

500 THIRD AVENUE

BROOKLYN, NEW YORK

Remedial Investigation Report

NYCOER Project Numbers: 24TMP1204K and 24EHAN227K

Prepared for:

Brooklyn Industrial Buildings C/O Bricolage Designs

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REMEDIAL INVESTIGATION REPORT

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LIST OF ACRONYMS

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

CERTIFICATION

I, Kenneth P. Wenz, Jr., PG, LEP, am a Qualified Environmental Professional, as defined in RCNY § 43-1402(ar). I have primary direct responsibility for implementation of the Remedial Investigation for the 500 3rd Avenue Site (NYCOER Project Numbers 24TMP1204K, 24EHAN227K). I am responsible for the content of this Remedial Investigation Report (RIR), have reviewed its contents and certify that this RIR is accurate to the best of my knowledge and contains all available environmental information and data regarding the property.

Kenneth P. Wenz, Jr., PG, LEP

8/26/2024



Qualified Environmental Professional

Date

Signature

EXECUTIVE SUMMARY

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

Site Location and Current Usage

The Site is located at 500 3rd Avenue in the Gowanus section in Brooklyn, New York and is identified on the New York City Tax Map as Block 1020 and Lots 35 and 36. **Figure 1** shows the Site location. The Site is 6,400 combined square feet and is bordered by a 1-story auto repair shop across 11th Street to the northeast, a 3-story mixed-use commercial and residential building to the southwest, a 4-story mixed-use commercial and residential building and three 3-story residential buildings across 3rd Avenue to the southeast, and vacant land to the northwest. A map of the Site boundary is shown on **Figure 2**. Currently, the Site is vacant and used for construction equipment storage, as the buildings previously occupying the Site were demolished in 2023.

Summary of Proposed Redevelopment Plan

The current redevelopment plan for the Site consists of construction of a new 6-story mixed-use commercial and residential building with a full cellar that is approximately 106 feet in height and with a total area of 31,618.33 square feet. The planned use of the cellar includes accessory storage, residential storage, a mechanical room, a garbage room, and utility rooms. The first floor will be occupied by the lobby, a commercial space, a residential garage, a paved outdoor area, and a package room. There will be office spaces on the second and third floors, office spaces and studios on the fourth floor, and a single residential unit on the fifth and sixth floors (totaling 5,196.54 net square feet, including 2,993.27 square feet on the fifth floor and 2,203.27 square feet on the sixth floor). The specific tenants that will occupy the commercial and office/studio spaces have not been determined. The planned building will occupy approximately 81% of the Site area, with the remaining space comprised of an approximately 1,206 square-foot paved outdoor area. The footprint of the planned building is approximately 5,193 square feet, with excavation planned to approximately 11 feet below ground surface (bgs) for the cellar and foundation elements, and approximately 15 feet bgs for the planned elevator pit (no excavation is

planned at or below the groundwater table). Excavation will include the removal of approximately 2,150 cubic yards of soil from the Site. There are no proposed landscaped areas. Layout of the proposed site development is presented in **Appendix A**. The current zoning designation of the Site is commercial and/or mixed-use commercial and residential (C4-4A) for both Lots 35 and 36. The proposed use is consistent with existing zoning for the property.

Summary of Past Uses of Site and Areas of Concern

According to the May 1, 2024, Phase I ESA (included in **Appendix B**), the Lot 35 portion of the Site was first developed with a 3-story building from prior to 1886 until as recently as 2007 (with commercial use shown from 1886 until as recently as 1950, residential and commercial uses from at least 1969 until as recently as 1982, and manufacturing use from 1986 until as recently as 2007), a 1-story stable from prior to 1886 until as recently as 1915, and a 1-story garage from 1938 until as recently as 2007. The Lot 36 portion of the Site was developed with two 1-story commercial buildings from prior to 1886 until as recently as 2007 (one of these commercial buildings was depicted with office use from 1904 until as recently as 1950), a 1-story stable in 1886, a second 1-story stable from prior to 1886 until as recently as 1915, a 1-story carriage house from 1904 until as recently as 1915, and an additional 1-story building from 1938 until as recently as 2007 (shown as a garage with a gasoline storage tank in 1938, a ceramic laboratory and warehouse in 1950, and a mirror manufacturing facility from 1969 until as recently as 2007). All buildings on both parcels were demolished in 2023.

The AOCs identified for this Site include:

1. Potential presence of historic fill materials within the first five feet bgs.
2. Potential vapor encroachment condition (PVEC) and Recognized Environmental Condition (REC) due to historic use of the northeast-neighboring property as a gasoline station and its current and historic use as an auto repair facility.
3. Potential impacts from historic petroleum storage at the site.

The Phase 1 ESA Report is presented in **Appendix B**. The areas of concern are shown on **Figure 3**.

Summary of the Work Performed under the Remedial Investigation

Athenica performed the following scope of work on May 29 and 30, 2024:

1. Conducted a Site inspection to identify AOCs and physical obstructions (i.e., structures, buildings, etc.);
2. Installed five soil borings across the entire Site, and collected 10 soil samples from the soil borings for chemical analysis to evaluate soil quality;
3. Installed three temporary groundwater monitoring wells across the Site to establish groundwater flow and collected three groundwater samples for chemical analysis to evaluate groundwater quality;
4. Submitted three additional soil samples (including one blind duplicate sample) and four additional groundwater samples (including one blind duplicate sample) for chemical analysis of emerging contaminants (1,4-dioxane and PFOA/PFAS);
5. Installed five soil vapor probes at locations across the Site and collected five soil vapor samples (soil vapor sample SV-2 could not be analyzed due to technical difficulties with the Summa canister) for chemical analysis; and
6. Submitted one field blank sample for soil and one field blank sample for groundwater for chemical analysis of PFOA/PFAS.

Summary of Environmental Findings

1. Elevation of the property is approximately 21 feet above sea level.
2. Depth to groundwater ranges from 15.62 to 18.26 feet below ground surface (bgs) at the Site.
3. Groundwater flow is generally from southeast to northwest beneath the Site.
4. According to published data from the United States Geological Survey, depth to bedrock is approximately 175 feet at the Site.
5. The stratigraphy of the Site consists of brown to dark brown fine sand, medium sand, and silt from ground surface to five feet bgs. Some evidence of historic fill (concrete, crushed brick fragments, and asphalt) was observed within the soil borings at depths up to five feet bgs, with the exception of SB-5 where crushed brick was observed from ground surface to 11 feet bgs. Stratigraphy of the Site consists of brown, fine to medium sand, silt, clay, and fine to medium gravel from five to fifteen feet bgs. Moisture was often

noted in the soil at depths where clay was present. Bedrock was not encountered during the investigation.

6. Soil samples collected during the RI were compared to 6NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives (Unrestricted Use SCOs) and 6NYCRR Part 375 Restricted Residential Use SCOs (Restricted Residential SCOs). Results indicated:

- No VOCs were detected at concentrations exceeding Unrestricted Use SCOs in any of the soil samples.
- SVOCs, including benzo(a)anthracene (max. of 5.44 milligrams per kilogram (mg/Kg) in sample SB-3 (0'-2')), benzo(a)pyrene (max. of 5.18 mg/Kg in sample SB-3 (0'-2')), benzo(b)fluoranthene (max. of 6.38 mg/Kg in sample SB-3 (0'-2')), benzo(k)fluoranthene (max. of 2.88 mg/Kg in sample SB-4 (0'-2')), chrysene (max. of 5.65 mg/Kg in sample SB-3 (0'-2')), dibenzo(a,h)anthracene (max. of 0.896 mg/Kg in sample SB-3 (0'-2')), and indeno(1,2,3-cd)pyrene (max. of 3.78 mg/Kg in sample SB-3 (0'-2')) were detected concentrations exceeding Unrestricted Use SCOs. Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene, were detected at concentrations exceeding Restricted Residential SCOs.
- Metals, including barium (at 370 mg/Kg in sample SB-3 (0'-2')), copper (at 72.6 mg/Kg within sample SB-3 (0'-2')), lead (max. of 1,690 mg/Kg in sample SB-3 (0'-2')), zinc (max. of 302 mg/Kg in sample SB-3 (0'-2')), and mercury (max. of 1.25 mg/Kg in sample SB-3 (0'-2')), were detected at concentrations exceeding their Unrestricted Use SCOs. The concentrations of lead and mercury also exceeded their Restricted Residential SCOs.
- Pesticides, including 4,4'-DDD (max. of 0.00446 mg/Kg in sample SB-3 (0'-2')), 4,4'-DDT (max. of 0.0725 mg/Kg in sample SB-5 (0'-2')), and dieldrin (at 0.00587 mg/Kg in sample SB-3 (0'-2')), were detected at concentrations exceeding their Unrestricted Use SCOs.
- No PCBs were detected at concentrations exceeding Unrestricted Use SCOs in any of the soil samples.

- PFOA/PFAS compounds, including N-EtFOSAA (at 0.00050 mg/Kg in sample SB-4 (0'-2')), perfluoro-n-butanoic acid (PFBA) (at 0.00295 mg/Kg in sample SB-2 (0'-2')), perfluorooctanesulfonic acid (PFOS) (at 0.00035 mg/Kg in sample SB-4 (0'-2')) and perfluorooctanoic acid (PFOA) (max. of 0.00030 mg/Kg in sample SB-4 (0'-2')), were detected in the soil samples.
 - 1,4-dioxane was not detected in any of the soil samples.
7. Groundwater samples collected during the RI were compared to 6NYCRR Part 703.5 Class GA Groundwater Quality Standards and Guidance Values (GQS) and PFOA/PFAS sampling results were compared to New York State Department of Environmental Conservation Part 375 PFAS Remedial Program Water October 2020 (NYSDEC PFOA/PFAS Standards). Results indicated:
- VOCs, including 1,2,4-trimethylbenzene (max. of 1,900 micrograms per liter (µg/L) in sample TW-1), 1,3,5-trimethylbenzene (max. of 550 µg/L in sample TW-1), benzene (at 88 µg/L in sample TW-3), ethyl benzene (max. of 1,100 µg/L in sample TW-1), isopropylbenzene (max. of 200 µg/L in sample TW-1), n-butylbenzene (at 57 µg/L in sample TW-1), n-propylbenzene (max. of 630 µg/L in sample TW-1), o-xylene (max. of 600 µg/L in sample TW-1), p-isopropyltoluene (at 13 µg/L in sample TW-1), sec-butylbenzene (at 49 µg/L in sample TW-1), styrene (at 17 µg/L in sample TW-1), toluene (max. of 15 µg/L in sample TW-3), total xylenes (max. of 3,400 µg/L in sample TW-1), were detected at concentrations that exceed GQS.
 - The SVOC naphthalene (at 132 µg/L in sample TW-1) was detected at a concentration that exceeds GQS.
 - Total metals, including barium (at 1,160 µg/L in sample TW-1), chromium (max. of 135 µg/L in sample TW-3), lead (max. of 199 µg/L in sample TW-1), magnesium (max. of 80,300 µg/L in sample TW-2), manganese (max. of 9,370 µg/L in sample TW-1), nickel (at 105 µg/L in sample TW-1), selenium (max. of 16.8 µg/L in sample TW-2), and sodium (max. of 446,000 µg/L in sample TW-1), were detected at concentrations that exceed GQS.

- Dissolved metals, including magnesium (max. of 78,300 µg/L in sample TW-2), manganese (max. of 5,290 µg/L in sample TW-1), selenium (at 16.2 µg/L in sample TW-2), and sodium (max. of 482,000 µg/L in sample TW-1), were detected at concentrations that exceed GQS. No other dissolved metals were detected at concentrations that exceed GQS.
 - The pesticide dieldrin (at 0.0508 µg/L in sample TW-2) was detected at a concentration that exceeds GQS. No other pesticides were detected at concentrations that exceed GQS.
 - PCBs and 1,4-dioxane were not detected in any of the groundwater samples.
 - PFOA/PFAS compounds, including HFPO-DA (Gen-X) (at 0.104 µg/L in sample TW-1), perfluoroheptanoic acid (PFHpA) (at 0.110 µg/L in sample TW-1), perfluorohexanoic acid (PFHxA) (max. of 0.113 µg/L in sample TW-Dup), PFBA (at 0.707 in sample TW-1), PFOA (max. of 0.0959 in sample TW-3), and perfluoropentanoic acid (PFPeA) (max. of 0.174 µg/L in sample TW-Dup), were detected at concentrations exceeding the NYSDEC PFOA/PFAS Standards.
8. Soil vapor samples collected during the RI were analyzed for VOCs via USEPA Method TO-15. Results indicated:
- Petroleum-related VOCs detected in soil vapor included benzene (max. of 26 micrograms per cubic meter (µg/m³) in sample SV-1), ethylbenzene (max. of 40 µg/m³ in sample SV-1), cyclohexane (max. of 5.4 µg/m³ in sample SV-1), 2,2,4-trimethylpentane (isooctane) (max. of 5.8 µg/m³ in sample SV-1), 1,2,4-trimethylbenzene (max. of 66 µg/m³ in sample SV-4), 1,3,5-trimethylbenzene (max. of 15 µg/m³ in samples SV-1, SV-4, and SV-5), o-xylene (max. of 54 µg/m³ in sample SV-1), p- and m-xylenes (max. of 160 µg/m³ in sample SV-1), n-heptane (max. of 32 µg/m³ in sample SV-1), n-hexane (max. of 29 µg/m³ in SV-1), and toluene (max. of 710 µg/m³ in sample SV-1).
 - Chlorinated VOCs (CVOCs) detected in soil vapor included, trichloroethene (TCE, max. of 190 µg/m³ in sample SV-1), carbon tetrachloride (at 0.69 µg/m³ in sample SV-3), tetrachloroethene (PCE, max. of 34 µg/m³ in sample SV-4), and methylene chloride (max. of 9.3 µg/m³ in sample SV-1).

- Other VOCs detected in soil vapor included, 1,3-butadiene (max. of 38 $\mu\text{g}/\text{m}^3$ in sample SV-1), 2-butanone (max. of 34 $\mu\text{g}/\text{m}^3$ in sample SV-1), 2-hexanone (max. of 4.3 $\mu\text{g}/\text{m}^3$ in sample SV-3), 4-methyl-2-pentanone (max. of 22 in sample SV-1), acetone (max. of 340 $\mu\text{g}/\text{m}^3$ in sample SV-3), acrylonitrile (max. of 20 $\mu\text{g}/\text{m}^3$ in sample SV-3), carbon disulfide (max. of 23 $\mu\text{g}/\text{m}^3$ in sample SV-1), chloroform (max. of 3.3 $\mu\text{g}/\text{m}^3$ in sample SV-1), chloromethane (max. of 2.0 $\mu\text{g}/\text{m}^3$ in sample SV-1), dichlorodifluoromethane (max. of 2.4 $\mu\text{g}/\text{m}^3$ in sample SV-5), ethyl acetate (max. of 12 $\mu\text{g}/\text{m}^3$ in sample SV-1), isopropanol (max. of 5.4 $\mu\text{g}/\text{m}^3$ in sample SV-4), methyl methacrylate (at 3.8 $\mu\text{g}/\text{m}^3$ in sample SV-5), p-ethyltoluene (max. of 51 $\mu\text{g}/\text{m}^3$ in sample SV-4), propylene (max. of 320 $\mu\text{g}/\text{m}^3$ in sample SV-1), styrene (max. of 4.1 $\mu\text{g}/\text{m}^3$ in sample SV-1).

REMEDIAL INVESTIGATION REPORT

1.0 SITE BACKGROUND

Brooklyn Industrial Buildings has enrolled in the New York City Voluntary Cleanup Program (NYC VCP) to investigate and remediate a 6,400 square-foot site located at 500 3rd Avenue in the Gowanus section of Brooklyn, New York. Mixed commercial and residential use is proposed for the property. The Remedial Investigation (RI) field work was performed on May 29 and 30, 2024. This Remedial Investigation Report (RIR) summarizes the nature and extent of contamination and provides sufficient information for establishment of remedial action objectives, evaluation of remedial action alternatives, and selection of a remedy that is protective of human health and the environment consistent with the use of the property pursuant to RCNY§ 43-1407(f).

1.1 Site Location and Current Usage

The Site is located at 500 3rd Avenue in the Gowanus section in Brooklyn, New York and is identified on the New York City Tax Map as Block 1020 and Lots 35 and 36. **Figure 1** shows the Site location. The Site is 6,400 combined square feet and is bordered by a 1-story auto repair shop across 11th Street to the northeast, a 3-story mixed-use commercial and residential building to the southwest, a 4-story mixed-use commercial and residential building and three 3-story residential buildings across 3rd Avenue to the southeast, and vacant land to the northwest. A map of the Site boundary is shown on **Figure 2**. Currently, the Site is vacant and used for construction equipment storage, as the buildings previously occupying the Site were demolished in 2023.

1.2 Proposed Redevelopment Plan

The current redevelopment plan for the Site consists of construction of a new 6-story mixed-use commercial and residential building with a full cellar that is approximately 106 feet in height and with a total area of 31,618.33 square feet. The planned use of the cellar includes accessory storage, residential storage, a mechanical room, a garbage room, and utility rooms. The first floor will be occupied by the lobby, a commercial space, a residential garage, a paved outdoor area, and a package room. There will be office spaces on the second and third floors, office spaces and studios on the fourth floor, and a single residential unit on the fifth and sixth floors (totaling 5,196.54 net square feet, including 2,993.27 square feet on the fifth floor and 2,203.27 square

feet on the sixth floor). The specific tenants that will occupy the commercial and office/studio spaces have not been determined. The planned building will occupy approximately 81% of the Site area, with the remaining space comprised of an approximately 1,206 square-foot paved outdoor area. The footprint of the planned building is approximately 5,193 square feet, with excavation planned to approximately 11 feet below ground surface (bgs) for the cellar and foundation elements, and approximately 15 feet bgs for the planned elevator pit (no excavation is planned at or below the groundwater table). Excavation will include the removal of approximately 2,150 cubic yards of soil from the Site. There are no proposed landscaped areas. Layout of the proposed site development is presented in **Appendix A**.

The current zoning designation of the Site is commercial and/or mixed-use commercial and residential (C4-4A) for both Lots 35 and 36. The proposed use is consistent with existing zoning for the property.

1.3 Description of Surrounding Property

The Site is located within a primarily mixed-use, commercial, industrial, and residential area of Brooklyn, New York. The Site is zoned as C4-4A, denoting it as a commercial and residential zone. The commercial uses include department stores, theaters, and other commercial and office uses which serve a larger region and generate more than neighborhood shopping areas. The neighborhood is a mixture of residential properties, commercial buildings, mixed-use commercial and residential buildings, and industrial buildings.

The northeast-neighboring property (across 11th Street) maintains a 1-story auto repair shop. The southwest-adjacent property maintains a 3-story mixed-use commercial and residential building. The southeast-neighboring properties (across 3rd Avenue) maintain a 4-story mixed-use commercial and residential building and three 3-story residential buildings. The northwest-adjacent property is vacant land. **Figure 2** shows the surrounding land usage.

According to the OER Searchable Property Environmental E-Database (SPEED), there are one sensitive receptor (such as a schools, hospitals, or day-care facilities) within a 500-foot radius of the Site. Two sensitive receptor were identified: Ennis Playground, a public playground located on 11th Street, approximately 300 feet to the northwest of the Site, and Platinum Daycare, a daycare and pre-kindergarten facility located at 459 3rd Avenue, approximately 465 feet to the northeast of the Site.

2.0 SITE HISTORY

2.1 Past Uses and Ownership

According to the May 1, 2024, Phase I ESA (included in **Appendix B**), the Lot 35 portion of the Site was first developed with a 3-story building from prior to 1886 until as recently as 2007 (with commercial use shown from 1886 until as recently as 1950, residential and commercial uses from at least 1969 until as recently as 1982, and manufacturing use from 1986 until as recently as 2007), a 1-story stable from prior to 1886 until as recently as 1915, and a 1-story garage from 1938 until as recently as 2007. The Lot 36 portion of the Site was developed with two 1-story commercial buildings from prior to 1886 until as recently as 2007 (one of these commercial buildings was depicted with office use from 1904 until as recently as 1950), a 1-story stable in 1886, a second 1-story stable from prior to 1886 until as recently as 1915, a 1-story carriage house from 1904 until as recently as 1915, and an additional 1-story building from 1938 until as recently as 2007 (shown as a garage with a gasoline storage tank in 1938, a ceramic laboratory and warehouse in 1950, and a mirror manufacturing facility from 1969 until as recently as 2007). All buildings on both parcels were demolished in 2023.

2.2 Previous Investigations

No previous investigations at the Site were identified.

2.3 Site Inspection

Mr. Michael Oliver conducted the Site inspection on the morning of May 29, 2024, prior to the commencement of the RI, under the direction of Kenneth P. Wenz, Jr., PG, LEP (Qualified Environmental Professional (QEP) for the Site). The Site reconnaissance consisted of observing conditions throughout the Site and around the perimeter of the Site.

2.4 Areas of Concern

The AOCs identified for this Site include:

1. Potential presence of historic fill materials within the first five feet bgs.
2. PVEC and REC due to historic use of the northeast-neighboring property as a gasoline station and its current and historic use as an auto repair facility.
3. Potential impacts from historic petroleum storage at the site.

The Phase 1 ESA Report is presented in **Appendix B**. The areas of concern are shown on **Figure 3**.

3.0 PROJECT MANAGEMENT

3.1 Project Organization

The Qualified Environmental Profession (QEP) responsible for preparation of this RIR is Mr. Kenneth P. Wenz, Jr., PG, LEP.

3.2 Health and Safety

All work described in this RIR was performed in full compliance with applicable laws and regulations, including the Site-specific health and safety plan that was included in the RI Work Plan, OSHA worker safety requirements, and HAZWOPER requirements.

3.3 Materials Management

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

4.0 REMEDIAL INVESTIGATION ACTIVITIES

Athenica performed the following scope of work on May 29 and 30, 2024:

1. Conducted a Site inspection to identify AOCs and physical obstructions (i.e., structures, buildings, etc.);
2. Installed five soil borings across the entire Site, and collected 10 soil samples from the soil borings for chemical analysis to evaluate soil quality;
3. Installed three temporary groundwater monitoring wells across the Site to establish groundwater flow and collected three groundwater samples for chemical analysis to evaluate groundwater quality;
4. Submitted three additional soil samples (including one blind duplicate sample) and four additional groundwater samples (including one blind duplicate sample) for chemical analysis of emerging contaminants (1,4-dioxane and PFOA/PFAS);
5. Installed five soil vapor probes at locations across the Site and collected five soil vapor samples (soil vapor sample SV-2 could not be analyzed due to technical difficulties with the Summa canister) for chemical analysis; and
6. Submitted one field blank sample for soil and one field blank sample for groundwater for chemical analysis of PFOA/PFAS.

4.1 Geophysical Investigation

On May 30, 2024, Athenica personnel mobilized to the Site with PG Environmental Services, Inc. (PGES), to conduct a geophysical survey. The geophysical survey was conducted using ground-penetrating radar (GPR) equipment, along transects throughout accessible areas of the Site, to assess whether any USTs, subsurface structures, or other anomalies are present. A subsurface anomaly approximately six feet by seven feet in size was detected in the western portion of the Site (see **Figure 6** for the location of the anomaly). This anomaly was subsequently excavated by the property owner on June 3, 2024, which showed that the anomaly to be three drainage pipes located approximately 1.5 feet bgs. Photographs of the drainage pipes are included in **Appendix C**.

4.2 Borings and Monitoring Wells

Drilling and Soil Logging

Athenica mobilized to the Site with PGES on May 29, 2024, to advance five soil borings (designated SB-1 through SB-5) across the Site. Boring SB-1 was advanced to a depth of 10 feet bgs, and the remaining borings were advanced to a depth of 15 feet bgs, in accordance to the approved work plan, as excavation for the proposed redevelopment is to approximately 11 feet bgs. The soil borings were advanced using a Geoprobe® 7822DT direct-push rig.

During advancement of the soil borings, continuous soil sampling was conducted using steel macro-core samplers fitted with new, dedicated acetate liners, and the samples were screened for volatile organic compounds (VOCs) using a hand-held photoionization detector (PID), examined for evidence of potential contamination (i.e., odors and/or staining), and geologically characterized. No odors or staining was observed in any of the soil samples collected during the RI.

Soil boring logs were prepared by a geologist and are attached as **Appendix D**. The locations of the soil borings and the temporary groundwater monitoring wells are shown on **Figure 4**.

Groundwater Monitoring Well Construction

Three temporary groundwater monitoring wells (designated TW-1, TW-2, and TW-3) were installed at locations across the Site to assess groundwater quality. The monitoring wells were installed using a Geoprobe® 7822DT direct-push rig, and were constructed using 1-inch diameter, Schedule 40 polyvinyl chloride (PVC) screen and casing. Temporary well TW-1 was screened from approximately 15.20 to 30.20 feet bgs, temporary well TW-2 was screened from approximately 17.82 to 32.82 feet bgs, and temporary well TW-3 was screened from approximately 19.75 to 34.75 feet bgs.

Well construction diagrams are included in **Appendix D**. Temporary well locations are shown on **Figure 4**.

Water Level Measurement

Depth to groundwater measurements were collected using an oil/water interface probe. The interface probe can measure depth to the 0.01 foot. The interface probe used to measure the

depth to groundwater was decontaminated before and after each measurement by thoroughly cleaning with solution of non-phosphate detergent and potable water.

The depth to groundwater measured in the temporary wells from the top of casing ranged from approximately 15.87 to 18.06 feet, which correlates to 15.62 to 18.26 feet bgs. Please note that the depth to groundwater in temporary well TW-1 (18.26 feet bgs) was measured very soon after the well was installed, and therefore likely represents an artificially-low groundwater level, as further discussed in Section 5.1.

Water level measurements, survey data, and groundwater elevations are summarized in **Table 1**.

4.3 Sample Collection and Chemical Analysis

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

Soil Sampling

Ten soil samples (plus one blind duplicate for PFOA/PFAS and 1,4-dioxane analysis that was collected at location SB-2 (0'-2') and labelled SB-Dup) were collected from the five soil boring locations and submitted for chemical analysis. Data on soil sample collection for chemical analyses, including dates of collection and sample depths, are summarized in **Table 2**. Two samples were collected from boring SB-1, at depth intervals of 0 to 2 feet bgs and 4 to 6 feet bgs. Two samples each were collected from soil borings SB-2, SB-3, SB-4, and SB-5, at depth intervals of 0 to 2 feet bgs and 11 to 13 feet bgs. Boring locations are shown on **Figure 4**.

Soil samples collected for laboratory analysis were placed into pre-cleaned, laboratory supplied glassware, which were labeled and placed into an iced cooler for transport via laboratory courier under Chain of Custody procedures to York Analytical Laboratories, Inc.

(York) for analysis. York is approved under the New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP). All soil samples were analyzed for Target Compound List (TCL) VOCs by United States Environmental Protection Agency (USEPA) Method 8260, TCL semi-volatile organic compounds (SVOCs) by USEPA Method 8270, TCL pesticides and PCBs by USEPA Methods 8081/8082, and Target Analyte List (TAL) metals by USEPA Methods 6010/7471.

Soil samples SB-2 (0'-2'), SB-4 (0'-2'), and SB-Dup were also analyzed for emerging contaminants 1,4-dioxane by (USEPA Method 8270 SIM) and PFOA/PFAS (New York State Department of Environmental Conservation (NYSDEC) list of compounds by USEPA Method 1633). These samples were collected following the special sampling protocols required for samples to be analyzed for PFOA/PFAS.

Each soil sample was collected using dedicated acetate sleeves, glassware, terra core samplers, and gloves. Decontamination was not required, as no sampling implement was reused between sample locations and depths. After completion of soil sampling, each boring was abandoned in accordance with NYSDEC requirements.

Groundwater Sampling

Three groundwater samples (plus one blind duplicate for 1,4-dioxane and PFOA/PFOA analysis that was collected from TW 1 and labelled TW-Dup) were collected for chemical analysis during this RI. Groundwater sample collection data is reported in **Table 3**. Sampling logs with information on sampling of the temporary groundwater monitoring wells is included in **Appendix D**. Temporary well locations are shown on **Figure 4**.

Prior to sample collection, each well was purged of a minimum of three casing volumes using a new, dedicated disposable high-density polyethylene bailer. Groundwater samples were collected using the same bailers utilized for purging, into pre-cleaned, laboratory-supplied glassware. Filled sample containers were labeled and placed into an iced cooler for transport via laboratory courier under Chain of Custody procedures to York for analysis.

The groundwater samples were analyzed for TCL VOCs by USEPA Method 8260, TCL SVOCs by USEPA Method 8270, TCL pesticides and PCBs by USEPA Methods 8081/8082, TAL metals (total and dissolved) by USEPA Methods 6010/7471, 1,4-dioxane by USEPA Method 8270 SIM, and PFOA/PFAS (NYSDEC list of compounds) by USEPA Method 1633.

Duplicate groundwater sample TW-Dup was only analyzed for emerging contaminants (1,4-dioxane and PFOA/PFAS). All PFOA/PFAS samples were collected following the special sampling protocols required for samples to be analyzed for PFOA/PFAS.

Since a new, dedicated bailer was used to purge and sample each temporary groundwater monitoring well, decontamination of the groundwater sampling equipment was not required. After completion of groundwater sampling, each temporary well was removed and the well borings were abandoned in accordance with NYSDEC requirements.

Soil Vapor Sampling

A total of five soil vapor samples (designated SV-1 through SV-5) were collected for laboratory analysis. The soil vapor implants were installed using a Geoprobe® 7822DT direct push rig and were each constructed with a 1-inch screen set at a depth of approximately 12 feet bgs. The screen was surrounded by glass beads and was connected to ground surface with Teflon-lined tubing. Sand was installed above the glass beads to a depth of approximately six inches bgs; the tubing was sealed from six-inches bgs to ground surface using hydrated bentonite chips.

Prior to sampling, a tracer gas (helium) was used as a QA/QC device to verify the integrity of the soil vapor probe seal, in accordance with NYSDOH protocols. A plastic container was used to keep the tracer gas in contact with the probe during testing. A portable helium leak detector was used to analyze a sample of soil vapor for the tracer gas to confirm the integrity of the probe seal by a lack of significant tracer gas in the sample. At the conclusion of the sampling round, tracer monitoring was performed a second time to confirm the integrity of the probe seals throughout the sampling period.

Following the leak-check testing, at least three tubing volumes were purged from each vapor probe using a PID, and a representative vapor sample was collected for laboratory analysis of VOCs by USEPA Method TO-15. Flow rate for both purging and sampling did not exceed 0.2 liter per minute (L/min), in accordance with NYSDOH protocols. Each sample was collected over an approximately two-hour period into a laboratory-supplied 6-liter Summa canister.

Soil vapor sample SV-2 could not be analyzed due to technical difficulties with the Summa canister.

Soil vapor sample collection data is reported in **Table 4**. Soil vapor sampling locations are shown in **Figure 4**. The Soil vapor sampling log is included in **Appendix E**. Methodologies used for soil vapor assessment conform to the NYSDOH *Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York*, dated October 2006, as amended.

Photographs documenting sampling and field activities during the RI are attached as **Appendix C**.

Chemical Analysis and Quality Assurance/Quality Control

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

Factor	Description
Quality Assurance Officer	The chemical analytical quality assurance is directed by Sarah Widomski of York Analytical Laboratories, Inc.
Chemical Analytical Laboratory	Chemical analytical laboratory used in the RI is NYS ELAP certified and is York Analytical Laboratories, Inc.
Chemical Analytical Methods	<p>Soil analytical methods:</p> <ul style="list-style-type: none">• TAL Metals by EPA Method 6010/7471;• TCL VOCs by EPA Method 8260;• TCL SVOCs by EPA Method 8270;• Pesticides/PCBs by EPA Method 8081/8082;• 1,4-dioxane by USEPA Method 8270 SIM;• PFOA/PFAS by USEPA Method 1633. <p>Groundwater analytical methods:</p>

	<ul style="list-style-type: none"> • TAL Metals (Total and Dissolved) by EPA Method 6010/7471; • TCL VOCs by EPA Method 8260; • TCL SVOCs by EPA Method 8270; • Pesticides/PCBs by EPA Method 8081/8082; • 1,4-dioxane by USEPA Method 8270 SIM; • PFOA/PFAS by USEPA Method 1633. <p>Soil vapor analytical methods:</p> <ul style="list-style-type: none"> • VOCs by USEPA Method TO-15.
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For quality control/quality assurance (QA/QC) procedures associated with 1,4-dioxane and PFOA/PFAS sampling, two field blank samples were collected (one for soil sampling equipment and one for groundwater sampling equipment). These samples were collected by pouring laboratory-provided PFAS-free water through an unused acetate sampling sleeve for soil and by pouring laboratory-provided PFAS-free water through an unused high-density polyethylene bailer for groundwater. For each sample, the water was collected from the sampling device into laboratory-supplied glassware, which was placed into a separate (i.e., designated for PFOA/PFAS samples only) iced cooler transport via laboratory courier under Chain of Custody procedures to York for analysis. Field blank samples for soil and groundwater were analyzed for PFOA/PFAS (NYSDEC list of compounds) by USEPA Method 1633.

Results of Chemical Analyses

Laboratory data for soil, groundwater, and soil vapor are summarized in **Tables 2, 3, and 4**, respectively. Laboratory data deliverables for all samples analyzed in this RIR are provided in **Appendix F**.

5.0 ENVIRONMENTAL EVALUATION

5.1 Geological and Hydrogeological Conditions

Stratigraphy

The stratigraphy of the Site consists of brown to dark brown fine sand, medium sand, and silt from ground surface to five feet bgs. Some evidence of historic fill (concrete, crushed brick fragments, and asphalt) was observed within the soil borings at depths up to five feet bgs, with the exception of SB-5 where crushed brick was observed from ground surface to 11 feet bgs. Stratigraphy of the Site consists of brown, fine to medium sand, silt, clay, and fine to medium gravel from five to fifteen feet bgs. Moisture was often noted in the soil at depths where clay was present. Bedrock was not encountered during the investigation.

Hydrogeology

Groundwater was measured at depths ranging from of 15.87 to 18.06 feet below the tops of the well casings with an average depth of 17.21 feet. From ground surface, groundwater was encountered at depths of 15.62 to 18.26 feet. These measurements correspond to groundwater elevations ranging from 77.52 feet to 78.41 feet, when surveyed to a common random datum. **Table 1** summarizes the temporary well elevation data, depth to water measurements, and groundwater elevation data. **Figure 5** shows groundwater elevation contours that were developed based on the measured data.

The results show that the groundwater flow at the Site is from the northwest to the southeast, which is inconsistent with the published regional groundwater flow direction in the Site vicinity, which is from the southeast to the northwest (i.e., toward the Gowanus Canal). As noted above, the depth to groundwater in temporary well TW-1 (18.26 feet bgs) was measured very soon after the well was installed, and therefore likely represents an artificially-low groundwater level, due to the measurement being taken before the groundwater level in TW-1 reached equilibrium. As a result, the assessment of Site groundwater conditions presented below is based on the regional groundwater flow direction. The Water Table Altitude in Kings and Queens Counties, New York fact sheet published by the United States Geological Survey in March 1997 is annotated with the approximate Site location relative to the regional water table contours; this fact sheet is attached as **Appendix G**.

5.2 Soil Chemistry

Soil samples collected during the RI were compared to Unrestricted Use SCOs and Restricted Residential SCOs. Results indicated:

- No VOCs were detected at concentrations exceeding Unrestricted Use SCOs in any of the soil samples.
- SVOCs, including benzo(a)anthracene (max. of 5.44 milligrams per kilogram (mg/Kg) in sample SB-3 (0'-2')), benzo(a)pyrene (max. of 5.18 mg/Kg in sample SB-3 (0'-2')), benzo(b)fluoranthene (max. of 6.38 mg/Kg in sample SB-3 (0'-2')), benzo(k)fluoranthene (max. of 2.88 mg/Kg in sample SB-4 (0'-2')), chrysene (max. of 5.65 mg/Kg in sample SB-3 (0'-2')), dibenzo(a,h)anthracene (max. of 0.896 mg/Kg in sample SB-3 (0'-2')), and indeno(1,2,3-cd)pyrene (max. of 3.78 mg/Kg in sample SB-3 (0'-2')) were detected concentrations exceeding Unrestricted Use SCOs. Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene, were detected at concentrations exceeding Restricted Residential SCOs.
- Metals, including barium (at 370 mg/Kg in sample SB-3 (0'-2')), copper (at 72.6 mg/Kg within sample SB-3 (0'-2')), lead (max. of 1,690 mg/Kg in sample SB-3 (0'-2')), zinc (max. of 302 mg/Kg in sample SB-3 (0'-2')), and mercury (max. of 1.25 mg/Kg in sample SB-3 (0'-2')), were detected at concentrations exceeding their Unrestricted Use SCOs. The concentrations of lead and mercury also exceeded their Restricted Residential SCOs.
- Pesticides, including 4,4'-DDD (max. of 0.00446 mg/Kg in sample SB-3 (0'-2')), 4,4'-DDT (max. of 0.0725 mg/Kg in sample SB-5 (0'-2')), and dieldrin (at 0.00587 mg/Kg in sample SB-3 (0'-2')), were detected at concentrations exceeding their Unrestricted Use SCOs.
- No PCBs were detected at concentrations exceeding Unrestricted Use SCOs in any of the soil samples.
- PFOA/PFAS compounds, including N-EtFOSAA (at 0.00050 mg/Kg in sample SB-4 (0'-2')), perfluoro-n-butanoic acid (PFBA) (at 0.00295 mg/Kg in sample

SB-2 (0'-2')), perfluorooctanesulfonic acid (PFOS) (at 0.00035 mg/Kg in sample SB-4 (0'-2')) and perfluorooctanoic acid (PFOA) (max. of 0.00030 mg/Kg in sample SB-4 (0'-2')), were detected in the soil samples.

- 1,4-dioxane was not detected in any of the soil samples.

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

5.3 Groundwater Chemistry

Groundwater samples collected during the RI were compared to GQS and PFOA/PFAS sampling results were compared to NYSDEC PFOA/PFAS Standards. Results indicated:

- VOCs, including 1,2,4-trimethylbenzene (max. of 1,900 micrograms per liter (µg/L) in sample TW-1), 1,3,5-trimethylbenzene (max. of 550 µg/L in sample TW-1), benzene (at 88 µg/L in sample TW-3), ethyl benzene (max. of 1,100 µg/L in sample TW-1), isopropylbenzene (max. of 200 µg/L in sample TW-1), n-butylbenzene (at 57 µg/L in sample TW-1), n-propylbenzene (max. of 630 µg/L in sample TW-1) o-xylene (max. of 600 µg/L in sample TW-1), p-isopropyltoluene (at 13 µg/L in sample TW-1), sec-butylbenzene (at 49 µg/L in sample TW-1), styrene (at 17 µg/L in sample TW-1), toluene (max. of 15 µg/L in sample TW-3), total xylenes (max. of 3,400 µg/L in sample TW-1), were detected at concentrations that exceed GQS.
- The SVOC naphthalene (at 132 µg/L in sample TW-1) was detected at a concentration that exceeds GQS.
- Total metals, including barium (at 1,160 µg/L in sample TW-1), chromium (max. of 135 µg/L in sample TW-3), lead (max. of 199 µg/L in sample TW-1), magnesium (max. of 80,300 µg/L in sample TW-2), manganese (max. of 9,370 µg/L in sample TW-1), nickel (at 105 µg/L in sample TW-1), selenium (max. of 16.8 µg/L in sample TW-2), and sodium (max. of 446,000 µg/L in sample TW-1), were detected at concentrations that exceed GQS.

- Dissolved metals, including magnesium (max. of 78,300 µg/L in sample TW-2), manganese (max. of 5,290 µg/L in sample TW-1), selenium (at 16.2 µg/L in sample TW-2), and sodium (max. of 482,000 µg/L in sample TW-1), were detected at concentrations that exceed GQS. No other dissolved metals were detected at concentrations that exceed GQS.
- The pesticide dieldrin (at 0.0508 µg/L in sample TW-2) was detected at a concentration that exceeds GQS. No other pesticides were detected at concentrations that exceed GQS.
- PCBs and 1,4-dioxane were not detected in any of the groundwater samples.
- PFOA/PFAS compounds, including HFPO-DA (Gen-X) (at 0.104 µg/L in sample TW-1), perfluoroheptanoic acid (PFHpA) (at 0.110 µg/L in sample TW-1), perfluorohexanoic acid (PFHxA) (max. of 0.113 µg/L in sample TW-Dup), PFBA (at 0.707 in sample TW-1), PFOA (max. of 0.0959 in sample TW-3), and perfluoropentanoic acid (PFPeA) (max. of 0.174 µg/L in sample TW-Dup), were detected at concentrations exceeding the NYSDEC PFOA/PFAS Standards.

Data collected during the RI are sufficient to delineate the distribution of contaminants in groundwater at the Site. A summary table of data for chemical analyses performed on groundwater samples is included in **Table 3**. **Figure 7** shows the location and posts the values for parameters detected in groundwater that exceeded the New York State 6NYCRR Part 703.5 Class GA GQS and the NYSDEC Part 375 PFAS Remedial Program Water October 2020 Standards.

5.4 Soil Vapor Chemistry

Soil vapor samples collected during the RI were analyzed for VOCs via USEPA Method TO-15. Results indicated:

- Petroleum-related VOCs detected in soil vapor included benzene (max. of 26 micrograms per cubic meter (µg/m³) in sample SV-1), ethylbenzene (max. of 40 µg/m³ in sample SV-1), cyclohexane (max. of 5.4 µg/m³ in sample SV-1), 2,2,4-trimethylpentane (isooctane) (max. of 5.8 µg/m³ in sample SV-1), 1,2,4-trimethylbenzene (max. of 66 µg/m³ in sample SV-4), 1,3,5-trimethylbenzene

(max. of 15 $\mu\text{g}/\text{m}^3$ in samples SV-1, SV-4, and SV-5), o-xylene (max. of 54 $\mu\text{g}/\text{m}^3$ in sample SV-1), p- and m-xylenes (max. of 160 $\mu\text{g}/\text{m}^3$ in sample SV-1), n-heptane (max. of 32 $\mu\text{g}/\text{m}^3$ in sample SV-1), n-hexane (max. of 29 $\mu\text{g}/\text{m}^3$ in SV-1), and toluene (max. of 710 $\mu\text{g}/\text{m}^3$ in sample SV-1).

- Chlorinated VOCs (CVOCs) detected in soil vapor included, trichloroethene (TCE, max. of 190 $\mu\text{g}/\text{m}^3$ in sample SV-1), carbon tetrachloride (at 0.69 $\mu\text{g}/\text{m}^3$ in sample SV-3), tetrachloroethene (PCE, max. of 34 $\mu\text{g}/\text{m}^3$ in sample SV-4), and methylene chloride (max. of 9.3 $\mu\text{g}/\text{m}^3$ in sample SV-1).
- Other VOCs detected in soil vapor included, 1,3-butadiene (max. of 38 $\mu\text{g}/\text{m}^3$ in sample SV-1), 2-butanone (max. of 34 $\mu\text{g}/\text{m}^3$ in sample SV-1), 2-hexanone (max. of 4.3 $\mu\text{g}/\text{m}^3$ in sample SV-3), 4-methyl-2-pentanone (max. of 22 in sample SV-1), acetone (max. of 340 $\mu\text{g}/\text{m}^3$ in sample SV-3), acrylonitrile (max. of 20 $\mu\text{g}/\text{m}^3$ in sample SV-3), carbon disulfide (max. of 23 $\mu\text{g}/\text{m}^3$ in sample SV-1), chloroform (max. of 3.3 $\mu\text{g}/\text{m}^3$ in sample SV-1), chloromethane (max. of 2.0 $\mu\text{g}/\text{m}^3$ in sample SV-1), dichlorodifluoromethane (max. of 2.4 $\mu\text{g}/\text{m}^3$ in sample SV-5), ethyl acetate (max. of 12 $\mu\text{g}/\text{m}^3$ in sample SV-1), isopropanol (max. of 5.4 $\mu\text{g}/\text{m}^3$ in sample SV-4), methyl methacrylate (at 3.8 $\mu\text{g}/\text{m}^3$ in sample SV-5), p-ethyltoluene (max. of 51 $\mu\text{g}/\text{m}^3$ in sample SV-4), propylene (max. of 320 $\mu\text{g}/\text{m}^3$ in sample SV-1), styrene (max. of 4.1 $\mu\text{g}/\text{m}^3$ in sample SV-1).

Data collected during the RI are sufficient to delineate the distribution of contaminants in soil vapor at the Site. A summary table of data for chemical analyses performed on soil vapor samples is included in **Table 4**. **Figure 8** shows the location and posts the values for soil vapor samples with detected concentrations.

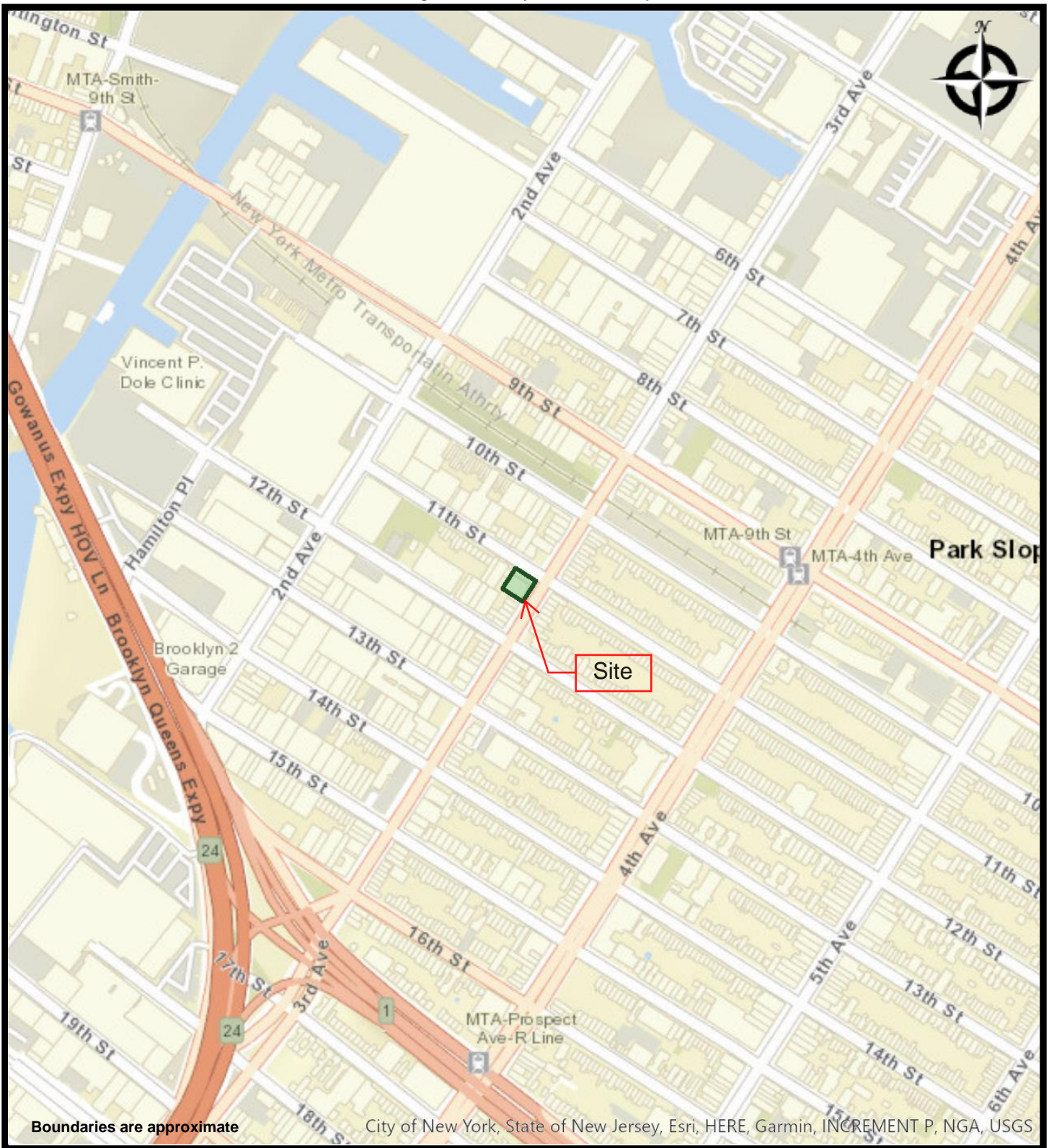
5.5 Prior Activity

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

5.6 Impediments to Remedial Action

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

Figures



**ATHENICA ENVIRONMENTAL
SERVICES, INC.**

Environmental Engineering Consultants

SITE LOCATION MAP

500 3RD AVENUE

500 3rd Avenue

Brooklyn, New York 11215

Figure 1

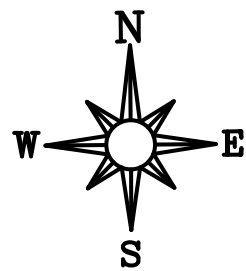
PREPARED FOR: Brooklyn Industrial Buildings

PROJ. MGR: Ken Wenz

DRAWN BY: Michael Oliver

DATE: 6/14/2024

PROJ. #: 24-133-0666



45-09 GREENPOINT AVENUE
LONG ISLAND CITY, NY 11104
TEL: (718) 784 - 7490
FAX: (718) 784 - 4085

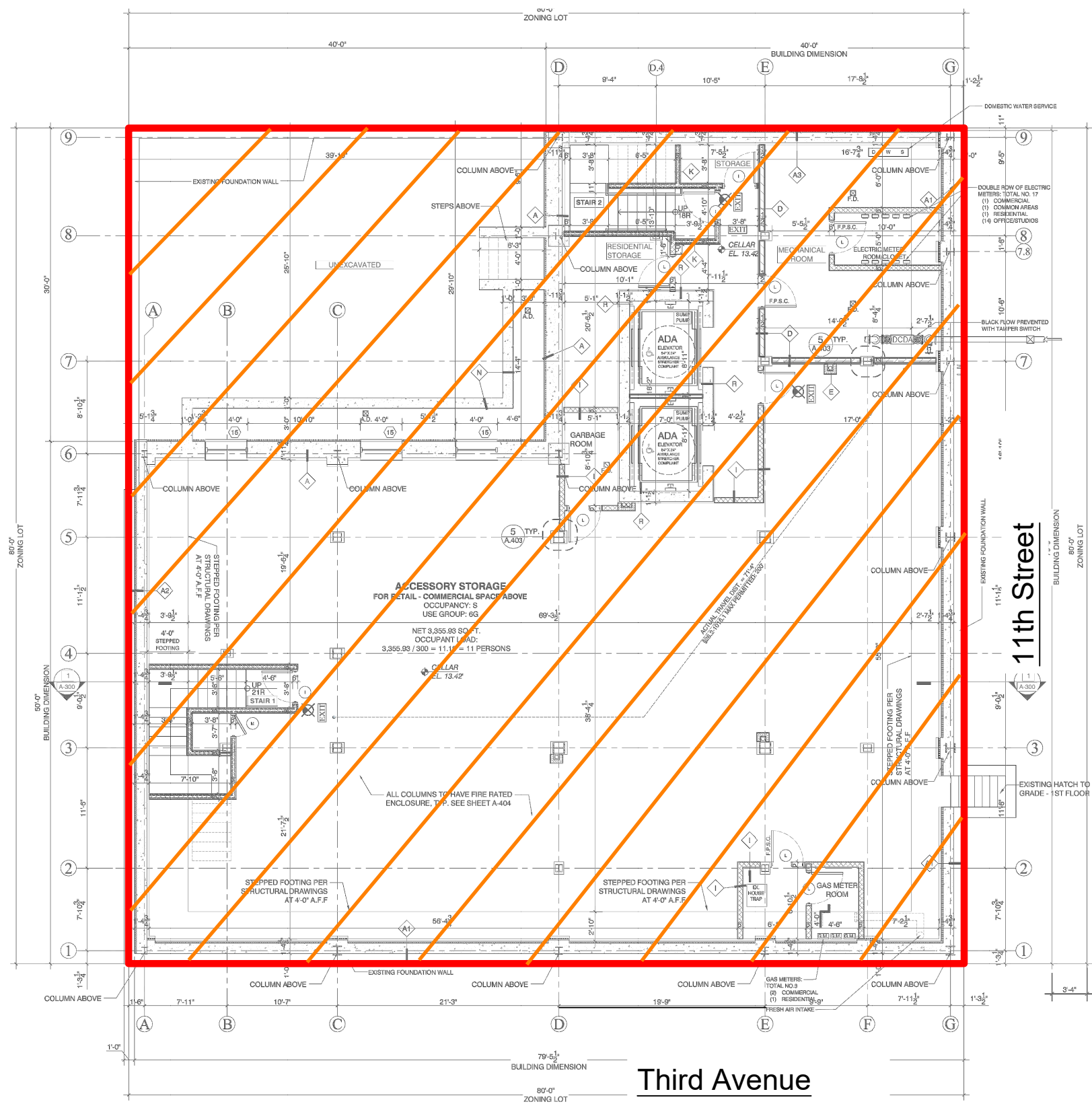
Adapted from NYC ZOLA Map

Date:	6/14/2024
Drawn by:	Michael Oliver
Checked by:	Kenneth P. Wenz Jr., PG, LEP
Drawing Scale:	As Drawn
Project No.:	24-133-0666

Site: 500 3rd Avenue, Brooklyn, New York 11215
Remedial Investigation Report

Figure: 2

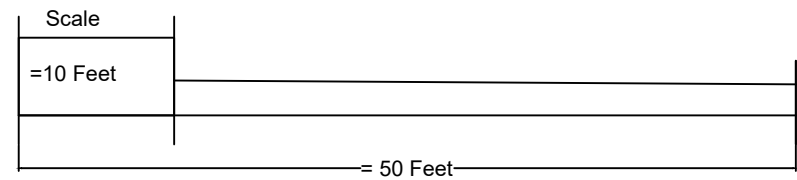
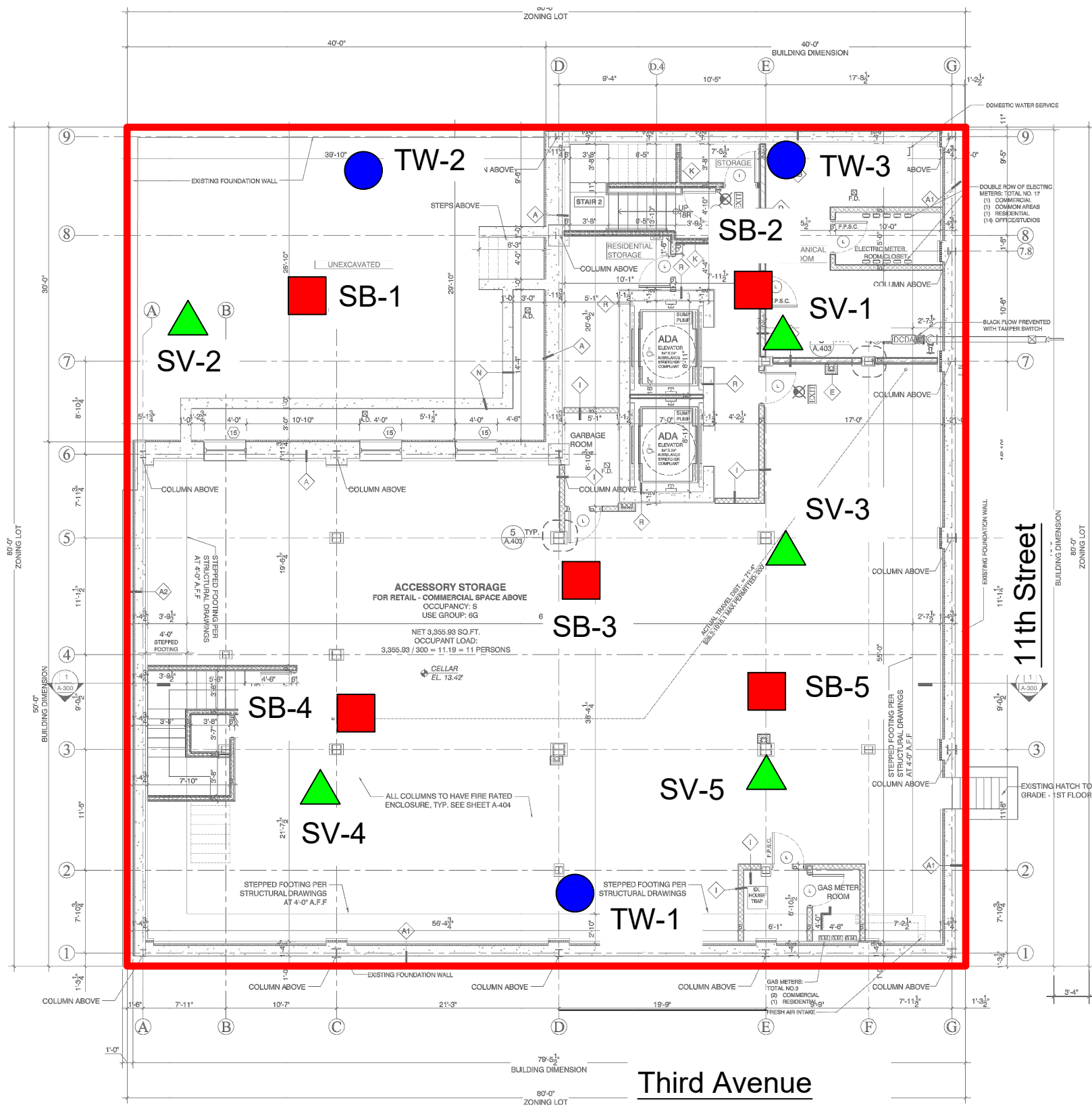
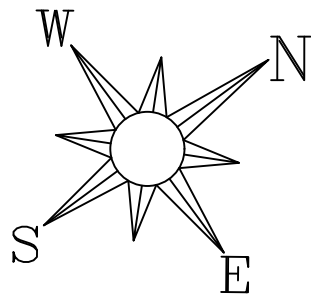
Title: Site Vicinity Map



=10 Feet

—= 50 Feet—

Title: Areas of Concern



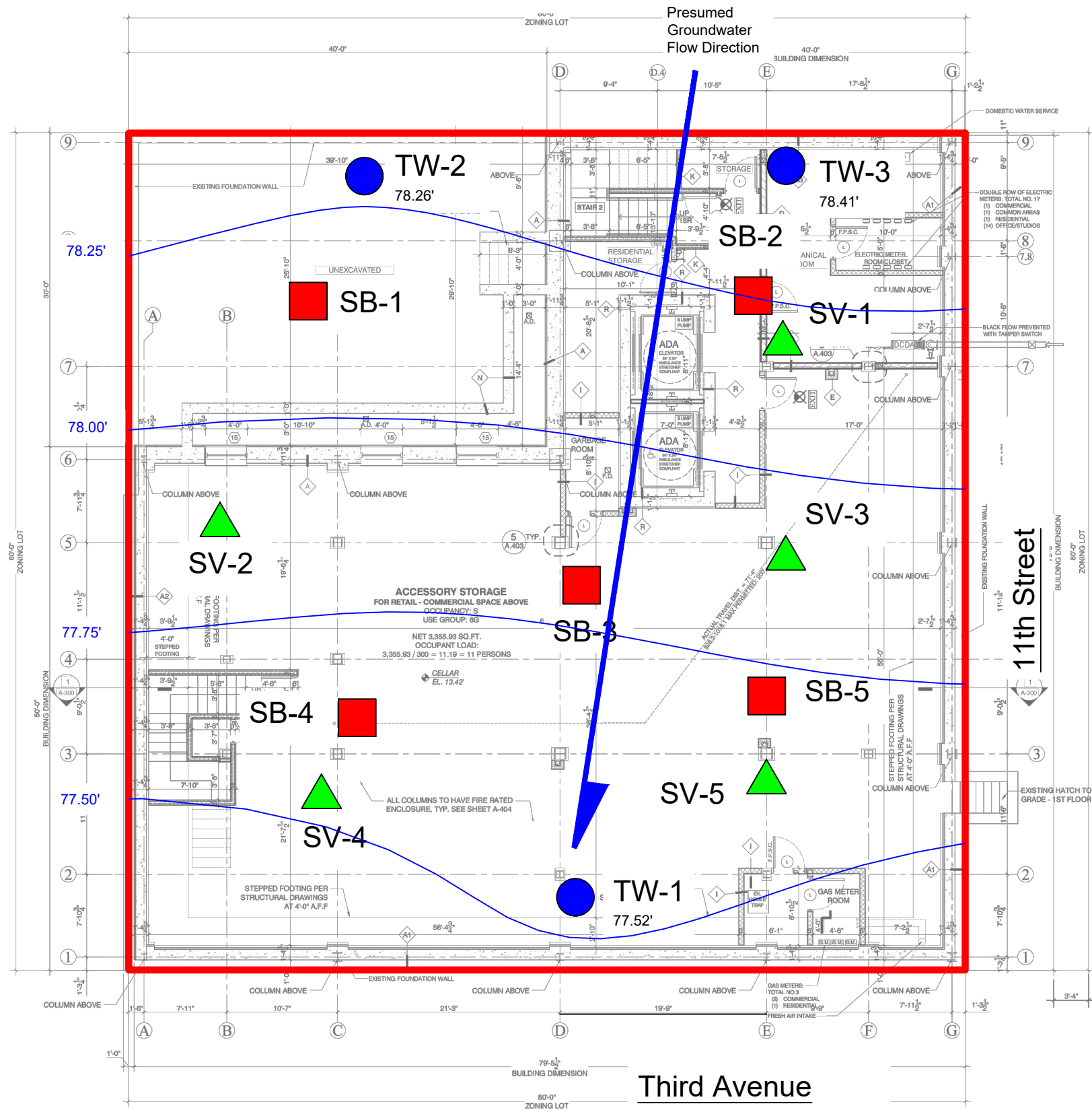
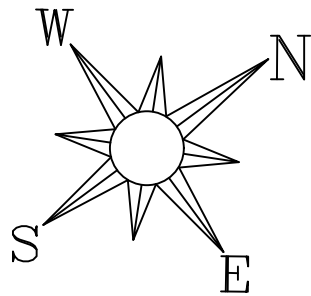
- LEGEND:**
- Soil Boring
 - Groundwater Monitoring Wells
 - ▲ Soil Vapor Probe
 - Site Boundary

ATHENICA ENVIRONMENTAL SERVICES, INC.
Environmental Engineering Consultants
A NYS and NYC WBE Company

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FAX: (718) 784 - 4085

- NOTES:**
- Adapted from "Cellar Floor Plan", A-100.00, drawn by Henry Radusky, Bricolage Architecture and Design, PLLC, July 20, 2022.
 - SV-2 could not be properly analyzed due to technical issues with the summa canister.

Date:	6/14/2024	Site: 500 Third Avenue, Brooklyn, New York 11215 Remedial Investigation Report
Drawn by:	Evan Greenberg, EIT	
Checked by:	Kenneth P. Wenz Jr., PG, LEPC	
Drawing Scale:	As Drawn	
Project No.:	24-133-0666	Figure: 4
		Title: Sample Location Map



LEGEND:

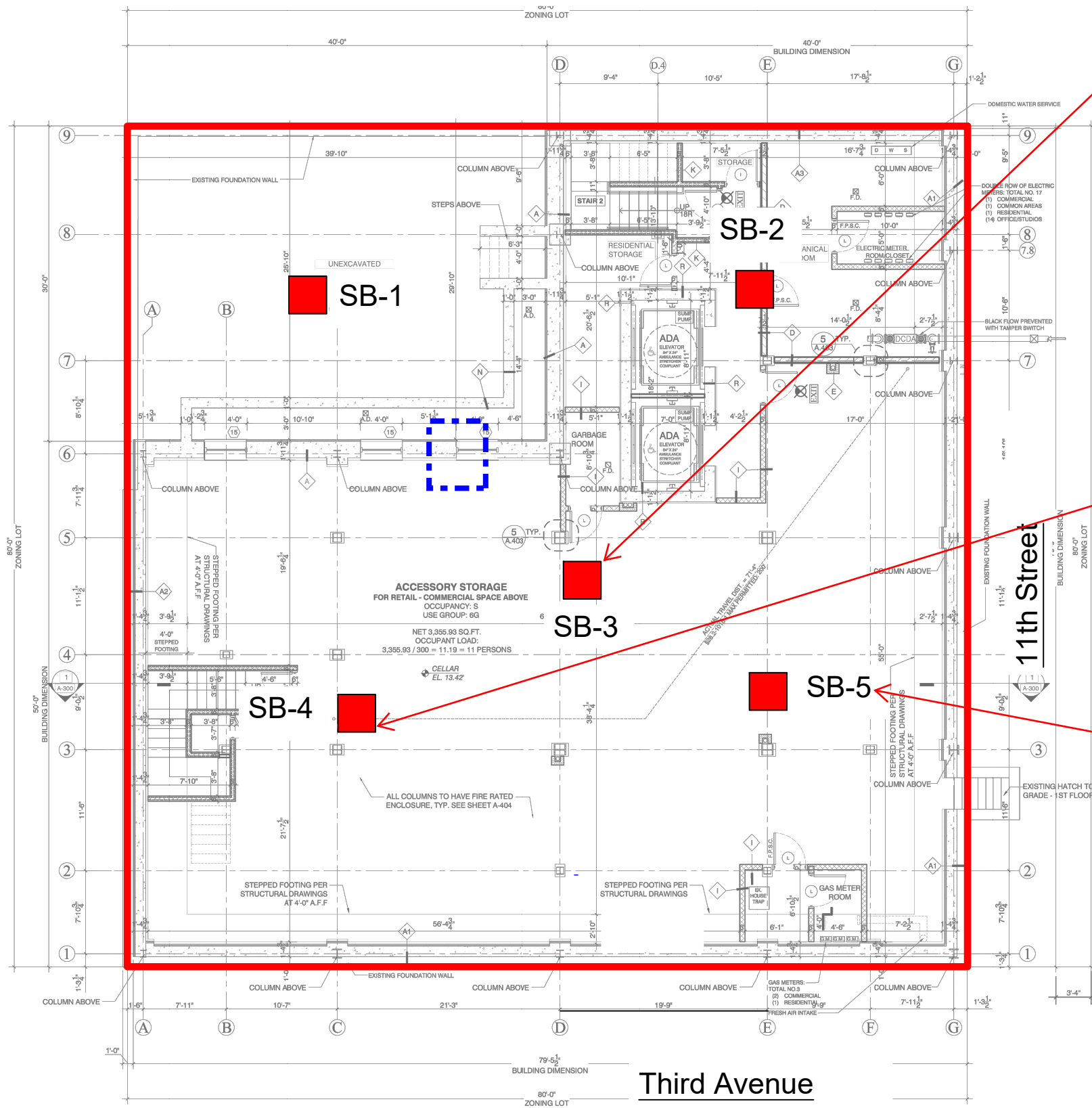
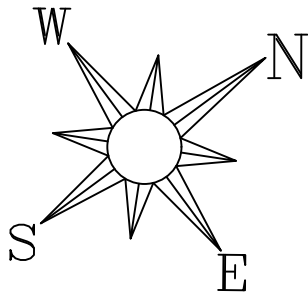
- Soil Boring
- Site Boundary
- Temporary Groundwater Monitoring Wells
- Soil Vapor Probe

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FAX: (718) 784 - 4085

NOTES:

- Adapted from "Cellar Floor Plan", A-100.00, drawn by Henry Radusky, Bricolage Architecture and Design, PLLC, July 20, 2022.
- The depth to groundwater in temporary monitoring well TW-1 (18.26 feet bgs) was measured very soon after the well was installed, and therefore it represents an artificially-low groundwater level.

Date:	7/23/2024	Site: 500 Third Avenue, Brooklyn, New York 11215 Remedial Investigation Report
Drawn by:	Michael Oliver	
Checked by:	Kenneth P. Wenz Jr., PG, LEP	
Drawing Scale:	As Drawn	
Project No.:	24-133-0666	Figure: 5
		Title: Groundwater Flow Map



Sample Name	SB-3 (0'-2')	UU-SCOs	RR-SCOs
	mg/kg	mg/kg	mg/kg
SVOCs			
Benzo(a)anthracene	5.44	1.0	1.0
Benzo(a)pyrene	5.18	1.0	1.0
Benzo(b)fluoranthene	6.38	1.0	1.0
Benzo(k)fluoranthene	1.98	0.8	3.9
Chrysene	5.65	1.0	3.9
Dibenzo(a,h)anthracene	0.90	0.33	0.33
Indeno(1,2,3-cd)pyrene	3.78	0.5	0.5
TAL Metals			
Barium	370	350	400
Copper	72.6	50	270
Lead	1,690	63	400
Zinc	302	109	10,000
Mercury	1.25	0.18	0.81
Pesticides			
4,4'-DDD	0.00446	0.0033	13
4,4'-DDT	0.0179	0.0033	7.9
Dieldrin	0.00587	0.005	0.2

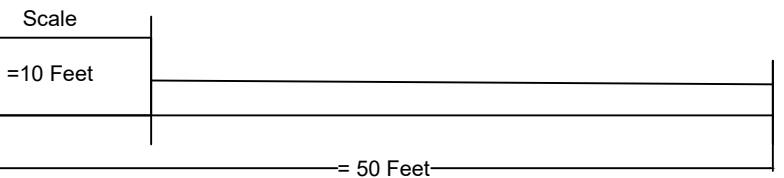
No other compounds were detected above Restricted Residential Use SCOs

Sample Name	SB-4 (0'-2')	UU-SCOs	RR-SCOs
	mg/kg	mg/kg	mg/kg
SVOCs			
Benzo(a)anthracene	3.18	1.0	1.0
Benzo(a)pyrene	3.05	1.0	1.0
Benzo(b)fluoranthene	2.81	1.0	1.0
Benzo(k)fluoranthene	2.88	0.8	3.9
Chrysene	3.43	1.0	3.9
Dibenzo(a,h)anthracene	0.701	0.33	0.33
Indeno(1,2,3-cd)pyrene	2.45	0.5	0.5
TAL Metals			
Lead	235	63	400
Zinc	181	109	10,000
Mercury	0.427	0.18	0.81
Pesticides			
4,4'-DDT	0.00560	0.0033	7.9

No other compounds were detected above Restricted Residential Use SCOs

Sample Name	SB-5 (0'-2')	UU-SCOs	RC-SCOs
	mg/kg	mg/kg	mg/kg
Pesticides			
4,4'-DDD	0.00342	0.0033	13
4,4'-DDT	0.0725	0.0033	7.9
TAL Metals			
Lead	119	63	400
Mercury	0.266	0.18	0.81

No other compounds were detected above Restricted Residential Use SCOs



LEGEND:

Soil Boring

Geophysical Anomaly

Site Boundary

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Environmental Engineering Consultants
A NYS and NYC WBE Company

LONG ISLAND CITY, NY 11104
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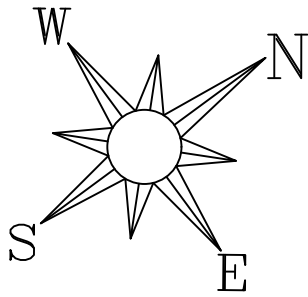
NOTES:

- Adapted from "Cellar Floor Plan", A-100.00, drawn by Henry Radusky, Bricolage Architecture and Design, PLLC, July 20, 2022.

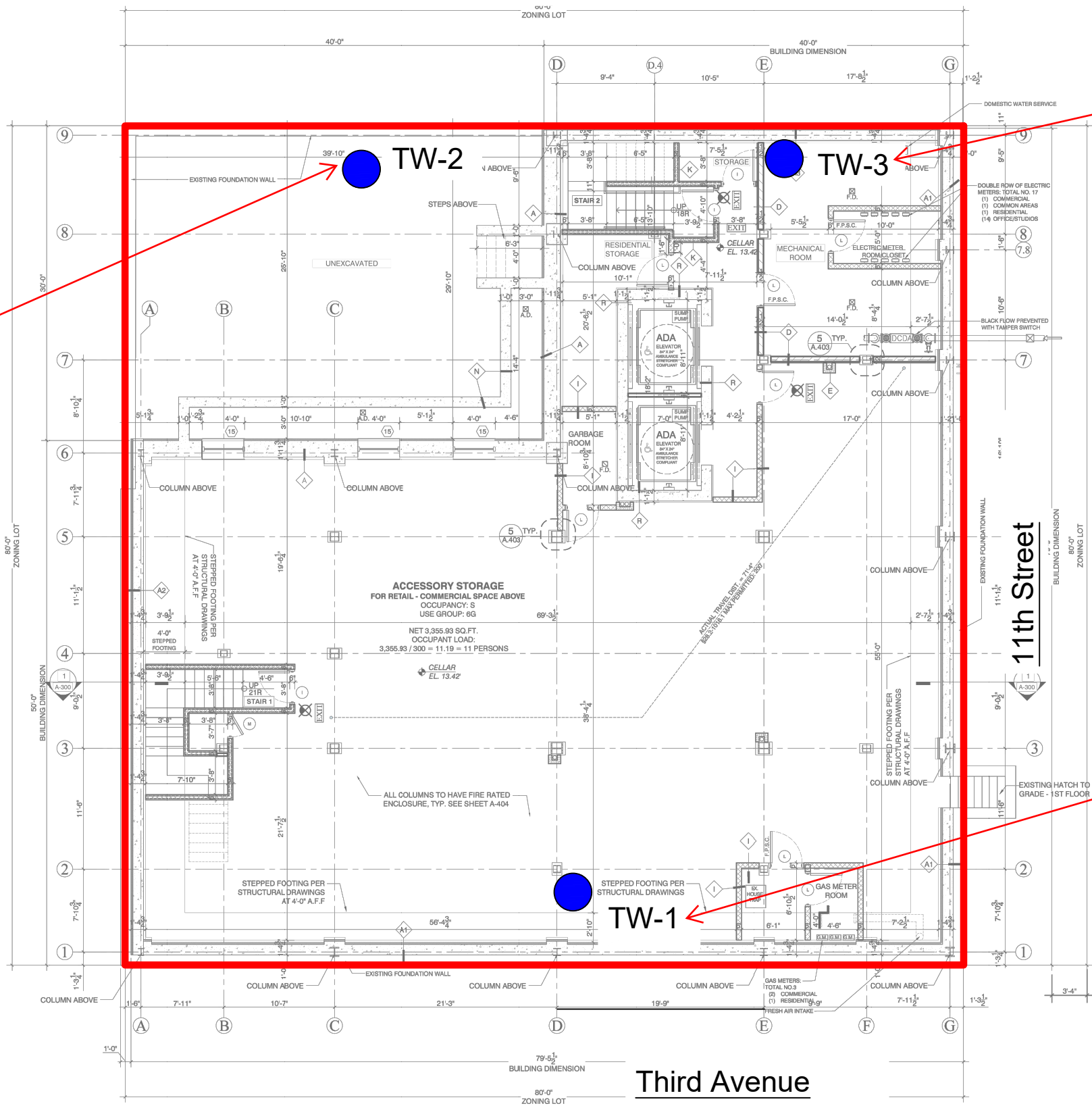
Date: 6/14/2024
Drawn by: Michael Oliver
Checked by: Kenneth P. Wenz Jr., PG, LEP
Drawing Scale: As Drawn
Project No.: 24-133-0666

Site: 500 Third Avenue, Brooklyn, New York 11215
Remedial Investigation Report

Figure: 6
Title: Geophysical Survey Results and Exceedances in Soil Samples



Sample Name	TW-2	TOGS Class GA Standards
	µg/L	µg/L
VOCs		
1,2,4-Trimethylbenzene	8.5	5
TAL Metals (Total)		
Lead	42.6	25
Magnesium	80,300	35000
Manganese	1,980	300
Sodium	154,000	20000
Selenium	16.8	10
TAL Metals (Dissolved)		
Magnesium	78,300	35000
Manganese	1,440	300
Sodium	143,000	20000
Selenium	16.2	10
Pesticides		
Dieldrin	0.0508	0.004
Sample Name		
TW-2		NYSDEC PFAS Standards
	µg/L	µg/L
PFOA/PFAS		
PFOA	0.0687	0.01



Sample Name	TW-1	TOGS Class GA Standards
	µg/L	µg/L
VOCs		
1,2,4-Trimethylbenzene	1,900	5
1,3,5-Trimethylbenzene	550	5
Ethyl Benzene	1,100	5
Isopropylbenzene	200	5
n-Butylbenzene	57	5
n-Propylbenzene	630	5
o-Xylene	600	5
p-Isopropyltoluene	13	5
sec-Butylbenzene	49	5
Styrene	17	5
Toluene	10	5
Xylenes, Total	3,400	5

SVOCs		
Naphthalene	132	10
TAL Metals (Total)		
Barium	1,160	1000
Chromium	112	50
Lead	199	25
Magnesium	57,800	35000
Manganese	9,370	300
Nickel	105	100
Sodium	446,000	20000
TAL Metals (Dissolved)		
Magnesium	44,100	35000
Manganese	5,290	300
Sodium	482,000	20000

Sample Name	TW-1	NYSDEC PFAS Standards
	µg/L	µg/L
PFOA/PFAS		
Gen-X	0.104	0.1
PFHpA	0.110	0.1
PFHxA	0.106	0.1
PFBA	0.707	0.1
PFOA	0.0526	0.01
PFPeA	0.144	0.1
Sample Name		
TW-Dup		NYSDEC PFAS Standards
	µg/L	µg/L
PFOA/PFAS		
PFHxA	0.113	0.1
PFOA	0.0468	0.01
PFPeA	0.174	0.1

Sample Name	TW-3	TOGS Class GA Standards
	µg/L	µg/L
VOCs		
1,2,4-Trimethylbenzene	98	5
1,3,5-Trimethylbenzene	30	5
Benzene	88	1
Ethyl Benzene	81	5
n-Propylbenzene	33	5
o-Xylene	65	5
Toluene	15	5
Xylenes, Total	350	5
TAL Metals (Total)		
Chromium	135	50
Lead	149	25
Manganese	2,140	300
Sodium	118,000	20000
TAL Metals (Dissolved)		
Manganese	3,140	300
Sodium	138,000	20000
Sample Name		
TW-3		NYSDEC PFAS Standards
	µg/L	µg/L
PFOA/PFAS		
PFOA	0.0959	0.01
PFPeA	0.103	0.1

LEGEND:

Site Boundary

Groundwater Monitoring Wells

ATHENICA ENVIRONMENTAL SERVICES, INC.
Environmental Engineering Consultants
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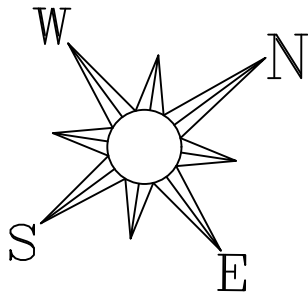
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NOTES:

- Adapted from "Cellar Floor Plan", A-100.00, drawn by Henry Radusky, Bricolage Architecture and Design, PLLC, July 20, 2022.

Date: 6/14/2024
Drawn by: Michael Oliver
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Site: 500 Third Avenue, Brooklyn, New York 11215
Remedial Investigation Report
Figure: 7
Title: Exceedances in Groundwater Samples



SV-4		
Compound	Result	Q
VOCs	ug/m3	
Dilution Factor	3.25	
1,2,4-Trimethylbenzene	66	D
1,3,5-Trimethylbenzene	15	D
1,3-Butadiene	29	D
2-Butanone	11	D
4-Methyl-2-pentanone	4.5	D
Acetone	320	D
Acrylonitrile	4.1	BD
Benzene	16	D
Chloroform	1.6	D
Chloromethane	1.7	D
Cyclohexane	3.4	D
Dichlorodifluoromethane	2.3	D
Ethyl Benzene	31	D
Isopropanol	5.4	D
Methylene chloride	7.3	D
n-Heptane	17	D
n-Hexane	20	D
o-Xylene	49	D
p- & m- Xylenes	140	D
p-Ethyltoluene	51	D
Propylene	260	D
Styrene	3.7	D
Tetrachloroethylene	34	D
Toluene	110	D
Trichloroethylene	30	D
Vinyl Chloride	0.42	D
2,2,4-Trimethylpentane	3.6	D

SV-1		
Compound	Result	Q
VOCs	ug/m3	
Dilution Factor	6.836	
1,2,4-Trimethylbenzene	60	D
1,3,5-Trimethylbenzene	15	D
1,3-Butadiene	38	D
2-Butanone	34	D
4-Methyl-2-pentanone	22	D
Acetone	270	D
Acrylonitrile	4.0	D
Benzene	26	D
Carbon disulfide	23	D
Chloromethane	2.0	D
Cyclohexane	5.4	D
Ethyl acetate	12	D
Ethyl Benzene	40	D
Methylene chloride	9.3	D
n-Heptane	32	D
n-Hexane	29	D
o-Xylene	54	D
p- & m- Xylenes	160	D
p-Ethyltoluene	50	D
Propylene	320	D
Styrene	4.1	D
Tetrachloroethylene	11	D
Tetrahydrofuran	4.8	D
Toluene	710	D
Trichloroethylene	190	D
2,2,4-Trimethylpentane	5.8	D

SV-3		
Compound	Result	Q
VOCs	ug/m3	
Dilution Factor	3.65	
1,2,4-Trimethylbenzene	35	D
1,3,5-Trimethylbenzene	8.8	D
1,3-Butadiene	22	D
2-Butanone	21	D
2-Hexanone	4.3	D
4-Methyl-2-pentanone	10	D
Acetone	340	D
Acrylonitrile	20	BD
Benzene	12	D
Carbon disulfide	12	D
Carbon tetrachloride	0.69	D
Chloroform	2.1	D
Cyclohexane	3.1	D
Dichlorodifluoromethane	2.0	D
Ethyl acetate	4.5	D
Ethyl Benzene	21	D
Isopropanol	3.9	D
Methylene chloride	6.3	D
n-Heptane	16	D
n-Hexane	28	D
o-Xylene	31	D
p- & m- Xylenes	87	D
p-Ethyltoluene	29	D
Propylene	250	D
Tetrachloroethylene	7.2	D
Toluene	78	D
Trichloroethylene	15	D
2,2,4-Trimethylpentane	2.9	D

SV-5		
Compound	Result	Q
VOCs	ug/m3	
Dilution Factor	3.012	
1,2,4-Trimethylbenzene	64	D
1,3,5-Trimethylbenzene	15	D
1,3-Butadiene	16	D
2-Butanone	13	D
2-Hexanone	3.0	D
4-Methyl-2-pentanone	16	D
Acetone	290	D
Benzene	13	D
Carbon disulfide	7.2	D
Chloroform	2.9	D
Cyclohexane	3.1	D
Dichlorodifluoromethane	2.4	D
Ethyl acetate	3.7	D
Ethyl Benzene	30	D
Isopropanol	3.1	D
Methyl Methacrylate	3.8	D
Methylene chloride	7.7	D
n-Heptane	14	D
n-Hexane	14	D
o-Xylene	47	D
p- & m- Xylenes	130	D
p-Ethyltoluene	49	D
Propylene	140	D
Styrene	3.7	D
Tetrachloroethylene	7.8	D
Toluene	110	D
Trichloroethylene	14	D
2,2,4-Trimethylpentane	3.8	D

Scale

=10 Feet

= 50 Feet

Note:

Q is the Qualifier Column with definitions as follows:
D = result is from an analysis that required a dilution
B = analyte found in the analysis batch blank

LEGEND:

- Site Boundary
- Soil Vapor Probe



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NOTES:

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- SV-2 could not be analyzed due to technical issues with the summa canister.

Date: 6/14/2024
Drawn by: Michael Oliver
Checked by: Kenneth P. Wenz Jr., PG, LEP
Drawing Scale: As Drawn
Project No.: 24-133-0666

Site: 500 Third Avenue, Brooklyn, New York 11215
Remedial Investigation Report
Figure: 8
Title: Detected Compounds in Soil Vapor Samples

Third Avenue

11th Street

Tables

Table 1
Groundwater Elevation Data
500 3rd Avenue, Brooklyn, New York

<u>Well I.D.</u>	<u>Instrument Height (ft)</u>	<u>Survey Rod Reading for top of PVC Casing (ft)</u>	<u>Top of Casing Elevation (ft)*</u>	<u>Depth to Water (ft)**</u>	<u>Groundwater Elevation (ft)***</u>
TW-1	100	4.42	95.58	18.06	77.52
TW-2	100	4.03	95.97	17.71	78.26
TW-3	100	5.72	94.28	15.87	78.41

* Elevation measured to a common random datum. For purposes of the surveying, the horizontal line-of-sight for the survey transit was set as 100.00 feet, and the rod reading was subtracted from 100.00 to establish the relative elevation at a marked point at the top of the well casing or ground surface adjacent to the well casing.

**Depth to Water measured from top of casing.

*** Elevation measured to a common random datum. Groundwater elevations were calculated by subtracting the depth to groundwater measured from the surveyed point at the top of the well casing from the relative elevation of that point.

Table 2A
Soil Sample Results (VOCs)
500 3rd Avenue, Brooklyn, New York

Sample ID			SB-1 (0'-2')		SB-1 (4'-6')		SB-2 (0'-2')		SB-2 (11'-13')		SB-3 (0'-2')		SB-3 (11'-13')		SB-4 (0'-2')		SB-4 (11'-13')		SB-5 (0'-2')		SB-5 (11'-13')	
York ID			24E1923-01		24E1923-02		24E1923-03		24E1923-04		24E1923-05		24E1923-06		24E1923-07		24E1923-08		24E1923-09		24E1923-10	
Sampling Date			05/29/2024		05/29/2024		05/29/2024		05/29/2024		05/29/2024		05/29/2024		05/29/2024		05/29/2024		05/29/2024		05/29/2024	
Client Matrix			Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Compound			Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Volatile Organics, 8260 - Comprehensive			mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor			1		1		1		1		1		1		1		1		1		1	
1,1,1,2-Tetrachloroethane	~	~	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
1,1,1-Trichloroethane	0.68	100	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
1,1,2,2-Tetrachloroethane	~	~	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	~	~	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
1,1,2-Trichloroethane	~	~	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
1,1-Dichloroethane	0.27	26	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
1,1-Dichloroethylene	0.33	100	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
1,2,3-Trichlorobenzene	~	~	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
1,2,3-Trichloropropane	~	~	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
1,2,4-Trichlorobenzene	~	~	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
1,2,4-Trimethylbenzene	3.6	52	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
1,2-Dibromo-3-chloropropane	~	~	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
1,2-Dibromoethane	~	~	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
1,2-Dichlorobenzene	1.1	100	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
1,2-Dichloroethane	0.02	3.1	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
1,2-Dichloropropane	~	~	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
1,3,5-Trimethylbenzene	8.4	52	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
1,3-Dichlorobenzene	2.4	49	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
1,4-Dichlorobenzene	1.8	13	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
1,4-Dioxane	0.1	13	0.049	U	0.046	U	0.051	U	0.059	U	0.057	U	0.044	U	0.045	U	0.049	U	0.046	U	0.044	U
2-Butanone	0.12	100	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
2-Hexanone	~	~	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
4-Methyl-2-pentanone	~	~	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
Acetone	0.05	100	0.0049	U	0.014	U	0.0051	U	0.0059	U	0.0077	J	0.0044	U	0.0072	J	0.0049	U	0.0046	U	0.0044	U
Acrolein	~	~	0.0049	U	0.0046	U	0.0051	U	0.0059	U	0.0057	U	0.0044	U	0.0045	U	0.0049	U	0.0046	U	0.0044	U
Acrylonitrile	~	~	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
Benzene	0.06	4.8	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
Bromochloromethane	~	~	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
Bromodichloromethane	~	~	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
Bromoform	~	~	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
Bromomethane	~	~	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
Carbon disulfide	~	~	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
Carbon tetrachloride	0.76	2.4	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
Chlorobenzene	1.1	100	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
Chloroethane	~	~	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
Chloroform	0.37	49	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
Chloromethane	~	~	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
cis-1,2-Dichloroethylene	0.25	100	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
cis-1,3-Dichloropropylene	~	~	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.0022	U	0.0023	U	0.0024	U	0.0023	U	0.0022	U
Cyclohexane	~	~	0.0024	U	0.0023	U	0.0026	U	0.0029	U	0.0028	U	0.									

Table 28
Soil Sample Results (SVOCs)
500 3rd Avenue, Brooklyn, New York

Sample ID	NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives	NYCRR Part 375 Restricted Use Soil Cleanup Objectives - Restricted Residential	SB-1 (4'-6') 24E1923-01 05/29/2024 Soil	SB-1 (4'-6') 24E1923-02 05/29/2024 Soil	SB-2 (0'-2') 24E1923-03 05/29/2024 Soil	SB-2 (11'-13') 24E1923-04 05/29/2024 Soil	SB-3 (0'-2') 24E1923-05 05/29/2024 Soil	SB-3 (11'-13') 24E1923-06 05/29/2024 Soil	SB-4 (0'-2') 24E1923-07 05/29/2024 Soil	SB-4 (11'-13') 24E1923-08 05/29/2024 Soil	SB-5 (0'-2') 24E1923-09 05/29/2024 Soil	SB-5 (11'-13') 24E1923-10 05/29/2024 Soil
Compound	mg/Kg	mg/Kg	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Semi-Volatiles, B270 - Comprehensive	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	~	~	2	2	2	2	2	2	10	2	2	2
1,1-Biphenyl	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.216	0.0463	0.0471	0.0470
1,2,4,5-Tetrachlorobenzene	~	~	0.0952	0.0906	0.0952	0.221	0.0969	0.0982	0.0924	0.0924	0.0939	0.0937
1,2,4-Trichlorobenzene	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
1,2-Dichlorobenzene	1.1	100	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
1,2-Diphenylhydrazine (as Azobenzene)	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
1,3-Dichlorobenzene	2.4	49	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
1,4-Dichlorobenzene	1.8	13	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
2,3,4,6-Tetrachlorophenol	~	~	0.0952	0.0906	0.0952	0.221	0.0969	0.0982	0.0924	0.0924	0.0939	0.0937
2,4,5-Trichlorophenol	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
2,4,6-Trichlorophenol	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
2,4-Dichlorophenol	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
2,4-Dimethylphenol	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0576	0.0463	0.0471	0.0470
2,4-Dinitrophenol	~	~	0.0952	0.0906	0.0952	0.221	0.0969	0.0982	0.0924	0.0924	0.0939	0.0937
2,4-Dinitrotoluene	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
2,6-Dinitrotoluene	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
2-Chloronaphthalene	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
2-Chlorophenol	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
2-Methylnaphthalene	~	~	0.0477	0.0454	0.0477	0.111	0.212	0.0492	0.700	0.0487	0.0471	0.0470
2-Methylphenol	0.33	100	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
2-Nitroaniline	~	~	0.0952	0.0906	0.0952	0.221	0.0969	0.0982	0.0924	0.0924	0.0939	0.0937
2-Nitrophenol	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
3 & 4-Methylphenols	0.33	100	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0916	0.0463	0.0471	0.0470
3,3-Dichlorobenzidine	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
3-Nitroaniline	~	~	0.0952	0.0906	0.0952	0.221	0.0969	0.0982	0.0924	0.0924	0.0939	0.0937
4,6-Dinitro-2-methylphenol	~	~	0.0952	0.0906	0.0952	0.221	0.0969	0.0982	0.0924	0.0924	0.0939	0.0937
4-Bromophenyl phenyl ether	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
4-Chloro-3-methylphenol	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
4-Chloroaniline	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
4-Chlorophenyl phenyl ether	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
4-Nitroaniline	~	~	0.0952	0.0906	0.0952	0.221	0.0969	0.0982	0.0924	0.0924	0.0939	0.0937
4-Nitrophenol	~	~	0.0952	0.0906	0.0952	0.221	0.0969	0.0982	0.0924	0.0924	0.0939	0.0937
Acenaphthene	20	100	0.0477	0.0454	0.0477	0.111	0.534	0.0492	0.934	0.0471	0.0470	0.0470
Acenaphthylene	100	100	0.0477	0.0454	0.0477	0.111	0.885	0.0492	0.805	0.0569	0.0471	0.0470
Acetophenone	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
Aniline	~	~	0.191	0.181	0.191	0.442	0.194	0.197	0.185	0.185	0.188	0.188
Anthracene	100	100	0.0477	0.0454	0.128	0.111	1.900	0.0492	1.71	0.294	0.0471	0.0470
Atrazine	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
Benzaldehyde	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
Benzidine	~	~	0.191	0.181	0.191	0.442	0.194	0.197	0.185	0.185	0.188	0.188
Benzo(a)anthracene	1	1	0.0477	0.0454	0.361	0.111	5.44	0.0492	3.18	0.0713	0.0470	0.0470
Benzo(a)pyrene	1	1	0.0477	0.0454	0.295	0.111	5.18	0.0492	3.05	0.517	0.0698	0.0470
Benzo(b)fluoranthene	1	1	0.0477	0.0454	0.342	0.111	6.38	0.0492	2.81	0.488	0.0646	0.0470
Benzo(g,h,i)perylene	100	100	0.0477	0.0454	0.172	0.111	3.280	0.0492	2.01	0.359	0.0533	0.0470
Benzo(k)fluoranthene	0.8	3.9	0.0477	0.0454	0.114	0.111	1.98	0.0492	2.88	0.519	0.0631	0.0470
Benzoic acid	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
Benzyl alcohol	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
Benzyl butyl phthalate	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
Bis(2-chloroethoxy)methane	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
Bis(2-chloroethyl)ether	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
Bis(2-chloroisopropyl)ether	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
Bis(2-ethylhexyl)phthalate	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0606	0.0463	0.123	0.0470
Caprolactam	~	~	0.0952	0.0906	0.0952	0.221	0.0969	0.0982	0.0924	0.0924	0.0939	0.0937
Carbazole	~	~	0.0477	0.0454	0.0525	0.111	0.785	0.0492	1.11	0.138	0.0471	0.0470
Chrysene	1	3.9	0.0477	0.0454	0.341	0.111	5.65	0.0492	3.43	0.758	0.0879	0.0470
Dibenzo(a,h)anthracene	0.33	0.33	0.0477	0.0454	0.0477	0.111	0.896	0.0492	0.701	0.0842	0.0471	0.0470
Dibenzofuran	7	59	0.0477	0.0454	0.0477	0.111	0.336	0.0492	1.03	0.0872	0.0471	0.0470
Diethyl phthalate	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
Dimethyl phthalate	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
Di-n-butyl phthalate	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
Di-n-octyl phthalate	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
Diphenylamine	~	~	0.0952	0.0906	0.0952	0.221	0.0969	0.0982	0.0924	0.0924	0.0939	0.0937
Fluoranthene	100	100	0.0477	0.0454	0.956	0.111	19.1	0.0492	8.91	1.63	0.164	0.0470
Fluorene	30	100	0.0477	0.0454	0.0477	0.111	0.446	0.0492	1.05	0.126	0.0471	0.0470
Hexachlorobenzene	0.33	1.2	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
Hexachlorobutadiene	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
Hexachlorocyclopentadiene	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
Hexachloroethane	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.0477	0.0454	0.193	0.111	3.78	0.0492	2.45	0.400	0.0533	0.0470
Isophorone	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
Naphthalene	12	100	0.0477	0.0454	0.0477	0.111	0.183	0.0492	2.07	0.108	0.0471	0.0470
Nitrobenzene	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
N-Nitrosodimethylamine	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
N-nitroso-di-n-propylamine	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
N-Nitrosodiphenylamine	~	~	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
Pentachlorophenol	0.8	6.7	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
Phenanthrene	100	100	0.0477	0.0454	0.742	0.111	9.730	0.0492	1.71	0.149	0.0470	0.0470
Phenol	0.33	100	0.0477	0.0454	0.0477	0.111	0.0486	0.0492	0.0463	0.0463	0.0471	0.0470
Pyrene	100	100	0.0477	0.0454	0.787	0.111	12.3	0.0492	8.14	1.58	0.154	0.0470

NOTES:

Exceeds NYCRR Unrestricted Use SCOs

Exceeds NYCRR Unrestricted Use SCOs and NYCRR Restricted Residential Use SCOs

Q is the Qualifier Column with definitions as follows:

D= result is from an analysis that required a dilution

Table 2C
Soil Sample Results (Metals, Pesticides, and PCBs)
500 3rd Avenue, Brooklyn, New York

Sample ID	6NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives	6NYCRR Part 375 Restricted Use Soil Cleanup Objectives - Restricted Residential	SB-1 (0'-2')		SB-1 (4'-6')		SB-2 (0'-2')		SB-2 (11'-13')		SB-3 (0'-2')		SB-3 (11'-13')		SB-4 (0'-2')		SB-4 (11'-13')		SB-5 (0'-2')		SB-5 (11'-13')	
York ID			24E1923-01		24E1923-02		24E1923-03		24E1923-04		24E1923-05		24E1923-06		24E1923-07		24E1923-08		24E1923-09		24E1923-10	
Sampling Date			05/29/2024		05/29/2024		05/29/2024		05/29/2024		05/29/2024		05/29/2024		05/29/2024		05/29/2024		05/29/2024		05/29/2024	
Client Matrix			Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Compound			Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Metals, Target Analyte	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor			1		1		1		1		1		1		1		1		1		1	
Aluminum	~		9,820		6,650		7,210		7,140		7,520		13,800		8,550		7,920		7,180		11,500	
Antimony	~		2.39	U	2.27	U	2.39	U	2.77	U	2.46	U	2.48	U	2.35	U	2.32	U	2.39	U	2.39	
Arsenic	13		6.25		7.05		6.11		7.63		11.9		5.10		6.31		3.42		3.65		5.94	
Barium	350		22.7		24.7		26.4		14.0		370		72.1		106		51.1		85.1		48.3	
Beryllium	7.2		0.201	B	0.287	B	0.0720	B	0.254	B	0.0500	U	0.0500	U	0.0470	U	0.0470	U	0.0480	U	0.0480	
Cadmium	2.5		0.287	U	0.273	U	0.286	U	0.333	U	0.848	U	0.297	U	0.283	U	0.278	U	0.286	U	0.287	
Calcium	~		556		372		716		597		23,400		2,020		45,700		24,900		54,500		1,690	
Chromium	~		12.5		10.7		11.9		11.0		19.0		22.1		14.4		14.1		25.7		18.4	
Cobalt	~		6.42		5.78		5.59		5.29		4.75		9.25		4.73		4.07		3.67		5.91	
Copper	50		14.4		9.87		13.2		9.95		72.6		20.9		24.5		16.2		16.8		19.9	
Iron	~		17,300		15,700		14,600		16,400		15,200		21,200		14,800		11,200		11,200		15,900	
Lead	63		11.3		8.80		20.0		8.15		1,690		11.8		235		47.1		119		12.1	
Magnesium	~		2,740		2,110		2,260		2,110		2,730		4,770		5,020		3,860		6,540		3,880	
Manganese	1600		335		358		222		270		292		521		259		215		303		285	
Nickel	30		14.9		12.0		13.8		11.8		14.2		23.8		16.7		17.5		13.1		14.7	
Potassium	~		993		947		999		898		1,300		2,530		1,450		1,240		1,520		2,080	
Selenium	3.9		2.47		2.54		2.39	U	2.77	U	2.46	U	2.48	U	2.35	U	2.32	U	2.39	U	2.39	
Silver	2		0.483	U	0.458	U	0.481	U	0.559	U	0.496	U	0.499	U	0.475	U	0.467	U	0.481	U	0.483	
Sodium	~		56.3		45.4		47.7	U	101		278		192		375		687		423		180	
Thallium	~		2.39	U	2.27	U	2.39	U	2.77	U	2.46	U	2.48	U	2.35	U	2.32	U	2.39	U	2.39	
Vanadium	~		18.1		17.4		17.7		17.1		18.6		32.5		23.1		20.2		20.0		28.7	
Zinc	109		48.5		29.3		35		30.2		302		59.6		181		59.6		101		54.3	
Mercury by 7473	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor			1		1		1		1		1		1		1		1		1		1	
Mercury	0.18		0.0345	U	0.0327	U	0.0782		0.0399	U	1.25		0.0357	U	0.427		0.0691		0.266		0.172	
Pesticides, 8081 target list	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor			5		5		5		5		5		5		5		5		5		5	
4,4'-DDD	0.0033		0.00189	U	0.00176	U	0.00188	U	0.00217	U	0.00446	DP	0.00196	U	0.00186	U	0.00183	U	0.00342	D	0.00189	
4,4'-DDE	0.0033		0.00189	U	0.00176	U	0.00188	U	0.00217	U	0.00194	U	0.00196	U	0.00186	U	0.00183	U	0.00188	U	0.00189	
4,4'-DDT	0.0033		0.00189	U	0.00176	U	0.00188	U	0.00217	U	0.0179	D	0.00196	U	0.00560	DP	NT		0.0725	D	0.00189	
4,4'-DDT [2C]	~		NT		NT		NT		NT		NT		NT		NT		0.00183	U	NT		NT	
Aldrin	0.005		0.00189	U	0.00176	U	0.00188	U	0.00217	U	0.00194	U	0.00196	U	0.00186	U	0.00183	U	0.00188	U	0.00189	
alpha-BHC	0.02		0.00189	U	0.00176	U	0.00188	U	0.00217	U	0.00194	U	0.00196	U	0.00186	U	0.00183	U	0.00188	U	0.00189	
alpha-Chlordane	0.094		0.00189	U	0.00176	U	0.00188	U	0.00217	U	0.00194	U	0.00196	U	0.00259	D	0.00183	U	0.0255	DP	0.00189	
alpha-Chlordane [2C]	0.094		NT		NT		NT		NT		NT		NT		0.00186	U	NT		NT		NT	
beta-BHC	0.036		0.00189	U	0.00176	U	0.00188	U	0.00217	U	0.00194	U	0.00196	U	0.00186	U	0.00183	U	0.00188	U	0.00189	
Chlordane, total	~		0.0378	U	0.0352	U	0.0377	U	0.0435	U	0.0389	U	0.0391	U	0.0372	U	0.0366	U	0.130	D	0.0378	
delta-BHC	0.04		0.00189	U	0.00176	U	0.00188	U	0.00217	U	0.00194	U	0.00196	U	0.00186	U	0.00183	U	0.00188	U	0.00189	
Dieldrin	0.005		0.00189	U	0.00176	U	0.00188	U	0.00217	U	0.00587	DP	0.00196	U	0.00186	U	0.00183	U	0.00188	U	0.00189	
Endosulfan I	2.4		0.00189	U	0.00176	U	0.00188	U	0.00217	U	0.00194	U	0.00196	U	0.00186	U	0.00183	U	0.00188	U	0.00189	
Endosulfan II	2.4		0.00189	U	0.00176	U	0.00188	U	0.00217	U	0.00194	U	0.00196	U	0.00186	U	0.00183	U	0.00188	U	0.00189	
Endosulfan sulfate	2.4		0.00189	U	0.00176	U	0.00188	U	0.00217	U	0.00194	U	0.00196	U	0.00186	U	0.00183	U	0.00188	U	0.00189	
Endrin	0.014		0.00189	U	0.00176	U	0.00188	U	0.00217	U	0.00194	U	0.00196	U	0.00186	U	0.00215	D	0.00188	U	0.00189	
Endrin aldehyde	~		0.00189	U	0.00176	U	0.00188	U	0.00217	U	0.00194	U	0.00196	U	0.00186	U	0.00183	U	0.00188	U	0.00189	
Endrin ketone	~		0.00189	U	0.00176	U	0.00188	U	0.00217	U	0.00194	U	0.00196	U	0.00186	U	0.00183	U	0.00188	U	0.00189	
gamma-BHC (Lindane)	0.1		0.00189	U	0.00176	U	0.00188	U	0.00217	U	0.00194	U	0.00196	U	0.00186	U	0.00183	U	0.00188	U	0.00189	
gamma-Chlordane	~		0.00189	U	0.00176	U	0.00188	U	0.00217	U	0.00194	U	0.00196	U	NT		0.00183	U	0.0162	D	0.00189	
gamma-Chlordane [2C]	~		NT		NT		NT		NT		NT		NT		0.00186	U	NT		NT		NT	
Heptachlor	0.042		0.00189	U	0.00176	U	0.00188	U	0.00217	U	0.00194	U	0.00196	U	0.00186	U	0.00183	U	NT		0.00189	
Heptachlor [2C]	0.042		NT		NT		NT		NT		NT		NT		NT		NT					

Table 2D
Soil Sample Results (PFAS and 1,4-Dioxane)
500 3rd Avenue, Brooklyn, New York

Sample ID York ID Sampling Date Client Matrix	6NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives	6NYCRR Part 375 Restricted Use Soil Cleanup Objectives - Restricted Residential	SB-2 (0'-2') 24E1923-03 05/29/2024 Soil		SB-DUP 24E1923-11 05/29/2024 Soil		SB-4 (0'-2') 24E1923-07 05/29/2024 Soil	
Compound			Result	Q	Result	Q	Result	Q
PFAS, EPA 1633 Target List			mg/kg		mg/kg		mg/kg	
Dilution Factor			1		1		1	
11CL-PF3OUdS	~	~	0.00359	U	0.00035	U	0.00036	U
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	~	~	0.00873	U	0.00086	U	0.00087	U
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	~	~	0.00688	U	0.00068	U	0.00069	U
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	~	~	0.00688	U	0.00068	U	0.00069	U
3-Perfluoroheptyl propanoic acid (FHpPA)	~	~	0.0173	U	0.00170	U	0.00173	U
3-Perfluoropentyl propanoic acid (FPePA)	~	~	0.0242	U	0.00238	U	0.00241	U
3-Perfluoropropyl propanoic acid (FPrPA)	~	~	0.00733	U	0.00072	U	0.00073	U
9CL-PF3ONS	~	~	0.00284	U	0.00028	U	0.00028	U
ADONA	~	~	0.00201	U	0.00020	U	0.00020	U
HFPO-DA (Gen-X)	~	~	0.00703	U	0.00069	U	0.00070	U
N-EtFOSA	~	~	0.00229	U	0.00023	U	0.00023	U
N-EtFOSAA	~	~	0.00224	U	0.00022	U	0.00050	
N-EtFOSE	~	~	0.00805	U	0.00079	U	0.00080	U
N-MeFOSA	~	~	0.00208	U	0.00021	U	0.00021	U
N-MeFOSAA	~	~	0.00171	U	0.00017	U	0.00017	U
N-MeFOSE	~	~	0.00706	U	0.00069	U	0.00070	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	~	~	0.00161	U	0.00016	U	0.00016	U
Perfluoro-1-decanesulfonic acid (PFDS)	~	~	0.00221	U	0.00022	U	0.00022	U
Perfluoro-1-heptanesulfonic acid (PFHpS)	~	~	0.00179	U	0.00018	U	0.00018	U
Perfluoro-1-nonanesulfonic acid (PFNS)	~	~	0.00143	U	0.00014	U	0.00014	U
Perfluoro-1-octanesulfonamide (FOSA)	~	~	0.00169	U	0.00017	U	0.00017	U
Perfluoro-1-pentanesulfonate (PFPeS)	~	~	0.00181	U	0.00018	U	0.00018	U
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	~	~	0.00223	U	0.00022	U	0.00022	U
Perfluoro-4-oxapentanoic acid (PFMPA)	~	~	0.00072	U	0.00007	U	0.00007	U
Perfluoro-5-oxahexanoic acid (PFMBA)	~	~	0.00111	U	0.00011	U	0.00011	U
Perfluorobutanesulfonic acid (PFBS)	~	~	0.00128	U	0.00013	U	0.00013	U
Perfluorodecanoic acid (PFDA)	~	~	0.00221	U	0.00022	U	0.00022	U
Perfluorododecanesulfonic acid (PFDoS)	~	~	0.00195	U	0.00019	U	0.00019	U
Perfluorododecanoic acid (PFDoA)	~	~	0.00188	U	0.00019	U	0.00019	U
Perfluoroheptanoic acid (PFHpA)	~	~	0.00121	U	0.00012	U	0.00012	U
Perfluorohexanesulfonic acid (PFHxS)	~	~	0.00207	U	0.00020	U	0.00021	U
Perfluorohexanoic acid (PFHxA)	~	~	0.00061	U	0.00006	U	0.00006	U
Perfluoro-n-butanoic acid (PFBA)	~	~	0.00295	J	0.00012	U	0.00013	U
Perfluorononanoic acid (PFNA)	~	~	0.00218	U	0.00022	U	0.00022	U
Perfluorooctanesulfonic acid (PFOS)	~	~	0.00193	U	0.00019	U	0.00035	
Perfluorooctanoic acid (PFOA)	~	~	0.00199	U	0.00028		0.00030	
Perfluoropentanoic acid (PFPeA)	~	~	0.00126	U	0.00012	U	0.00013	U
Perfluorotetradecanoic acid (PFTA)	~	~	0.00119	U	0.00012	U	0.00012	U
Perfluorotridecanoic acid (PFTrDA)	~	~	0.00144	U	0.00014	U	0.00014	U
Perfluoroundecanoic acid (PFUnA)	~	~	0.00229	U	0.00023	U	0.00023	U
1,4-Dioxane 8270 SIM-Soil	mg/Kg	mg/Kg	mg/Kg		mg/Kg		mg/Kg	
Dilution Factor			1		1		1	
1,4-Dioxane	0.1	13	0.0198	U	0.0362	U	0.0189	U

NOTES:

Exceeds 6NYCRR Unrestricted Use SCOs

Exceeds 6NYCRR Unrestricted Use SCOs and 6NYCRR Restricted Residential Use SCOs

Q is the Qualifier Column with definitions as follows:

J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated

U=analyte not detected at or above the level indicated

~=this indicates that no regulatory limit has been established for this analyte

Table 3A
Groundwater Sample Results (VOCs)
500 3rd Avenue, Brooklyn, New York

Sample ID	NYSDEC TOGS Standards and Guidance Values - GA	TW-1		TW-2		TW-3	
York ID		24E1933-01		24E1933-02		24E1933-03	
Sampling Date		05/29/2024		05/29/2024		05/29/2024	
Client Matrix		Ground Water		Ground Water		Ground Water	
Compound		Result	Q	Result	Q	Result	Q
Volatile Organics, 8260 - Comprehensive	ug/L	ug/L		ug/L		ug/L	
Dilution Factor		25		1		1	
1,1,1,2-Tetrachloroethane	5	1.0	U	0.20	U	0.20	U
1,1,1-Trichloroethane	5	1.0	U	0.20	U	0.20	U
1,1,2,2-Tetrachloroethane	5	1.0	U	0.20	U	0.20	U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	5	1.0	U	0.20	U	0.20	U
1,1,2-Trichloroethane	1	1.0	U	0.20	U	0.20	U
1,1-Dichloroethane	5	1.0	U	0.20	U	0.20	U
1,1-Dichloroethylene	5	1.0	U	0.20	U	0.20	U
1,2,3-Trichlorobenzene	5	1.0	U	0.20	U	0.20	U
1,2,3-Trichloropropane	0.04	1.0	U	0.20	U	0.20	U
1,2,4-Trichlorobenzene	5	1.0	U	0.20	U	0.20	U
1,2,4-Trimethylbenzene	5	1,900	D	8.5		98	E
1,2-Dibromo-3-chloropropane	0.04	1.0	U	0.20	U	0.20	U
1,2-Dibromoethane	0.0006	1.0	U	0.20	U	0.20	U
1,2-Dichlorobenzene	3	1.0	U	0.20	U	0.20	U
1,2-Dichloroethane	0.6	1.0	U	0.20	U	0.20	U
1,2-Dichloropropane	1	1.0	U	0.20	U	0.20	U
1,3,5-Trimethylbenzene	5	550	D	2.0		30	
1,3-Dichlorobenzene	3	1.0	U	0.20	U	0.20	U
1,4-Dichlorobenzene	3	1.0	U	0.20	U	0.20	U
1,4-Dioxane	0.35	200	U	40	U	40	U
2-Butanone	50	18	D	0.46	J	8.0	
2-Hexanone	50	1.0	U	0.20	U	0.20	U
4-Methyl-2-pentanone	~	1.0	U	0.20	U	0.20	U
Acetone	50	27	D	3.3		12	
Acrolein	~	1.0	U	0.20	U	0.20	U
Acrylonitrile	~	1.0	U	0.20	U	0.20	U
Benzene	1	1.0	U	0.20	U	88	E
Bromochloromethane	5	1.0	U	0.20	U	0.20	U
Bromodichloromethane	50	1.0	U	0.20	U	0.20	U
Bromoform	50	1.0	U	0.20	U	0.20	U
Bromomethane	5	1.0	U	0.20	U	0.20	U
Carbon disulfide	~	1.1	JD	0.20	U	0.30	J
Carbon tetrachloride	5	1.0	U	0.20	U	0.20	U
Chlorobenzene	5	1.0	U	0.20	U	0.20	U
Chloroethane	5	1.0	U	0.20	U	0.20	U
Chloroform	7	1.0	U	0.20	U	0.20	U
Chloromethane	5	1.0	U	0.20	U	0.20	U
cis-1,2-Dichloroethylene	5	1.0	U	0.20	U	0.20	U
cis-1,3-Dichloropropylene	0.4	1.0	U	0.20	U	0.20	U
Cyclohexane	~	140	D	1.0		28	
Dibromochloromethane	50	1.0	U	0.20	U	0.20	U
Dibromomethane	~	1.0	U	0.20	U	0.20	U
Dichlorodifluoromethane	5	1.0	U	0.20	U	0.20	U
Ethyl Benzene	5	1,100	D	0.80		81	E
Hexachlorobutadiene	0.5	1.0	U	0.20	U	0.20	U
Isopropylbenzene	5	200	D	0.48	J	15	
Methyl acetate	~	1.0	U	0.20	U	0.20	U
Methyl tert-butyl ether (MTBE)	10	1.0	U	0.29	J	0.70	
Methylcyclohexane	~	120	D	0.29	J	11	
Methylene chloride	5	5.0	U	1.0	U	1.0	U
n-Butylbenzene	5	57	D	0.53		1.9	
n-Propylbenzene	5	630	D	1.8		33	
o-Xylene	5	600	D	1.9		65	
p- & m- Xylenes	~	2,800	D	2.3		290	E
p-Isopropyltoluene	5	13	D	0.20	U	0.47	J
sec-Butylbenzene	5	49	D	0.39	J	1.70	
Styrene	5	17	D	0.20	U	2.0	
tert-Butyl alcohol (TBA)	~	2.5	U	0.50	U	0.50	U
tert-Butylbenzene	5	1.0	U	0.20	U	0.20	U
Tetrachloroethylene	5	1.0	U	0.20	U	0.20	U
Toluene	5	10	D	0.20	U	15	
trans-1,2-Dichloroethylene	5	1.0	U	0.20	U	0.20	U
trans-1,3-Dichloropropylene	0.4	1.0	U	0.20	U	0.20	U
trans-1,4-dichloro-2-butene	~	33	D	0.20	U	0.20	U
Trichloroethylene	5	1.0	U	4.8		0.43	J
Trichlorofluoromethane	5	1.0	U	0.20	U	0.20	U
Vinyl Chloride	2	1.0	U	0.20	U	0.20	U
Xylenes, Total	5	3,400	D	4.2		350	E

NOTES:
Exceeds Class GA Groundwater Quality Standards

Q is the Qualifier Column with definitions as follows:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
E=result is estimated and cannot be accurately reported due to levels encountered or interferences
~=this indicates that no regulatory limit has been established for this analyte

Table 3B
Groundwater Sample Results (SVOCs)
500 3rd Avenue, Brooklyn, New York

Sample ID York ID Sampling Date Client Matrix	NYSDEC TOGS Standards and Guidance Values - GA	TW-1 24E1933-01 05/29/2024 Ground Water		TW-2 24E1933-02 05/29/2024 Ground Water		TW-3 24E1933-03 05/29/2024 Ground Water	
Compound		Result	Q	Result	Q	Result	Q
Semi-Volatiles, 8270 - Comprehensive	ug/L	ug/L		ug/L		ug/L	
Dilution Factor		20		1		1	
1,1-Biphenyl	~	2.50	U	2.50	U	2.50	U
1,2,4,5-Tetrachlorobenzene	~	2.50	U	2.50	U	2.50	U
1,2,4-Trichlorobenzene	5	2.50	U	2.50	U	2.50	U
1,2-Dichlorobenzene	3	2.50	U	2.50	U	2.50	U
1,2-Diphenylhydrazine (as Azobenzene)	~	2.50	U	2.50	U	2.50	U
1,3-Dichlorobenzene	3	2.50	U	2.50	U	2.50	U
1,4-Dichlorobenzene	3	2.50	U	2.50	U	2.50	U
2,3,4,6-Tetrachlorophenol	~	2.50	U	2.50	U	2.50	U
2,4,5-Trichlorophenol	1	2.50	U	2.50	U	2.50	U
2,4,6-Trichlorophenol	1	2.50	U	2.50	U	2.50	U
2,4-Dichlorophenol	5	2.50	U	2.50	U	2.50	U
2,4-Dimethylphenol	50	2.50	U	2.50	U	2.50	U
2,4-Dinitrophenol	10	2.50	U	2.50	U	2.50	U
2,4-Dinitrotoluene	5	2.50	U	2.50	U	2.50	U
2,6-Dinitrotoluene	5	2.50	U	2.50	U	2.50	U
2-Chloronaphthalene	10	2.50	U	2.50	U	2.50	U
2-Chlorophenol	1	2.50	U	2.50	U	2.50	U
2-Methylnaphthalene	~	50.00	U	2.50	U	2.50	U
2-Methylphenol	1	2.50	U	2.50	U	2.50	U
2-Nitroaniline	5	2.50	U	2.50	U	2.50	U
2-Nitrophenol	1	2.50	U	2.50	U	2.50	U
3- & 4-Methylphenols	1	2.50	U	2.50	U	2.50	U
3,3-Dichlorobenzidine	5	2.50	U	2.50	U	2.50	U
3-Nitroaniline	5	2.50	U	2.50	U	2.50	U
4,6-Dinitro-2-methylphenol	~	2.50	U	2.50	U	2.50	U
4-Bromophenyl phenyl ether	~	2.50	U	2.50	U	2.50	U
4-Chloro-3-methylphenol	1	2.50	U	2.50	U	2.50	U
4-Chloroaniline	5	2.50	U	2.50	U	2.50	U
4-Chlorophenyl phenyl ether	~	2.50	U	2.50	U	2.50	U
4-Nitroaniline	5	2.50	U	2.50	U	2.50	U
4-Nitrophenol	1	2.50	U	2.50	U	2.50	U
Acenaphthene	20	0.260		0.0500	U	0.0500	U
Acenaphthylene	~	0.0500	U	0.0500	U	0.0500	U
Acetophenone	~	2.50	U	2.50	U	2.50	U
Aniline	5	2.50	U	2.50	U	2.50	U
Anthracene	50	0.0500	U	0.0500	U	0.0500	U
Atrazine	~	0.500	U	0.500	U	0.500	U
Benzaldehyde	~	2.50	U	2.50	U	2.50	U
Benzydine	~	10.0	U	10.0	U	10.0	U
Benzo(a)anthracene	0.002	0.0500	U	0.0500	U	0.0500	U
Benzo(a)pyrene	0.002	0.0500	U	0.0500	U	0.0500	U
Benzo(b)fluoranthene	0.002	0.0500	U	0.0500	U	0.0500	U
Benzo(g,h,i)perylene	~	0.0500	U	0.0500	U	0.0500	U
Benzo(k)fluoranthene	0.002	0.0500	U	0.0500	U	0.0500	U
Benzoic acid	~	25.0	U	25.0	U	25.0	U
Benzyl alcohol	~	2.50	U	2.50	U	2.50	U
Benzyl butyl phthalate	50	2.50	U	2.50	U	2.50	U
Bis(2-chloroethoxy)methane	5	2.50	U	2.50	U	2.50	U
Bis(2-chloroethyl)ether	1	2.50	U	2.50	U	2.50	U
Bis(2-chloroisopropyl)ether	5	2.50	U	2.50	U	2.50	U
Bis(2-ethylhexyl)phthalate	5	0.500	U	0.560		0.500	
Caprolactam	~	2.50	U	2.50	U	2.50	U
Carbazole	~	2.50	U	2.50	U	2.50	U
Chrysene	0.002	0.0500	U	0.0500	U	0.0500	U
Dibenzo(a,h)anthracene	~	0.0500	U	0.0500	U	0.0500	U
Dibenzofuran	~	2.50	U	2.50	U	2.50	U
Diethyl phthalate	50	2.50	U	2.50	U	2.50	U
Dimethyl phthalate	50	2.50	U	2.50	U	2.50	U
Di-n-butyl phthalate	50	2.50	U	2.50	U	2.50	U
Di-n-octyl phthalate	50	2.50	U	2.50	U	2.50	U
Diphenylamine	~	2.50	U	2.50	U	2.50	U
Fluoranthene	50	0.480		0.0500	U	0.0500	U
Fluorene	50	0.320		0.0500	U	0.0500	U
Hexachlorobenzene	0.04	0.0200	U	0.0200	U	0.0200	U
Hexachlorobutadiene	0.5	0.500	U	0.500	U	0.500	U
Hexachlorocyclopentadiene	5	2.50	U	2.50	U	2.50	U
Hexachloroethane	5	0.500	U	0.500	U	0.500	U
Indeno(1,2,3-cd)pyrene	0.002	0.0500	U	0.0500	U	0.0500	U
Isophorone	50	2.50	U	2.50	U	2.50	U
Naphthalene	10	132	D	0.670		4.55	
Nitrobenzene	0.4	0.250	U	0.250	U	0.250	U
N-Nitrosodimethylamine	~	0.500	U	0.500	U	0.500	U
N-nitroso-di-n-propylamine	~	2.50	U	2.50	U	2.50	U
N-Nitrosodiphenylamine	50	2.50	U	2.50	U	2.50	U
Pentachlorophenol	1	0.250	U	0.250	U	0.250	U
Phenanthrene	50	1.16		0.100		0.0500	U
Phenol	1	2.50	U	2.50	U	2.50	U
Pyrene	50	0.0500	U	0.0500	U	0.0500	U

NOTES:

Exceeds Class GA Groundwater Quality Standards

Q is the Qualifier Column with definitions as follows:
D=result is from an analysis that required a dilution
U=analyte not detected at or above the level indicated
~=this indicates that no regulatory limit has been established for this analyte

Table 3C
Groundwater Sample Results (Metals, Pesticides, and PCBs)
500 3rd Avenue, Brooklyn, New York

Sample ID	NYSDEC TOGS Standards and Guidance Values - GA	TW-1		TW-2		TW-3	
York ID		24E1933-01		24E1933-02		24E1933-03	
Sampling Date		05/29/2024		05/29/2024		05/29/2024	
Client Matrix		Ground Water		Ground Water		Ground Water	
Compound		Result	Q	Result	Q	Result	Q
Metals, Target Analyte, ICP	ug/L	ug/L		ug/L		ug/L	
Dilution Factor		1		1		1	
Aluminum	~	17,700		4,180		13,100	
Barium	1000	1,160		113		206	
Calcium	~	165,000		188,000		437,000	
Chromium	50	112		24.5		135	
Cobalt	~	41.2		8.69		11.3	
Copper	200	162		33.0		43.5	
Iron	~	48,900		5,860		9,070	
Lead	25	199		42.6		149	
Magnesium	35000	57,800	B	80,300	B	25,900	B
Manganese	300	9,370		1,980		2,140	
Nickel	100	105		47.6		25.0	
Potassium	~	10,500		6,540		12,200	
Silver	50	5.56	U	5.56	U	5.56	U
Sodium	20000	446,000		154,000		118,000	
Vanadium	~	61.8		11.1		19.9	
Zinc	2000	267		54.2		373	
Metals, Target Analyte, ICP Dissolved	ug/L	ug/L		ug/L		ug/L	
Dilution Factor		1		1		1	
Aluminum	~	57.0		67.7		74.3	
Barium	1000	503		65.4		143	
Calcium	~	120,000		197,000		371,000	
Chromium	50	5.56	U	5.56	U	5.56	U
Cobalt	~	4.44	U	4.44	U	4.44	U
Copper	200	22.2	U	22.2	U	22.2	U
Iron	~	278	U	278	U	278	U
Lead	25	10.3		7.26		7.30	
Magnesium	35000	44,100		78,300		21,600	
Manganese	300	5,290		1,440		3,140	
Nickel	100	12.6		30.3		11.1	U
Potassium	~	6,920		4,780		9,430	
Silver	50	5.56	U	5.56	U	5.560	U
Sodium	20000	482,000		143,000		138,000	
Vanadium	~	11.1	U	11.1	U	11.1	U
Zinc	2000	27.8	U	27.8	U	27.8	
Metals, Target Analyte, ICPMS	ug/L	ug/L		ug/L		ug/L	
Dilution Factor		1		1		1	
Antimony	3	1.11	U	1.11	U	1.11	U
Arsenic	25	8.48		2.39		6.84	
Beryllium	3	2.43		0.333	U	0.511	
Cadmium	5	1.24		0.634		0.993	
Selenium	10	2.38		16.8		7.63	
Thallium	~	1.11	U	1.11	U	1.11	U
Metals, Target Analyte, ICPMS Dissolved	ug/L	ug/L		ug/L		ug/L	
Dilution Factor		1		1		1	
Antimony	3	1.11	U	1.11	U	1.11	U
Arsenic	25	1.17		1.11	U	1.11	U
Beryllium	3	0.333	U	0.333	U	0.333	U
Cadmium	5	0.556	U	0.556	U	0.556	U
Selenium	10	1.11	U	16.2		6.34	
Thallium	~	1.11	U	1.11	U	1.11	U
Mercury by 7470/7471	ug/L	ug/L		ug/L		ug/L	
Dilution Factor		1		1		1	
Mercury	0.7	0.200	U	0.200	U	0.200	U
Mercury, Dissolved	ug/L	ug/L		ug/L		ug/L	
Dilution Factor		1		1		1	
Mercury	0.7	0.200	U	0.200	U	0.200	U
Pesticides, 8081 target list	ug/L	ug/L		ug/L		ug/L	
Dilution Factor		1		1		1	
4,4'-DDD	0.3	0.00400	U	0.00400	U	0.00400	U
4,4'-DDE	0.2	0.00400	U	0.00400	U	0.00400	U
4,4'-DDT	0.2	0.00400	U	0.00400	U	0.00400	U
Aldrin	~	0.00400	U	0.00400	U	0.00400	U
alpha-BHC	0.01	0.00400	U	0.00400	U	0.00400	U
alpha-Chlordane	~	0.00400	U	0.00400	U	0.00400	U
beta-BHC	0.04	0.00400	U	0.00400	U	0.00400	U
Chlordane, total	0.05	0.0200	U	0.0200	U	0.0200	U
delta-BHC	0.04	0.00400	U	0.00400	U	0.00400	U
Dieldrin	0.004	0.00200	U	0.0508		0.00200	U
Endosulfan I	~	0.00400	U	0.00400	U	0.00400	U
Endosulfan II	~	0.00400	U	0.00400	U	0.00400	U
Endosulfan sulfate	~	0.00400	U	0.00400	U	0.00400	U
Endrin	~	0.00400	U	0.00400	U	0.00400	U
Endrin aldehyde	5	0.0100	U	0.0100	U	0.0100	U
Endrin ketone	5	0.0100	U	0.0324	P	0.0100	U
gamma-BHC (Lindane)	0.05	0.00400	U	0.00400	U	0.00400	U
gamma-Chlordane	~	0.0100	U	0.0100	U	0.0100	U
Heptachlor	0.04	0.00400	U	0.00400	U	0.00400	U
Heptachlor epoxide	0.03	0.00400	U	0.00400	U	0.00400	U
Methoxychlor	35	0.00400	U	0.00400	U	0.00400	U
Toxaphene	0.06	0.100	U	0.100	U	0.100	U
Polychlorinated Biphenyls (PCB)	ug/L	ug/L		ug/L		ug/L	
Dilution Factor		1		1		1	
Aroclor 1016	~	0.0500	U	0.0500	U	0.0500	U
Aroclor 1221	~	0.0500	U	0.0500	U	0.0500	U
Aroclor 1232	~	0.0500	U	0.0500	U	0.0500	U
Aroclor 1242	~	0.0500	U	0.0500	U	0.0500	U
Aroclor 1248	~	0.0500	U	0.0500	U	0.0500	U
Aroclor 1254	~	0.0500	U	0.0500	U	0.0500	U
Aroclor 1260	~	0.0500	U	0.0500	U	0.0500	U
Total PCBs	0.09	0.0500	U	0.0500	U	0.0500	U

NOTES:
Exceeds Class GA Groundwater Quality Standards

Q is the Qualifier Column with definitions as follows:
U=analyte not detected at or above the level indicated
B=analyte found in the analysis batch blank
P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for analysis
~=this indicates that no regulatory limit has been established for this analyte

Table 3D
Groundwater Sample Results (PFAS and 1,4-Dioxane)
500 3rd Avenue, Brooklyn, New York

Sample ID York ID Sampling Date Client Matrix	NYSDEC TOGS Standards and Guidance Values - GA	NYDEC Part 375 PFAS Remedial Program Water Oct 2020	TW-1 24E1927-03 05/29/2024 Ground Water		TW-Dup 24E1927-07 05/29/2024 Ground Water		TW-2 24E1927-04 05/29/2024 Ground Water		TW-3 24E1927-05 05/29/2024 Ground Water	
Compound			Result	Q	Result	Q	Result	Q	Result	Q
PFAS, EPA 1633 Target List		ug/L	ug/L		ug/L		ug/L		ug/L	
Dilution Factor			1		1		1		1	
11CL-PF3OUdS	~	0.1	0.00123	U	0.00126	U	0.0138	U	0.00124	U
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	~	0.1	0.00182	U	0.00187	U	0.0205	U	0.00184	U
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	~	~	0.00159	U	0.00163	U	0.0179	U	0.00160	U
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	~	0.1	0.00094	U	0.00097	U	0.0106	U	0.00095	U
3-Perfluoroheptyl propanoic acid (FHpPA)	~	~	0.00843	U	0.00865	U	0.0947	U	0.00848	U
3-Perfluoropentyl propanoic acid (FPePA)	~	~	0.00652	U	0.00669	U	0.0733	U	0.00656	U
3-Perfluoropropyl propanoic acid (FPrPA)	~	~	0.00181	U	0.00185	U	0.0203	U	0.00182	U
9CL-PF3ONS	~	0.1	0.00062	U	0.00064	U	0.00700	U	0.00063	U
ADONA	~	0.1	0.00047	U	0.00048	U	0.00530	U	0.00048	U
HFPO-DA (Gen-X)	~	0.1	0.104		0.00295	U	0.0323	U	0.00289	U
N-EtFOSA	~	~	0.00160	U	0.00164	U	0.0180	U	0.00161	U
N-EtFOSAA	~	0.1	0.00092	U	0.00094	U	0.0103	U	0.00092	U
N-EtFOSE	~	~	0.00355	U	0.00364	U	0.0399	U	0.00357	U
N-MeFOSA	~	~	0.00141	U	0.00144	U	0.0158	U	0.00141	U
N-MeFOSAA	~	0.1	0.00070	U	0.00072	U	0.00790	U	0.00071	U
N-MeFOSE	~	~	0.00355	U	0.00364	U	0.0399	U	0.00357	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	~	~	0.00045	U	0.00046	U	0.00500	U	0.00045	U
Perfluoro-1-decanesulfonic acid (PFDS)	~	0.1	0.00117	U	0.00121	U	0.0132	U	0.00118	U
Perfluoro-1-heptanesulfonic acid (PFHpS)	~	0.1	0.00081	U	0.00083	U	0.00910	U	0.00082	U
Perfluoro-1-nonanesulfonic acid (PFNS)	~	~	0.00077	U	0.00079	U	0.00860	U	0.00077	U
Perfluoro-1-octanesulfonamide (FOSA)	~	0.1	0.00078	U	0.00080	U	0.00880	U	0.00079	U
Perfluoro-1-pentanesulfonate (PFPeS)	~	~	0.00303		0.00247		0.00760	U	0.00389	
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	~	~	0.00190	U	0.00195	U	0.0214	U	0.00192	U
Perfluoro-4-oxapentanoic acid (PFMPA)	~	~	0.00022	U	0.00023	U	0.00250	U	0.00022	U
Perfluoro-5-oxahexanoic acid (PFMBA)	~	~	0.00033	U	0.00034	U	0.00370	U	0.00035	J
Perfluorobutanesulfonic acid (PFBS)	~	0.1	0.0138		0.0176		0.0103	J	0.0574	
Perfluorodecanoic acid (PFDA)	~	0.1	0.00067	U	0.00069	U	0.00750	U	0.00067	U
Perfluorododecanesulfonic acid (PFDoS)	~	~	0.00083	U	0.00085	U	0.00930	U	0.00083	U
Perfluorododecanoic acid (PFDoA)	~	0.1	0.00078	U	0.00080	U	0.00880	U	0.00079	U
Perfluoroheptanoic acid (PFHpA)	~	0.1	0.110		0.0986		0.0524		0.0394	
Perfluorohexanesulfonic acid (PFHxS)	~	0.1	0.00632		0.00674		0.00680	U	0.00163	J
Perfluorohexanoic acid (PFHxA)	~	0.1	0.106		0.113		0.0389		0.0539	
Perfluoro-n-butanoic acid (PFBA)	~	0.1	0.707		0.00030	U	0.00330	U	0.0760	
Perfluorononanoic acid (PFNA)	~	0.1	0.00086	J	0.00048	U	0.00520	U	0.00058	J
Perfluorooctanesulfonic acid (PFOS)	~	0.01	0.00642		0.00191		0.00820	U	0.00073	U
Perfluorooctanoic acid (PFOA)	~	0.01	0.0526		0.0468		0.0687		0.0959	
Perfluoropentanoic acid (PFPeA)	~	0.1	0.144		0.174		0.0379	J	0.103	
Perfluorotetradecanoic acid (PFTA)	~	0.1	0.00061	U	0.00063	U	0.00690	U	0.00062	U
Perfluorotridecanoic acid (PFTrDA)	~	0.1	0.00066	U	0.00068	U	0.00740	U	0.00066	U
Perfluoroundecanoic acid (PFUnA)	~	0.1	0.00101	U	0.00103	U	0.0113	U	0.00101	U
Sample ID York ID Sampling Date Client Matrix	NYSDEC TOGS Standards and Guidance Values - GA	NYDEC Part 375 PFAS Remedial Program Water Oct 2020	TW-1 24E1933-01 05/29/2024 Ground Water		TW-Dup 24E1933-04 05/29/2024 Ground Water		TW-2 24E1933-02 05/29/2024 Ground Water		TW-3 24E1933-03 05/29/2024 Ground Water	
Compound			Result	Q	Result	Q	Result	Q	Result	Q
1,4-Dioxane 8270 SIM-Aqueous	ug/L	ug/L	ug/L		ug/L		ug/L		ug/L	
Dilution Factor			1		1		1		1	
1,4-Dioxane	0.35	~	0.300	U	0.300	U	0.300	U	0.300	U

NOTES:
Exceeds Class GA Groundwater Quality Standards
Exceeds NYSDEC Part 375 PFAS Remedial Program Standards

Q is the Qualifier Column with definitions as follows:
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
~=this indicates that no regulatory limit has been established for this analyte

Table 4
Soil Vapor Sample Results (VOCs)
500 3rd Avenue, Brooklyn, New York

Sample ID	SV-1		SV-3		SV-4		SV-5	
York ID	24E1929-01		24E1929-03		24E1929-04		24E1929-05	
Sampling Date	05/29/2024		05/29/2024		05/29/2024		05/29/2024	
Client Matrix	Soil Vapor		Soil Vapor		Soil Vapor		Soil Vapor	
Compound	Result	Q	Result	Q	Result	Q	Result	Q
VOA, TO15 Isooctane (2,2,4-TMP) Add On	ug/m3		ug/m3		ug/m3		ug/m3	
Dilution Factor	6.836		3.65		3.25		3.012	
2,2,4-Trimethylpentane	5.8	D	2.9	D	3.6	D	3.8	D
Volatile Organics, EPA TO15 Full List	ug/m3		ug/m3		ug/m3		ug/m3	
Dilution Factor	6.836		3.65		3.25		3.012	
1,1,1,2-Tetrachloroethane	4.7	U	2.5	U	2.2	U	2.1	U
1,1,1-Trichloroethane	3.7	U	2.0	U	1.8	U	1.6	U
1,1,2,2-Tetrachloroethane	4.7	U	2.5	U	2.2	U	2.1	U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	5.2	U	2.8	U	2.5	U	2.3	U
1,1,2-Trichloroethane	3.7	U	2.0	U	1.8	U	1.6	U
1,1-Dichloroethane	2.8	U	1.5	U	1.3	U	1.2	U
1,1-Dichloroethylene	0.68	U	0.36	U	0.32	U	0.30	U
1,2,4-Trichlorobenzene	5.1	U	2.7	U	2.4	U	2.2	U
1,2,4-Trimethylbenzene	60	D	35	D	66	D	64	D
1,2-Dibromoethane	5.3	U	2.8	U	2.5	U	2.3	U
1,2-Dichlorobenzene	4.1	U	2.2	U	2.0	U	1.8	U
1,2-Dichloroethane	2.8	U	1.5	U	1.3	U	1.2	U
1,2-Dichloropropane	3.2	U	1.7	U	1.5	U	1.4	U
1,2-Dichlorotetrafluoroethane	4.8	U	2.6	U	2.3	U	2.1	U
1,3,5-Trimethylbenzene	15	D	8.8	D	15	D	15	D
1,3-Butadiene	38	D	22	D	29	D	16	D
1,3-Dichlorobenzene	4.1	U	2.2	U	2.0	U	1.8	U
1,3-Dichloropropane	3.2	U	1.7	U	1.5	U	1.4	U
1,4-Dichlorobenzene	4.1	U	2.2	U	2.0	U	1.8	U
1,4-Dioxane	4.9	U	2.6	U	2.3	U	2.2	U
2-Butanone	34	D	21	D	11	D	13	D
2-Hexanone	5.6	U	4.3	D	2.7	U	3.0	D
3-Chloropropene	11	U	5.7	U	5.1	U	4.7	U
4-Methyl-2-pentanone	22	D	10	D	4.5	D	16	D
Acetone	270	D	340	D	320	D	290	D
Acrylonitrile	4.0	D	20	BD	4.1	BD	3.3	U
Benzene	26	D	12	D	16	D	13	D
Benzyl chloride	3.5	U	1.9	U	1.7	U	1.6	U
Bromodichloromethane	4.6	U	2.4	U	2.2	U	2.0	U
Bromoform	7.1	U	3.8	U	3.4	U	3.1	U
Bromomethane	2.7	U	1.4	U	1.3	U	1.2	U
Carbon disulfide	23	D	12	D	1.0	U	7.2	D
Carbon tetrachloride	1.1	U	0.69	D	0.51	U	0.47	U
Chlorobenzene	3.1	U	1.7	U	1.5	U	1.4	U
Chloroethane	1.8	U	0.96	U	0.86	U	0.79	U
Chloroform	3.3	U	2.1	D	1.6	D	2.9	D
Chloromethane	2.0	D	0.75	U	1.7	D	0.62	U
cis-1,2-Dichloroethylene	0.68	U	0.36	U	0.32	U	0.30	U
cis-1,3-Dichloropropylene	3.1	U	1.7	U	1.5	U	1.4	U
Cyclohexane	5.4	D	3.1	D	3.4	D	3.1	D
Dibromochloromethane	5.8	U	3.1	U	2.8	U	2.6	U
Dichlorodifluoromethane	3.4	U	2.0	D	2.3	D	2.4	D
Ethyl acetate	12	D	4.5	D	2.3	U	3.7	D
Ethyl Benzene	40	D	21	D	31	D	30	D
Hexachlorobutadiene	7.3	U	3.9	U	3.5	U	3.2	U
Isopropanol	3.4	U	3.9	D	5.4	U	3.1	D
Methyl Methacrylate	2.8	U	1.5	U	1.3	U	3.8	D
Methyl tert-butyl ether (MTBE)	2.5	U	1.3	U	1.2	U	1.1	U
Methylene chloride	9.3	D	6.3	D	7.3	D	7.7	D
Naphthalene	7.2	U	3.8	U	3.4	U	3.2	U
n-Heptane	32	D	16	D	17	D	14	D
n-Hexane	29	D	28	D	20	D	14	D
o-Xylene	54	D	31	D	49	D	47	D
p- & m- Xylenes	160	D	87	D	140	D	130	D
p-Ethyltoluene	50	D	29	D	51	D	49	D
Propylene	320	D	250	D	260	D	140	D
Styrene	4.1	D	1.6	U	3.7	D	3.7	D
Tetrachloroethylene	11	D	7.2	D	34	D	7.8	D
Tetrahydrofuran	4.8	D	2.2	U	1.9	U	1.8	U
Toluene	710	D	78	D	110	D	110	D
trans-1,2-Dichloroethylene	2.7	U	1.4	U	1.3	U	1.2	U
trans-1,3-Dichloropropylene	3.1	U	1.7	U	1.5	U	1.4	U
Trichloroethylene	190	D	15	D	30	D	14	D
Trichlorofluoromethane (Freon 11)	3.8	U	2.1	U	1.8	U	1.7	U
Vinyl acetate	2.4	U	1.3	U	1.1	U	1.1	U
Vinyl bromide	3.0	U	1.6	U	1.4	U	1.3	U
Vinyl Chloride	0.87	U	0.47	U	0.42	D	0.38	U

Q is the Qualifier Column with definitions as follows:

D=result is from an analysis that required a dilution
U=analyte not detected at or above the level indicated
B=analyte found in the analysis batch blank