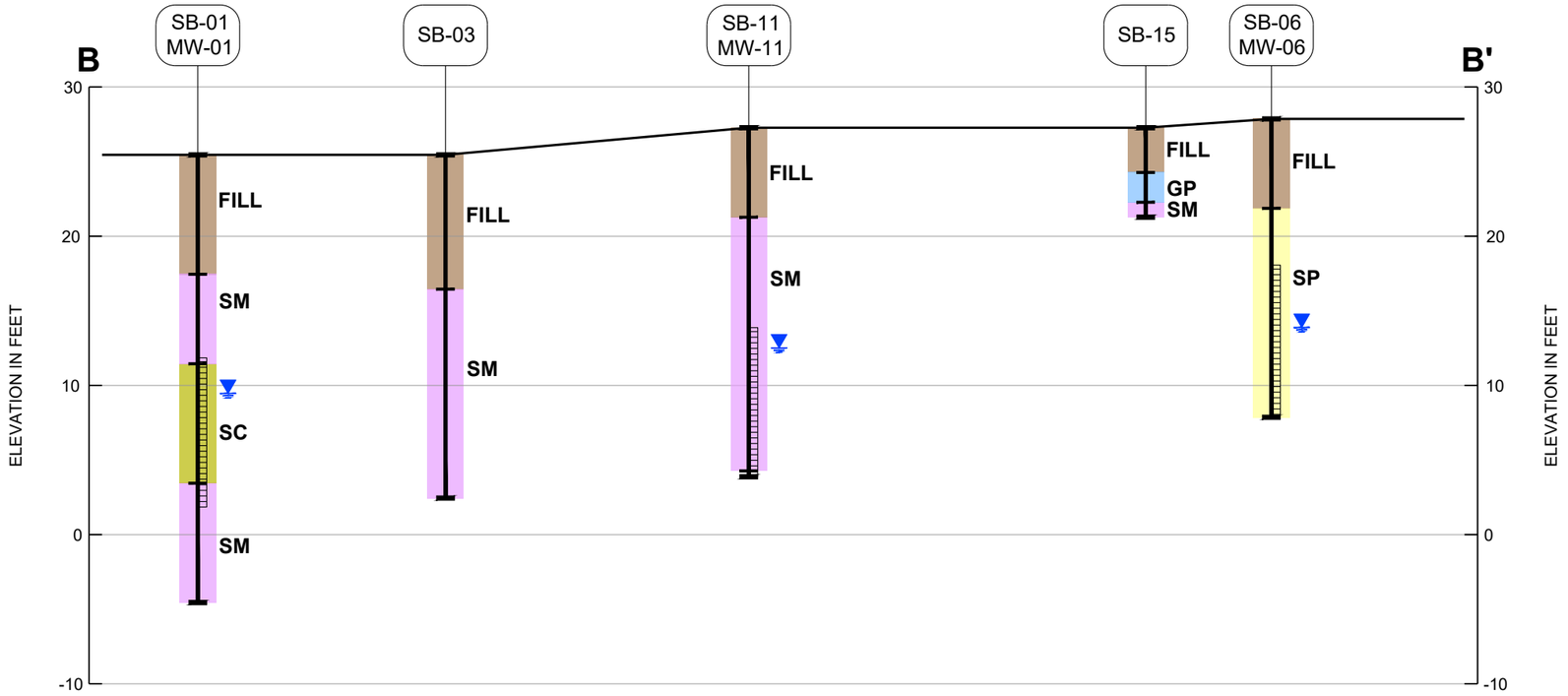
91 BRUCKNER BOULEVARD
BRONX, NEW YORK

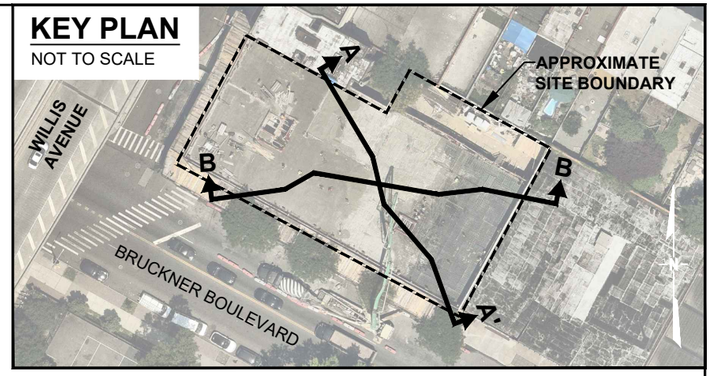
SITE PLAN

OCTOBER 2024

FIGURE 2







LEGEND

SB-01 / MW-01 — EXPLORATION DESIGNATION

INTERPRETED GEOLOGIC STRATUM INTERFACE

GROUNDWATER WATER LEVEL

MONITORING WELL SCREEN INTERVAL

BOTTOM OF EXPLORATION

GEOLOGY KEY

- FILL
- **SP** (POORLY GRADED SAND)
- **SM** (SILTY SAND)
- **SC** (CLAYEY SAND)
- **GP** (POORLY-GRADED GRAVEL)

HORIZ. 0 20 40
VERT. 0 10 20
SCALE IN FEET

HALEY ALDRICH

91 BRUCKNER BOULEVARD
BRONX, NEW YORK

GEOLOGIC CROSS SECTIONS - 2023 REMEDIAL INVESTIGATION

SCALE: AS SHOWN
OCTOBER 2024

FIGURE 3

Saved by: DTE
Printed: 9/30/2024 12:52 PM Sheet: B001
\\HALEYALDRICH\SHARE\CF\PROJECTS\0204520\CADFIGURES\0204520_0000_0005_GEOLOGIC_X-SECS.DWG

LEGEND

- MONITORING WELL
- SITE BOUNDARY
- PARCEL BOUNDARY
- 14.0 GROUNDWATER ELEVATION CONTOUR (NAVD 88) (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION
- 13.88 GROUNDWATER ELEVATION (NAVD 88)

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. ASSESSOR PARCEL DATA SOURCE: NYC DEPARTMENT OF CITY PLANNING
3. AERIAL IMAGERY SOURCE: NEARMAP, 27 SEPTEMBER 2022

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0 20 40
SCALE IN FEET

HALEY ALDRICH

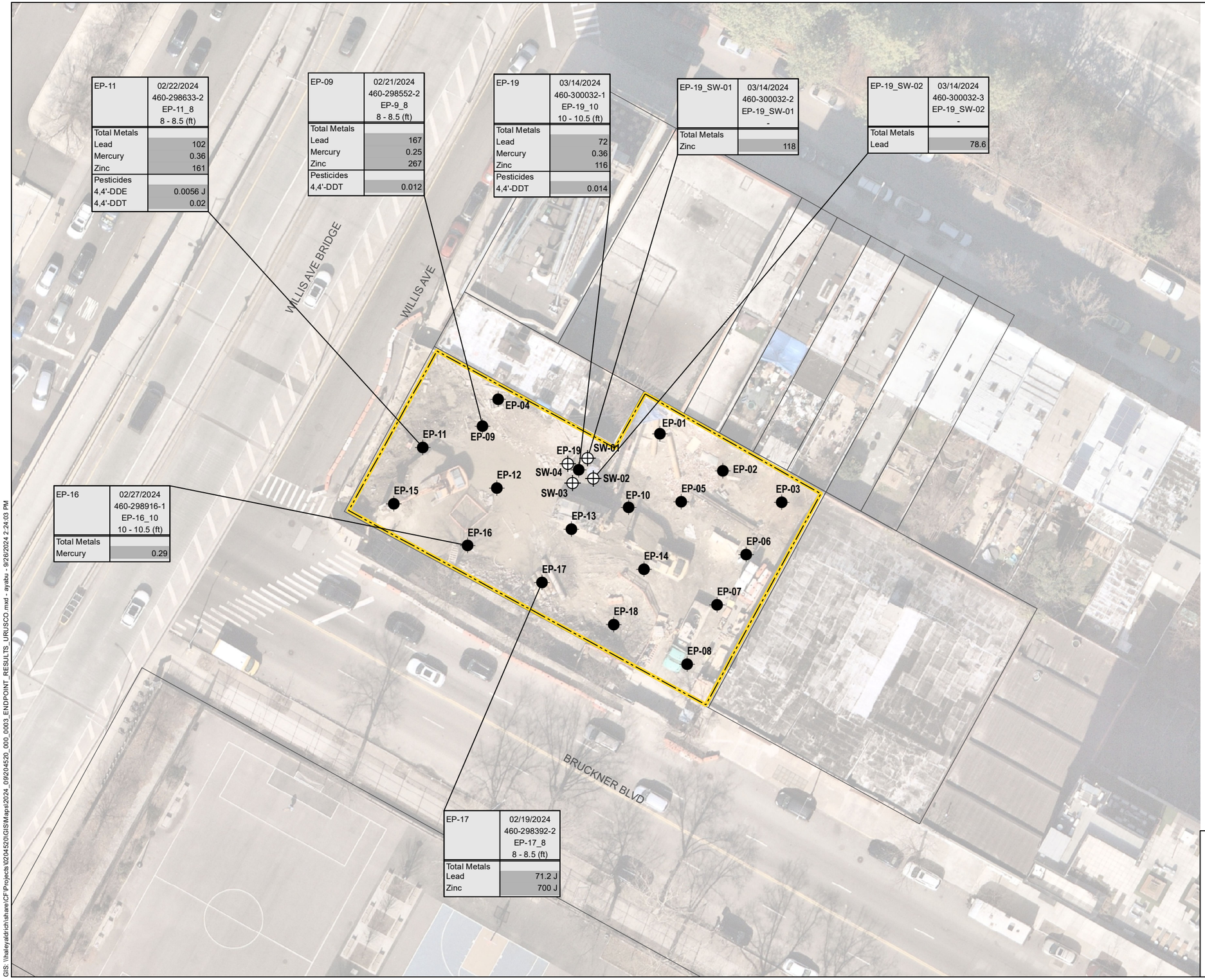
91 BRUCKNER BOULEVARD
BRONX, NEW YORK

GROUNDWATER ELEVATION CONTOUR MAP - 2023 REMEDIAL INVESTIGATION

OCTOBER 2024

FIGURE 4

GIS: \\haleyaldrich.share\CF\Projects\0204520\GIS\Maps\2023_04204520_000_0000_GW_MONITORING_WELL_MAP.mxd - khensen - 4/6/2023 5:14:36 AM



LEGEND

- ENDPOINT SAMPLE
- HOTSPOT CONFIRMATION SIDEWALL SAMPLE
- SITE BOUNDARY
- PARCEL BOUNDARY

	NY-UNRES	NY-RRES	NY-PGW
	mg/kg	mg/kg	mg/kg
Total Metals			
Lead	63	400	N/A
Mercury	0.18	0.81	N/A
Zinc	109	10,000	N/A
Pesticides			
4,4'-DDE	0.0033	8.9	N/A
4,4'-DDT	0.0033	7.9	N/A

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.

2. SOIL SAMPLE ANALYTICAL RESULTS ARE COMPARED TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) TITLE 6 OF THE OFFICIAL COMPILATION OF NEW YORK CODES, RULES, AND REGULATIONS (NYCRR) PART 375 UNRESTRICTED USE SOIL CLEANUP OBJECTIVES (SCOS).

3. NY-UNRES = NYSDEC PART 375 UNRESTRICTED USE SCO

4. NY-RRES = NYSDEC PART 375 RESTRICTED RESIDENTIAL SCO

5. NY-PGW = NYSDEC PART 375 PROTECTION OF GROUNDWATER SCO

6. CONFIRMATION ENDPOINT SAMPLES FOR THE TRACK 2 REMEDY FOR THIS SITE WERE COMPARED TO NY-RRES FOR ALL COMPOUNDS AND NY-PGW FOR SELENIUM, TRIVALENT CHROMIUM, AND HEXAVALENT CHROMIUM. NO EXCEEDANCES OF THESE STANDARDS REMAIN AT THE SITE.

7. N/A = NOT APPLICABLE. CONFIRMATION ENDPOINT SAMPLES NOT COMPARED TO THIS STANDARD.

8. EXCEEDANCES OF THE NY-UNRES SCOS ARE SHADED GRAY.

9. ONLY ANALYTES THAT EXCEED SCREENING CRITERIA ARE SHOWN IN DATABOXES.

10. J = ESTIMATED VALUE

11. RESULTS SHOWN IN MILLIGRAMS PER KILOGRAM (mg/kg).

12. ASSESSOR PARCEL DATA SOURCE: NYC DEPARTMENT OF CITY PLANNING

13. AERIAL IMAGERY SOURCE: NEARMAP, 8 MARCH 2024.

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SCALE IN FEET

HALEY ALDRICH

91 BRUCKNER BOULEVARD
BRONX, NEW YORK

REMAINING CONTAMINATION IN SOIL

OCTOBER 2024

FIGURE 5

GIS: \\haleyaldrich\share\CF\Projects\0204520\GIS\Maps\2024_09\204520_000_0003_ENDPOINT_RESULTS_URUSCO.mxd - ayabu - 9/26/2024 2:24:03 PM

APPENDIX A
Environmental Easement and Site Survey

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.

2024070900189001002E0E09

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

Document ID: 2024070900189001 Document Date: 06-12-2024 Preparation Date: 07-15-2024
Document Type: EASEMENT
Document Page Count: 9

PRESENTER:
LANDMARK ABSTRACT AGENCY LLC
207 ROCKAWAY TURNPIKE
LAWRENCE, NY 11559
CTSY 91 Bruckner

RETURN TO:
LANDMARK ABSTRACT AGENCY LLC
207 ROCKAWAY TURNPIKE
LAWRENCE, NY 11559
CTSY 91 Bruckner

PROPERTY DATA

Borough	Block	Lot	Unit	Address
BRONX	2278	1	Entire Lot	91 BRUCKNER BOULEVARD

Property Type: OTHER Easement

CROSS REFERENCE DATA

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

PARTIES

GRANTOR/SELLER:
91 BRUCKNER BLVD LLC
162 MANHATTAN AVE 1ST FLOOR
BROOKLYN, NY 11206

GRANTEE/BUYER:
N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION
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 07-16-2024 12:16
City Register File No.(CRFN): **2024000181394**

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 as of 12th day of June, 2024 between Owner, 91 Bruckner Blvd LLC, having an office at 162 Manhattan Ave, 1st Floor, Brooklyn, County of Kings, 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 91 Bruckner Boulevard in the City of New York, County of Bronx, 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 2278 Lot 1, being the same as that property conveyed to Grantor by deed dated January 3, 2022 and recorded in the City Register of the City of New York in City Register File No. 2022000034840. The property subject to this Environmental Easement (the "Controlled Property") comprises approximately 0.3329 +/- acres, and is hereinafter more fully described in the Land Title Survey dated May 9, 2024 prepared by Arkadiusz Jusiega, 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: C203160-12-22, 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: C203160
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.

91 Bruckner Blvd LLC:

By: _____

Print Name: Anshel Fridman

Title: Member Date: 5/24/2024

Grantor's Acknowledgment

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

On the 24th day of May, in the year 2024, before me, the undersigned, personally appeared Anshel Fridman, 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

ESTHER KOHN
NOTARY PUBLIC-STATE OF NEW YORK
No. 01KO6429680
Qualified in Kings County
My Commission Expires 02-22-2026

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: _____
Janet Brown, Asst. Division Director
of Environmental Remediation

Grantee's Acknowledgment

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

On the 12th day of June, in the year 2024 before me, the undersigned, personally appeared Janet Brown, 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

ALL that certain plot, piece or parcel of land, with the building and improvements thereon erected, situate, lying and being in the Borough and County of Bronx, City and State of New York, bounded and described as follows:

BEGINNING at the corner formed by the intersection or the easterly side of Willis Avenue, as widened, with the northerly side of Southern Boulevard (now known as Bruckner Boulevard);

RUNNING THENCE easterly, along the northerly side of Southern Boulevard 165 feet;

THENCE northerly, parallel with the easterly side of Willis Avenue and part of the way through a party wall, 100 feet to the center line of the block;

THENCE westerly, along said center line of the block, 85 feet;

THENCE southerly, and parallel with the easterly side of Willis Avenue, 25 feet;

THENCE westerly, parallel with the northerly side of Southern Boulevard, 80 feet to a point on the easterly side of Willis Avenue, as widened;

THENCE southerly along the easterly side of Willis Avenue 75 feet to Southern Boulevard, (now known as Bruckner Boulevard) to the point or place of BEGINNING.

CONTAINING WITHIN SAID BOUNDS 0.33298 ACRE OR 14500.00 SQUARE FEET

LEGEND (NOT FOR TITLE PURPOSES) JOB # 2278Bx9,1#12517

GAS VALVE | PARKING METER | TRAFFIC SIGN | HYDRANT HYD. | TREE PIT | LIGHT POST | CATCH BASIN | UTILITY POLE | PHONE TEL. | WATER VALVE | D.W.S WATER | TEL. MANHOLE | SEWER MANHOLE | ELECTRIC MANHOLE | ELECTRIC BOX.

CL. CLEAR | L.A. LOW AREA | W.W. WINDOW WELL | C.D. CELLAR DOOR | R.C. RISED CONCRETE | S.G.H. SAFETY GATE & HOUSING | F.E. FIRE ESCAPE | ENT.UND. ENTRANCE UNDER | A. AREAWAY | RT. RIGHT | CL. CENTERLINE | TC. TOP OF CURB | BC. BOTTOM OF CURB | LG. LEGAL GRADE | PI POINT OF INTERSECTION | TW. TOP OF WALL | BW. BOTTOM OF WALL | F.F. FIRST FLOOR | B.F BASEMENT FLOOR | L.F LOWER FLOOR | EL. SPOT ELEVATION | EP. EDGE OF PAVE

LOT AREA CALCULATION

TAX LOT 1 AREA= 14,500 SQ. FT. =0,3329 ACRE
TAX LOT 9 AREA= 5,833 SQ. FT. =0,1339 ACRE

DEEGAN BOULEVARD (31.33') EXRESSWAY (25') (25')

STREET

(45' WIDE)

ONE WAY TRAFFIC

EAST 134th.

(20') (20') (27')

* COMBINED SEWER LINE (118'± BETWEEN MANHOLES)

WATER MAIN

DROP CURB

CONC. CURB

CONCRETE SIDEWALK

BRICK WALL

TAX LOT 16 YARD

TAX LOT 15 YARD

TAX LOT 14 YARD

TAX LOT 13 YARD

CENTER LINE OF THE BLOCK

PARALLEL WITH WILLIS AVENUE

TAX LOT 77

ONE STORY BRICK

No. 95

GARAGE ENT. FLOOR EL.=27.69'

100'

INDT 100.0 WALL

85'

85.0

No. 91

ONE STORY BRICK

GARAGE ENT. FLOOR EL.=27.46'

GARAGE ENT. FLOOR EL.=27.08'

TAX LOT 12

3 STORY & BSM'T BRICK

FIRST FLOOR EL=46.49' ROOF PARAPET EL.=82.29'

PARTY WALL

ONE STORY BRICK

99.5'

100'

TAX LOT 1

PARALLEL WITH WILLIS AVENUE

25'

165'

FIRST FLOOR EL.=38.49'

No. 402

TAX LOT 9

HIGH ONE STORY BRICK

58.33'

57.8'

58.33'

ROOF PARAPET EL.=65.12'

100'

CONC.

ROOF PARAPET EL.=94.05'

5 STORY BRICK

FIRST FLOOR EL.=37.82'

6 STORY & BSM'T

PARALLEL WITH WILLIS AVENUE

97.6'

40.00'

90°0'0"

TAX LOT 4

5 STORY BRICK

No. 124

FIRST FLOOR EL.=30.91'

80'

63.1'

AIR SHAFT

PARTY WALL

PARALLEL WITH SOUTHERN BOULEVARD

HIGH ONE STORY BRICK

FIRST FLOOR EL.=28.22'

No. 122

** PROJECTIONS **
-CAMERA.....0.3'
-SIGN.....0.3'
-TRIM.....0.1'
-PIER.....0.3'

ROOF PARAPET EL.=55.50'

ROOF PARAPET EL.=45.23'

90°0'0"

64.7'

ENT. FLOOR EL=28.37' GARAGE

ENT. FLOOR EL=26.89' GARAGE

PIER TYPE

CONCRETE SIDEWALK

DROP CURB

CONC. CURB

CONC. CURB STEEL FACE

12" COMBINED SEWER LINE (142'± BETWEEN MANHOLES)

12" COMBINED SEWER LINE (112'± BETWEEN MANHOLES)

12" SEWER LINE (180'± BETWEEN MANHOLES)

12" SEWER LINE (92'± BETWEEN MANHOLES)

FLOW

BOULEVARD (100' WIDE)

(SOUTHERN BOULEVARD)

BRUCKNER

TWO WAY TRAFFIC

CD.

3.5' ON ST.

1.6' ON ST.

6.00' ON ST.

WILLIS AVENUE BRIDGE

hyd.--72'±--pl.

12" SEWER LINE (87'± BETWEEN MANHOLES)

mh.-17'±-pl.

mh.-5'±-pl.

75'

CONCRETE SIDEWALK

(100' WIDE)

ONE WAY TRAFFIC

WILLIS AVENUE

(25')

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS SURVEY IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW. COPIES OF THIS SURVEY MAP NOT BEARING THE LAND SURVEYOR'S INKED SEAL OR EMBOSSED SEAL SHALL NOT BE CONSIDERED TO BE A VALID TRUE COPY. GUARANTEES OR CERTIFICATIONS INDICATED HEREON SHALL RUN ONLY TO THE PERSON FOR WHOM THE SURVEY IS PREPARED, AND ON HIS BEHALF TO THE TITLE COMPANY, GOVERNMENTAL AGENCY AND LENDING INSTITUTION LISTED HEREON, AND TO THE ASSIGNEES OF THE LENDING INSTITUTION. GUARANTEES OR CERTIFICATION ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.

SURVEYED : NOVEMBER 07, 2021	
UPDATED : UPDATED :	
SCALE: 1"=15'	
BLOCK:	2278
LOT(s):	1,9
SECTION:	9
COUNTY:	BRONX
DWG BY:	AAA-RO

AAA GROUP
R.E SERVICING CORP.
139 LORIMER STREET
BROOKLYN, N.Y. 11206
TEL. (718) 387-9800 , FAX 384-5050
Info@aaagrouponlIne.com

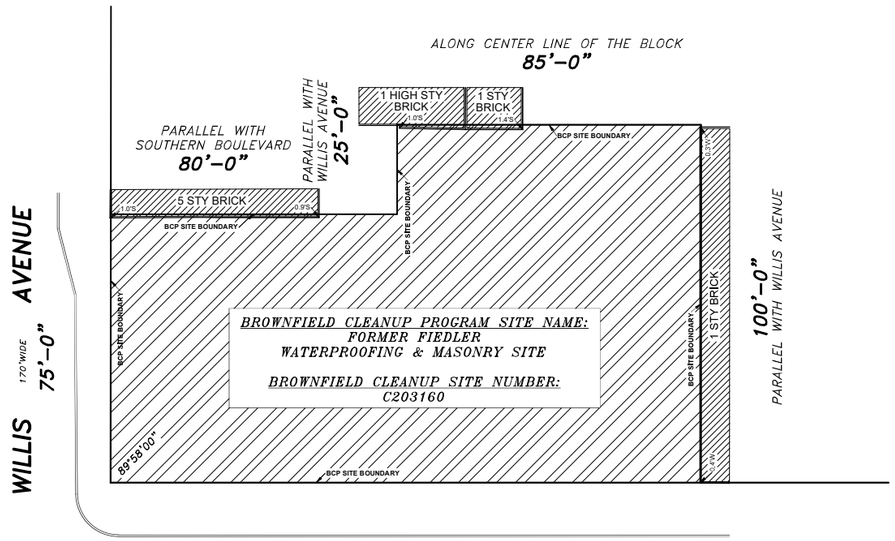
ARCHITECTURAL SURVEY

CAUTION: BEFORE PERFORMING ANY DIGGING OR DRILLING ON THIS SITE, IT IS REQUIRED THAT SUBSURFACE SERVICES, INCLUDING THE UNDERGROUND MAINS BE MARKED AND IDENTIFIED BY THE UTILITY INVOLVED IN COMPLIANCE WITH INDUSTRIAL CODE 53 OF NEW YORK STATE.

1) ALL ELEVATIONS REFER TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
2) LEGAL GRADES (NAVD88) REFER TO CENTER OF RIGHT WAY IN QUEENS; FOR MANHATTAN, BRONX, BROOKLYN & RICHMOND, REFER TO CURB LINE TAKEN AT PROJECTION OF PROPERTY LINE.
3) UNDERGROUND UTILITY INFORMATION SHOWN WAS OBTAINED FROM VARIOUS COMPANIES AND CITY AGENCIES AND IS NOT GUARANTEED FOR ACCURACY OR COMPLETENESS.
4) THIS IS TO CERTIFY THAT THERE ARE NO APPARENT STREAMS, NATURAL WATER COURSES IN THE PROPERTY AS SHOWN ON THIS SURVEY.

0' 4' 8' 16' 24 32'

JOB NO. BX 2278-1-EN
SURVEYED ON: MAY 9, 2024



SYMBOLS AND ABBREVIATIONS

FENCE	CH.L.FE. / WOOD FE.
UTILITY POLE	U.P.
PARKING METER	P.M.
OIL FILL	O.F.
MONITORING WELL	M.W.
TRAFFIC LIGHT	T.L.
LIGHT	
STREET LIGHT	L.P.
FIRE HYDRANT	HYD.
SIAMESE CONNECTION	SPR.
SHUT OFF VALVE	G.V. / G.V. / W.V. / W.V.
HANDICAPPED PARKING	
EXISTING TREE	ø12"
DRAINS	DR. / DR.
ROOF OVER	R.O.
EXISTING ELEVATIONS	×43.18 TOP OF CURB / ×42.84 BOTTOM OF CURB / ×43.78
CITY ESTABLISHED GRADES	L.G.7.52
CURB AND CURB CUT	CURB CUT
OVERHEAD SERVICE	OH S.W.
CABLE TV MANHOLE	CTV
MANHOLES	M / E / T / W / S RIM EL. INV.EL.
CATCH BASIN	C.B. / C.B.
FIRE ESCAPE	F.E.
PLATFORM	PL. or PLTF.
BASEMENT ENTRANCE	B.E.
CELLAR ENTRANCE	C.E.
AIR WAY	A.W.
BAY WINDOW	B.W.
CONCRETE	CONC.
OVERHANG	O.H.
AIR CONDITION	AC
METAL	MET.
NORTH OF PROPERTY LINE	N
SOUTH OF PROPERTY LINE	S
EAST OF PROPERTY LINE	E
WEST OF PROPERTY LINE	W

GENERAL NOTES

SUBSURFACE UTILITIES ARE NOT GUARANTEED BY SURVEYOR. HIGH CAUTION RECOMMENDED AND VERIFICATION WITH PROPER CITY AGENCIES, IS MANDATORY BEFORE COMMENCING ALL NEW WORK.

ALL SUBSURFACE AND OVERHEAD UTILITIES (AS TO SIZE , TYPE AND DEPTH) SHOWN ON THIS SURVEY ARE TAKEN FROM RECORDS OF GOVERNMENTAL AGENCIES AND UTILITY COMPANIES, UNLESS OTHERWISE NOTED AND SHOWN.

COVER OR DEPTH OF UTILITIES WHICH DERIVED FROM FIELD MEASUREMENTS SHOWN ON THIS SURVEY SHOULD BE VERIFIED WITH PROPER AGENCY PRIOR TO CONSTRUCTION OF PROJECT. INVERT ELEVATIONS ARE DERIVED FROM CITY AGENCY RECORDS WHEN NOT AVAILABLE BY FIELD SURVEY AND NOTED AS "PER RECORD" ON THE SURVEY.

ALL SUBSURFACE UTILITY AS TO LOCATION AND DEPTH, SHOULD BE RECHECKED AND LEGAL GRADES SHOULD BE VERIFIED WITH THE TOPOGRAPHICAL BUREAU, PREFERABLY IN WRITING BEFORE COMMENCING CONSTRUCTION.

THIS IS TO CERTIFY THAT THERE ARE NO STREAMS OR NATURAL WATER COURSES ON THE SURVEYED PROPERTY EXCEPT AS SHOWN AND/OR DESCRIBED ON THIS SURVEY.

ALL OPERATIONS OF UNDERGROUND FACILITIES AND ALL EXCAVATORS ARE OBLIGATED TO COMPLY WITH ARTICLE 36 OF THE GENERAL BUSINESS LAW AND WITH PROVISIONS OF INDUSTRIAL CODE PART (RULE NO.35) BEFORE ANY EXCAVATION OR DEMOLITION IS COMMENCED. EVERY EXCAVATOR IS REQUIRED BY THESE LAWS TO GIVE ADVANCE NOTICE TO EVERY OPERATOR OF UNDERGROUND FACILITIES OF HIS INTENT TO PERFORM EXCAVATION OR DEMOLITION WORK IN THE SPECIFIED AREA

ALL ELEVATIONS SHOWN REFER TO THE NAVD 1988 DATUM. TO OBTAIN:
- NGVD 1929 DATUM - ADD 1.098 FEET
- BRONX BOROUGH DATUM - SUBTRACT 1.508 FEET

UNDERGROUND UTILITIES NOTES

UNDERGROUND, OVERHEAD AND GROUND LEVEL UTILITIES ARE NOT GUARANTEED AS TO ACCURACY, EXACT LOCATION, TYPE OR USE, ACTIVE OR INACTIVE. VERIFICATION IS MANDATORY WITH MUNICIPAL AGENCIES, PUBLIC AND PRIVATE UTILITY COMPANIES PRIOR TO TAKING TITLE AND OR DESIGN WORK. BOUNDARIES ARE NOT GUARANTEED UNLESS SO NOTED.

PROFESSIONAL LAND SURVEYOR
ARKADIUSZ JUSIEGA
N.Y.S. L.L.S. 050569-2
8629 BAY PARKWAY, UNIT CFU
BROOKLYN, NY 11214
TEL. 718-474-7700

GUARANTEED TO:
New York State Department of Environmental Conservation

COUNTY: BRONX CITY: BRONX
SECTION: BLOCK: 2278 LOT(S): 1
PROPERTY ADDRESS: 91 BRUCKNER BOULEVARD

NOTE:
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 New York Environmental Conservation Law. The engineering and institutional controls for this Easement are set forth in the Site Management Plan (SMP). A copy of the SMP must be obtained by any party with an interest 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

– *ENVIRONMENTAL EASEMENT*

GRAPHIC SCALE
ALL WRITTEN MEASUREMENTS AND OFFSETS NOTED ON THIS SURVEY SUPERSEDE MEASUREMENTS SCALED OF THIS PLOT
SCALE 1:20
3.05 m 6.10 m 9.14 m 12.20 m 15.24 m 30.48 meters
5 f 15 f 25 f 35 f 45 f
0 10 f 20 f 30 f 40 f 50 f 100 feet

LEGAL DESCRIPTION(DEED & ENVIRONMENTAL EASEMENT)

BLOCK 2278, LOT 1

ALL that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the Borough and County of Bronx, City and State of New York, bounded and described as follows:

BEGINNING at the corner formed by the intersection or the easterly side of Willis Avenue,as widened, with the northerly side of Southern Boulevard(now known as Bruckner Boulevard);

RUNNING THENCE easterly, along the northerly side of Southern Boulevard 165 feet;

THENCE northerly, parallel with the easterly side of Willis Avenue and part of the way through a party wall, 100 feet to the center line of the block;

THENCE westerly, along said center line of the block, 85 feet;

THENCE southerly, and parallel with the easterly side of Willis Avenue, 25 feet;

THENCE westerly, parallel with the northerly side of Southern Boulevard, 80 feet to a point on the easterly side of Willis Avenue, as widened;

THENCE southerly along the easterly side of Willis Avenue 75 feet to Southern Boulevard,(now knows as Bruckner Boulevard) to the point or place of BEGINNING.

LOT AREA = 14500.00 sq.ft. = 0.3329 acre

ENVIRONMENTAL EASEMENT SURVEY

PREPARED BY

PERFECT POINT
LAND SURVEYING
brooklyn - queens - manhattan - bronx
staten island - nassau
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STATE OF NEW YORK ARKADIUSZ JUSIEGA 050569 LICENSED LAND SURVEYOR

DATE MAY 9 2024

N.Y.S. L.L.S. 050569-2

APPENDIX B
Excavation Work Plan

APPENDIX B – EXCAVATION WORK PLAN (EWP)

B-1 Notification

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination or breach or alter the Site's cover system, the Site owner or their representative will notify the New York State Department of Conservation (NYSDEC) contacts listed in the table below. Table I includes contact information for the above notification. 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 Table II and Appendix E of this Site Management Plan (SMP).

Table I: Notifications*	
Shawn Roberts, NYSDEC Project Manager	518 402-9799, shawn.roberts@dec.ny.gov
Jane O'Connell, NYSDEC Regional HW Engineer	718 482-4599, jane.oconnell@dec.ny.gov
David Gardner, NYSDEC Section Chief	518-402-9818, david.gardner@dec.ny.gov
Kelly Lewandowski, NYSDEC Site Control	518-402-9553, kelly.lewandowski@dec.ny.gov
Christopher Budd, NYSDOH Project Manager	518-402-1769, christopher.budd@health.ny.gov
**Note: Notifications are subject to change and will be updated, as necessary*	

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, intrusive elements or utilities to be installed below the soil cover, estimated volumes of contaminated soil to be excavated, any modifications of truck routes, and any work that may impact an engineering control (EC);
- 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, 29 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 the required request to import form 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.

B-2 Soil Screening Methods

Visual, olfactory, and instrument-based (e.g., photoionization detector) soil screening will be performed during all excavations into known or potentially contaminated material (remaining contamination) or a breach of the cover system. A qualified environmental professional (QEP) as defined in 6 NYCRR Part 375, a professional engineer (PE) who is licensed and registered in New York State, or a qualified person who directly reports to a PE who is licensed and registered in New York State will perform the screening. 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).

Soils will be segregated based on previous environmental data and screening results into material that requires off-Site disposal and material that requires testing to determine if the material can be reused on-Site as soil beneath a cover or if the material can be used as cover soil. Further discussion of off-site disposal of materials and on-site reuse is provided in Sections B-6 and B-7 of this Appendix.

B-3 Soil Staging 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 the NYSDEC.

B-4 Materials Excavation and Load-Out

A QEP as defined in 6 New York Codes Rules, and Regulations (NYCRR) Part 375, a PE who is licensed and registered in New York State, or a qualified person who directly reports to a PE who is licensed and registered in New York State 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 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 (NYSDOT) 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 in an appropriate manner.

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.

B-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: Trucks will enter the Site from the north side on Bruckner Boulevard and exit by turning right onto Bruckner Boulevard from the designated point of egress along the southern boundary of the Site. All trucks loaded with site materials will exit the vicinity of the site using this approved truck route. This is the most appropriate route and takes 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; and (f) overall safety in transport. Figure 1 depicts the approved-truck route.

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.

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

B-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 off-Site in a permitted facility in accordance with all local, State and Federal regulations. If disposal of material from this 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 the NYSDEC project manager. Unregulated off-Site management of materials from this Site will not occur without formal NYSDEC project manager 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, or C&D debris recovery facility). Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic Review Report (PRR). 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 historic 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 is prohibited from being taken to a New York State C&D debris recovery facility (6 NYCRR Subpart 360-15 registered or permitted facility).

B-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. Contaminated on-Site material, including historic fill and contaminated soil, that is acceptable for reuse on-Site will be placed below the demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

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 April 2023 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 B-2 and B-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.

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

B-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.

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.

B-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. A copy of the form is presented in Appendix D of this SMP.

Material from industrial sites, spill sites, 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 use. Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards meet Track 2 Restricted Residential Use Soil Cleanup Objectives. Soils that meet 'general' fill requirements under 6 NYCRR Part 360.13, but do not meet backfill or cover soil objectives for this Site, will not be imported onto the Site without prior approval by NYSDEC project manager. 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.

B-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 the 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.

B-11 Excavation 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 promptly notified 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 (TAL metals, TCL volatiles and semi-volatiles [including 1,4-dioxane], TCL pesticides and PCBs, and PFAS), unless the Site history and previous sampling results provide 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 (1-800-457-7362). These findings will be also included in the PRR.

B-12 Community Air Monitoring Plan

A figure showing the location of air sampling stations based on generally prevailing wind conditions is provided in this EWP. These locations will be adjusted on a daily or more frequent basis based on actual wind directions to provide an upwind and at least two downwind monitoring stations.

Exceedances of action levels listed in the community air monitoring plan (CAMP) will be reported to NYSDEC and NYSDOH Project Managers.

B-12A: Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures

When work areas are within 20 feet of potentially exposed populations or occupied structures, the continuous monitoring locations for volatile organic compounds (VOCs) and particulates must reflect the nearest potentially exposed individuals and the location of ventilation system intakes for nearby structures. The use of ECs such as vapor/dust barriers, temporary negative-pressure enclosures, or special ventilation devices should be considered to prevent exposures related to the work activities and to control dust and odors. Consideration should be given to implementing the planned activities when potentially exposed populations are at a minimum, such as during weekends or evening hours in non-residential settings.

- If total VOC concentrations opposite the walls of occupied structures or next to intake vents exceed 1 part-per-million, monitoring should occur within the occupied structure(s). Depending upon the nature of contamination, chemical-specific colorimetric tubes of sufficient sensitivity may be necessary for comparing the exposure point concentrations with appropriate pre-determined response levels (response actions should also be pre-determined). Background readings in the occupied spaces must be taken prior to commencement of the planned work. Any

unusual background readings should be discussed with NYSDOH prior to commencement of the work.

- If total particulate concentrations opposite the walls of occupied structures or next to intake vents exceed 150 micrograms per cubic meter, work activities should be suspended until controls are implemented and are successful in reducing the total particulate concentration to 150 micrograms per cubic meter or less at the monitoring point.
- Depending upon the nature of contamination and remedial activities, other parameters (e.g., explosivity, oxygen, hydrogen sulfide, carbon monoxide) may also need to be monitored. Response levels and actions should be pre-determined, as necessary, for each site.

B-13 Odor Control Plan

This odor control plan is capable of controlling emissions of nuisance odors on-site and off-site. 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 New York State Department of Health (NYSDOH) will be notified of all odor events and 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 PRR.

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.

B-14 Dust Control Plan

Particulate monitoring must be conducted according to the CAMP provided in Section B-12. If particulate levels at the Site exceed the thresholds listed in the CAMP or if airborne dust is observed on the Site or leaving the Site, the dust suppression techniques listed below will be employed. The remedial party will also take measures listed below to prevent dust production on the site.

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 using 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.

B-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.

APPENDIX C
Field Sampling Plan and Quality Assurance Project Plan

HALEY ALDRICH

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FIELD SAMPLING PLAN
91 BRUCKNER BOULEVARD
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by
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New York, New York 10001

for
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Brooklyn, New York 11206

File No. 0204520
October 2024

Table of Contents

1. Introduction

This Field Sampling Plan (FSP) has been prepared as a component of the Site Management Plan (SMP) for the subject Site located at 91 Bruckner Boulevard, Bronx, New York. This document was prepared to establish field procedures for field data collection to be performed in support of the SMP for the Site.

The SMP includes this Field Sampling Plan, a Quality Assurance Project Plan (QAPP), Health and Safety Plan (HASP), and Community Air Monitoring Plan (CAMP), which are included as part of this plan by reference.

The standard operating procedures (SOP) included as components of this plan will provide the procedures necessary to meet the project objectives. The SOPs will be used as reference for the methods to be employed for field sample collection and handling and the management of field data collected in the execution of the approved SMP. The SOPs include numerous methods to execute the tasks of the SMP. The Project Manager will select the appropriate method as required by field conditions and/or the objective the respective project task at the time of sample collection. Field procedures will be conducted in general accordance with the New York State Department of Conservation (NYSDEC) Technical Guidance for Site Investigation and Remediation (DER-10) under NYSDEC Part 375 Remedial Program when applicable.

2. Field Program

This FSP provides the general purpose of sampling as well as procedural information. The SMP contains the details on sampling and analysis (locations, depths, frequency, analyte lists, etc.).

The field program has been designed to acquire the necessary data to comply with the SMP, and includes the following tasks:

- Indoor air sampling.

91 BRUCKNER BLVD LLC (the Volunteer) has remediated a 0.33-acre (14,500-square-foot) property known as the Former Fiedler Waterproofing & Masonry Site, designated under Brownfield Cleanup Program (BCP) Site No. C203160. Site remediation addressing both soil, groundwater, and soil vapor contamination was conducted as per the October 2023 approved Remedial Action Work Plan (RAWP) and Decision Document. Additional investigations, workplans, and reports were submitted to the NYSDEC between 2022 and 2023.

These SOPs presented herein may be changed as required, dependent on-Site conditions, or equipment limitations, at the time of sample collection. If the procedures employed differ from the SOP, the deviations will be documented in the associated sampling report.

3. Field Data Recording

This procedure describes protocol for documenting post-remediation sampling activities in the field. Field data serves as the cornerstone for an environmental project, not only for site characterization but for additional phases of investigation or remedial design. Producing defensible data includes proper and appropriate recording of field data as it is obtained in a manner to preserve the information for future use. This procedure provides guidelines for accurate, thorough collection and preservation of written and electronic field data.

Field data to be recorded during the project generally includes, but is not limited to, the following:

- general field observations;
- numeric field measurements and instrument readings;
- quantity estimates;
- sample locations and corresponding sample numbers;
- relevant comments and details pertaining to the samples collected;
- documentation of activities, procedures and progress achieved;
- contractor pay item quantities;
- weather conditions;
- a listing of personnel involved in site-related activities;
- a log of conversations, site meetings and other communications; and,
- field decisions and pertinent information associated with the decisions.

3.1 WRITTEN FIELD DATA

Written field data will be collected using a standardized, pre-printed field log form. In general, use of a field log form is preferable as it prompts field personnel to make appropriate observations and record data in a standardized format. This promotes completeness and consistency from one person to the next. Otherwise, electronic data collection using a handheld device produces equal completeness and consistency using a preformatted log form.

In the absence of an appropriate pre-printed form, the data should be recorded in an organized and structured manner in a dedicated project field log book. Log books must be hard cover, bound so that pages cannot be added or removed, and should be made from high-grade 50% rag paper with a water-resistant surface.

The following are guidelines for use of field log forms and log books:

1. Information must be factual and complete.
2. All entries will be made in black indelible ink with a ballpoint pen and will be written legibly. Do not use “rollerball” or felt tip-style pens, since the water-soluble ink can run or smear in the presence of moisture.

3. Field log forms should be consecutively numbered.
4. Each day's work must start a new form/page.
5. At the end of each day, the current log book page or forms must be signed and dated by the field personnel making the entries.
6. Make data entries immediately upon obtaining the data. Do not make temporary notes in other locations for later transfer; this only increases the potential for error or loss of data.
7. Entry errors are to be crossed out with a single line and initialed by the person making the correction.
8. Do not leave blanks on log forms, if no entry is applicable for a given data field, indicate so with "NA" or a dash ("--").
9. At the earliest practical time, photocopies or typed versions of log forms and log book pages should be made and placed in the project file as a backup in the event the book or forms are lost or damaged.
10. Log books should be dedicated to one project only, i.e., do not record data from multiple projects in one log book.

3.2 ELECTRONIC DATA

Electronic data recording involves electronic measurement of field information through the use of monitoring instruments, sensors, gauges, and equipment controls. The following is a list of guidelines for proper recording and management of electronic field data:

1. Field data management should follow requirements of a project-specific data management plan (DMP), if applicable.
2. Use only instruments that have been calibrated in accordance with manufacturer's recommendations.
3. Usage of instruments, controls and computers for the purpose of obtaining field data should only be performed by personnel properly trained and experienced in the use of the equipment and software.
4. Use only fully-licensed software on personal computers and laptops.
5. Loss of electronic files may mean loss of irreplaceable data. Every effort should be made to back up electronic files obtained in the field as soon as practical. A backup file placed on the file server will minimize the potential for loss.
6. Electronic files, once transferred from field instruments or laptops to office computers, should be protected if possible, to prevent unwanted or inadvertent manipulation or modification of data. Several levels of protection are usually available for spreadsheets, including making a file "read-only" or assigning a password to access the file.
7. Protect CD disks from exposure to moisture, excessive heat or cold, magnetic fields, or other potentially damaging conditions.
8. Remote monitoring is often used to obtain stored electronic data from site environmental systems. A thorough discussion of this type of electronic field data recording is beyond the scope of this Section. Such on-site systems are generally capable of storing a limited amount of

data as a comma-delimited or spreadsheet file. Users must remotely access the monitoring equipment files via modem or other access and download the data. In order to minimize the potential for loss of data, access and downloading of data should be performed frequently enough to ensure the data storage capacity of the remote equipment is not exceeded.

Equipment/Materials:

- Appropriate field log forms, or iPad® or equivalent with preformatted log forms.
- Indelible ball point pen (do not use "rollerball" or felt-tip style pens);
- Straight edge;
- Pocket calculator; and,
- Laptop computer (if required).

4. Sample Collection for Laboratory Analysis

4.1 INDOOR AIR SAMPLING

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

4.1.1 Preparatory Requirements

In accordance with the New York State Department of Health (NYSDOH) "Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York," dated October 2006 (Vapor Intrusion Guidance Document), sample locations and adjacent spaces will be inspected and screened with a part per billion (ppb)-range photoionization detector (PID) to determine if interfering conditions, such as open containers of cleaning supplies or petroleum products, are present. Additionally, the "Indoor Air Quality Questionnaire and Building Inventory" form presented in Appendix B of the Vapor Intrusion Guidance Document will be completed. It will be verified during the inspection and noted in the questionnaire that the SSDS is operational prior to proceeding with sampling.

If interfering conditions are identified during the inspection, the interferences will be eliminated to the extent feasible (e.g., products will be removed or stowed in a sealed area isolated from the sampling location(s), cleaning/maintenance will cease, etc.) and the area will be ventilated either by way of the building's heating, ventilation, and air conditioning (HVAC) system (opening the fresh air intake fully) or by opening windows and using box fans. Ventilation will be considered complete when PID readings within the proposed sampling space are within a similar range to ambient outdoor air (up to 8 hours). The building will then be restored to normal conditions (i.e., windows will be closed, the HVAC system will be returned to normal settings, and/or fans will be removed) for a period of at least 24 hours prior to sampling.

4.1.2 Sampling Techniques

One indoor air sample will be collected from the cellar (IA-01) of the Site building in the gym space. In addition, one SUMMA canister will be placed adjacent outside the Site building at breathing level to collect a sample of ambient outdoor air (AA-01). The sample will be collected from approximately 3 to 5 feet above the floor/ground surface to simulate the breathing zone in a laboratory-supplied individually certified-clean 2.7 or 6-liter SUMMA canister equipped with a 0.0125 liters per minute (L/min) flow controller for a sample collection time of approximately 8 hours. Sampling will be considered complete after an 8-hour collection time, or when the vacuum measured in the canister reaches 5 inches of mercury, whichever occurs sooner.

Canister vacuum and the time will be recorded in the dedicated field logbook at the beginning and end of sampling. After sample collection, the indoor air sample will be shipped overnight to a NYSDOH Environmental Laboratory Approval Program (ELAP)-certified laboratory for analysis for VOCs by United States Environmental Protection Agency (USEPA) Method TO-15 within a 5-day turnaround time (TAT). The laboratory will report the full list of TO-15 parameters.

USEPA Method TO-15 will provide detection limits of 1.0 micrograms per cubic meter ($\mu g/m^3$) for all analytes, except for carbon tetrachloride, 1,1-dichloroethene (DCE), cis-1,2-DCE, trichloroethene (TCE),

and vinyl chloride. The detection limits for carbon tetrachloride, 1,1-DCE, cis-1,2-DCE, TCE, and vinyl chloride will be 0.20 µg/m^3. This will allow for comparison with the lowest action levels for these compounds in the NYSDOH Vapor Intrusion Guidance Document. The laboratory will provide the data in an Analytical Services Protocol (ASP) Category B laboratory data package and NYSDEC EQuIS electronic data deliverable (EDD).

4.2 SAMPLE HANDLING AND SHIPPING

Sample management is the continuous care given to each sample from the point of collection to receipt at the analytical laboratory. Good sample management ensures that samples are properly recorded, properly labeled, and not lost, broken, or exposed to conditions which may affect the sample's integrity.

All sample submissions must be accompanied with a chain of custody (CoC) document to record sample collection and submission. Personnel performing sampling tasks must check the sample preparation and preservation requirements to ensure compliance with the QAPP.

The following sections provide the minimum standards for sample management.

4.2.1 Sample Handling

Prior to entering the field area where sampling is to be conducted, especially at sites with defined exclusion zones, the sampler should ensure that all materials necessary to complete the sampling are on hand. If samples must be maintained at a specified temperature after collection, dedicated coolers and ice must be available for use. Conversely, when sampling in cold weather, proper protection of water samples, trip blanks, and field blanks must be considered. Sample preservation will involve pH adjustment, cooling to 4°C, and sample filtration and preservation.

4.2.2 Sample Labeling

Samples must be properly labeled immediately upon collection.

Note that the data shown on the sample label is the minimum data required. The sample label data requirements are listed below for clarity.

- Project name
- Sample name/number/unique identifier
- Sampler's initials
- Date of sample collection
- Time of sample collection
- Analysis required
- Preservatives

To ensure that samples are not confused, a clear notation should be made on the container with a permanent marker. If the containers are too soiled for marking, the container can be put into a "zip lock" bag which can then be labeled.

All sample names will be as follows:

- Sample unique identifier: Enter the sample name or number. There should be NO slashes, spaces or periods in the date.
- Date: Enter the six-digit date when the sample was collected. Note that for one-digit days, months, and/or years, add zeros so that the format is MMDDYY (050210). There should be NO slashes, dashes, or periods in the date.

The QA/QC samples will be numbered consecutively as collected with a sample name, date and number of samples collected throughout the day (i.e., when multiple QA/QC samples are collected in one day).

Examples of this naming convention are as follows:

Sample Name:	Comments
FD-050202-0001	FIELD DUPLICATE

NOTE: The QA/QC Sample # resets to 0001 EACH DAY, this will avoid having to look back to the previous day for the correct sequential number.

4.2.3 Field Code

The field code will be written in the 'Comments' field on the chain of custody for EVERY sample but will not be a part of the actual sample name. Enter the one/two-character code for type of sample (must be in CAPITALS):

N	Normal Field Sample
FD	Field Duplicate (note sample number (i.e., 0001) substituted for time)
RM	Reference Material

The sample labeling – both chain and sample bottles must be EXACTLY as detailed above. In addition, the Field Sample Key for each sample collected must be filled out.

4.2.4 Packaging

Sample container preparation and packing for shipment should be completed in a well-organized and clean area, free of any potential cross contamination. The following is a list of standard guidelines which must be followed when packing samples for shipment.

- Enclose the Chain of Custody form in a "Zip Lock" bag.
- Ensure custody seals (two, minimum) are placed on each cooler. Coolers/shipping containers with hinged lids should have both seals placed on the opening edge of the lid. Coolers/shipping containers with "free" lids should have seals placed on opposite diagonal corners of the lid. Place clear tape over custody seals.
- Containers should be wiped clean of all debris/water using paper towels (paper towels must be disposed of with other contaminated materials).
- Clear, wide packing tape should be placed over the sample label for protection.
- Do not bulk pack. Each sample must be individually padded.

Note: Never store sterile sample containers in enclosures containing equipment which use any form of fuel or volatile petroleum-based product.

4.2.5 Chain-of-Custody Records

CoC forms will be completed for all samples collected. The form documents the transfer of sample containers. The CoC record, completed at the time of sampling, will contain, but not be limited to, the sample number, date and time of sampling, and the name of the sampler. The CoC document will be signed and dated by the sampler when transferring the samples.

Each sample cooler being shipped to the laboratory will contain a CoC form. The cooler will be sealed properly for shipment. The laboratory will maintain a copy for their records. One copy will be returned with the data deliverables package.

The following list provides guidance for the completion and handling of all CoCs:

- CoCs used should be a Haley & Aldrich standard form or supplied by the analytical laboratory.
- CoCs must be completed in black ball point ink only.
- CoCs must be completed neatly using printed text.
- If a simple mistake is made, cross out the error with a single line and initial and date the correction.
- Each separate sample entry must be sequentially numbered.
- If numerous repetitive entries must be made in the same column, place a continuous vertical arrow between the first entry and the next different entry.
- When more than one CoC form is used for a single shipment, each form must be consecutively numbered using the "Page ___ of ___" format.
- If necessary, place additional instructions directly onto the CoC in the Comment Section. Do not enclose separate instructions.
- Include a contact name and phone number on the CoC in case there is a problem with the shipment.
- Before using an acronym on a CoC, clearly define the full interpretation of your designation [i.e., polychlorinated biphenyls (PCBs)].

4.2.6 Shipment

Prior to the start of the field sampling, the carrier should be contacted to determine if pickup will be at the field site location. If pick-up is not available at the Site, the nearest pick-up or drop off location should be determined. Sample shipments must not be left at unsecured drop locations.

Copies of all shipment manifests must be maintained in the field file.

5. Field Instruments – Use and Calibration

A significant number of field activities involve usage of electronic instruments to monitor for environmental conditions and health and safety purposes. It is imperative the instruments are used and maintained properly to optimize their performance and minimize the potential for inaccuracies in the data obtained. This section provides guidance on the usage, maintenance and calibration of electronic field equipment.

- All monitoring equipment will be in proper working order and operated in accordance with manufacturer's recommendations.
- Field personnel will be responsible for ensuring that the equipment is maintained and calibrated in the field in accordance with manufacturer's recommendations.
- Instruments will be operated only by personnel trained in the proper usage and calibration.
- Personnel must be aware of the range of conditions such as temperature and humidity for instrument operation. Usage of instruments in conditions outside these ranges will only proceed with approval of the Project Manager and/or Health and Safety Officer as appropriate.

5.1 DECONTAMINATION OF MONITORING EQUIPMENT

Because monitoring equipment is difficult to decontaminate, care should be exercised to prevent contamination. Sensitive monitoring instruments should be protected when they are at risk of exposure to contaminants. This may include enclosing them in plastic bags allowing an opening for the sample intake. Ventilation ports should not be covered.

If contamination does occur, decontamination of the equipment will be required; however, immersion in decontamination fluids is not possible. As such, care must be taken to wipe the instruments down with detergent-wetted wipes or sponges, and then with de-ionized water-wetted wipes or sponges.

6. Investigation Derived Waste Disposal

6.1 RATIONALE/ASSUMPTIONS

This procedure applies to the disposition of PPE/disposal equipment (DE) following "Best Management Practices" and is not considered a listed waste.

If a known listed hazardous and/or characteristically hazardous waste/contaminated environmental media is being handled, then handling must be performed in accordance with RCRA Subtitle C (reference 2, Part V, Section 1(a),(b),(c)).

The following procedure describes the techniques for disposal of PPE and DE.

6.2 PROCEDURE

The procedures for handling field activity generated wastes are:

A.) PPE/DE – A number of disposal options exists for spent PPE/DE generated from investigation tasks. The options typically employed are:

- Immediately disposed of within on-Site dumpster/municipal trash; or
- If known to be contaminated with RCRA hazardous waste, dispose off-Site at a RCRA Subtitle C facility.
- PPE/DE – Typically not sampled and disposed of within on-Site dumpster/municipal trash.

Equipment/Materials:

- PPE/DE.

References

1. ASTM D5088 - Practice for Decontamination of Field Equipment Used at Non-Radioactive Waste Sites
2. Geotechnical Gauge, Manufactured by W.F. McCollough, Beltsville, MD.
3. New York State Code Rule 753
4. New York State Department of Environmental Conservation Technical Guidance for Site Investigation and Remediation, DER-10, (3 May 2010).
5. USEPA Office of Solid Waste- SW846 Chapter 9 Sampling Plan, Chapter 10 Sampling Methods (September 1986).
6. USEPA (1987), A Compendium of Superfund Field Operations Methods, EPA/540/P-87/001.
7. USEPA (1988), Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, OSWER-9950.1.
8. USEPA RCRA - Guidance and Policies: Management of Remediation Waste Under RCRA (October 1998).
9. USEPA RCRA - Management of Contaminated Media (October 1998).
10. USEPA CERCLA Guidance (Options Relevant to RCRA Facilities): Guide to Management of Investigation - Derived Wastes (January 1992).

APPENDIX A
Field Forms

EQUIPMENT CALIBRATION LOG

Project: _____

Location: _____

Model Name: _____

Model Number: _____ **Serial Number:** _____

Cal. Standards: _____

_____

_____

Instruments will be calibrated in accordance with manufacturer's recommendations at least once per day.

Date	Time	Calibration Satandard Solution	Calibration Result	Calibrated by

Other Comments: _____

_____

_____

_____

_____

_____

_____

_____

INDOOR AIR SAMPLING LOG

Project Name/Location: _____ Project Number: _____

Site: _____
Date Collected: _____
Personnel: _____
Weather: _____
Humidity: _____

Sample ID	Caniser Size	Canister ID	Flow Controller ID	Sample Start Time	Canister Start Pressure ("Hg)	Sample End Time	Canister End Pressure ("Hg)	Sample Start Date	Sample Type	Analyses Method

Notes:
Summas and flow regulators provided by

Analyses for VOCs by Method TO-15/TO-15SIM (circle one)

DAILY FIELD REPORT

Page of

Project		Report No.	
Location		Date	
Client		Page	of
Contractor		File No.	
Weather		Temperature	

Field Representative(s)	Time on site	Report/Travel/Other	Total hours

Distribution:

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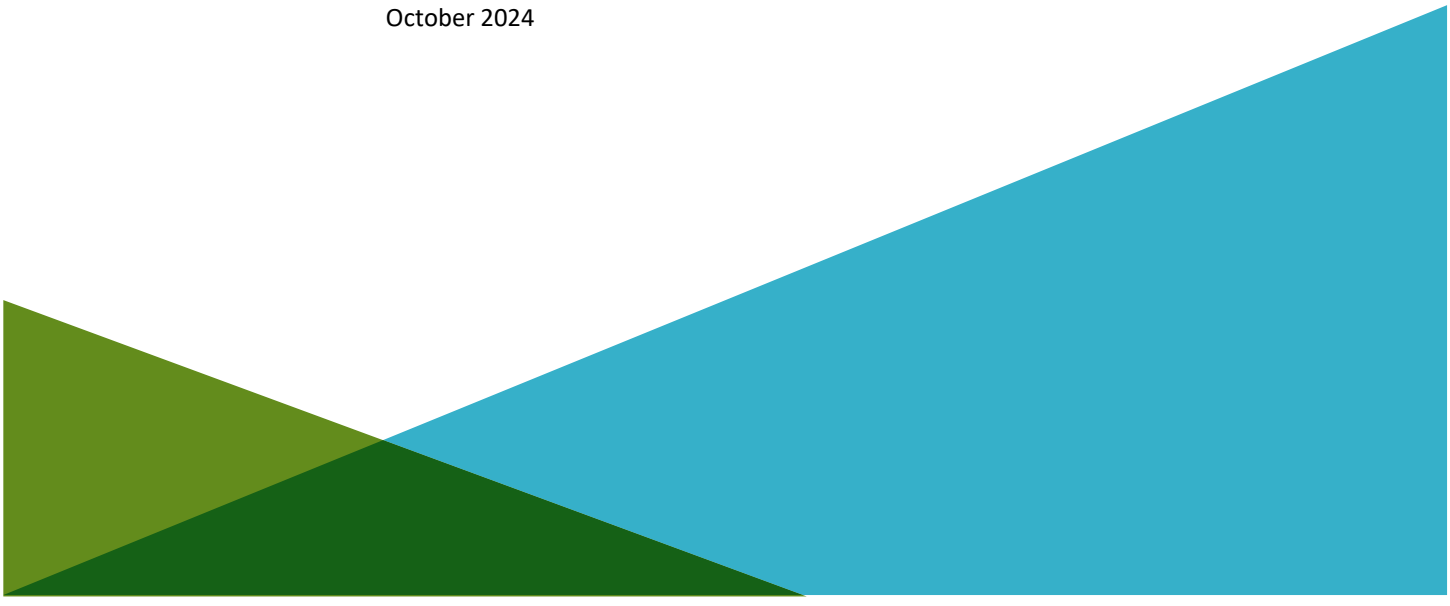
QUALITY ASSURANCE PROJECT PLAN
FORMER FIEDLER WATERPROOFING & MASONRY SITE
BCP SITE C203160
91 BRUCKNER BOULEVARD
BRONX, NEW YORK

by
H & A of New York Engineering and Geology, LLP
New York, New York

for
91 Bruckner Blvd LLC
Brooklyn, New York

File No. 0204520
October 2024



Executive Summary

This Quality Assurance Project Plan (QAPP) outlines the scope of the quality assurance and quality control (QA/QC) activities associated with the site monitoring activities associated with the Remedial Action Work Plan (RAWP) for 91 Bruckner Boulevard (Site) in Bronx, New York.

Protocols for sample collection, sample handling and storage, chain-of-custody procedures, and laboratory and field analyses are described herein or specifically referenced to related project documents.

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1. Project Description

This Quality Assurance Project Plan (QAPP) has been prepared as a component of the RAWP for the Site located at 91 Bruckner Boulevard in Bronx, New York.

1.1 PROJECT OBJECTIVES

The primary objective for data collection activities is to collect sufficient data necessary to confirm the results of the previous site characterization activities, potentially identify an on-site source, and to determine a course for remedial action. In addition, a qualitative exposure assessment will be conducted and will consider the nature of populations currently exposed or that have the potential to be exposed to Site-related contaminants both on- and off-site, along with describing the reasonably anticipated future land use of the site and affected off-site areas.

1.2 SITE DESCRIPTION AND HISTORY

The general Site description and Site history are provided in the Site Description and History Summary that accompanies the RAWP for the Site and incorporated herein by reference.

1.3 LABORATORY PARAMETERS

The laboratory parameters for soil include:

- Target Compound List volatile organic compounds (VOCs) using USEPA method 8260C/5035
- Target Compound List semi-volatile organic compounds (SVOCs) using USEPA method 8270D
- Total Analyte List (TAL) Metals (including hexavalent chromium, and cyanide) using USEPA method 6010C/7471B/9010C/7196A
- Polychlorinated biphenyls (PCBs) using USEPA method 8082A
- TCL Pesticides and Herbicides using USEPA methods 8081B and 8151A for historic fill samples, respectively
- Per- and polyfluoroalkyl substances (PFAS) using USEPA method 1633
- 1,4-Dioxane using USEPA method 8270 SIM

The laboratory parameters for groundwater include:

- Target Compound List VOCs using USEPA method 8260B
- Target Compound List SVOCs using USEPA method 8270C
- Total Analyte List (TAL) Metals using USEPA method 6010/7471
- PCBs using USEPA method 8082
- Pesticides and herbicides by USEPA methods 8081B and 8151A, respectively
- PFAS using USEPA method 1633
- 1,4-Dioxane using USEPA method 8270D SIM isotope dilution

Note: PFAS will be collected in accordance with the NYSDEC, Division of Environmental Remediation, Sampling, Analysis and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) under NYSDEC Part 375 Remedial Program, April 2023.

During the collection of groundwater samples, pH, specific conductivity, temperature, dissolved oxygen (DO), and oxidation/reduction potential (ORP) will be measured until stabilized.

The laboratory parameter for soil vapor, indoor air, and ambient air includes:

- VOCs using EPA method TO-15

Laboratory parameters for disposal samples will be determined by the disposal facility after an approved facility has been determined.

1.4 SAMPLING LOCATIONS

The RAWP provides the locations of soil borings, soil vapor points, indoor air/ambient air locations, and/or groundwater monitoring well locations that may be sampled as part of implementation of the remedy.

2. Project Organization and Responsibilities

This section defines the roles and responsibilities of the individuals who will perform the RAWP monitoring activities. A NYSDOH certified analytical laboratory will perform the analyses of environmental samples collected at the Site.

2.1 PROJECT TEAM

The following project personnel are anticipated for oversight of the RAWP implementation. Applicable Project personnel resumes are provided in Appendix G of the RAWP. Project team resumes are included in Attachment A.

NYSDEC Case Manager	Shawn Roberts
NYSDOH Case Manager	Christopher Budd
Remediation Engineer	Suzanne Bell, P.E.
Project Manager/Qualified Environmental Professional	Mari Conlon
Haley & Aldrich Health & Safety Director	Brian Fitzpatrick, CHMM
Health & Safety Officer	Brian Ferguson
Quality Assurance Officer	Zach Simmel
Third Party Validator	Katherine Miller

2.2 MANAGEMENT RESPONSIBILITIES

The Project Manager is responsible for managing the implementation of the RAWP and monitoring and coordinating the collection of data. The Project Manager is responsible for technical quality control and project oversight. The Project Manager's responsibilities include the following:

- Acquire and apply technical and corporate resources as needed to ensure performance within budget and schedule restraints;
- Review work performed to ensure quality, responsiveness, and timeliness;
- Communicate with the client point of contact concerning the progress of the monitoring activities;
- Assure corrective actions are taken for deficiencies cited during audits of RIWP monitoring activities; and
- Overall Site health and safety plan compliance.

2.3 QUALITY ASSURANCE RESPONSIBILITIES

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

2.3.1 Quality Assurance (QA) Officer

The QA Officer reports directly to the Project Manager and will be responsible for overseeing the review of field and laboratory data. Additional responsibilities include the following:

- Assure the application and effectiveness of the QAPP by the analytical laboratory and the project staff;
- Provide input to the Project Manager as to corrective actions that may be required as a result of the above-mentioned evaluations;
- Prepare and/or review data validation and audit reports.

The QA Officer will be assisted by the data validation staff in the evaluation and validation of field and laboratory-generated data.

2.3.2 Data Validation Staff

The data validation staff will be independent of the laboratory and familiar with the analytical procedures performed. The validation will include a review of each validation criterion as prescribed by the guidelines presented in Section 9.2 of this document and be presented in a Data Usability Summary Report (DUSR) for submittal to the QA Officer.

2.4 LABORATORY RESPONSIBILITIES

The ELAP-approved laboratory to be used will be Eurofins Environment Testing Northeast, LLC located in Edison, NJ. Laboratory services in support of the RAWP monitoring include the following personnel:

2.4.1 Laboratory Project Manager

The Laboratory Project Manager will report directly to the QA Officer and Project Manager and will be responsible for ensuring all resources of the laboratory are available on an as-required basis. The Laboratory Project Manager will also be responsible for the approval of the final analytical reports.

2.4.2 Laboratory Operations Manager

The Laboratory Operations Manager will report to the Laboratory Project Manager and will be responsible for coordinating laboratory analysis, supervising in-house chain-of-custody reports, scheduling sample analyses, overseeing data review, and overseeing preparation of analytical reports.

2.4.3 Laboratory QA Officer

The Laboratory QA Officer will have sole responsibility for review and validation of the analytical laboratory data. The Laboratory QA Officer will provide Case Narrative descriptions of any data quality issues encountered during the analyses conducted by the laboratory. The QA Officer will also define appropriate QA procedures, overseeing QA/QC documentation.

2.4.4 Laboratory Sample Custodian

The Laboratory Sample Custodian will report to the Laboratory Operations Manager and will be responsible for the following:

- Receive and inspect the incoming sample containers;
- Record the condition of the incoming sample containers;
- Sign appropriate documents;

- Verify chain-of-custody and its correctness;
- Notify the Project Manager and Operations Manager of sample receipt and inspection;
- Assign a unique identification number and enter each into the sample receiving log;
- Initiate transfer of samples to laboratory analytical sections; and
- Control and monitor access/storage of samples and extracts.

2.4.5 Laboratory Technical Personnel

The laboratory technical staff will have the primary responsibility in the performance of sample analysis and the execution of the QA procedures developed to determine the data quality. These activities will include the proper preparation and analysis of the project samples in accordance with the laboratory's Quality Assurance Manual (QAM) and associated Standard Operating Procedures (SOP).

2.5 FIELD RESPONSIBILITIES

2.5.1 Field Coordinator

The Field Coordinator is responsible for the overall operation of the field team and reports directly to the Project Manager. The Field Coordinator works with the project Health & Safety Officer (HSO) to conduct operations in compliance with the project Health & Safety Plan (HASP). The Field Coordinator will facilitate communication and coordinate efforts between the Project Manager and the field team members.

Other responsibilities include the following:

- Develop and implement field-related work plans, ensuring schedule compliance, and adhering to management-developed project requirements;
- Coordinate and manage field staff;
- Perform field system audits;
- Oversee quality control for technical data provided by the field staff;
- Prepare and approve text and graphics required for field team efforts;
- Coordinate and oversee technical efforts of subcontractors assisting the field team;
- Identify problems in the field; resolve difficulties in consultation with the Project QAO, and Project Manager; implement and document corrective action procedures; and,
- Participate in preparation of the final reports.

2.5.2 Field Team Personnel

Field Team Personnel will be responsible for the following:

- Perform field activities as detailed in the RAWP and in compliance with the Field Sampling Plan (FSP) provided in the NYSDEC-approved RIWP and QAPP.
- Immediately report any accidents and/or unsafe conditions to the Site Health & Safety Officer and take reasonable precautions to prevent injury.

3. Sampling Procedures

The FSP in the NYSDEC-approved RIWP provides the SOPs for sampling required by the RAWP. Sampling will be conducted in general accordance with the New York State Department of Conservation (NYSDEC) Technical Guidance for Site Investigation and Remediation (DER-10) and the Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) under NYSDEC Part 375 Remedial Program (April 2023) when applicable.

3.1 SAMPLE CONTAINERS

Sample containers for each sampling task will be provided by the laboratory performing the analysis. The containers will be cleaned by the manufacturer to meet or exceed the analyte specifications established in the U.S. EPA, "Specifications and Guidance for Obtaining Contaminant-Free Sample Containers", April 1992, OSWER Directive #9240.0-0.5A. Certificates of analysis for each lot of sample containers used will be maintained by the laboratory.

The appropriate sample containers, preservation method, maximum holding times, and handling requirements for each sampling task are provided in Table I.

3.2 SAMPLE LABELING

Each sample will be labeled with a unique sample identifier that will facilitate tracking and cross-referencing of sample information. Equipment rinse blank and field duplicate samples also will be numbered with a unique sample identifier to prevent analytical bias of field QC samples.

Refer to the FSP in the NYSDEC-approved RIWP for the sample labeling procedures.

3.3 FIELD QC SAMPLE COLLECTION

3.3.1 Field Duplicate Sample Collection

3.3.1.1 Water Samples

Field duplicate samples will be collected by filling the first sample container to the proper level and sealing and then repeated for the second set of sample containers.

1. The samples are properly labeled as specified in Section 3.2.
2. Steps 1 through 4 are repeated for the bottles for each analysis. The samples are collected in order of decreasing analyte volatility as detailed in Section 3.3.1.
3. Chain-of-custody documents are executed.
4. The samples will be handled as specified in Table I.

3.3.1.2 Soil Samples

Soil field duplicates will be collected as specified in the following procedure:

1. Soils will be sampled directly from acetate liners or from decontaminated, stainless-steel hand tools.
2. Soil for VOC analysis will be removed from the sampling device as specified in the FSP.
3. Soil for non-VOC analysis will be removed from the sampling device and collected into clean laboratory-provided containers.

3.4 GENERAL DECONTAMINATION PROCEDURES

Care must be taken to minimize the potential for transfer of contaminated materials to the ground or onto other materials. Regardless of the size or nature of the equipment being decontaminated, the process will utilize a series of steps that involve removal of gross material (dirt, grease, oil, etc.), washing with a detergent, and multiple rinsing steps. In lieu of a series of washes and rinse steps, steam cleaning with low-volume, high-pressure equipment (i.e., steam cleaner) is acceptable.

Exploration equipment, and all monitoring equipment in contact with the sampling media must be decontaminated prior to initiating site activities, in between exploration locations to minimize cross-contamination, and prior to mobilizing off-site after completion of site work.

The following specific decontamination procedure is recommended for sampling equipment and tools:

- Brush loose soil off equipment;
- Wash equipment with laboratory-grade detergent (i.e., Alconox or equivalent);
- Rinse with tap water;
- Rinse equipment with distilled water;
- Allow water to evaporate before reusing equipment; and
- Wrap equipment in aluminum foil when not being used.

4. Custody Procedures

Sample custody is addressed in three parts: field sample collection, laboratory analysis, and final project files. Custody of a sample begins when it is collected by or transferred to an individual and ends when that individual relinquishes or disposes of the sample.

A sample is under custody if:

1. The item is in actual possession of a person;
2. The item is in the view of the person after being in actual possession of the person;
3. The item was in actual possession and subsequently stored to prevent tampering; or
4. The item is in a designated and identified secure area.

4.1 FIELD CUSTODY PROCEDURES

Field personnel will keep written records of field activities on applicable preprinted field forms or in a bound field notebook to record data-collecting activities. These records will be written legibly in ink and will contain pertinent field data and observations. Entry errors or changes will be crossed out with a single line, dated, and initialed by the person making the correction. Field forms and notebooks will be periodically reviewed by the Field Coordinator.

The beginning of each entry in the logbook or preprinted field form will contain the following information:

- Date
- Start time
- Weather
- Names of field personnel (including subcontractors)
- Level of personal protection used at the Site
- Names of all visitors and the purpose of their visit.

For each measurement and sample collected, the following information will be recorded:

- Detailed description of sample location,
- Equipment used to collect samples or make measurements and the date equipment was calibrated,
- Time sample was collected,
- Description of the sample conditions,
- Depth sample was collected (if applicable),
- Volume and number of containers filled with the sample; and,
- Sampler's identification.

4.1.1 Field Procedures

The following procedure describes the process to maintain the integrity of the samples:

- Upon collection, samples are placed in the proper containers. In general, samples collected for organic analysis will be placed in pre-cleaned glass containers and samples collected for inorganic analysis will be placed in pre-cleaned plastic (polyethylene) bottles. Refer to the FSP for sample packaging procedures.

- Samples will be assigned a unique sample number and will be affixed to a sample label. Refer to the FSP for sample labeling procedures.

- Samples will be properly and appropriately preserved by field personnel in order to minimize loss of the constituent(s) of interest due to physical, chemical, or biological mechanisms.

- Appropriate volumes will be collected to ensure that the appropriate reporting limits can be successfully achieved and that the required QC sample analyses can be performed.

4.1.2 Transfer of Custody and Shipment Procedures

- A chain-of-custody (COC) record will be completed at the time of sample collection and will accompany each shipment of project samples to the laboratory. The field personnel collecting the samples will be responsible for the custody of the samples until the samples are relinquished to the laboratory. Sample transfer will require the individuals relinquishing and receiving the samples to sign, date, and note the time of sample transfer on the COC record.

- Samples will be shipped or delivered in a timely fashion to the laboratory so that holding times and/or analysis times as prescribed by the methodology can be met.

- Samples will be transported in containers (coolers) which will maintain the refrigeration temperature for those parameters for which refrigeration is required in the prescribed preservation protocols.

- Samples will be placed in an upright position and limited to one layer of samples per cooler. Additional bubble wrap or packaging material will be added to fill the cooler. Shipping containers will be secured with strapping tape and custody tape for shipment to the laboratory.

- When samples are split with the NYSDEC representatives, a separate chain-of-custody will be prepared and marked to indicate with whom the samples are shared. The person relinquishing the samples will require the representative's signature acknowledging sample receipt.

- If samples are sent by a commercial carrier, a bill of lading will be used. A copy of the bill of lading will be retained as part of the permanent record. Commercial carriers will not sign the custody record as long as the custody record is sealed inside the sample cooler and the custody tape remains intact.

- Samples will be picked up by a laboratory courier or transported to the laboratory the same day they are collected unless collected on a weekend or holiday. In these cases, the samples will be

stored in a secure location until delivery to the laboratory. Additional ice will be added to the cooler as needed to maintain proper preservation temperatures.

4.2 LABORATORY CHAIN-OF-CUSTODY PROCEDURES

A sample custodian will be designated by the laboratory and will have the responsibility to receive all incoming samples. Once received, the custodian will document if the sample is received in good condition (i.e., unbroken, cooled, etc.) and that the associated paperwork, such as chain-of-custody forms has been completed. The custodian will sign the chain-of-custody forms.

The custodian will also document if sufficient sample volume has been received to complete the analytical program. The sample custodian will then place the samples into secure, limited access storage (refrigerated storage, if required). The sample custodian will assign a unique number to each incoming sample for use in the laboratory. The unique number will then be entered into the sample-receiving log with the verified time and date of receipt also noted.

Consistent with the analyses requested on the chain-of-custody form, analyses by the laboratory's analysts will begin in accordance with the appropriate methodologies. Samples will be removed from secure storage with internal chain-of-custody sign-out procedures followed.

4.3 STORAGE OF SAMPLES

Empty sample bottles will be returned to secure and limited access storage after the available volume has been consumed by the analysis. Upon completion of the entire analytical work effort, samples will be disposed of by the sample custodian. The length of time that samples are held will be at least thirty (30) days after reports have been submitted. Disposal of remaining samples will be completed in compliance with all Federal, State, and local requirements.

4.4 FINAL PROJECT FILES CUSTODY PROCEDURES

The final project files will be the central repository for all documents with information relevant to sampling and analysis activities as described in this QAPP. The Haley & Aldrich Project Manager will be the custodian of the project file. The project files including all relevant records, reports, logs, field notebooks, pictures, subcontractor reports, and data reviews will be maintained in a secured, limited access area and under custody of the Project Director or his designee.

The final project file will include the following:

- Project plans and drawings
- Field data records
- Sample identification documents and soil boring/monitoring well logs
- All chain-of-custody documentation
- Correspondence
- References, Literature
- Laboratory data deliverables
- Data validation and assessment reports
- Progress reports, QA reports
- Final report

The laboratory will be responsible for maintaining analytical logbooks, laboratory data, and sample chain of custody documents. Raw laboratory data files and copies of hard copy reports will be inventoried and maintained by the laboratory for a period of six (6) years at which time the laboratory will contact the Haley & Aldrich Project Manager regarding the disposition of the project-related files.

5. Calibration Procedures and Frequency

5.1 FIELD INSTRUMENT CALIBRATION PROCEDURES

Several field instruments will be used for both on-site screening of samples and for health and safety monitoring, as described in the Health and Safety Plan (HASP). On-site air monitoring for health and safety purposes may be accomplished using a vapor detection device, such as a photoionization detector (PID).

Field instruments will be calibrated at the beginning of each day and checked during field activities to verify performance. Instrument-specific calibration procedures will be performed in accordance with the instrument manufacturer's requirements.

5.2 LABORATORY INSTRUMENT CALIBRATION PROCEDURES

Reference materials of known purity and quality will be utilized for the analysis of environmental samples. The laboratory will carefully monitor the preparation and use of reference materials including solutions, standards, and reagents through well-documented procedures.

All solid chemicals and acids/bases used by the laboratory will be rated as "reagent grade" or better. All gases will be "high" purity or better. All Standard Reference Materials (SRMs) or Performance Evaluation (PE) materials will be obtained from approved vendors of the National Institute of Standards and Technology (formerly National Bureau of Standards), the U.S. EPA Environmental Monitoring Support Laboratories (EMSL), or reliable Cooperative Research and Development Agreement (CRADA) certified commercial sources.

6. Analytical Procedures

Analytical procedures to be utilized for analysis of environmental samples will be based on referenced USEPA analytical protocols and/or project-specific SOP.

6.1 FIELD ANALYTICAL PROCEDURES

Field analytical procedures include the measurement of pH, temperature, ORP, DO, and specific conductivity during sampling of groundwater, and the qualitative measurement of volatile organic compounds (VOC) during the collection of soil samples.

6.2 LABORATORY ANALYTICAL PROCEDURES

Laboratory analyses will be based on the U.S. EPA methodology requirements promulgated in:

- "Test Methods for Evaluating Solid Waste," SW-846 EPA, Office of Solid Waste, and promulgated updates, 1986.

6.2.1 List of Project Target Compounds and Laboratory Detection Limits

The laboratory reporting limits (RLs) and associated method detection limits (MDLs) for the target analytes and compounds for the environmental media to be analyzed are presented in Table I. MDLs have been experimentally determined by the project laboratory using the method provided in 40 CFR, Part 136 Appendix B.

Laboratory parameters for soil samples are listed in the RAWP. Laboratory parameters for disposal samples will be determined by the disposal facility after an approved facility has been determined.

6.2.2 List of Method Specific Quality Control (QC) Criteria

Method-specific quality control (QC) limits are provided by the laboratory. Section 7.0 references the frequency of the associated QC samples for each sampling effort and matrix.

7. Internal Quality Control Checks

This section presents the internal quality control checks that will be employed for field and laboratory measurements.

7.1 FIELD QUALITY CONTROL

7.1.1 Field Blanks

Internal quality control checks will include analysis of field blanks to validate equipment cleanliness. Whenever possible, dedicated equipment will be employed to reduce the possibility of cross-contamination of samples.

7.1.2 Trip Blanks

Trip blanks samples will be prepared by the project laboratory using ASTM Type II or equivalent water placed within pre-cleaned 40 milliliter (ml) VOC vials equipped with Teflon septa. Trip blanks will accompany each sample delivery group (SDG) of environmental samples collected for analysis of VOCs.

Trip blank samples will be placed in each cooler that stores and transports project samples that are to be analyzed for VOCs.

7.2 LABORATORY PROCEDURES

Procedures which contribute to maintenance of overall laboratory quality assurance and control include appropriately cleaned sample containers, proper sample identification and logging, applicable sample preservation, storage, and analysis within prescribed holding times, and use of controlled materials.

7.2.1 Field Duplicate Samples

The precision or reproducibility of the data generated will be monitored through the use of field duplicate samples. Field duplicate analysis will be performed at a frequency of 1 in 20 project samples.

Precision will be measured in terms of the absolute value of the relative percent difference (RPD) as expressed by the following equation:

$$RPD = [|R1-R2|/[(R1+R2)/2]] \; X \; 100\%$$

Acceptance criteria for duplicate analyses performed on solid matrices will be 100% and aqueous matrices will be 35%. RPD values outside these limits will require an evaluation of the sampling and/or analysis procedures by the project QA Officer and/or laboratory QA Director. Corrective actions may include re-analysis of additional sample aliquots and/or qualification of the data for use.

7.2.2 Matrix Spike Samples

Ten percent of each project sample matrix for each analytical method performed will be spiked with known concentrations of the specific target compounds/analytes.

The amount of the compound recovered from the sample compared to the amount added will be expressed as a percent recovery. The percent recovery of an analyte is an indication of the accuracy of an analysis within the site-specific sample matrix. Percent recovery will be calculated for MS/MSD using the following equation.

$$\%\ Recovery = \frac{Spiked\ Sample - Background}{Known\ Value\ of\ Spike} x100\%$$

If the quality control value falls outside the control limits (UCL or LCL) due to sample matrix effects, the results will be reported with appropriate data qualifiers. To determine the effect a non-compliant MS recovery has on the reported results, the recovery data will be evaluated as part of the validation process.

7.2.3 Laboratory Control Sample (LCS) Analyses

The laboratory will perform LCS analyses prepared from Standard Reference Materials (SRMs). The SRMs will be supplied from an independent manufacturer and traceable to NIST materials with known concentrations of each target analyte to be determined by the analytical methods performed. In cases where an independently supplied SRM is not available, the LCS may be prepared by the laboratory from a reagent lot other than that used for instrument calibration.

The laboratory will evaluate LCS analyses in terms of percent recovery using the most recent laboratory-generated control limits.

LCS recoveries that do not meet acceptance criteria will be deemed invalid. Analysis of project samples will cease until an acceptable LCS analysis has been performed. If sample analysis is performed in association with an out-of-control LCS sample analysis, the data will be deemed invalid.

Corrective actions will be initiated by the Haley & Aldrich QA Officer and/or Laboratory QA Officer to investigate the problem. After the problem has been identified and corrected, the solution will be noted in the instrument run logbook and re-analysis of project samples will be performed, if possible.

The analytical anomaly will be noted in the sample delivery group (SDG) Case Narrative and reviewed by the data validator. The data validator will confirm that appropriate corrective actions were implemented and recommend the applicable use of the affected data.

7.2.4 Surrogate Compound/Internal Standard Recoveries

For VOCs, surrogates will be added to each sample prior to analysis to establish purge and trap efficiency. Quantitation will be accomplished via internal standardization techniques.

The recovery of surrogate compounds and internal standards will be monitored by laboratory personnel to assess possible site-specific matrix effects on instrument performance.

For semi-volatile organics analyses, surrogates will be added to the raw sample to assess extraction efficiency. Internal standards will be added to all sample extracts and instrument calibration standards immediately before analysis for quantitation via internal standardization techniques.

Method-specific quality control (QC) limits are provided by the laboratory. Surrogate compound/internal standard recoveries that do not fall within accepted QC limits for the analytical methodology performed will have the analytical results flagged with data qualifiers as appropriate by the laboratory and will not be noted in the laboratory report Case Narrative.

To ascertain the effect non-compliant surrogate compound/internal standard recoveries may have on the reported results, the recovery data will be evaluated as part of the validation process. The data validator will provide recommendations for corrective actions including but not limited to additional data qualification.

7.2.5 Calibration Verification Standards

Calibration verification (CV) standards will be utilized to confirm instrument calibrations and performance throughout the analytical process. CV standards will be prepared as prescribed by the respective analytical protocols. Continuing calibration will be verified by compliance with method-specific criteria prior to additional analysis of project samples.

Non-compliant analysis of CV standards will require immediate corrective action by the project laboratory QA officer and/or designated personnel. Corrective action may include re-analysis of each affected project sample, a detailed description of the problem, the corrective action undertaken, the person who performed the action, and the resolution of the problem.

7.2.6 Laboratory Method Blank Analyses

Method blank sample analysis will be performed as part of each analytical batch for each methodology performed. If target compounds are detected in the method blank samples, the reported results will be flagged by the laboratory in accordance with standard operating procedures. The data validator will provide recommendations for corrective actions including but not limited to additional data qualification.

8. Data Quality Objectives

Sampling that will be performed as described in the RAWP is designed to produce data of the quality necessary to achieve the minimum standard requirements of the field and laboratory analytical objectives described below. These data are being obtained with the primary objective to assess levels of contaminants of concern associated with the Site.

The overall project data quality objective (DQO) is to implement procedures for field data collection, sample collection, handling, and laboratory analysis and reporting that achieve the project objectives. The following section is a general discussion of the criteria that will be used to measure achievement of the project DQO.

8.1 PRECISION

8.1.1 Definition

Precision is defined as a quantitative measure of the degree to which two or more measurements are in agreement. Precision will be determined by collecting and analyzing field duplicate samples and by creating and analyzing laboratory duplicates from one or more of the field samples. The overall precision of measurement data is a mixture of sampling and analytical factors. The analytical results from the field duplicate samples will provide data on sampling precision. The results from duplicate samples created by the laboratory will provide data on analytical precision. The measurement of precision will be stated in terms of relative percent difference (RPD).

8.1.2 Field Precision Sample Objectives

Field precision will be assessed through collection and measurement of field duplicate samples at a rate of 1 duplicate per 20 investigative samples. The RPD criteria for the project field duplicate samples will be +/- 100% for soil, and +/- 35 % for groundwater for parameters of analysis detected at concentrations greater than 5 times (5X) the laboratory reporting limit (RL).

8.1.3 Laboratory Precision Sample Objectives

Laboratory precision will be assessed through the analysis of laboratory control and laboratory control duplicate samples (LCS/LCSD) and matrix spike and matrix spike duplicate (MS/MSD) samples for groundwater and soil samples and the analysis of laboratory duplicate samples for air and soil vapor samples. Air and soil vapor laboratory duplicate sample analyses will be performed by analyzing the same SUMMA canister twice. The RPD criteria for the air/soil vapor laboratory duplicate samples will be +/- 35 % for parameters of analysis detected at concentrations greater than 5 times (5X) the laboratory reporting limit (RL).

8.2 ACCURACY

8.2.1 Definition

Accuracy relates to the bias in a measurement system. Bias is the difference between the observed and the "true" value. Sources of error are the sampling process, field contamination, preservation techniques, sample handling, sample matrix, sample preparation, and analytical procedure limitations.

8.2.2 Field Accuracy Objectives

Sampling bias will be assessed by evaluating the results of field equipment rinse and trip blanks. Equipment rinse and trip blanks will be collected as appropriate based on sampling and analytical methods for each sampling effort.

If non-dedicated sampling equipment is used, equipment rinse blanks will be collected by passing ASTM Type II water over and/or through the respective sampling equipment utilized during each sampling effort. One equipment rinse blank will be collected for each type of non-dedicated sampling equipment used for the sampling effort. Equipment rinse blanks will be analyzed for each target parameter for the respective sampling effort for which environmental media have been collected. (Note: If dedicated or disposable sampling equipment is used, equipment rinse samples will not be collected as part of that field effort.)

Trip blank samples will be prepared by the laboratory and provided with each shipping container that includes containers for the collection of groundwater samples for the analysis of VOC. Trip blank samples will be analyzed for each VOC for which groundwater samples have been collected for analysis.

8.3 LABORATORY ACCURACY OBJECTIVES

Analytical bias will be assessed through the use of laboratory control samples (LCS) and Site-specific matrix spike (MS) sample analyses. LCS analyses will be performed with each analytical batch of project samples to determine the accuracy of the analytical system.

One (1) set of MS/MSD analyses will be performed with each batch of 20 project samples collected for analysis to assess the accuracy of the identification and quantification of analytes within the Site-specific sample matrices. Additional sample volume will be collected at sample locations selected for the preparation of MS/MSD samples so that the standard laboratory reporting limits (RLs) are achieved.

The accuracy of analyses that include a sample extraction procedure will be evaluated through the use of system monitoring or surrogate compounds. Surrogate compounds will be added to each sample, standard, blank, and QC sample prior to sample preparation and analysis. Surrogate compound percent recoveries will provide information on the effect of the sample matrix on the accuracy of the analyses.

8.4 REPRESENTATIVENESS

8.4.1 Definition

Representativeness expresses the degree to which sample data represent a characteristic of a population, a parameter variation at a sampling point, or an environmental condition. Representativeness is a qualitative parameter that is dependent upon the design of the sampling program. The representativeness criterion is satisfied through the proper selection of sampling locations, the quantity of samples, and the use of appropriate procedures to collect and analyze the samples.

8.4.2 Measures to Ensure Representativeness of Field Data

Representativeness will be addressed by prescribing sampling techniques and the rationale used to select sampling locations. Sampling locations may be biased (based on existing data, instrument surveys, observations, etc.) or unbiased (completely random or stratified-random approaches).

8.5 COMPLETENESS

8.5.1 Definition

Completeness is a measure of the amount of valid (usable) data obtained from a measuring system compared to the total amount of the anticipated to be obtained. The completeness goal for all data uses is that a sufficient amount of valid data be generated so that determinations can be made related to the intended data use with a sufficient degree of confidence.

8.5.2 Field Completeness Objectives

Completeness is a measure of the amount of valid measurements obtained from measurements taken in this project versus the number planned. Field completeness objective for this project will be greater than (>) 90%.

8.5.3 Laboratory Completeness Objectives

Laboratory data completeness objective is a measure of the amount of valid data obtained from laboratory measurements. The evaluation of the data completeness will be performed at the conclusion of each sampling and analysis effort.

The completeness of the data generated will be determined by comparing the amount of valid data, based on independent validation, with the total laboratory data set. The completeness goal will be >90%.

8.6 COMPARABILITY

8.6.1 Definition

Comparability is a qualitative parameter expressing the confidence with which one data set can be compared to another.

8.6.2 Measures to Ensure Comparability of Laboratory Data

Comparability of laboratory data will be measured from the analysis of Standard Reference Materials (SRM) obtained from either EPA Cooperative Research and Development Agreement (CRADA) suppliers or the National Institute of Standards and Technology (NIST). The reported analytical data will also be presented in standard units of mass of contaminant within a known volume of environmental media. The standard units for various sample matrices are as follows:

- Solid Matrices – mg/kg of media (Dry Weight).
- Aqueous Matrices – ng/L for PFAS analyses, ug/L of media for organic analyses, and mg/L for inorganic analyses.

8.7 LEVEL OF QUALITY CONTROL EFFORT

If non-dedicated sampling equipment is used, equipment rinse blanks will be prepared by field personnel and submitted for analysis of target parameters. Equipment rinse blank samples will be analyzed to check for potential cross-contamination between sampling locations that may be introduced during the investigation. One (1) equipment rinse blank will be collected per sampling event to the extent that non-dedicated sampling equipment is used.

If necessary, A separate equipment rinse blank sample will be collected for PFAS using the sample collection procedure described in Section 8.1.1 of the NYSDEC-approved Avangrid Field Sampling Plan. (Note: If dedicated or disposable sampling equipment is used, equipment rinse samples will not be collected as part of that field effort.)

Trip blanks will be used to assess the potential for contamination during sample storage and shipment. Trip blanks will be provided with the sample containers to be used for the collection of groundwater samples for the analysis of VOC. Trip blanks will be preserved and handled in the same manner as the project samples. One (1) trip blank will be included along with each shipping container containing project samples to be analyzed for VOC.

Method blank samples will be prepared by the laboratory and analyzed concurrently with all project samples to assess potential contamination introduced during the analytical process.

Field duplicate samples will be collected and analyzed to determine sampling and analytical reproducibility. One (1) field duplicate will be collected for every 20 or fewer investigative samples collected for off-Site laboratory analysis.

Matrix spikes will provide information to assess the precision and accuracy of the analysis of the target parameters within the environmental media collected. One (1) matrix spike/matrix spike duplicate (MS/MSD) will be collected for every 20 or fewer investigative samples per sample matrix.

(Note: Soil MS/MSD samples require triple sample volume for VOC only. Aqueous MS/MSD samples require triple the normal sample volume for VOC analysis and double the volume for the remaining parameters.)

9. Data Reduction, Validation and Reporting

Data generated by the laboratory operation will be reduced and validated prior to reporting in accordance with the following procedures:

9.1 DATA REDUCTION

9.1.1 Field Data Reduction Procedures

Field data reduction procedures will be minimal in scope compared to those implemented in the laboratory setting. The pH, conductivity, temperature, turbidity, DO, ORP, and breathing zone VOC readings collected in the field will be generated from direct-read instruments. The data will be written into field logbooks immediately after measurements are taken. If errors are made, data will be legibly crossed out, initialed, and dated by the field member, and corrected in a space adjacent to the original entry.

9.1.2 Laboratory Data Reduction Procedures

Laboratory data reduction procedures are provided by the appropriate chapter of USEPA, "Test Methods for Evaluating Solid Waste", SW-846, Third Edition. Errors will be noted; corrections made with the original notations crossed out legibly. Analytical results for soil samples will be calculated and reported on a dry-weight basis.

9.1.3 Quality Control Data

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

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

9.2 DATA VALIDATION

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

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

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

- The completeness of each data package will be evaluated by the Data Validator. Completeness checks will be administered on all data to determine that the deliverables are consistent with the NYSDEC Analytical Services Protocol (ASP) Category A and Category B data package requirements. The validator will determine whether the required items are present and request copies of missing deliverables (if necessary) from the laboratory.

9.3 DATA REPORTING

Data reporting procedures will be carried out for field and laboratory operations as indicated below:

- Field Data Reporting: Field data reporting will be conducted principally through the transmission of report sheets containing tabulated results of measurements made in the field and documentation of field calibration activities.

- Laboratory Data Reporting: The laboratory data reporting package will enable data validation based on the protocols described above. The final laboratory data report format will include the QA/QC sample analysis deliverables to enable the development of a data usability summary report (DUSR) based on Department DER-10 Appendix 2B.

10. Performance and System Audits

A performance audit is an independent quantitative comparison with data routinely obtained in the field or the laboratory. Performance audits include two separate, independent parts: internal and external audits.

10.1 FIELD PERFORMANCE AND SYSTEM AUDITS

10.1.1 Internal Field Audit Responsibilities

Internal audits of field activities will be initiated at the discretion of the Project Manager and will include the review of sampling and field measurements. The audits will verify that all procedures are being followed. Internal field audits will be conducted periodically during the project. The audits will include an examination of the following:

- Field sampling records, screening results, instrument operating records
- Sample collection
- Handling and packaging in compliance with procedures
- Maintenance of QA procedures
- Chain-of-custody reports

10.1.2 External Field Audit Responsibilities

External audits may be conducted by the Project Coordinator at any time during the field operations. These audits may or may not be announced and are at the discretion of the NYSDEC. The external field audits can include (but are not limited to) the following:

- Sampling equipment decontamination procedures
- Sample bottle preparation procedures
- Sampling procedures
- Examination of health and safety plans
- Procedures for verification of field duplicates
- Field screening practices

10.2 LABORATORY PERFORMANCE AND SYSTEM AUDITS

10.2.1 Internal Laboratory Audit Responsibilities

The laboratory system audits are typically conducted by the laboratory QA Officer or designee on an annual basis. The system audit will include an examination of laboratory documentation including sample receiving logs, sample storage, chain-of-custody procedures, sample preparation and analysis, and instrument operating records.

At the conclusion of internal system audits, reports will be provided to the laboratory's operating divisions for appropriate comment and remedial/corrective action where necessary. Records of audits and corrective actions will be maintained by the Laboratory QA Officer.

10.2.2 External Laboratory Audit Responsibilities

External audits will be conducted as required, by the NYSDOH or designee. External audits may include any of the following:

- Review of laboratory analytical procedures
- Laboratory on-site visits
- Submission of performance evaluation samples for analysis

Failure of any of the above audit procedures can lead to laboratory de-certification. An audit may consist of but not limited to:

- Sample receipt procedures
- Custody, sample security, and log-in procedures
- Review of instrument calibration logs
- Review of QA procedures
- Review of log books
- Review of analytical SOPs
- Personnel interviews

A review of a data package from samples recently analyzed by the laboratory can include (but not be limited to) the following:

- Comparison of resulting data to the SOP or method
- Verification of initial and continuing calibrations within control limits
- Verification of surrogate recoveries and instrument timing results
- Review of extended quantitation reports for comparisons of library spectra to instrument spectra, where applicable
- Assurance that samples are run within holding times

11. Preventive Maintenance

11.1 FIELD INSTRUMENT PREVENTIVE MAINTENANCE

The field equipment preventive maintenance program is designed to ensure the effective completion of the sampling effort and to minimize equipment down time. Program implementation is concentrated in three areas:

- Maintenance responsibilities
- Maintenance schedules
- Inventory of critical spare parts and equipment

The maintenance responsibilities for field equipment will be assigned to the task leaders in charge of specific field operations. Field personnel will be responsible for daily field checks and calibrations and for reporting any problems with the equipment. The maintenance schedule will follow the manufacturer's recommendations. In addition, the field personnel will be responsible for determining that an inventory of spare parts will be maintained with the field equipment. The inventory will primarily contain parts that are subject to frequent failure, have limited useful lifetimes, and/or cannot be obtained in a timely manner.

11.2 LABORATORY INSTRUMENT PREVENTIVE MAINTENANCE

Analytical instruments at the laboratory will undergo routine and/or preventive maintenance. The extent of the preventive maintenance will be a function of the complexity of the equipment.

Generally, annual preventive maintenance service will involve cleaning, adjusting, inspecting, and testing procedures designed to deduce instrument failure and/or extend useful instrument life. Between visits, routine operator maintenance and cleaning will be performed according to manufacturer's specifications by laboratory personnel.

12. Specific Routine Procedures Used to Assess Data Precision, Accuracy, and Completeness

12.1 FIELD MEASUREMENTS

Field-generated information will be reviewed by the Field Coordinator and typically includes evaluation of bound logbooks/forms, data entry, and calculation checks. Field data will be assessed by the Project Coordinator who will review the field results for compliance with the established QC criteria that are specified in Section 7.0 of this QAPP. The accuracy of pH and specific conductance will be assessed using daily instrument calibration, calibration checks, and blank data. Accuracy will be measured by determining the percent recovery (% R) of calibration check standards. Precision of the pH and specific conductance measurements will be assessed on the basis of the reproducibility of duplicate readings of a field sample and will be measured by determining the relative percent difference (RPD). Accuracy and precision of the soil VOC screening will be determined using duplicate readings of calibration checks. Field data completeness will be calculated using the following equation:

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

12.2 LABORATORY DATA

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

- Precision, in terms of relative percent difference (RPD), will be determined by relative sample analysis at a frequency of one duplicate analysis for each batch of ten project samples or a frequency of 10 percent (10%). RPD is defined as the absolute difference of duplicate measurements divided by the mean of these analyses normalized to percentage.

- Accuracy, in terms of percent recovery (recovery of known constituent additions or surrogate recoveries), will be determined by the analysis of spiked and unspiked samples. MS/MSD will be used to determine analytical accuracy. The frequency of MS/MSD analyses will be one project sample MS/MSD per set of 20 project samples.

- One method blank will be prepared and analyzed with each batch of project samples. The total number of method blank sample analyses will be determined by the laboratory analytical batch size.

- Standard Reference Materials (SRMs) will be used for each analysis. Sources of SRM's include the U.S. EPA, commercially available material from CRADA-certified vendors, and/or laboratory-produced solutions. SRMs, when available and appropriate, will be processed and analyzed on a frequency of one per set of samples.

- Completeness is the evaluation of the amount of valid data generated versus the total set of data produced from a particular sampling and analysis event. Valid data is determined by independent confirmation of compliance with method-specific and project-specific data quality

objectives. The calculation of data set completeness will be performed by the following equation.

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

13. Quality Assurance (QA) Reports

Critically important to the successful implementation of the QA Plan is a reporting system that provides the means by which the program can be reviewed, problems identified, and programmatic changes made to improve the plan.

QA reports to management can include:

- Audit reports, internal and external audits with responses
- Performance evaluation sample results; internal and external sources
- Daily QA/QC exception reports/corrective actions

QA/QC corrective action reports will be prepared by the Haley & Aldrich QA Officer when appropriate and presented to the project and/or laboratory management personnel so that performance criteria can be monitored for all analyses from each analytical department. The updated trend/QA charts prepared by the laboratory QA personnel will be distributed and reviewed by various levels of the laboratory management.

References

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3. United States Environmental Protection Agency, (1993). Data Quality Objectives Process for Superfund Interim Final Guidance. U.S. EPA/540/R-93-071, Office of Solid Waste and Emergency Response (OSWER), September 1993.

4. United States Environmental Protection Agency, (1992). Specifications and Guidance for Contaminant-Free Sample Containers. OSWER Directive 9240.0-05A, April 1992.

5. United States Environmental Protection Agency. U.S. EPA National Functional Guidelines for Organic Data Review. U.S. EPA 540/R-2017-002.

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7. United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste, Office of Solid Waste, U.S. EPA, SW-846, November 1986, with updates.

8. New York State Department of Environmental Conservation, NYSDEC Analytical Services Protocol (ASP), Bureau of Environmental Investigation, 1991 with updates.

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

10. New York State Department of Environmental Conservation, NYSDEC, Division of Environmental Remediation, Sampling, Analysis and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) under NYSDEC Part 375 Remedial Program, April 2023.

TABLE

TABLE I

SUMMARY OF ANALYSIS METHOD, PRESERVATION METHOD, HOLDING TIME, SAMPLE SIZE REQUIREMENTS AND SAMPLE CONTAINERS

91 BRUCKNER BOULEVARD

BRONX, NEW YORK

Analysis/Method	Sample Type	Preservation	Holding Time	Volume/Weight	Container
Volatile Organic Compounds/8260C	Soil	1 - 1 Vial MeOH/2 Vial Water, Cool, 4 ± 2 °C	14 days[1]	120 mL	3 - 40ml glass vials
Semivolatile Organic Compounds/8270D	Soil	Cool, 4 ± 2 °C	14 days	250 mL	1 - 8 oz Glass
Pesticides (8081B)	Soil	Cool, 4 ± 2 °C	14 days	250 mL	1 - 8 oz Glass
Polychlorinated Biphenyls/8082A	Soil	Cool, 4 ± 2 °C	14 days	250 mL	1 - 8 oz Glass
Metals/6010D	Soil	Cool, 4 ± 2 °C	180 days	60 mL	1 - 2 oz Glass
PFAS 1633	Soil	Cool, 4 ± 2 °C	14 days	250 mL	1 - 4 oz high-density polyethylene container
1,4-Dioxane 8270	Soil	Cool, 4 ± 2 °C	14 days	250 mL	1 - 8 oz Glass
Toxicity Characteristic Leaching Procedure Metals	Soil	Cool, 4 ± 2 °C	180 days	120 mL	1 - 4 oz Glass
Volatile Organic Compounds/8260C	Groundwater	HCl, Cool, 4 ± 2 °C	14 days	120 mL	3 - 40ml glass vials
Semivolatile Organic Compounds/8270D	Groundwater	Cool, 4 ± 2 °C	7 days	500 mL	2 - 250 mL amber glass
TAL Metals 6020	Groundwater	HNO_3Cool, 4 ± 2 °C	180 days	500 mL	1 - 500 mL plastic bottle
PFAS 1633	Groundwater	H2O Cool, 4 ± 2 °C	14 days	500 mL	2 - high-density polyethylene 250 ml containers
1,4-Dioxane 8270 SIM	Groundwater	Cool, 4 ± 2 °C	7 days	500 mL	1 - 500 mL plastic bottle
Volatile Organic Compounds/TO-15	Indoor Air	N/A	30 days	2.7 - 6 L	1 2.7 or 6 L Summa Canister

Notes:

1. Terracores and encores must be frozen within 48 hours of collection
2. Approximately 21 soil confirmation samples and one indoor air samples anticipated. Groundwater samples not anticipated.
3. Field blanks and matrix spike/matrix spike duplicates to be collected one per 20 confirmation soil samples.
4. Trip blanks collected one per sampling event analyzing for VOCs.
5. Field duplicates to be collected one per 20 samples (two field duplicates of confirmation samples anticipated).
6. Refer to text for additional information.

ATTACHMENT A
Project Team Resumes

MARI C. CONLON

Project Manager

EDUCATION

M.S., Geology, Boston College
B.S., Geology with a minor in Economics and Business, Lafayette College

PROFESSIONAL REGISTRATIONS

NY: Professional Geologist (License No. 000769)

PROFESSIONAL SOCIETIES

Big Apple Brownfield Awards, Co-Chair, 2018-2019
Big Apple Brownfield Awards Nomination Committee, 2016-2017

SPECIAL STUDIES AND COURSES

40-Hour OSHA Hazardous Waste Operations and Emergency Response Training (29 CFR 1910.120)
10-Hour OSHA Construction Safety
8-Hour OSHA Supervisor of Hazardous Waste (29 CFR 1910.120 & 29 CFR 1926.65)

Mari is a project manager with experience in soil, groundwater and soil vapor investigation and a focus on remedial design and implementation, and will focus her time at Haley & Aldrich serving the environmental and real estate markets. She is also experienced in completion of numerous Phase I Environmental Site Assessments and Phase II Environmental Site Investigations, site characterization, hazardous materials analysis, regulatory closure reports as well as remedial design and implementation.

Mari has experience in composing site closure documentation including Remedial Closure Reports and Noise Installation Reports reviewed by the Office of Environmental Remediation as well as Final Engineering Reports reviewed by the New York State Department of Environmental Conservation. Her background includes developing and complying with approved site management plans overseeing the operation and maintenance of on-site engineering controls and ensuring the protection of human health and the environment.

Mari has also worked on city rezoning proposals by performing work associated with and composing the Hazardous Materials Analysis chapter included in Final Environmental Impact Statements published by New York City Department of Planning. Analysis methods were performed in accordance with the City Environmental Quality Review (CEQR) guidelines for neighborhoods including East New York, Brooklyn, Jerome Avenue, Brooklyn, Inwood, and Manhattan.

RELEVANT PROJECT EXPERIENCE

State and City Agencies

School Construction Authority, Waste Characterization and Excavation Materials Disposal Plan, Brooklyn, New York. Project manager for consulting services for New York Public School 127. Services included composition of an Excavated Materials Disposal Plan, collection of waste characterization samples and preparation of and preparation of a findings and recommendations report.

Department of City Planning, Rezoning Environmental Impact Statement, Bronx, New York. Project lead for analysis and composing the Hazardous Materials Chapter as per City Environmental Quality Review (CEQR) Technical Manual guidelines included in the Final Environmental Impact Statement (FEIS) for an approximately 92-block area primarily along Jerome Avenue and its east-west commercial corridors in the Bronx. The review assessed the potential for the presence of hazardous materials in soil and/or groundwater at both the projected and potential development sites identified in the reasonable worst-case development scenario under the proposed East New York Rezoning Proposal. Procedures involved site inspections and review of historic Sanborn fire insurance maps, city directories and city/state regulatory databases. The assessment identified that each of the 146 projected and potential development sites has

some associated concern regarding environmental conditions. As a result, the proposed zoning map actions include (E) designations (E-366) for all privately-held projected and potential development sites.

Department of City Planning, Rezoning Environmental Impact Statement, Brooklyn, New York. Project lead for performance analysis and composing the Hazardous Materials Chapter as per CEQR Technical Manual guidelines included in the FEIS for an approximately 190-block area of East New York, Cypress Hills, and Ocean Hill neighborhoods of Brooklyn, New York. The review assessed the potential for the presence of hazardous materials in soil and/or groundwater at both the projected and potential development sites identified in the reasonable worst-case development scenario under the proposed East New York Rezoning Proposal. Procedures involved site inspections and review of historic Sanborn fire insurance maps, city directories and city/state regulatory databases. The assessment identified that each of the 186 projected and potential development sites has some associated concern regarding environmental conditions. As a result, the proposed zoning map actions include (E) designations (E-366) for all privately-held projected and potential development sites.

Redevelopment and Remediation

Titan Equity Group, Hotel Redevelopment, Bronx, New York. Project manager for a hotel redevelopment in the south Bronx. The site has been assigned New York City Office of Environmental Remediation (NYC OER) E-Designation status for hazardous materials, noise and air quality. Services included completion of a remedial investigation, composition of a Remedial Investigation Report and development of Hazardous Material Remedial Action Work Plan and Air Quality/Noise Remedial Action Plan as per NYC OER requirements.

The Related Companies, Chelsea Mixed-Use Redevelopment, New York, New York. Field geologist for oversight of the remediation of a mixed-use residential and commercial building, the second of a two-building development on 30th Street. Contaminants of concern included volatile and semi-volatile organic compounds associated with historic operations and underground storage tanks (USTs) located on the Site. The Site was given an E-designation (E-142) for hazardous materials and noise as part of the Highline/West Chelsea rezoning proposal. To satisfy the requirements of the E-designation program, soil was excavated to at least 12 feet below grade and bottom endpoint collected showing no contaminants of concern exceeding the New York State Department of Environmental Conservation (NYSDEC) Unrestricted Use Soil Cleanup Objectives (SCO). By achieving Unrestricted Use SCOs, no engineering controls were necessary, although the building slab was included as part of development, and removal of the hazardous materials E-designation was requested.

Tishman Speyer, Long Island City Residential Development, Long Island City, New York. Field geologist for remedial oversight and implementation of a Community Air Monitoring Program during concurrent remediation and development of three Brownfield Cleanup Program (BCP) sites located in Long Island City, New York. The Sites were grossly contaminated with creosote, a carcinogenic chemical formed from the distillation of various tars. Remediation strategies included soil excavation and in-situ soil stabilization. To prevent migration of groundwater off-site, a temporary and later a permanent capture well system was installed on the western boundary of the property. The BCP site located on the western portion of the property left residual contamination in place requiring installation of a sub-slab depressurization system.

Queens West Development Corporation, Queens Waterfront Development, Long Island City, New York. Field geologist for performance of site management post remedial action. Services included annual groundwater monitoring, evaluation of engineering and institutional controls completion and Period Review Reports. In addition to conducting annual site management activities, responsibilities included composing a work plan to evaluate the transition from active sub-slab depressurization systems to passive. Upon NYSDEC approval, active systems were shut down for 30 days prior to a sub-slab vapor sampling event evaluation soil vapor, indoor and outdoor air conditions for potential vapor intrusion risk. As results indicated no evidence of vapor intrusion, continued pressure monitoring was conducted for from the existing monitoring ports for one year assessing whether negative pressure was held by the existing slab by stack-effect or other passive processes.

Jim Beam Brands Co., Brownfield Cleanup Program Remediation Site, Long Island City, New York. Field geologist for oversight of the installation of an Electrical Resistive Heating (ERH) system implemented in order to remediate trichloroethylene groundwater plumes in shallow/intermediate and deep groundwater on- and off-site. The Site, a former stapler manufacturing facility, underwent various remedies, including a Soil Vapor Extraction system, air sparging, ozone injection and chemical oxidation using potassium permanganate injections, which resulted in little reduction to contamination levels and rebounding chlorinated solvents. Components of the ERH system installed included electrodes for delivery of steam, vapor recovery wells, and groundwater monitoring wells. The site is currently under remediation in the state BCP program.

Due Diligence and Site Characterization

Manufacturing Plants, Multiple Investors, Environmental and Compliance Assessment Portfolio United States. Project lead for completion of Phase I Environmental Site Assessments (ESAs) and Limited Compliance Reviews for multiple auto parts manufacturing facilities throughout the United States. Services included completion of Phase I ESAs in accordance with the American Society for Testing and Materials E1527-13 requirements and a limited review of each facility's compliance liabilities including issues pertaining to the Resource Conservation and Recovery Act, Greenhouse Gas Emission Standards and Tier II Emergency and Hazardous Chemical Inventory reporting requirements.

ARM Parking, Environmental Site Assessment and Subsurface Investigation, Brooklyn, New York. Project manager for site assessment and subsurface investigation of parking facility in Sunset Park neighborhood, Brooklyn, New York. Services included ground penetrating radar survey for former and current petroleum USTs, completion of a subsurface investigation of soils and composition of Limited Subsurface Investigation Report.

Spill Consulting

The Trump Organization, Spill Consulting Services, New York, New York. Project manager for consulting services provided after incidental release of calcium carbonate ice rink paint to the Central Park Pond from Wollman Rink. Services included liaising with NYSDEC regarding violations, consent order and required corrective action. Corrective action included designing alterations to the existing on-site drainage plans and routing all meltwater containing paint into the combined sewer system. Coordination was required with property owner, operations personnel, New York City Department of Parks and NYSDEC.

Richmond Gardens Apartments, Spill Management and Closure Services, Staten Island, New York. Project lead responsible for spill closure activities and reporting for Spill 1105661 located at the Richmond Gardens Apartment Complex in the Richmond neighborhood of Staten Island, New York. The spill was opened in 2011 when several underground storage tanks were identified adjacent to the apartments at Jersey Street and Hendricks Avenue. The tanks were cleaned and removed and impacted soils surrounding the tank area excavated to the extent possible. Excavation of all impacted material was not feasible due to the proximity of the tanks to the apartment buildings. Residual contamination in soil and groundwater remained and was monitored through 2016. Upon reviewing the groundwater monitoring data from over 12 consecutive quarters, it was apparent monitored natural attenuation was not a feasible option and an in situ chemical oxidation (ISCO) remedy was approved by NYSDEC. Due to success of the pilot test, the ISCO injection event was implemented utilizing pressure pulse technology to deliver the alkaline activated persulfate solution to the subsurface.

BRIAN A. FERGUSON

Senior Engineer

EDUCATION

M. S. Geotechnical Engineering, Tufts University, Medford, Massachusetts; 2012
B. S. Civil Engineering, State University of New York - Environmental, Science, and Forestry, Syracuse, New York; 2000
Ass. Science Degree in Applied Science and Technology (Nuclear Engineering), Thomas A. Edison State College, Trenton, New Jersey; 2000

PROFESSIONAL SOCIETIES

Order of the Engineer – 2000
Boston Society of Civil Engineers (BSCE)
American Society of Civil Engineers (ASCE)

SPECIAL STUDIES AND COURSES

American Concrete Institute – Certified Field Technician Certified Grade 1
Radiation Safety and Operations of Nuclear Testing Equipment – Troxler
40-Hour OSHA Hazardous Waste Operations Training (+ 8-Hour annual refresher)
10-Hour OSHA Construction training
Confined Space Entry Training
16-Hour Asbestos Operations and Maintenance

Mr. Ferguson has over six years of experience serving as project engineer on a variety of real estate development projects. His project experience has included monitoring field investigations and performing construction oversight, performing due diligence and engineering analyses, performing geotechnical analyses and developing geotechnical recommendations, and preparing geotechnical reports and project specifications.

In addition to providing engineering design support, Mr. Ferguson has managed and participated in a number of field service activities. Field work has included construction monitoring and documentation of contractors' deep and shallow foundation related construction, including slurry walls, caissons, pile driving, pile cap installation, earthwork, backfilling and compaction, installation of soldier pile and wood lagging support systems, installation of tie backs, reading inclinometers, conducting in-place field unit weight tests, tie-back load testing, seismograph installation, monitoring, and evaluating, and preparation of footing bearing surfaces. Other responsibilities have included site development activities, including placement of utilities and subgrade preparation for roads; observations and testing to determine that work is completed in compliance with contract documents; on-site soil management; sampling of soil and groundwater for chemical laboratory testing and conducting in situ field screening; maintenance of job records including pile driving logs, results of field density tests, records of caisson and footing installations; preparation of daily field reports; in contact with key personnel; and resolution of field related problems.

RELEVANT PROJECT EXPERIENCE

St. Elizabeths Hostpital – West Campus Forensic Evaluations, Washington, D.C. Project Engineer for forensic evaluations on the adaptive reuse of former hospital buildings. Responsibilities included coordination of a field exploration program, including test borings and test pits to obtain subsurface information for project design and construction, overseeing multiple field personnel, subcontractors, assisting with project management, reviewing subcontractors invoices, reviewing and summarizing subsurface data and writing data reports.

TUFTS University, New Central Energy Plant, Medford, MA. Project engineer for a new Central Energy Plant that will house new co-generation steam boilers, centralized chilled water and electrical transformer switchgear that is planned to occupy approximately 20,000 square feet across two or three levels. Responsibilities included coordination of construction monitoring, observing SOE and footing installation, assisting with project management,

reviewing weekly field construction reports, reviewing and responding to geotechnical design submittals and attending project meetings.

Lahey Hospital and Medical Center – Stilts Infill Project, Burlington, MA Project Engineer for an addition to the existing Stilts building on the Lahey campus. Responsibilities included coordination and overseeing geotechnical and environmental subsurface investigations, coordination of construction monitoring, observing footing installation, assisting with project management, reviewing weekly field construction reports, reviewing and responding to geotechnical design submittals and attending project meetings.

Gloucester Beauport Hotel, Gloucester, MA Project engineer for a four story hotel with a seawall constructed adjacent to tidal beach. Responsibilities included coordination and overseeing geotechnical and environmental subsurface investigations, coordination of construction monitoring, assisting with project management, reviewing weekly field construction reports, reviewing and responding to geotechnical design submittals and attending project meetings, design and implementation of a sub-slab gas mitigation system.

275 Wyman Street, New Office Building, Waltham, MA. Project engineer for a new office building and parking garage founded on a shallow foundation system. Responsibilities included preparing proposals, assisting with management and planning of a subsurface investigation program, summarizing subsurface data and reviewing geotechnical test boring logs, coordination of construction monitoring and instrumentation monitoring programs, reviewing weekly field construction reports, reviewing and responding to specialty geotechnical design submittals and RFIs by others and attending project meetings.

Suffolk University - 20 Somerset Street, Boston, MA Project engineer for design of 8-story academic building with two levels of below grade finished space. Responsibilities included coordination of construction monitoring, observing SOE and footing installation, assisting with project management, reviewing weekly field construction reports, reviewing and responding to geotechnical design submittals and attending project meetings.

Worcester State University, New Student Housing, Worcester, MA Project engineer for design and construction of a 7-story residence/dining hall with a single level basement and a major site retaining wall structure. Responsibilities included overseeing geotechnical subsurface investigations, provided foundation recommendations and specifications, and prepared a retaining wall contract document. Responsibilities included coordination of construction monitoring, excavation and construction of footings, and soil reuse and management, assisting with project management, reviewing weekly field construction reports, reviewing and responding to geotechnical design submittals and attending project meetings.

University of Massachusetts Boston, General Academic Building No.1, Boston, MA. Project engineer responsible for assisting project manager in preliminary foundation engineering recommendations and construction considerations for a new academic building on a part of Columbia Point, a historic landfill area. Assisted in design phase services that included preparing foundation support design recommendations including the use of high allowable stresses for 190-ft long end-bearing H-piles and application of Slickcoat coating to address downdrag concerns and reduce foundation costs.

Waltham Watch Factory, Waltham, MA project engineer for redevelopment of former watch factory. Responsibilities included construction oversight of new precast parking garage, utilitiy upgrades, soil remediation and management, installation of gas mitigation systems, assisting with project management, reviewing weekly field construction reports, reviewing and responding to geotechnical design submittals and attending project meetings.

Massachusetts Green High Performance Computing Center, Holyoke, MA. Project engineer for 60,000 sq. ft high level computing center and associated support utilities. Redevelopment of the site included recycling 50,000 cy of construction debris into the site fills at this historic site along the Connecticut River. Responsibilities included coordinating geotechnical and environmental field investigations, coordination of construction monitoring, seismic analysis, reviewing weekly field construction reports, reviewing and responding to geotechnical design submittals and attending project meetings.

The Shops at Riverwood, Hyde Park, MA. The project consisted of the redevelopment of a colonial era paper mill. The multi-building complex was demolished and the concrete and brick from the previous buildings were recycled. The project involved crushing 50,000 cy of brick and concrete and placement of excavated soils and recycled brick and concrete as compacted fill materials to support proposed buildings, pavement areas, and achieve 5 to 9 ft. raises in grade. Field Representative was responsible for management and reuse of brick and concrete stockpiles, in-place density testing, coordination of test pits, installation of soldier pile and versa-lok walls, and backfilling of underground vaults. Remedial activities included: excavation of 5,000 cy of petroleum contaminated soils, on-site cement batching in a pug mill, and placement of compacted recycled materials in roadway areas; delineation, excavation and off-site disposal of TSCA-regulated PCB contaminated soils associated with historical Askarel transformers and dioxin-contaminated soils associated with historical bleaching operations; and disposition of 1,000 tons of paper mill sludge encountered within an abandoned granite-walled sluiceway structure. In addition, assisted with weekly project meetings, maintaining a record of material reuse, and providing weekly field reports.

Harvard Law School, Cambridge, MA. The Harvard Law School project is located on Massachusetts Avenue in Cambridge. The project consisted of a multistory building above ground with 5 levels below ground for a parking garage. Field Representative was responsible for overseeing the installation of slurry walls into bedrock and LBEs with three installation rigs while monitoring the removal of urban fill and transfer to several different receiving facilities from another portion of the site. The slurry walls were constructed into bedrock. Other Field Representative activities were: testing of the slurry, management of the excavated soils, and record keeping of the Contractor's obstruction and down time of the equipment. In addition, assisted with weekly project meetings, maintaining a record of obstruction and machine time, and providing weekly field reports.

BRIAN FITZPATRICK, CHMM

Corporate Director, Health and Safety

EDUCATION

M.P.A., Environmental Policy, Syracuse University
B.S., Environmental Science, University of Massachusetts-Amherst
A.S., Chemistry, Valley Forge Military Junior College
Commissioned Officer, United States Army

CERTIFICATIONS

Certified Hazardous Materials Manager (Reg. No. 13454)
Certified Department of Transportation Shipper
Certified International Air Transport Authority Shipper

PROFESSIONAL SOCIETIES

Alliance of Hazardous Materials Professionals
Academy of Certified Hazardous Materials Managers, New England Chapter

SPECIAL STUDIES AND COURSES

Department of Transportation
International Air Transport Authority
Incident Commander
Confined Space Entry and Rescue
Radiation Safety Officer
RCRA Hazardous Waste
Massachusetts Industrial Waste Water Operator Grade 2I (expired)

AWARDS

Presidents Club Award (one million hours worked without a recordable injury, Cabot Corporation
Chancellors Award for Excellence, Syracuse University

Brian has over 25 years of experience in developing, implementing, and managing a wide range of environmental, health, and safety (EH&S) solutions for a variety of clients. Brian has served as the Health and Safety Manager and Incident Commander at several research and development sites and has managed extensive programs to maintain and clean contaminated sites under Federal and State regulatory programs. He has provided expertise in managing EH&S programs as a consultant, and has actively developed, implemented, and managed these programs as an EH&S professional for various industries.

Brian is currently working as the Chief Health and Safety Officer for Haley & Aldrich, Inc. He, and his staff, are involved in every project Haley & Aldrich, Inc. undertakes. Brian is involved on several projects, directly overseeing the health and safety on the project site of our staff, our contractors, and the public. Brian also acts as support for our on-site health and safety staff on other larger construction and remediation projects.

Through Brian's leadership our safety culture and focus extend from the top of our organization to each and every Haley & Aldrich employee as well as subconsultants and subcontractors. Utilizing a Behavior Based Safety approach, Haley & Aldrich expects every project team member to play an important role in making our projects safe and has given authority to every Haley & Aldrich employee, subconsultant, and subcontractor to stop any activity at any time for health or safety concerns. Our record illustrates that our hard work is paying off. The company has gone 4 years without a lost time injury, and our TRIR and EMR have consistently improved each of the last 3 years.

RELEVANT PROJECT EXPERIENCE

Haley & Aldrich, Inc., Burlington, Massachusetts. As Chief Health and Safety Officer, Brian has led and facilitated the development and implementation of corporate health and safety (H&S) improvement plans to enhance compliance and improve H&S performance. In Brian's time with Haley & Aldrich, Inc., the company has realized dramatic improvement on H&S goals and in Key Performance Indicators. Brian is responsible for developing a risk competence culture, where our staff are empowered to look for and engage to address risk before anyone is injured. Brian oversees the development, implementation and continuous improvement of all H&S programs for the company. Additional responsibilities include:

- Developing a safety culture through incident reporting, root cause analysis, behavior-based safety, hazard recognition and risk assessment, communication, and developing leaders;
- Monitoring proposed and existing SH&E regulations and legislation to determine their impact on operations and to ensure continued compliance;
- Overseeing the safety, industrial hygiene, and toxicology programs for over 600 staff members engaged in remediation, construction, health and safety, consulting, and general office work across 28 offices in the United States and on assignment to international project sites;
- Continuously seeks to improve H&S performance as measured by the OSHA Incident Rating (IR) and Worker's Compensation Experience Modification Rating (EMR), as well as Leading Indicators developed with the management team; and
- Participating in the corporate audit program as an auditor or lead auditor;

Energy Client, California. As Chief Health and Safety Officer, Brian led and facilitated the Alliance Partnership Safety Council in 2017, is still an active contributor to the council, and hosts routine contractor safety forums for the client. Brian is actively involved in the development and implementation of program safety, health, and environmental (SH&E) plans to ensure safe operations on project sites. Brian developed permits and Health and Safety Plans for large projects and routinely audits the site safety. Additional responsibilities include:

- Driving reporting and behavior-based safety initiatives to support our internal safety culture and developing monthly summary reports to illustrate performance to our client.
- Develop, assess and continuously improve site safety plans and practices, including specific safety protocols for working safely over and around water.
- Worked as an extension of the client's organization to provide assurance that the remedy was completed safely and consistent with client-specific requirements.
- Support on-site safety personnel in ensuring the health and safety of the general public, our staff, and our sub-contracted employees.
- Audits and visits sites to ensure compliance with our internal policies and client-specific requirements.

Energy Client, Ohio. As Chief Health and Safety Officer, Brian supports the project team in developing and executing client and project specific health and safety measures, such as a site specific Health and Safety Plan, Job Hazard Analyses, Industrial Hygiene program, and site specific training. Brian also routinely visits the site to assess current practices and condition and to ensure continuous improvement. Additional responsibilities include:

- Develop, assess, and continuously improve site safety plans and practices, including specific safety protocols to comply with supplemental EH&S requirements such as the Duke Health and Safety Handbook, Environmental Supplemental, and EHS Keys to Life.
- Develop, assess, and continuously improve site safety plans and practices to address the risks associated with the work being performed on site, as well as the environmental conditions and simultaneous operations, including trenching and excavation, hot work, work over and near water, heavy equipment, HAZWOPER, etc.
- Worked as an extension of the client's organization to provide assurance that the remedy was completed safely and consistent with client-specific requirements.
- Support on-site safety personnel in ensuring the health and safety of the general public, our staff, and our sub-contracted employees.
- Audits and visits site to ensure compliance with our internal policies and client-specific requirements.

ZACHARY SIMMEL

Staff Environmental Engineer

EDUCATION

B.S., Environmental Engineering, Syracuse University

SPECIAL STUDIES AND COURSES

40-Hour OSHA Hazardous Waste Operations and Emergency Response Training (29 CFR 1910.120)
8-Hour OSHA HAZWOPER Refresher Training
10-Hour OSHA Construction Safety Training
8-Hour DOT Hazmat Employee & RCRA Hazardous Waste Generator Training
American Red Cross First Aid Training and CPR Course
XRF Training (2019)
Asbestos Inspector Training (2019)

Zachary is an engineer with experience in remedial site investigations, subsurface investigations, observations of rock blasting/excavation, preparation of technical reports, and data collection and analysis. He also has extensive experience with conducting Phase I environmental site assessments and Phase II environmental site assessments, and other forms of environmental due diligence. He has performed groundwater sampling events, soil gas/vapor surveys, and assisted with preparation of soils management plans. Zachary regularly utilizes computer programs such as Microsoft Excel, Microsoft Word, and Bluebeam in his daily job functions.

He will focus his time at Haley & Aldrich serving the Building and Infrastructure markets with performing site reconnaissance to observe existing conditions, assess site access for subsurface explorations, and identify important site features. He will also monitor subsurface exploration activities to collect soil, bedrock, groundwater, as well as other pertinent information for project design, and assist in the development of remedial work plans.

RELEVANT PROJECT EXPERIENCE

Environmental

310 Grand Concourse Residential Construction, South Bronx, New York. As a field engineer, Zachary performed excavation oversight and was responsible for the collection of endpoint samples, air monitoring, and logging trucks for off-site disposal. He assisted in the development of a map that accounted for the different impacted zones on the site including hazardous lead and petroleum areas. He was exposed to general support of excavation (SOE) practices including the installation of soldier piles, structural piles, timber lagging, walers, and rakers. Approximately 24,000 tons of soil was excavated and transported off-site (includes hazardous lead, petroleum impacted, urban fill, and native soil) and approximately 10,250 tons of broken-up bedrock was removed from the site. Thirteen underground storage tanks containing gasoline were encountered and removed as part of the remediation. The site achieved the most stringent remediation standards in New York state.

Former Techtronics Facility, 8 Walworth Street, Brooklyn, New York. As field engineer, Zachary was responsible for the oversight of soil borings by Direct Push and installation of fifteen permanent groundwater monitoring wells using mud-rotary drilling. Cluster wells were installed to vertically delineate chlorinated volatile organic compounds (CVOCs) on-site plume and to evaluate other plumes migrating onto the site. Adjusted well locations due to site-specific challenges, specifically shallow refusal. His responsibilities included collecting soil and groundwater environmental samples, gauging wells, overseeing survey performed by license surveyor, and compiling laboratory data and hydrogeologic information to formulate an interim remedial measure (IRM) design involving soil vapor extraction/air sparging systems and implementing a bioremediation injection barrier wall.

297 Wallabout Street, Brooklyn, New York. As field engineer, Zachary was responsible for the oversight of soil borings and installation of five permanent groundwater monitoring wells. His responsibilities included classifying soil, developing/purging wells, collecting environmental soil samples, and conducting low-flow groundwater sampling for various analyses.

Excavation Oversight and CAMP Monitoring, Various Sites, Bronx and Brooklyn, New York. Zachary served as field engineer for several projects under the NYC Mayor's Office of Environmental Remediation (NYCOER) program. His responsibilities included performing excavation oversight, air monitoring, vapor barrier installation oversight, and logging trucks for off-site disposal.

Former NuHart Plastics Manufacturing Plant, Brooklyn, New York. Zachary worked as field engineer for multiple monitoring events which consisted of the removal of light non-aqueous-phase liquid (LNAPL) performed in compliance with the site-specific, NYSDEC-approved Operation, Maintenance, and Monitoring Plan (OM&M Plan) for the product recovery system.

Rock Brokerage Environmental Site Assessments, New York City, New York. Zachary served as field engineer for environmental waste characterization services as required by the disposal facility at several sites throughout the greater New York City area.

Building & Infrastructure Construction/Development

I-95 Express Lanes Fredericksburg Extension, Fredericksburg/Stafford, Virginia. As field engineer, Zachary was responsible for the oversight of geotechnical borings using (HSAs) along Interstate 95. Work areas included both road work and limited access areas (i.e. wetlands, medians). He provided quality real-time data under an intense project deadline and collaborated daily with earthwork firm (i.e. branch civil). Logged soils using Virginia Department of Transportation Classification System and collected both split spoon and Shelby tube samples. Equipment used for soil classification included a pocket penetrometer.

Greenwich Country Day School South Campus Addition, Greenwich, Connecticut. As field engineer, Zachary observed construction activities for south campus addition which included rock removal (line drilling and blasting), installing footings, preparing bearing surfaces, installing underslab and perimeter drainage systems, and earthworks. Project responsibilities also included collecting blast vibration monitoring information from the blaster and regularly checking in with surveyor to maintain elevation control of excavation.

Corbin Avenue Mixed-Use Residential Development, Darien, Connecticut. Zachary served field engineer for subsequent site investigation for a mixed-use residential development. The development will consist of several, mixed-use residential buildings, and an underground parking structure. His responsibilities included monitoring of test borings (using HAS and mud rotary) and rock drilling, collecting pertinent information from drill rig crews (monitored two at a time), collecting environmental samples, and gauging previously installed groundwater monitoring wells. Adjusted test boring locations due to site specific challenges including shallow refusal depth, utilities, and other site (i.e. parked vehicles, access restrictions).

Lambert Houses Parcel 5, Bronx, New York. As field engineer for site investigation of proposed development at E 179th Street, Zachary monitored 15 test borings and one test it to obtain information on subgrade and depth of bedrock across the site.

Lincoln Avenue Bridge Replacement, Trenton, New Jersey. As field engineer for site investigation of proposed replacement of bridge, Zachary monitored test borings to obtain information on subgrade and depth to bedrock. Test boring extended down to approximately 100 feet; 25 feet was rock cored. Both soil and rock cores were collected, observed, and properly identified in logs.

Keeler Brook Force Main Final Design, Connecticut Avenue, Norwalk, Connecticut. Zachary served as field engineer for site investigation of proposed installation of 2,475 linear feet (lf) of 16-in.-dia., HDPE-force main running along the south side on Connecticut Avenue. Final design included 1,100 lf horizontal directional drilling (HDD) and 725 lf pipe jacking area. His responsibilities included monitoring of test borings and rock drilling to obtain information on subgrade and depth to bedrock.

Environmental Remediation Experience

The Stanwich School, Environmental Remediation Investigation, Greenwich, Connecticut. As field engineer, Zachary was responsible for the oversight of the remediation of former hiking trails impacted by historical placement of fill material (e.g., primarily ash, coal, slag). Primary contaminants of concern included heavy metals, specifically arsenic and lead. Assisted with preliminary subsurface investigation involving the installation of test pits in order to characterize and assess distribution of fill material. Primary responsibilities included oversight of the removal of fill material, segregating cut stone for re-use, collecting endpoint samples to determine performance of the remedy, compiling laboratory data, oversight of the installation of filter fabric, and preparing a site remediation report with appropriate figures. Acted as liaison between general contractor and both soil brokerage firm and environmental laboratory.

Marc Service Station, Environmental Remediation, Stamford, Connecticut. As field engineer, Zachary was responsible for the remedial oversight of former gasoline service station. He conducted both Phase I and Phase II Environmental Site Assessments prior to remediation. Primary responsibilities included oversight of the excavation and removal of two abandoned in-ground hydraulic lifts, an out-of-service oil/water separator, and interior drain lines. Project also called for the removal of historic impacted soil in the vicinity of a former pump island and locations of former underground storage tanks grossly contaminated with primarily Benzene, Toluene, Ethylbenzene and Xylene (BTEX) contaminants and petroleum. He was responsible for the collection and analysis of soil samples, verification of completeness of the work, documentation, and preparation of a closure/soil remediation report.

Rubino Brothers Scrap Metal, Environmental Remediation Investigation, Stamford, Connecticut. As field engineer, Zachary was responsible for the remedial oversight of former storage lot operated by scrap metal yard. The storage lot was comprised of three different parcels which were formerly operated by a variety of light industrial and commercial businesses including a foundry and lumber yard. Assisted in the development of a grid system across the entirety of the site, each approximately 25 ft x 25 ft. Remediation was conducted in several phases: removal of top layer of asphalt and millings, removal of reinforced concrete slabs across the entirety of the site, and removal of impacted soil (primary contaminants of concern [Extractable Total Petroleum Hydrocarbons], arsenic, and lead). Encountered orphan underground gasoline storage tanks and a waste oil tank. Primary responsibilities included oversight of the removal of impacted soil, segregating non-native material, collecting endpoint samples, and documenting completion of work. Collected composite samples from stockpiles for waste characterization and disposal facility. Created spreadsheet and tables of laboratory results, prepared appropriate site plans, and assisted with compilation of remediation report.

Environmental Investigation Experience

Multiple Confidential Clients, Phase I ESAs and Due Diligence, Multiple Locations in Connecticut, New York, New Jersey. Zachary conducted Phase I ESAs, for buyer and vendor sides, on a variety of properties including commercial, industrial, and residential sites. Experience with conducting Phase I ESAs and Transaction Screens (in CT) on dry cleaners, auto body shops, and service stations.

Multiple Confidential Clients, Phase II, Multiple Locations, Connecticut. As field engineer, Zachary conducted Phase II ESAs and supplemental Phase III ESAs on a variety of different sites. His assisted with the development of sampling plans primarily based off previous environmental investigations and due diligence. Primary responsibilities for Phase II investigations included oversight of the installation of test borings and/or test pits and the installation of groundwater monitoring wells. Some project scopes also called for the completion of a soil gas survey using a photoionization

detector as a field instrument. Phase III investigations involved further intrusive environmental media sampling to further delineate the vertical and horizontal extent of contamination.

Other Experience

Spill Management and Closure Services, Multiple Sites, Connecticut. As field engineer, Zachary was responsible for spill closure activities including monitoring removal of underground storage tanks and at times, overseeing excavation of contaminated soil related to leaking underground storage tanks. Primary responsibilities for underground storage tank closure/removal included oversight of the removal of impacted soil, collecting endpoint samples, preparing soil samples for laboratory analysis, and preparing a closure report to be submitted to state agency.

Multiple Dry Cleaners, Stamford, Connecticut. Zachary's responsibilities included conducting quarterly groundwater sampling events using low flow sampling technique, preparing data and reports. Air monitoring and routine soil vapor extraction system maintenance checks were also required at several of the dry cleaners.

SUZANNE BELL, PE

Senior Project Manager

EDUCATION

B.S., Biosystems Engineering, University of Arizona

PROFESSIONAL REGISTRATIONS

AZ: Environmental Engineer (Reg. No. 61995)
NY: Professional Engineer (Reg No. 106301)

SPECIAL STUDIES AND COURSES

40-Hour OSHA Hazardous Waste and Operations Emergency Response Training (29 CFR 1910.120 and 40 CFR 265.16)
8-Hour HAZWOPER Refresher Course

Suzanne is a senior project manager with over 14 years of experience in the environmental consulting industry. She has worked on soil and groundwater environmental investigations, remediation projects, and prepared reports for private, industrial, and government clients. Her technical experience includes remediation systems; soil and groundwater feasibility studies; Phase I site investigations; environmental file review and historical research; stormwater assessments and SWPPP preparation; reclamation planning for the sand and gravel mining industry; air permitting; and data interpretation.

RELEVANT PROJECT EXPERIENCE

Waterfront Property Management, 89-91 Gerry Street and 93 Gerry Street, Brooklyn, New York. Suzanne served as project manager for execution of Remedial Action Work Plans at the former Just4Wheels Site and Just4Wheels Site 2 under the New York State Brownfield Cleanup Program (NYSBCP). Responsible for remedial oversight of excavation and removal of non-hazardous and hazardous soil, endpoint sample collection, air monitoring, dewatering system installation support, communication with soil brokerage firm and environmental laboratory, preparation of Daily Field Reports (DFRs and the Final Engineering Report (FER).

Multiple Clients, Remedial Investigation Work Plans and BCP Applications, New York City, New York. As project manager and engineer, Suzanne has prepared NYSBCP Applications and Remedial Investigation Work Plans for the New York State Department of Environmental Conservation (NYSDEC) for sites within the New York City boroughs.

Excavation Oversight and CAMP Monitoring, Various Sites, New York City, New York. Suzanne has served as project manager for projects under the New York City Office of Environmental Remediation (NYCOER) program and NYSBCP. Her responsibilities included managing excavation oversight, air monitoring, and logging trucks for off-site disposal.

Aerospace Manufacturing Facility, Feasibility Study and Remedial Action Plan, Chula Vista, CA. Suzanne co-authored feasibility studies for soil and ground water impacted by chlorinated solvents, metals, and PCBs. She screened ex-situ and in-situ remedial alternatives for effectiveness, implementability, and protectiveness of human health. She also assessed alternative cleanup levels for technical and economic feasibility of achieving background concentrations in accordance with State Water Resources Control Board Resolution 92-49. Additionally, she evaluated groundwater remedial alternatives, including bioremediation, monitored natural attenuation (MNA), pump and treat, chemical oxidation, chemical reduction, and engineered and institutional controls. Lastly, she prepared engineering cost estimates and conceptual designs. Assisted with the preparation of remedial action plans: a bioremediation remedy and MNA program for groundwater, and excavation of contaminated soil.

Aerospace Manufacturing Facility, Groundwater Remediation and Bioremediation Pilot Test, Riverside, CA. Suzanne assisted with data analysis and reporting for the bioremediation pilot test study for groundwater impacted by chlorinated solvents, hexavalent chromium, and 1,4-dioxane. She evaluated site data for trends indicative of MNA using statistical analysis.

Goodyear Tire & Rubber Company, Phoenix Goodyear Airport South Superfund Site, Goodyear, Arizona. Suzanne prepared reports and performed data analysis related to the groundwater monitoring program and operation and maintenance of groundwater treatment systems. Currently, two groundwater extraction and remediation systems are capable of treating more than 1MGD of groundwater contaminated with trichloroethylene. The upper groundwater zone is treated with an air stripper, while the lower zone is treated with granulated activated carbon. Treated groundwater is reinjected into their respective zones.

Soil and Groundwater Remediation Systems, Arizona. Suzanne **p**erformed operation, maintenance, and sampling activities for two soil vapor extraction systems to remove tetrachloroethylene from subsurface soils at two different dry-cleaning facilities. She prepared soil vapor extraction GAC system test reports in accordance with Maricopa County Air Quality Department Permits.

ASTM Phase I Environmental Site Assessments, Arizona. Suzanne assisted with ASTM Phase I ESAs at various industrial facilities in central and southern Arizona. She evaluated site conditions and regulatory implications as they related to the owner's or potential buyer's property development plans.

Phoenix-Goodyear Airport-North Superfund Site, Focused Feasibility Study, Goodyear, Arizona. Suzanne was a member of team that prepared a source area remediation focused feasibility study report. She evaluated several technologies and alternatives to treat groundwater contaminated with trichloroethylene (TCE) and perchlorate. She analyzed remedial alternatives, including in-well air stripping, a hydraulic barrier, nano- and macro-scale zero-valent iron, anaerobic reductive dechlorination, in-situ chemical oxidation (permanganate), and electrical resistive heating. She prepared cost estimates, conceptual designs, remediation technology summaries, and sustainability evaluation of the alternatives.

Enhanced In-Situ Bioremediation (EISB) and Chemical Reduction Using a Nanoscale, Zero-Valent Metallic Alloy to Treat Co-disposed Chloroethanes and Chloroethenes in Groundwater, Manufacturing Facility, Canton, MA. Suzanne performed data analysis and prepared status reports on effectiveness of EISB in treating chlorinated solvents in shallow groundwater. She reported on the performance monitoring results for the permeable reactive barrier in deep zone groundwater.

Hayden Facilities RI/FS, ASARCO LLC, Hayden, Arizona. Suzanne served as Quality Assurance Officer for the air monitoring program at a copper smelting facility. She developed site-specific data validation procedures according EPA guidelines for several analytical methods.

Market Evaluation for Nanoscale Zero-Valent Iron, Stamford, Connecticut. Suzanne used EPA CERCLIS Public Access Database and select State databases to estimate the market size for potential use of nanoscale zero-valent iron (nZVI) as a remediation technology. She compiled competing vendor information and quotes to estimate the average cost of similar products. She utilized the U.S. Patent and Trademark Office database to analyze competing technologies.

AZPDES and NPDES Permits, Arizona. Suzanne prepared Arizona Pollutant Discharge Elimination System (AZPDES) and National Pollutant Discharge Elimination System (NPDES) permit renewal applications for a copper mining facility in Southern Arizona, which included updates to the facility's Storm Water Pollution Prevention Plan (SWPPP) and QA Manual.

Spill Prevention, Control and Countermeasure Plans, Aggregate Mining Facilities, Arizona. Suzanne assisted with a Spill Prevention, Control and Countermeasure Plans (SPCC) for aggregate mining facilities in Arizona. She performed site visit, evaluated fuel and oil tanks and secondary containment areas, assisted with calculations to verify compliance, and prepared report.

Copper Mining Facility, Miami, Arizona. Suzanne assisted with Toxic Release Inventory (TRI) and Toxic Substances Control Act (TSCA) reporting, both submitted to the EPA.

Storm Water Pollution Prevention Plan, Franciscan Friars of California, Gila County, Arizona. Suzanne updated the SWPPP for construction activities related to the closure of a historic Gibson copper mine, authorized under the Arizona Pollutant Discharge Elimination System "General Permit for Discharge from Construction Activities to Waters of the United States." The Former Gibson Mine is a small, historic copper mine, located approximately 7 miles southwest of Miami, Arizona, in Gila County. Construction activities covered under the updated SWPPP consisted of the excavation, hauling, and removal of approximately 80,000 tons of soil cover from the Mineral Creek side of the site to mine-scarred areas on the Pinto Creek side of the site. Also included was final grading of the site, which consisted of re-contouring and re-defining any portion of the drainages that were on site; and revegetation.

Stormwater Pollution Prevention Plans, Vulcan Materials Company, Western Division, Arizona. Suzanne prepared SWPPP for 11 aggregate mining facilities in Arizona. Performed site visits, analyzed stormwater flows, prepared reports, and completed Notices of Intent for the Arizona Department of Environmental Quality under a Multi-Sector General Permit.

Uranium Enrichment Facility, Lea County, New Mexico. Suzanne prepared quarterly and annual groundwater monitoring reports, semi-annual radioactive effluent release reports, and radiological environmental monitoring program reports in accordance with New Mexico Environment Department regulations and the Nuclear Regulatory Commission. Performed quarterly data validation on a variety of matrices and analytical methods. She prepared site-specific environmental monitoring procedures, which included field sampling techniques; data collection, management and validation; and an air modeling software package.

Rocket Testing and Research Facility, Western U.S. Suzanne analyzed and evaluated groundwater quality data, prepared reports, and managed data for this Resource Conservation and Recovery Act (RCRA) site. Assisted with management of sampling, analysis, and reporting of constituents of concern for fractured sandstone bedrock aquifer impacted by chlorinated solvents and emergent chemicals 1,4-dioxane, perchlorate, and n-nitrosodimethylamine (NDMA). Performed data validation of water quality data according to U.S. EPA National Functional Guidelines. Queried data from client environmental data management system and prepared summary tables, concentration plots, and water level hydrographs using Microsoft Excel programs. She prepared a quarterly analytical schedule using an Access database application, updated the site-specific Health & Safety Plan, and participated in lean training, which reduced cost of groundwater monitoring tasks by 25 percent.

Federal Superfund Site, Eastern Massachusetts. Suzanne performed data validation and quality assurance/quality control of soil and groundwater data according to U.S. EPA National Functional Guidelines. She performed third-party database updates.

Great Western Bank, Cortaro Ranch Property, Marana, Arizona. For site characterization of undeveloped land, Suzanne performed surficial soil sampling, analytical laboratory coordination, data analysis, and report preparation.

Twin Buttes Properties, Inc., Southern Arizona. Suzanne assisted with report and analytical table preparation for the characterization and analysis of current and historical hydrologic conditions at an inactive mine site near Sahuarita, Arizona in support of regulatory compliance.

Skyworks Solutions, Inc. Site, Newbury Park, California. Suzanne assisted with report and analytical table preparation for a subsurface investigation characterizing the lateral and vertical extent of soil and groundwater impacts from known releases of TCE, 1,4-dioxane and other organic compounds.

PUBLICATIONS

"Mixed Redox Catalytic Destruction of Chlorinated Solvents in Soils and Groundwater," with S. Gao, E. Rupp, M. Willinger, T. Foley, B. Barbaris, A.E., Saez, R.G. Arnold and E. Betterton. In Environmental Challenges In The Pacific Basin, 2008; Annals of the New York Academy of Sciences, Vol. 1140, pp 435-445. PMID: 18991945

INVITED LECTURER OR SPEAKER

"Catalytic Destruction of Perchloroethylene," with E. Betterton, R. Arnold and Eduardo Saez, Presenter - NASA Space Grant Student Symposium, Phoenix, Arizona. April 2007.

KATHERINE R. MILLER

Project Manager

EDUCATION

B.S., Chemistry, University of Arizona

SPECIAL STUDIES AND COURSES

40-Hour OSHA Hazardous Waste Operations and Emergency Response Training (29 CFR 1910.120 and 40 CFR 265.16)
8-Hour OSHA Refresher Training (29 CFR 1910.120)
Level IV Data Validation Training

AWARDS

Pinnacle Award, 2009
Pathfinder Award, 2014

In her 10 years at Haley & Aldrich, Katherine has worked on soil and groundwater environmental investigations and the preparation of environmental reports for private, industrial, and government-based project clients. She is a qualified Data Validator capable of performing various levels of validation on laboratory water quality data according to U.S. Environmental Protection Agency (EPA) National Functional Guidelines and to U.S. Department of Energy radiochemical guidelines. She also has experience designing and maintaining databases for project-specific needs.

Project management responsibilities for a $1.5 million per year stormwater project include preparation of subcontractor bids and contracts; preparation of cost estimates, proposals, and reports; coordination of field testing programs; and interpretation of chemical testing results. She has interacted with local regulatory agencies.

RELEVANT PROJECT EXPERIENCE

Confidential Aerospace Manufacturer, Groundwater Monitoring, Western U.S. Katherine served as project manager for the comprehensive stormwater management program. Responsibilities included project finance management and data management including quality assurance/quality control (QA/QC) and interpretation of chemical testing results. Evaluated QA/QC of groundwater quality data, prepared reports and managed data for the site. Performed data validation of quarterly water quality data from over 300 locations according to EPA National Functional Guidelines and to DOE radiochemical guidelines over a six-year period. Also, responsible for updating and maintaining the integrity of over 200,000 records during that time period. Assisted with management of sampling, analysis, and reporting of constituents of concern, ensured compliance with post-closure permit monitoring and reporting requirements, Data Management Plan, QAPP, and Environmental Data Management System, and ensured and maintained 100% compliance with the QAPP and Data Management Plan. Additionally, prepared groundwater data summaries for proposed extraction wells including comparisons to site NPDES outfall limits in support of Groundwater Interim Measures planning.

Asarco Hayden Plant Site, Hayden, Arizona. Katherine assisted with field preparation, QA/QC of analytical data, and data validation as part of the Remedial Investigation/Feasibility Work Plan including soil, sediment, air, process water, surface water, and stormwater.

Former MGP Site, California. Katherine assisted with report preparation, QA/QC of soil and/or groundwater quality data, and data validation for the investigation of three large former MGP sites in an urban, residential setting; includes over 200 residential properties.

General Manufacturing, Leitchfield, Kentucky. Katherine assisted with report preparation, QA/QC of soil and/or groundwater quality data, and data validation for a soil and groundwater RCRA site. Groundwater monitoring is conducted annually at more than 50 locations for volatile organic compounds (VOCs), including 1,4-dioxane and semi-volatile organic compound (SVOCs).

Skyworks Solutions, Inc., Newbury Park, California. Katherine assisted with report preparation, QA/QC of soil and/or groundwater quality data, and data validation at groundwater remediation site. She monitored for VOCs, including 1,4-dioxane, and inorganic chemicals, including hexavalent chromium.

Teledyne Scientific Company, Thousand Oaks, California. Katherine assisted with report preparation for this groundwater assessment site. Monitored natural attenuation has been instituted as the long-term site remedy.

Port of Redwood City, Permitting and Sediment Characterization, California. Katherine assisted with report preparation, QA/QC of sampling data, and data validation.

Kiewit Infrastructure West, Sediment Quality Study, California. Katherine assisted with report preparation, QA/QC of sampling data, and data validation.

Aeolian Yacht Harbor, Permitting, Eel Grass Conservation and Sediment Characterization, California. Katherine assisted with report preparation, QA/QC of sampling data, and data validation.

Marin County, Paradise Cay Permitting and Sediment Characterization, California. Katherine assisted with report preparation, QA/QC of sampling data, and data validation.

APPENDIX D
Site Management Forms

SITE INSPECTION FORM
Former Fiedler Waterproofing Masonry Site
91 Bruckner Boulevard
Brooklyn, NY

Site Management Components / Site-Wide Inspection	Condition	No	Yes	Describe Deficiency / Activities / Condition	Any Corrective Action Performed? If so, describe
Site Usage	Has there been a change in Site use?				
Short-Term Institutional Controls	Has there been a change in condition or effectiveness?				
General Site Conditions	Has there been a change in Site condition or effectiveness?				
Site Management Activities	Have any activities relevant to Site Management been completed? (i.e., excavation or sampling activities)				
Site Records	Are Site records up to date?				

Name of Inspector

Signature of Inspector

Date of Inspection

INDOOR AIR SAMPLING LOG

Project Name/Location: _____ Project Number: _____

Site: _____
Date Collected: _____
Personnel: _____
Weather: _____
Humidity: _____

Sample ID	Caniser Size	Canister ID	Flow Controller ID	Sample Start Time	Canister Start Pressure ("Hg)	Sample End Time	Canister End Pressure ("Hg)	Sample Start Date	Sample Type	Analyses Method

Notes:
Summas and flow regulators provided by

Analyses for VOCs by Method TO-15/TO-15SIM (circle one)

Summary of Green Remediation Metrics for Site Management

Site Name: _____ Site Code: _____
Address: _____ City: _____
State: _____ Zip Code: _____ County: _____

Initial Report Period (Start Date of period covered by the Initial Report submittal)
Start Date: _____

Current Reporting Period
Reporting Period From: _____ To: _____

Contact Information
Preparer's Name: _____ Phone No.: _____
Preparer's Affiliation: _____

I. Energy Usage: Quantify the amount of energy used directly on-site and the portion of that derived from renewable energy sources.

	Current Reporting Period	**Total to Date**
Fuel Type 1 (e.g. natural gas (cf))		
Fuel Type 2 (e.g. fuel oil, propane (gals))		
Electricity (kWh)		
Of that Electric usage, provide quantity:		
Derived from renewable sources (e.g. solar, wind)		
Other energy sources (e.g. geothermal, solar thermal (Btu))		

Provide a description of all energy usage reduction programs for the site in the space provided on Page 3.

II. Solid Waste Generation: Quantify the management of solid waste generated on-site.

	Current Reporting Period (tons)	**Total to Date (tons)**
Total waste generated on-site		
OM&M generated waste		
Of that total amount, provide quantity:		
Transported off-site to landfills		
Transported off-site to other disposal facilities		
Transported off-site for recycling/reuse		
Reused on-site		

Provide a description of any implemented waste reduction programs for the site in the space provided on Page 3.

III. Transportation/Shipping: Quantify the distances travelled for delivery of supplies, shipping of laboratory samples, and the removal of waste.

	Current Reporting Period (miles)	**Total to Date (miles)**
Standby Engineer/Contractor		
Laboratory Courier/Delivery Service		
Waste Removal/Hauling		

Provide a description of all mileage reduction programs for the site in the space provided on Page 3. Include specifically any local vendor/services utilized that are within 50 miles of the site.

IV. Water Usage: Quantify the volume of water used on-site from various sources.

	Current Reporting Period (gallons)	**Total to Date (gallons)**
Total quantity of water used on-site		
Of that total amount, provide quantity:		
Public potable water supply usage		
Surface water usage		
On-site groundwater usage		
Collected or diverted storm water usage		

Provide a description of any implemented water consumption reduction programs for the site in the space provided on Page 3.

V. Land Use and Ecosystems: Quantify the amount of land and/or ecosystems disturbed and the area of land and/or ecosystems restored to a pre-development condition (i.e. Green Infrastructure).

	Current Reporting Period (acres)	**Total to Date (acres)**
Land disturbed		
Land restored		

Provide a description of any implemented land restoration/green infrastructure programs for the site in the space provided on Page 3.

Description of green remediation programs reported above (Attach additional sheets if needed)
Energy Usage:
Waste Generation:
Transportation/Shipping:
Water usage:
Land Use and Ecosystems:
Other:

CONTRACTOR CERTIFICATION
I, _____ (**Name**) do hereby certify that I am _____ (**Title**) of _____ (**Contractor Name**), which is responsible for the work documented on this form. According to my knowledge and belief, all of the information provided in this form is accurate and the site management program complies with the DER-10, DER-31, and CP-49 policies. _____ **Date** **Contractor**

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Request to Import/Reuse Fill or Soil

This form is based on the information required by DER-10, Section 5.4(e) and 6NYCRR Part 360.13. Use of this form is not a substitute for reading the applicable regulations and Technical Guidance document.

SECTION 1 – SITE BACKGROUND

The allowable site use is: Choose an item

Have Ecological Resources been identified? Choose an item

Is this soil originating from the site? Choose an item

How many cubic yards of soil will be imported/reused? Choose an item

If greater than 1000 cubic yards will be imported, enter volume to be imported:

SECTION 2 – MATERIAL OTHER THAN SOIL

Is the material to be imported gravel, rock or stone? Choose an item

Does it contain less than 10%, by weight, material that passes a size 100 sieve? Choose an item

Is this virgin material from a permitted mine or quarry? Choose an item

Is this material recycled concrete or brick from a DEC registered processing facility? Choose an item

SECTION 3 - SAMPLING

Provide a brief description of the number and type of samples collected in the space below:

Example Text: 5 discrete samples were collected and analyzed for VOCs. 2 composite samples were collected and analyzed for SVOCs, Inorganics & PCBs/Pesticides.

If the material meets requirements of DER-10 section 5.4(e)5 (other material), no chemical testing needed.

SECTION 3 CONT'D - SAMPLING

Provide a brief written summary of the sampling results or attach evaluation tables (compare to DER-10, Appendix 5):

Example Text: Arsenic was detected up to 17 ppm in 1 (of 5) samples; the allowable level is 16 ppm.

If Ecological Resources have been identified use the "If Ecological Resources are Present" column in Appendix 5.

SECTION 4 – SOURCE OF FILL

Name of person providing fill and relationship to the source:

Location where fill was obtained:

Identification of any state or local approvals as a fill source:

If no approvals are available, provide a brief history of the use of the property that is the fill source:

Provide a list of supporting documentation included with this request:

The information provided on this form is accurate and complete.

_____ _____

Signature Date

_____

Print Name

_____

Firm

Revised April 2023

APPENDIX E
List of Site Contacts

SITE CONTACT LIST

Former Fiedler Waterproofing & Masonry Site

91 Bruckner Boulevard

Brooklyn, NY

Company	Contact Name	Title	Contact Number	Contact Email
Haley & Aldrich of New York	Mari-Cate Conlon	Senior Associate	646.277.5688	mconlon@haleyaldrich.com
	Suzanne Bell, P.E.	Remediation Engineer	332.240.0935	sbell@haleyaldrich.com
	Luke McCartney	Project Manager	646.568.9357	lmccartney@haleyaldrich.com
	Philip DiNardo	Field Lead	646.568.9370	pdinardo@haleyaldrich.com
91 Bruckner Blvd LLC	Yoel Barminka	Member	917.627.3013	barminyc@gmail.com
Connell Foley	George C.D. Duke	Attorney	201.521.1000	gduke@connellfoley.com
Willis Avenue Property LLC	Unknown	Adjacent Property Owner	Unknown	Unknown
East 134 Holdings LLC	Jeffrey Zwick	Adjacent Property Owner	Unknown	Unknown
Janda LLC	Alexander Grunhut	Adjacent Property Owner	Unknown	hello@bushburg.com
E. 139th St. Cluster LP	Luis Garcia	Adjacent Property Owner	Unknown	Unknown
134 Lofts LLC	Alexander Grunhut	Adjacent Property Owner	Unknown	Unknown
414 East 134th St. Housing Development Fund Corp.	Cynthia King	Adjacent Property Owner	Unknown	Unknown
Phyllip Augustin	Phyllip Augustin	Adjacent Property Owner	Unknown	Unknown
95 Bruckner Realty	Gerald Goldman	Adjacent Property Owner	Unknown	Unknown
New York City Parks Department	Lawrence Scoones	Adjacent Property Owner	Unknown	Unknown
Bruckner By the Bridge Condo	Unknown	Adjacent Property Owner	Unknown	Unknown
Franchise Interstate Realty Corp	Brian Sheedy	Adjacent Property Owner	Unknown	Unknown

APPENDIX F
Responsibilities of Owner and Remedial Party

Responsibilities

The responsibilities for implementing the Site Management Plan ("SMP") for the Former Fiedler Waterproofing & Masonry site (the "site"), number C203160, are divided between the site owner(s) and a Remedial Party, as defined below. 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. 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 owner and Remedial Party is currently listed as:

91 Bruckner Blvd LLC

162 Manhattan Avenue, 1st Floor

Brooklyn, New York 11206

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, in order 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 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 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 1.3 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) Until such time as the NYSDEC deems the vapor mitigation system unnecessary, the owner shall operate the system, pay for the utilities for the system's operation, and report any maintenance issues to the RP and the NYSDEC.

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

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

7) The RP is responsible for the proper maintenance of any installed vapor intrusion mitigation systems associated with the site, as required in Section 5 of the SMP.

8) 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 for approval an amended SMP.

9) 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 G
Health and Safety Plan & Community Air Monitoring Plan

HALEY & ALDRICH, INC.
SITE-SPECIFIC SAFETY PLAN

FOR

NYSDEC BCP SITE C203160

91 BRUCKNER BOULEVARD, BRONX, NY 10454

Project/File No. 0204520

Gensuite EZ Scan®
BI - Developers

Prepared By: Luke J. McCartney	**Date: 6/24/2024**
Approvals: The following signatures constitute approval of this Health & Safety Plan.	
Field Safety Manager: Brian Ferguson	**Date: 6/10/2024**
Project Manager: Luke J. McCartney	**Date: 6/24/2024**
HASP Valid Through: 12/31/2024	

Table of Contents

Attachments

STOP WORK AUTHORITY

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

STOP Work Authority is the stop work policy for all personnel and subcontractors on the Site. When work has been stopped due to an unsafe condition, Haley & Aldrich site management (e.g., Project Manager [PM], Site Health & Safety Officer [SHSO], etc.) and the Haley & Aldrich Senior Project Manager (SPM) will be notified immediately.

Reasons for issuing a stop work order include, but are not limited to:

- The belief/perception that injury to personnel or accident causing significant damage to property or equipment is imminent.
- A Haley & Aldrich subcontractor is in breach of site safety requirements and/or their own site HASP.
- Identifying a substandard condition (e.g., severe weather) or activity that creates an unacceptable safety risk as determined by a qualified person.

Work will not resume until the unsafe act has been stopped OR sufficient safety precautions have been taken to remove or mitigate the risk to an acceptable degree. Stop work orders will be documented as part of an on-site stop work log, on daily field reports to include the activity/activities stopped, the duration, person stopping work, person in-charge of stopped activity/activities, and the corrective action agreed to and/or taken. Once work has been stopped, only the Haley & Aldrich SPM or SHSO can give the order to resume work. Haley & Aldrich senior management is committed to support anyone who exercises his or her “Stop Work” authority.

ISSUANCE AND COMPLIANCE

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

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

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

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

EMERGENCY EVENT PROCEDURES

1 - ASSESS THE SCENE

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

2 - EVALUATE THE EMERGENCY

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

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

3 - SECURE THE AREA

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

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

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

5 - INVESTIGATE / REPORT THE INCIDENT

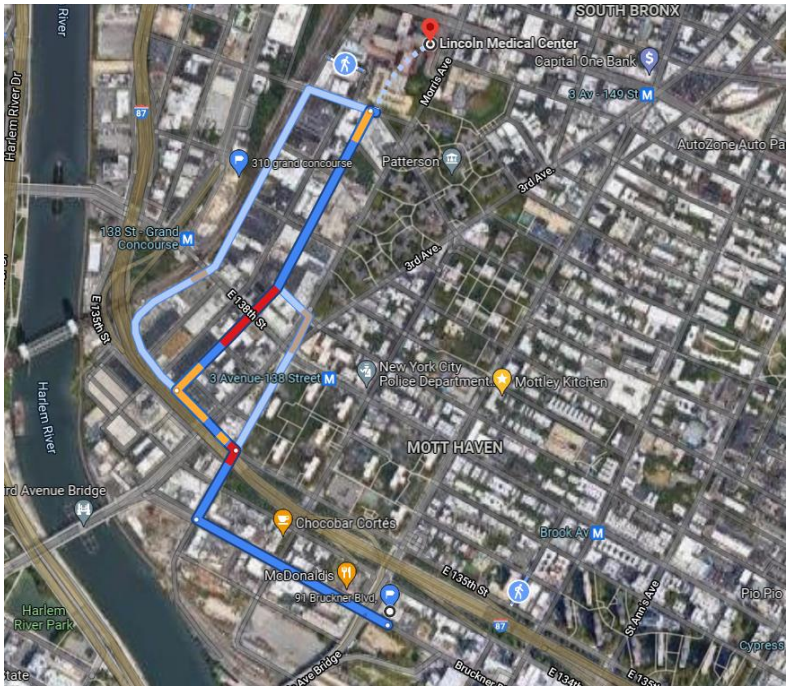
- **Record details of the incident for input to the Gensuite.**
    - Complete any additional forms as requested by the PM and SSO.

6 - TAKE CORRECTIVE ACTION

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

PROJECT INFORMATION AND CONTACTS	
Project Name: NYSDEC BCP SITE C203160	**Haley & Aldrich File No.:** 0204520
Location: 91 BRUCKNER BOULEVARD, BRONX, NY 10454	
Client/Site Contact: Phone Number:	91 Bruckner Blvd LLC 917.627.3013
Haley & Aldrich Field Representative: Phone Number: Emergency Phone Number:	Philip DiNardo 646.277.5690 646.568.9370
Haley & Aldrich Project Manager: Phone Number: Emergency Phone Number:	Luke J. McCartney 646.277.5690 646.568.9357
Field Safety Manager: Phone Number: Emergency Phone Number:	Brian Ferguson 617.886.7439 617.908.2761
Subcontractor Project Manager: Phone Number:	N/A N/A
Nearest Hospital: Address: (see map on next page) Phone Number:	**Lincoln Medical Center: Emergency Room** 234 E 149th Street Bronx, NY 10451 718.579.5784
Nearest Occ. Health Clinic: http://www.talispoint.com/liberty/ext/ Address: (see map on next page) Phone Number:	**City MD Mott Haven Urgent Care** 571 E 138th St Bronx, NY 10454 (718) 571-9421
Liberty Mutual Claim Policy	**WC6-Z11254100-034**
WorkCare Injury & Illness HOTLINE	**1-888-449-7787**
Emergency Response Number:	**911**
Other Local Emergency Response Number:	N/A
Other Ambulance, Fire, Police, or Environmental Emergency Resources:	911

DIRECTIONS TO THE NEAREST HOSPITAL



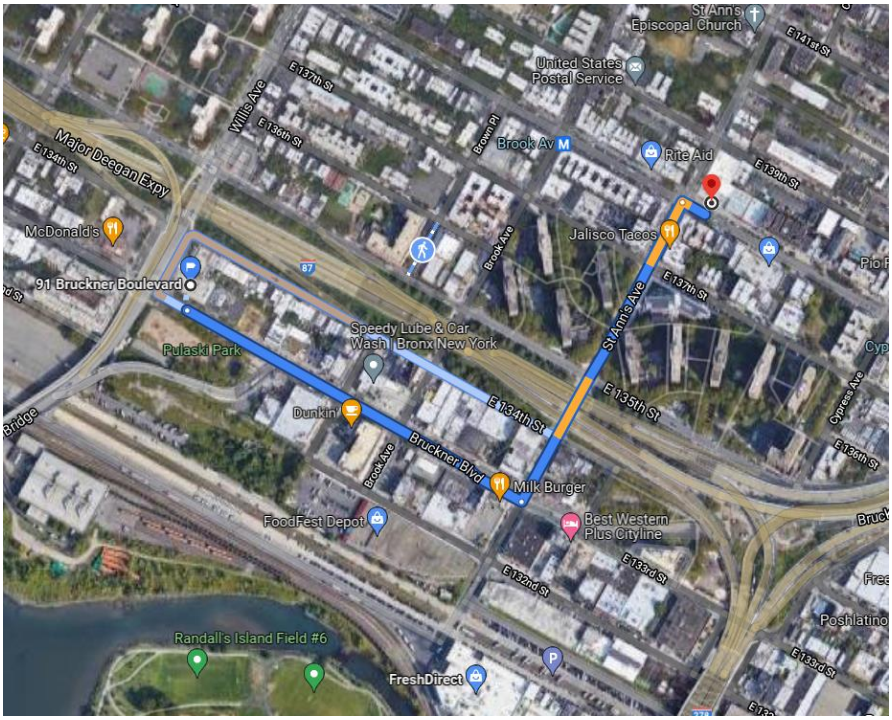
Directions to the Nearest Hospital:

91 Bruckner Blvd
Bronx, NY 10454

- Head northwest on Bruckner Blvd toward Willis Ave
  0.3 mi
- Turn right onto Lincoln Ave
  0.1 mi
- Turn left onto E 135th St
  0.1 mi
- Turn right onto Rider Ave
  0.5 mi
- Turn right onto E 144th St
  39 ft

Lincoln Medical Center
234 E 149th St, Bronx, NY 10451

DIRECTIONS TO THE NEAREST URGENT CARE



Directions to the Nearest Occupational Clinic:

91 Bruckner Blvd
Bronx, NY 10454

↑ Head southeast on Bruckner Blvd toward Brown Pl

0.3 mi

↰ Turn left onto St Ann's Ave

0.3 mi

↱ Turn right onto E 138th St/Msgr. Gerald J. Ryan Blvd

ⓘ Destination will be on the left

102 ft

CityMD Mott Haven Urgent Care - Bronx
571 E 138th St, Bronx, NY 10454

Paste map and directions showing route to nearest hospital here.

1. WORK SCOPE

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

Remedial Oversight, Indoor Air Sampling

Project Task Breakdown

Task No.	Task Description	Employee(s) Assigned	Work Date(s) or Duration
1.	Indoor Air Sampling	Philip DiNardo	Periodically As Needed

Subcontractor(s) Tasks

Firm Name	Work Activity	Work Date(s) or Duration
N/A	Enter task description.	Enter dates/duration.

Projected Start Date: 10/1/2024

Projected Completion Date: Long-term – Site Management Plan

2. SITE OVERVIEW / DESCRIPTION

Site Classification

Residential

Site Description

The Site, identified as Block 2278 Lot 1 on the New York City tax map in a residential R6A/M1-2 within a Special Mixed-Use MX-1 district, is 14,500 square feet (sf) and is currently under redevelopment with a residential building.

Background and Historic Site Usage

The Site was first developed between 1903 and 1908. The western portion of the property was initially used for residential and commercial purposes and the eastern portion was used for industrial purposes at least by 1935. By 1985, the western portion of the building was also used for industrial purposes

Site Status

Indicate current activity status and describe operations at the site:

Active

The Site is currently under redevelopment with future development as a multi-story residential building.

Site Plan

Is a site plan or sketch available? Yes

Work Areas

List and identify each specific work areas(s) on the job site and indicate its location(s) on the site plan:

The work area consists of the first floor and cellar gym space.

Site Plan

3. HAZARD ASSESSMENT

Indicate all hazards that may be present at the site and for each task. If any of these potential hazards are checked, it is the Project Manager's responsibility to determine how to eliminate / minimize the hazard to protect onsite personnel.

Site Chemical Hazards

Is this Site impacted with chemical contamination? Yes

Source of information about contaminants: Previous Investigation

Contaminant of Concern	Location/Media	Concentration	Units
Cadmium	**Soil**	**3.2**	**mg/kg**
Lead	**Soil**	**167**	**mg/kg**
Mercury	**Soil**	**0.36**	**mg/kg**
Zinc	**Soil**	**700**	**mg/kg**
Organochlorine Pesticides	**Soil**	**0.02**	**mg/kg**
Tetrachloroethylene	**Groundwater; Soil Vapor**	**8; 232**	**ug/L; ug/m3**
Choose an item.			
Choose an item.			

Cadmium: Cadmium became an important metal in the production of nickel-cadmium (Ni-Cd) rechargeable batteries and as a sacrificial corrosion-protection coating for iron and steel. Common industrial uses for cadmium today are in batteries, alloys, coatings (electroplating), solar cells, plastic stabilizers, and pigments. Acute (short-term) exposure to Cadmium fumes is irritating to the respiratory tract. Inhalation of fumes may cause a buildup of fluid in the lungs. Inhalation of fumes may cause metal fume fever. The effects may be delayed, and medical observation is recommended. Prolonged (chronic) exposure to Cadmium dust may result in impairment of lungs. Cadmium and its compounds are highly toxic and exposure to this metal is known to cause cancer and targets the body's cardiovascular, renal, gastrointestinal, neurological, reproductive, and respiratory systems. Cadmium is a carcinogen.

Lead: 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. Long-term exposure to lead can result in decreased performance in some tests measuring functions of the nervous system in adults. 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 and ultimately cause death.

Mercury: is an odorless, silver metallic liquid. It can be inhaled or absorbed through the skin. Contact may cause irritation to the skin or eyes. Toxic if ingested. Fume inhalation may cause irritation in the nose, throat or lungs. This is a corrosive chemical. Symptoms of poisoning include, muscle tremors, loss of appetite, and nausea. Long-term exposure may have effects on the central nervous system and kidneys. The PEL is 0.1 mg/m^3 averaged over an 8 hour shift.

Zinc: is an odorless, bluish-white powder. It is typically used in paints and can be mixed with other metals to make bass and other types of alloys. Zinc can produce flammable gases when in contact with water, sometimes creating vigorous or explosive reactions. It can also create gaseous hydrogen in contact with water or moist air. Inhalation will cause irritation to eyes and respiratory system. Exposures cause flu-like symptoms, called “metal fume fever”, which can sometimes be delayed up to 48 hours after initial exposure.

Click + Add Additional Chemical Language
Tetrachloroethylene: is a colorless liquid with a sharp sweet odor. Tetrachloroethylene vapor is heavier than air and will be found in low lying areas.

Organochlorine Pesticides: are chlorinated hydrocarbons used extensively from the 1940s through the 1960s in agriculture and mosquito control. Representative compounds include DDT, methoxychlor, dieldrin, chlordane, toxaphene, mirex, kepone, lindane, and benzene hexachloride. As neurotoxicants, many organochlorine pesticides were banned in the United States, few are still registered for use.

People can be exposed to organochlorine pesticides through accidental inhalation exposure if in an area where they were recently applied. The chemicals can also be ingested in fish, dairy products, and other fatty foods that are contaminated. Organochlorine pesticides accumulate in the environment and are very persistent and move long distances in surface runoff or groundwater.

Exposure to these chemicals over a short period may produce convulsions, headache, dizziness, nausea, vomiting, tremors, confusion, muscle weakness, slurred speech, salivation and sweating. Long-term exposure may damage the liver, kidney, central nervous system, thyroid and bladder. Many of these pesticides have been linked to elevated rates of liver or kidney cancer in animals. There is some evidence indicating that organochlorine pesticides may also cause cancer in humans.

Site Hazards Checklist			
Weather			
Hot Temperatures	Cold Temperatures	Lightning Storms	Select Hazard
Select Hazard	Select Hazard	Select Hazard	Select Hazard

Hot Temperatures

Heat stress may occur at any time work is being performed at elevated ambient temperatures. Because heat stress is one of the most common and potentially serious illnesses associated with outdoor work during hot seasons, regular monitoring and other preventative measures are vital. Site

workers must learn to recognize and treat the various forms of heat stress. The best approach is preventative heat stress management.

H&A employees and their subcontractors should be aware of potential health effects and/or physical hazards of working when there are hot temperatures or a high heat index. Refer OP1015-Heat Stress for a discussion on hot weather hazards.

Lightning Storms

Where the threat of electrical storms and the hazard of lightning exist staff shall ensure site procedures exist to: (1) detect when lightning is in the near vicinity and when there is a potential for lightning and (2) to notify appropriate site personnel of these conditions and (3) implement protocols to stop work and seek shelter.

The 30-30 Rule states that if time between seeing the lightning and hearing the thunder is less than 30 seconds, you are in danger and must seek shelter. You must also stay indoors for more than 30 minutes after hearing the last clap of thunder.

Cold Temperatures

Cold stress may occur at any time work is being performed at low ambient temperatures and high velocity winds. Because cold stress is common and has potentially serious illnesses associated with outdoor work during cold seasons, regular monitoring and other preventative measures are vital.

Refer to OP1003-Cold Stress for additional information and mitigation controls.

Biological			
Small Mammals	Mosquitoes	Stinging Insects	Choose an item.
Choose an item.	Choose an item.	Choose an item.	Choose an item.

Small Mammals

Rodents, are the most abundant order of mammals. There are hundreds of species of rats; the most common are the black and brown rat. Other rodents you may encounter are mice, beavers, squirrels, racoons, skunks, and opossums.

The Brown Rat has small ears, blunt nose, and short hair. It is approximately 14-18” long (with tail). They frequently infest garbage/rubbish, slaughterhouses, domestic dwellings, warehouses, and supermarkets. They also frequent any space with an easy meal and potential nesting sites. The Black Rat is identified by its tail, that is always longer than the length from the head to the body. It is also slimmer and more agile than the Brown rat. Its size varies according to its environment and food supply.

The House Mouse has the amazing ability to adapt and can frequently be found in human dwellings. In buildings, mice will live anywhere and difficult to keep out. Mice are omnivorous, they will eat anything. Rats and mice often become a serious problem in cold winter months when they seek food and warmth

inside buildings. They may suddenly appear in large numbers when excavation work disturbs their in-ground nesting locations or their food source is changed.

Some major problems caused by rats and mice are contaminating the food they eat with urine and excrement. Gnawing into materials such as paper, wood, or upholstery, to use as nest material. Also gnawing plastic, cement, soft metals such as lead and aluminum, and wiring, which may cause a fire hazard. Occasionally biting people and may kill small animals. They, or the parasites they carry, like fleas, mites and worms, spread many diseases such as salmonella, trichinosis, rat bite fever, hantavirus, Weil's disease, and bubonic plague. They damage ornamental plants by burrowing among the roots or feeding on new growth. They also eat garden vegetables, such as corn and squash. These rodents have been a problem for centuries, because of their incredible ability to survive and are so difficult to eliminate. In addition, they are extremely compatible with human behavior and needs.

Avoid contact with rodents, if possible. Avoid contact with rodent excrement. Do not eat food or water that may have encountered rodent excrement. If exposed, wash hands and avoid touching your face with your hands.

Mosquitos

Work outdoors with temperatures above freezing will likely bring staff into contact with mosquitos. There are a variety of mosquito species that can transmit a range of diseases. Birds act as reservoirs for the viruses that can be collected by the mosquito and transmitted to a person. Majority of mosquitos are mainly a nuisance but staff need to take appropriate precautions to minimize the potential transmission of a virus that can result in one of the following diseases: West Nile, Eastern Equine Encephalitides and Western Encephalitides. Knowing some key steps that can minimize the risk of mosquito bites is, therefore, important in reducing the risks. Workers working outdoors should be aware that the use of PPE techniques is essential to preventing mosquito bites especially when working at sites where mosquitoes may be active and biting.

Use repellents containing DEET, picaridin, IR3535, and some oil of lemon eucalyptus and para-menthane-diol products provide longer-lasting protection. To optimize safety and effectiveness, repellents should be used according to the label instructions. Cover as much of your skin as possible by wearing shirts with long-sleeves, long pants, and socks whenever possible. Avoid use of perfumes and colognes when working outdoors during peak times when mosquitoes may be active; mosquitoes may be more attracted to individuals wearing perfumes and colognes.

Stinging Insects

Stinging Insects fall into two major groups: Apidae (honeybees and bumblebees) and vespids (wasps, yellow jackets, and hornets). Apidae are docile and usually do not sting unless provoked. The stinger of the honeybee has multiple barbs, which usually detach after a sting. Vespids have few barbs and can inflict multiple stings.

There are several kinds of stinging insects that might be encountered on the project site. Most stings will only result in a temporary injury. However, sometimes the effects can be more severe, even life-threatening depending on where you are stung and what allergies you have. Being stung in the throat area of the neck may cause edema (swelling caused by fluid build-up in the tissues) around the throat

and may make breathing difficult.

In rare cases, a severe allergic reaction can occur. This can cause "anaphylaxis" or anaphylactic shock with symptoms appearing immediately or up to 30 minutes later. Symptoms include; Hives, itching and swelling in areas other than the sting site, swollen eyes/eyelids, wheezing, chest tightness, difficulty breathing, hoarse voice, swelling of the tongue, dizziness or sharp drop in blood pressure, shock, unconsciousness or cardiac arrest. Reactions can occur the first time you are stung or with subsequent stings. If you see any signs of reaction, or are unsure, call or have a co-worker call emergency medical services (e.g., 911) right away. Get medical help for stings near the eyes, nose or throat. Stay with the person who has been stung to monitor their reaction.

Staff who are allergic to bee stings are encouraged to inform their staff/project manager. If staff member carries an Epi-pen (i.e., epinephrine autoinjector) they are encouraged to inform their colleagues in case they are stung and are incapable of administering the injection. Examine site for any signs of activity or a hive/nest. If you see several insects flying around, see if they are entering/exiting from the same place. Most will not sting unless startled or attacked. Do not swat, let insects fly away on their own. If you must, walk away slowly or gently "blow" them away. If a nest is disturbed and you hear "wild" buzzing, protect your face with your hands and run from the area immediately. Wear long sleeves, long pants, and closed-toed boots. Wear light colored clothes such as khakis. Avoid brightly colored, patterned, or black clothing. Tie back long hair to avoid bees or wasps from entanglement. Do not wear perfumes, colognes or scented soaps as they contain fragrances that are attractive. If bee or wasp is found in your car, stop and leave windows open.

Location/Terrain			
Slip/Trip/Falls	SIMOPS	Choose an item.	Choose an item.

Slips, Trips & Falls

Slip and trip injuries are the most frequent injuries to workers. Statistics show most falls happen on the same level resulting from slips and trips. Both slips and trips result from unintended or unexpected change in the contact between the feet and the ground or walking surface. Good housekeeping, quality of walking surfaces (flooring), awareness of surroundings, selection of proper footwear, and appropriate pace of walking are critical for preventing fall accidents.

Site workers will be walking on a variety of irregular surfaces, that may affect their balance. Extra care must be taken to walk cautiously near rivers because the bottom of the riverbed maybe slick and may not be visible. Rocks, gradient changes, sandy bottoms, and debris may be present but not observable.

Take your time and pay attention to where you are going. Adjust your stride to a pace that is suitable for the walking surface and the tasks you are doing. Check the work area to identify hazards - beware of trip hazards such as wet floors, slippery floors, and uneven surfaces or terrain. Establish and utilize a pathway free of slip and trip hazards. Choose a safer walking route. Carry loads you can see over. Keep work areas clean and free of clutter. Communicate hazards to on-site personnel and remove hazards as appropriate.

SIMOPS

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

SIMOPS are defined as performing two or more operations concurrently.

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

Coordinate project with site activities. Identify and understand the hazards associated with the host and client's activities. Integrate site emergency response protocols where appropriate and communicate to all project staff. Integrate site communication protocols and communicate to all project staff.

Click + to Add Additional Hazard Language

Miscellaneous			
Extended Shift	Choose an item.	Choose an item.	Choose an item.

Extended Shift

An extended shift can include extending a workday beyond eight hours. Extended or unusual work shifts may be more stressful physically, mentally, and emotionally. Non-traditional shifts and extended work hours may disrupt the body's regular schedule, leading to increased fatigue, stress, and lack of concentration. This leads to an increased risk of operator error, injuries and/or accidents. The degree to which an individual is exposed to fatigue risk factors depends upon the work schedule. As both the duration of the workday and the number of days worked increase so does the fatigue risk factors. Staff Managers need to be aware of the fatigue risk factors and ensure projects are structured to mitigate these factors. Staff Members also have a responsibility to manage the personal fatigue risk factors that they can control outside of work (e.g, duration and quality of sleep, diet, drugs, and alcohol)

Fatigue is a message to the body to rest and can be eliminated with proper rest. However, if rest is not possible, fatigue can increase and becomes distressing and eventually debilitating. Fatigue symptoms, both mental and physical, vary and depend on the person and degree of overexertion. Examples include: weariness, sleepiness, irritability, reduced alertness, lack of memory, concentration and motivation, increased susceptibility to illness, depression, headache, loss of appetite, and digestive problems.

When possible, managers should limit use of extended shifts and increase the number of days worked. Working shifts longer than 8 hours generally result in reduced productivity and alertness. Additional breaks and meals should be provided when working extended shift periods. Tasks requiring heavy physical labor or intense concentration should be performed at the beginning of the shift if possible. This is an important consideration for pre-emergency planning.

Make efforts, when feasible, to ensure that unavoidable extended work shifts and shift changes allow affected employees time for adequate rest and recovery. Project Managers need to plan to have an adequate number of personnel available to enable workers to take breaks, eat meals, relax, and sleep.

Plan for regular and frequent breaks throughout the work shift. If at remote sites, ensure if possible, that there is a quiet, secluded area designated for rest and recuperation. In addition to formal breaks such as lunch or dinner, encourage use of micro breaks to change positions, move about, and shift concentration. Personnel should look to obtain an adequate quantity and quality of sleep.

Task Hazard Summary

Task 1 – Air Sampling

Air sampling is conducted to monitor levels of air contaminants. Air is the most transient environmental medium and subject to extreme spatial and temporal heterogeneity. Air sampling matrices include: Ambient (outdoor) air, indoor air, point sources (stacks, exhausts, and other emission sources), fugitive emissions (sources of air pollutants other than stacks or vents), and monitor and evaluate remediation processes. Samples can be collected in tedlar bags, sorbent tubes, or summa canisters.

Safety precautions during air sampling include a review of possible environmental hazards before entering the site and the use of proper clothing and equipment. Workers performing stack sampling and air monitoring during emergency situations may be exposed to hazardous levels of air pollutants. Therefore, the JHA must specify what kind of real-time air monitoring will be performed, the action levels for the use of respirators, and the types of respirators to be worn if action levels are exceeded. Safety must always be considered to ensure that the chosen field measurement instrument is compatible with the potential hazard. For example, some instruments are capable of detecting explosive hazards, but not all are safe for operations under these conditions. If the atmospheric concentration is potentially greater than 25% of the lower explosive limit, the meter itself must be certified safe for operation (FM, UL or MSHA certified). Operators should be thoroughly familiar with the instrument and operating instructions before use. Always read or review the manual prior to using an instrument in the field.

Safety concerns are of critical importance in performing sampling at heights due to the possibility of, falling, dropping equipment on workers below, and possibly weather related hazards such as ice, snow, and rain if sampling outdoors.

Gases used to calibrate and operate some instruments come in pressurized cylinders and many are flammable. Proper care should be taken when handling these materials. Light sources from some instruments can cause eye damage when viewed directly.

Select task from drop down menu. Click + to add additional tasks. Please ensure any project specific information is added to the task.

Task Physical Hazards Checklist	
Potential Task Hazards	**Task 1** **Indoor Air Sampling**
Congested Area	☒
Energized Equipment	☒
Ergonomics	☒
Excavation/Trenching	☐
Generated Wastes	☒
Ground Disturbance	☐
Hand/Power Tools	☒
Heavy Equipment	☐
Line of Fire	☐
Manual Lifting	☒
Noise	☐
Overhead Utilities	☐
Slippery Surfaces	☒
Sharp Objects	☒
Underground Utilities	☐
Other: Specify	☐

Summary of Physical Hazards & Controls

Congested Areas

Working in congested areas can expose both workers and the public to a wide range of hazards depending upon the specific activities taking place. Staff Members need to understand the work scope, work areas, equipment on-site, and internal traffic patterns to minimize or eliminate exposure potential.

Controls

- Provide barricades, fencing, warning signs/signals and adequate lighting to protect people while working in or around congested areas.
- Vehicles and heavy equipment with restricted views to the rear should have functioning back-up alarms that are audible above the surrounding noise levels. Whenever possible, use a signaler to assist heavy equipment operators and/or drivers in backing up or maneuvering in congested areas.
- Lay out traffic control patterns to eliminate excessive congestion.
- Workers in congested areas should always wear high visibility clothing.
- Be aware of Line of Fire hazards when performing work activities in congested areas.
- Hazards associated with SIMOPs should be discussed daily at Tailgate Safety Meetings.

Energized Equipment

Energy sources including electrical, mechanical, hydraulic, pneumatic, or other sources in machines and equipment can be hazardous to workers. During servicing and maintenance of machines and equipment, the unexpected startup or release of stored energy can result in serious injury or death to workers.

Staff members that are required to work on energized equipment must first ensure that the source of energy is isolated and/or de-energized. In addition, any stored energy must also be released. Staff must ensure that the process to de-energize and isolate energy sources is documented and communicated to those who are working on the equipment. Staff must be trained on and understand the procedure.

See OP 1032 Control of Hazardous Energy for more information.

Controls

- Document process to de-energize or isolate energy sources.
- Ensure staff are appropriately trained to conduct work requiring LOTO.
- Affix log or tag to equipment to ensure improper start-up or release of energy.
- Execute an Energy Isolation Permit.

Ergonomics

Most Work-related Musculoskeletal Disorders (WMSDs) are caused by Ergonomic Stressors. Ergonomic Stressors are caused by poor workplace practices and/or insufficient design, which may present ergonomic risk factors. These stressors include, but not limited to, repetition, force, extreme postures, static postures, quick motions, contact pressure, vibration, and cold temperatures.

WMSDs are injuries to the musculoskeletal system, which involves bones, muscles, tendons, ligaments, and other tissues in the system. Symptoms may include numbness, tightness, tingling, swelling, pain, stiffness, fatigue, and/or redness. WMSD are usually caused by one or more Ergonomic Stressors. There

may be individual differences in susceptibility and symptoms among employees performing similar tasks. Any symptoms are to be taken seriously and reported immediately.

See OP1053 Ergonomics for more information.

Controls

- Ensure workstations are ergonomically correct so bad posture is not required to complete tasks.
- Take periodic breaks over the course of the day.
- Stretch during break times.
- Break up tasks that require repetitive motion.
- Contact Corporate H&S with any ergonomic concerns

Generated Waste

Activities on environmental sites may generate waste that requires regulated handling and disposal. Excess sample solids, decontamination materials, poly sheeting, used PPE, etc. that are determined to be free of contamination through field or laboratory screening can usually be disposed into client-approved, on-site trash receptacles. Uncontaminated wash water may be discarded onto the ground surface away from surface water bodies in areas where infiltration can occur. Contaminated materials must be segregated into liquids or solids and drummed separately for off-site disposal.

Controls

- Manage waste properly through good work practices.
- Collect, store, containerize waste, and dispose of it properly.
- All wastes generated shall be containerized in an appropriate container (i.e. open or closed top 55-gallon drum, roll-off container, poly tote, cardboard box, etc.) as directed by the PM.
- Containers should be inspected for damages or defects
- Waste containers should be appropriately labeled indicating the contents, date the container was filled, owner of the material (including address) and any unique identification number, if necessary.
- Upon completion of filling the waste container, the container should be inspected for leaks and an appropriate seal.

Manual Lifting/Moving

Most materials associated with investigation, remedial, or construction-related activities are moved by hand. The human body is subject to damage in the forms of back injury, muscle strains, and hernia if caution is not observed in the handling process.

Controls

- Under no circumstances should any one person lift more than 49 pounds unassisted.
- Always push, not pull, the object when possible.
- Size up the load before lifting. If it is heavy or clumsy, get a mechanical aid or help from a worker.
- Bend the knees; it is the single most important aspect of lifting.
- When performing the lift:
    - Place your feet close to the object and center yourself over the load.

- Get a good handhold.
- Lift straight up, smoothly and let your legs do the work, not your back!
- Avoid overreaching or stretching to pick up or set down a load.
- Do not twist or turn your body once you have made the lift.
- Make sure beforehand that you have a clear path to carry the load.
- Set the load down properly.

Hand and Power Tools

Hand and power tools can expose staff to a wide range of hazards depending upon the tool used. Hazards can include but are not limited to: falling, flying, abrasive, and splashing objects, or harmful dusts, fumes, mists, vapors, or gases.

Serious accidents often occur before steps are taken to evaluate and avoid or eliminate tool-related hazards. Staff must recognize the hazards associated with the different types of tools and the safety precautions necessary to prevent those hazards.

See OP 1026 Hand and Power Tools for more information.

Controls

- Keep all tools in good condition with regular maintenance.
- Use the right tool for the job. Do not use a tool for a task which it was not designed for.
- Examine each tool for damage before use and do not use damaged tools.
- For tools that are damaged or defective, red tag the tool and take out of service.
- Operate tools per the manufacturers' instructions.
- Use the appropriate personal protective equipment.
- All electrically powered tools will be connected through a ground fault circuit interrupter (GFCI).
- All personnel must be trained on the use of the tool they are utilizing.

Slippery Surfaces

Both slips and trips result from unintended or unexpected change in the contact between the feet and ground or walking surface. Good housekeeping, quality of walking surfaces, selection of proper footwear, and appropriate pace of walking are critical for preventing fall accidents. Slips happen where there is too little friction or traction between the footwear and walking surface.

Common causes of slips are wet or oily surfaces, spills, weather hazards, loose unanchored rugs or mats and flooring or other walking surfaces that do not have same degree of traction in all areas.

Weather-related slips and falls become a serious hazard as winter conditions often make for wet or icy surfaces outdoors. Even wet organic material or mud can create hazardous walking conditions. Spills and leaks can also lead to slips and falls.

Controls

- Evaluate the work area to identify any conditions that may pose a slip hazard.
- Address any spills, drips or leaks immediately.
- Mark areas where slippery conditions exist.

- Select proper footwear or enhance traction with additional PPE.
- Where conditions are uncertain or environmental conditions result in slippery surfaces walk slowly, take small steps, and slide feet on wet or slippery surfaces.

Sharp Objects

Workers who handle sharp edged objects like sheets of steel or glass are at risk of cuts. Workers who handle sharp edged objects are also at risk of cuts. Injuries may occur to hands, fingers, or legs when they are in the way of the blade, when the blade slips, or if an open blade is handled unexpectedly. Other hazards at job sites include stepping on sharp objects (e.g. wooden boards with protruding nails, sharp work-tools, chisels, etc.) and colliding with sharp and/or protruding objects.

Controls

Always be alert when handling sharps. Never look away or become distracted while handling sharp objects. Use caution when working with tools; use right tool for the job. Keep tools sharp, dull blades are a safety hazard, requiring more force to make cuts which can lead to tool slippage. Wear appropriate PPE and do not handle sharp objects (i.e., broken glass) with bare hands. Use mechanical devices, when possible. Stay away from building debris; avoid handling site debris or placing your hand where you cannot see. Watch out for barbed wire and electrical fences; cover with a car mat or equivalent to cross or walk around; use the buddy system to avoid entanglement; wear gloves. Do not leave unprotected sharps unattended. Use protective shields, cases, styrofoam blocks, etc. Pass a sharp by handing it over carefully by the handle with the blade down or retracted. Fixed open blades are prohibited. Always cut away from the body, making several passes when cutting thicker materials. Make sure blades are fitted properly into the knife. Never cut items with a blade or other sharp object on your lap. Never try to catch a blade or cutting tool that is falling.

4. PROTECTIVE MEASURES

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

Required Safety & Personal Protective Equipment				
Required Personal Protective Equipment (PPE)	**Task 1**			
	Indoor Air Sampling	Enter task description.		Enter task description.
Hard hat	☐	☐	☐	☐
Safety Glasses	☒	☐	☐	☐
Safety Toed Shoes	☒	☐	☐	☐
Class 2 Safety Vest	☒	☐	☐	☐
Hearing Protection	☐	☐	☐	☐
Nitrile Gloves	☒	☐	☐	☐
Cut Resistant Gloves	☒	☐	☐	☐
Level of protection required	D	D	Select	Select
Required Safety Equipment				
First Aid Kit	☒	☐	☐	☐
Choose an item.	☐	☐	☐	☐

5. TRAINING REQUIREMENTS

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

Site Specific Training Requirements
HAZWOPER - 40 Hour (Initial)
HAZWOPER - 8 Hour (Annual Refresher)
40 hr SST

Task Specific Training Requirements			
Required Training Type	**Task 1**		
	Indoor Air Sampling	Enter task description.	

6. AIR MONITORING PLAN AND EQUIPMENT

Exposures to airborne substances shall be fully characterized throughout project operations to ensure that exposure controls are effectively selected and modified as needed.

Is air/exposure monitoring required at this work site for personal protection? Yes

Is perimeter monitoring required for community protection? Yes

Air monitoring plan not applicable No

Air Monitoring/Screening Equipment Requirements

Photo-Ionization Detector (PID) 10.6eV

The required equipment listed above must be on site. Work shall not commence unless the equipment is present and in working order.

Monitoring Plans

Parameter/ Contaminant	Equipment	Action Level	Response Activity
VOCs	PID 10.6 eV	< 5 ppm	Continue work and monitoring.
		>5 ppm for 5 minutes	Clear Instrument and Re-Monitor the Area. Implement PPE upgrades
		>5 ppm for >5 minutes	Evacuate the area and call the RHSM and/or PM for further guidance. Implement engineering controls.

Zone Location and Monitoring Interval
Breathing zone and edge of Exclusion Zone.

***If chemical does not have an action level use TLV or REL, whichever is lowest, to be used as an action level. If TLV or REL are the same as PEL, cut the PEL in half for an action level.**

7. DECONTAMINATION & DISPOSAL METHODS

All possible and necessary steps shall be taken to reduce or minimize contact with chemicals and contaminated/impacted materials while performing field activities (e.g., avoid sitting or leaning on, walking through, dragging equipment through or over, tracking, or splashing potential or known contaminated/impacted materials.)

Personal Hygiene Safeguards

The following minimum personal hygiene safeguards shall be adhered to:

1. No smoking or tobacco products in any project work areas.
2. No eating or drinking in the exclusion zone.
3. It is required that personnel present on site wash hands before eating, smoking, taking medication, chewing gum/tobacco, using the restroom, or applying cosmetics and before leaving the site for the day.

It is recommended that personnel present on site shower or bathe at home at the end of each day of working on the site.

Decontamination Supplies

All decontamination should be conducted at the project site in designated zones or as dictated by Client requirements. Decontamination should not be performed on Haley & Aldrich owned or leased premises.

☐ Acetone	☒ Distilled Water	☐ Polyethylene Sheeting
☒ Alconox Soap	☐ Drums	☐ Pressure/Steam Cleaner
☒ Brushes	☐ Hexane	☒ Tap Water
☒ Disposal Bags	☐ Methanol	☐ Wash tubs
☒ 5 Gallon Buckets	☒ Paper Towels	☐ Other: Specify

Location of Decontamination Station

To be communicated during Site kick-off meeting.

Standard Personal Decontamination Procedures

Outer gloves and boots should be decontaminated periodically as necessary and at the end of the day. Brush off solids with a hard brush and clean with soap and water or other appropriate cleaner whenever possible. Remove inner gloves carefully by turning them inside out during removal. Wash hands and forearms frequently. It is good practice to wear work-designated clothing while on-site which can be removed as soon as possible. Non-disposable overalls and outer work clothing should be bagged onsite prior to laundering. If gross contamination is encountered on-site contact the Project Manager and Field Safety Manager to discuss proper decontamination procedures.

The steps required for decontamination will depend upon the degree and type of contamination but will generally follow the sequence below.

1. Remove and wipe clean hard hat
2. Rinse boots and gloves of gross contamination
3. Scrub boots and gloves clean
4. Rinse boots and gloves
5. Remove outer boots (if applicable)
6. Remove outer gloves (if applicable)
7. Remove Tyvek coverall (if applicable)
8. Remove respirator, wipe clean and store (if applicable)
9. Remove inner gloves (if outer gloves were used)

PPE that is not grossly contaminated can be bagged and disposed in regular trash receptacles.

Small Equipment Decontamination

Pretreatment of heavily contaminated equipment may be conducted as necessary:

1. Remove gross contamination using a brush or wiping with a paper towel
2. Soak in a solution of Alconox and water (if possible)
3. Wipe off excess contamination with a paper towel

Standard decontamination procedure:

4. Wash using a solution of Alconox and water
5. Rinse with potable water
6. Rinse with methanol (or equivalent)
7. Rinse with distilled/deionized water

Inspect the equipment for any remaining contamination and repeat as necessary.

Disposal Methods
Procedures for disposal of contaminated materials, decontamination waste, and single use personal protective equipment shall meet applicable client, locate, State, and Federal requirements.
Disposal of Single Use Personal Protective Equipment
PPE that is not grossly contaminated can be bagged and disposed in regular trash receptacles. PPE that is grossly contaminated must be bagged (sealed and field personnel should communicate with the Project Manager to determine proper disposal.
• Contaminated soil cuttings and spoils must be containerized for disposal off-site unless otherwise specifically directed. • Soil cuttings and spoils determined to be free of contamination through field screening can usually be returned to the boreholes or excavations from which they came.

8. SITE CONTROL

The overall purpose of site control is to minimize potential contamination of workers, protect the public from the site's hazards, and prevent vandalism. Site control is especially important in emergency situations. The degree of site control necessary depends on site characteristics, site size, and the surrounding community. The following information identifies the elements used to control the activities and movements of people and equipment at the project site.

Communication

Internal

Haley & Aldrich site personnel will communicate with other Haley & Aldrich staff member and/or subcontractors or contractors with:

Face to Face Communication

External

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

Cellular Phones

Visitors

Project Site

Will visitors be required to check-in prior to accessing the project site?

Yes

Visitor Access

Authorized visitors that require access to the project site need to be provided with known information with respect to the site operations and hazards as applicable to the purpose of their site visit. Authorized visitors must have the required PPE and appropriate training to access the project site.

Philip DiNardo is responsible for facilitating authorized visitor access.

Zoning

Work Zone

The work zone will be clearly delineated to ensure that the general public or unauthorized worker access is prevented. The following will be used:

Cones
Flagging Tape
Choose an item.

9. SITE SPECIFIC EMERGENCY RESPONSE PLAN

The Emergency Response Plan addresses potential emergencies at this site, procedures for responding to these emergencies, roles, responsibilities during emergency response, and training. This section also describes the provisions this project has made to coordinate its emergency response with other contractors onsite and with offsite emergency response organizations (as applicable).

During the development of this emergency response plan, local, state, and federal agency disaster, fire, and emergency response organizations were consulted (if required) to ensure that this plan is compatible and integrated with plans of those organizations. Documentation of the dates of these consultations are the names of individuals contacted is kept on file and available upon request.

The site has been evaluated for potential emergency occurrences, based on site hazards, and the major categories of emergencies that could occur during project work are:

- Fire(s)/Combustion
- Hazardous Material Event
- Medical Emergency
- Natural Disaster

A detailed list of emergency types and response actions are summarized in Table X below. Prior to the start of work, the SSO will update the table with any additional site-specific information regarding evacuations, muster points, or additional emergency procedures. The SSO will establish evacuation routes and assembly areas for the Site. All personnel entering the Site will be informed of these routes and assembly areas.

Pre-Emergency Planning

Before the start of field activities, the Project Manager will ensure preparation has been made in anticipation of emergencies. Preparatory actions include the following:

Meeting with the subcontractor/and or client concerning the emergency procedures in the event a person is injured. Appropriate actions for specific scenarios will be reviewed. These scenarios will be discussed, and responses determined before the sampling event commences. A form of emergency communication (i.e.; Cell phone, Air horn, etc.) between the Project Manager and subcontractor and/or client will be agreed on before the work commences.

A training session (i.e., “safety meeting”) given by the Project Manager or their designee informing all field personnel of emergency procedures, locations of emergency equipment and their use, and proper evacuation procedures.

Ensuring field personnel are aware of the existence of the emergency response HASP and ensuring a copy of the HASP accompanies the field team(s).

Onsite Emergency Response Equipment

Emergency procedures may require specialized equipment to facilitate work rescue, contamination control and reduction or post-emergency cleanup. Emergency response equipment stocked

Table 9.1 Emergency Equipment and Emergency PPE			
Emergency Equipment	**Specific Type**	**Quantity Stocked**	**Location Stored**
First Aid Kit	ANSI	1 Kit	With H&A Staff
Emergency PPE	**Specific Type**	**Quantity Stocked**	**Location Stored**
Gloves	Nitrile	1 Box	With H&A Staff

EVACUATION ALARM
Will be communicated during the Onsite Kickoff Meeting
EVACUATION ROUTES
Will be given a map after site specific training
EVACUATION MUSTER POINT(S)/ SHELTER AREA(S)
Will be given a locations after site specific training
EVACUTION RESPONSE DRILLS
The Site relies on outside emergency responders and a drill is not required.

Table 9-2 – Emergency Planning

Emergency Type	Notification	Response Action	Evacuation Plan/Route
Chemical Exposure	Report event to SSO immediately	Refer to Safety Data Sheet for required actions	Remove personnel from work zone
Fire - Small	Notify SSO and contact 911	Use fire extinguisher if safe and qualified to do so	Mobilize to *Muster Point*
Fire – Large/Explosion	Notify SSO and contact 911	Evacuate immediately	Mobilize to *Muster Point*
Hazardous Material – Spill/Release	Notify SSO; SSO will contact PM to determine if additional agency notification is	If practicable don PPE and use spill kit and applicable procedures to contain the release	See Evacuation Map for route, move at least 100 ft upwind of spill location
Medical – Bloodborne Pathogen	Notify SSO	If qualified dispose in container or call client or city to notify for further instruction.	None Anticipated
Medical – First Aid	Notify SSO	If qualified perform first aid duties	None Anticipated
Medical – Trauma	If life threatening or transport is required call 911, immediately	Wait at site entrance for ambulance	Noe Anticipated
Security Threat	Notify SSO who will call 911 as warranted	Keep all valuables out of site and work zones delineated.	None Anticipated
Weather – Earthquake/Tsunami's	STOP WORK and evacuate Site upon any earthquake	Turn off equipment and evacuate as soon as is safe to do so	Mobilize to *Shelter Location*
Weather – Lightning Storm	STOP WORK	Work may resume 30 minutes after the last observed lightning.	None Anticipated
Weather – Tornadoes/Hurricanes	Monitor weather conditions STOP WORK and evacuate the site	Evacuate to shelter location or shelter in place immediately	Mobilize to *Shelter Location*
MUSTER POINT To be communicated during Site kick-off meeting		*SHELTER LOCATION* To be communicated during Site kick-off meeting	
In case of site emergencies, site personnel shall be evacuated per this table and will not participate in emergency response activities. Site emergencies shall be reported to local, state, and federal governmental agencies as required.			

10. HASP ACKNOWLEDGEMENT FORM

All Haley & Aldrich employees onsite must sign this form prior to entering the site.

I hereby acknowledge receipt of, and briefing on, this HASP prior to the start of on-site work. I declare that I understand and agree to follow the provisions, processes, and procedures set forth herein at all times while working on this site.

Printed Name	Signature	Date

ATTACHMENT A
HASP AMENDMENT FORM

HASP AMENDMENT FORM

This form is to be used whenever there is an immediate change in the project scope that will require an amendment to the HASP. For project scope changes associated with "add-on" tasks, the changes must be made in the body of the HASP. Before changes can be made, a review of the potential hazards must be initiated by the Haley & Aldrich Project Manager.

This original form must remain on site with the original HASP. If additional copies of this HASP have been distributed, it is the Project Manager's responsibility to forward a signed copy of this amendment to those who have copies.

Amendment No.	
Site Name	
Work Assignment No.	
Date	
Type of Amendment	
Reason for Amendment	
Alternate Safeguard Procedures	
Required Changes in PPE	

Project Manager Name (Print)	Project Manager Signature	Date

Health & Safety Approver Name (Print)	Health & Safety Approver Signature	Date

ATTACHMENT B
TRAINING REQUIREMENTS

TRAINING REQUIREMENTS

Health and Safety Training Requirements

Personnel will not be permitted to supervise or participate in field activities until they have been trained to a level required by their job function and responsibility. Haley & Aldrich staff members, contractors, subcontractors, and consultants who have the potential to be exposed to contaminated materials or physical hazards must complete the training described in the following sections.

The Haley & Aldrich Project Manager/FSM will be responsible for maintaining and providing to the client/site manager documentation of Haley & Aldrich staff members' compliance with required training as requested. Records shall be maintained per OSHA requirements.

40-Hour Health and Safety Training

The 40-Hour Health and Safety Training course provides instruction on the nature of hazardous waste work, protective measures, proper use of personal protective equipment, recognition of signs and symptoms which might indicate exposure to hazardous substances, and decontamination procedures. It is required for all personnel working on-site, such as equipment operators, general laborers, and supervisors, who may be potentially exposed to hazardous substances, health hazards, or safety hazards consistent with 29 CFR 1910.120.

8-hour Annual Refresher Training

Personnel who complete the 40-hour health and safety training are subsequently required to attend an annual 8-hour refresher course to remain current in their training. When required, site personnel must be able to show proof of completion (i.e., certification) at an 8-hour refresher training course within the past 12 months.

8-Hour Supervisor Training

On-site managers and supervisors directly responsible for, or who supervise staff members engaged in hazardous waste operations, should have eight additional hours of Supervisor training in accordance with 29 CFR 1910.120. Supervisor Training includes, but is not limited to, accident reporting/investigation, regulatory compliance, work practice observations, auditing, and emergency response procedures.

Additional Training for Specific Projects

Haley & Aldrich personnel will ensure their personnel have received additional training on specific instrumentation, equipment, confined space entry, construction hazards, etc., as necessary to perform their duties. This specialized training will be provided to personnel before engaging in the specific work activities including:

- Client specific training or orientation
- Competent person excavations
- Confined space entry (entrant, supervisor, and attendant)
- Heavy equipment including aerial lifts and forklifts
- First aid/ CPR
- Use of fall protection
- Use of nuclear density gauges
- Asbestos awareness

ATTACHMENT C
ROLES AND RESPONSIBILITIES

SITE ROLES AND RESPONSIBILITIES

Haley & Aldrich Personnel

Field Safety Manager (FSM)

The Haley & Aldrich FSM is a full-time Haley & Aldrich staff member, trained as a safety and health professional, who is responsible for the interpretation and approval of this Safety Plan. Modifications to this Safety Plan cannot be undertaken by the PM or the SSO without the approval of the FSM.

Specific duties of the FSM include:

- Approving and amending the Safety Plan for this project
- Advising the PM and SHSOs on matter relating to health and safety
- Recommending appropriate personal protective equipment (PPE) and air monitoring instrumentation
- Maintaining regular contact with the PM and SSO to evaluate the conditions at the property and new information which might require modifications to the HASP and
- Reviewing and approving JSAs developed for the site-specific hazards.

Project Manager (PM)

The Haley & Aldrich PM is responsible for ensuring that the requirements of this HASP are implemented at that project location. Some of the PM´s specific responsibilities include:

- Assuring that all personnel to whom this HASP applies have received a copy of it;
- Providing the FSM with updated information regarding environmental conditions at the site and the scope of site work;
- Providing adequate authority and resources to the on-site SHSO to allow for the successful implementation of all necessary safety procedures;
- Supporting the decisions made by the SHSO;
- Maintaining regular communications with the SHSO and, if necessary, the FSM;
- Coordinating the activities of all subcontractors and ensuring that they are aware of the pertinent health and safety requirements for this project;
- Providing project scheduling and planning activities; and
- Providing guidance to field personnel in the development of appropriate Job Safety Analysis (JSA) relative to the site conditions and hazard assessment.

Site Health & Safety Officer (SHSO)

The SHSO is responsible for field implementation of this HASP and enforcement of safety rules and regulations. SHSO functions may include some or all of the following:

- Act as Haley & Aldrich´s liaison for health and safety issues with client, staff, subcontractors, and agencies.
- Verify that utility clearance has been performed by Haley & Aldrich subcontractors.
- Oversee day-to-day implementation of the Safety Plan by Haley & Aldrich personnel on site.

- Interact with subcontractor project personnel on health and safety matters.
- Verify use of required PPE as outlined in the safety plan.
- Inspect and maintain Haley & Aldrich safety equipment, including calibration of air monitoring instrumentation used by Haley & Aldrich.
- Perform changes to HASP and document in Appendix A of the HASP as needed and notify appropriate persons of changes.
- Investigate and report on-site accidents and incidents involving Haley & Aldrich and its subcontractors.
- Verify that site personnel are familiar with site safety requirements (e.g., the hospital route and emergency contact numbers).
- Report accidents, injuries, and near misses to the Haley & Aldrich PM and FSM as needed.

The SHSO will conduct initial site safety orientations with site personnel (including subcontractors) and conduct toolbox and safety meetings thereafter with Haley & Aldrich employees and Haley & Aldrich subcontractors at regular intervals and in accordance with Haley & Aldrich policy and contractual obligations. The SHSO will track the attendance of site personnel at Haley & Aldrich orientations, toolbox talks, and safety meetings.

Field Personnel

Haley & Aldrich personnel are responsible for following the health and safety procedures specified in this HASP and for performing their work in a safe and responsible manner. Some of the specific responsibilities of the field personnel are as follows:

- Reading the HASP in its entirety prior to the start of on-site work;
- Submitting a completed Safety Plan Acceptance Form and documentation of medical surveillance and training to the SHSO prior to the start of work;
- Attending the pre-entry briefing prior to beginning on-site work;
- Bringing forth any questions or concerns regarding the content of the Safety Plan to the PM or the SHSO prior to the start of work;
- Stopping work when it is not believed it can be performed safely;
- Reporting all accidents, injuries and illnesses, regardless of their severity, to the SHSO;
- Complying with the requirements of this safety plan and the requests of the SHSO; and
- Reviewing the established JSAs for the site-specific hazards on a daily basis and prior to each shift change, if applicable.

Visitors

Authorized visitors (e.g., Client Representatives, Regulators, Haley & Aldrich management staff, etc.) requiring entry to any work location on the site will be briefed by the Site Supervisor on the hazards present at that location. Visitors will be escorted at all times at the work location and will be responsible for compliance with their employer´s health and safety policies. In addition, this safety plan specifies the minimum acceptable qualifications, training and personal protective equipment which are required for entry to any controlled work area; visitors must comply with these

requirements at all times. Unauthorized visitors, and visitors not meeting the specified qualifications, will not be permitted within established controlled work areas.

SUBCONTRACTOR PERSONNEL

Subcontractor Site Representative

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

Subcontractor Site Safety Manager

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

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

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

ATTACHMENT D
JOB SAFETY ANALYSES

Safety
in everything we do

NYSDEC BCP SITE C203160

KEY TASK ENTER TASK NUMBER.: ENTER TASK NAME.

Subtask Category	Potential Hazards	Controls
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.

HALEY ALDRICH

www.haleyaldrich.com

COMMUNITY AIR MONITORING PLAN

FORMER FIEDLER WATERPROOFING & MASONRY SITE
91 BRUCKNER BOULEVARD
NYSDEC BCP SITE C203160
BRONX, NEW YORK

by
H & A of New York Engineering and Geology, LLP
New York, New York

File No. 0204520
October 2024

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1. Introduction

This Community Air Monitoring Plan (CAMP) has been prepared for the potential activities to be performed under the Site Management Plan (SMP) at the Former Fiedler Waterproofing & Masonry Site, located at 91 Bruckner Boulevard, Bronx, New York (Site). The CAMP details measures for protection of the downwind community (i.e., off-site receptors including residences, businesses, and on-site workers not directly involved in the investigation activities) from potential airborne contaminant releases resulting from intrusive activities at the Site.

Compliance with this CAMP is required during all activities associated with intrusive activities such as drilling, excavation, stockpiling, equipment idling, transport, etc. that have the potential to generate airborne particulate matter and volatile organic compounds (VOCs). These activities include drilling, excavation, and/or monitoring well installation. This CAMP is specific to the Site and was developed in accordance with the New York State Department of Health Generic Community Air Monitoring Plan and the New York State Department of Environmental Conservation (NYSDEC) DER-10 Technical Guidance for Site Investigation and Remediation.

2. Community Air Monitoring Program

Real-time air monitoring will be conducted in two locations during ground intrusive activities including 1) at the egress of the ground intrusive work zone (permanent station) and 2) at a downwind location, to be evaluated daily and logistically biased towards nearby sensitive receptors and occupied structures within 20 feet, to prevent potential exposure to the surrounding community (Figure 1).

Continuous monitoring will be performed for all ground intrusive activities and during the handling of contaminated or potentially contaminated media. Ground intrusive activities include, but are not limited to, drilling, excavation, stockpiling, equipment idling, transport, etc. Monitoring equipment will be set up to connect to a cloud-based data management system where data will be stored on a real time basis.

2.1 VOC MONITORING, RESPONSE LEVELS, AND ACTIONS

VOCs will be monitored at CAMP stations at the egress of the ground intrusive work zone (permanent station) and at a downwind location biased towards nearby sensitive receptors and occupied structures within 20 feet. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions. Roaming equipment to assess VOCs will be carried by the field support overseeing implementation of the SMP. The monitoring work will be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment will be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment will be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- 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 will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities will resume with continued monitoring.
- 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 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 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.
- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities will be shutdown.

All 15-minute readings must be recorded and be available for OER personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded. Proactive measures will be taken to control VOCs such as use of rusmar foaming agent and wintergreen misting to prevent offsite migration of VOCs and to suppress odors.

2.2 PARTICULATE MONITORING, RESPONSE LEVELS AND ACTIONS

Dust particulates will be monitored at CAMP stations at the egress of the ground intrusive work zone (permanent station) and at a downwind location biased towards nearby sensitive receptors and occupied structures within 20 feet. Particulate concentrations will be evaluated through particulate monitoring via real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10). In the event this equipment is implemented, the equipment will be capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level discussed below:

- 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 will be employed. Work will continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 greater than the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work will be stopped and a re-evaluation of activities initiated. Work will 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.

All 15-minute readings must be recorded and be available for OER personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded. Proactive measures will be taken to control dust particulates such as use of water prayers to suppress dust generation and migration offsite.

2.3 SPECIAL CONSIDERATIONS

When work areas are within 20 feet of potentially exposed populations or occupied structures, the continuous monitoring locations for VOCs and particulates must reflect the nearest potentially exposed individuals and the location of ventilation system intakes for nearby structures. The use of engineering controls such as vapor/dust barriers, temporary negative pressure enclosures, or special ventilation devices should be considered to prevent exposures related to the work activities and to control dust and odors. Consideration should be given to implementing the planned activities when potentially exposed populations are at a minimum, such as during weekends or evening hours in non-residential settings.

- If total VOC concentrations opposite the walls of occupied structures or next to intake vents exceed 1 ppm, monitoring should occur within the occupied structure(s). Background readings in the occupied spaces must be taken prior to commencement of the planned work. Any unusual background readings should be discussed with NYSDOH prior to commencement of the work.
- If total particulate concentrations opposite the walls of occupied structures or next to intake vents exceed 150 mcg/m^3, work activities should be suspended until controls are implemented and are successful in reducing the total particulate concentration to 150 mcg/m^3 or less at the monitoring point.
- Depending upon the nature of contamination and remedial activities, other parameters (e.g., explosivity, oxygen, hydrogen sulfide, carbon monoxide) may also need to be monitored. Response levels and actions should be pre-determined, as necessary, for each site.

3. Reporting

Exceedances of action levels observed during performance of the CAMP will be reported to the NYSDEC and NYSDOH via email and included in the daily report to be submitted to NYSDEC the morning after site activities are completed along with actions and responses. Daily reports will include the following information:

- Date
- Personnel
- Wind direction
- Meteorological Data (i.e. temperature, weather, atmospheric pressure)
- Site Map
- CAMP station locations
- Notes regarding any equipment malfunctions
- Notes regarding any mitigation efforts or work stoppage due to CAMP exceedances

4. Data Quality Assurance

To ensure data quality, instrument calibration will be completed as required by the manufacturer and recorded daily. Calibration checks and duplicate readings may be completed as needed to confirm instrument response and accuracy. All instruments will be operated in accordance with manufacturer's specifications, copies of which will be kept on site.

The onsite field engineers will review monitoring data throughout the day and evaluate in comparison to the action levels. The project manager will review monitoring data periodically and/or when action levels are triggered.